Agenda and minutes

Minnesota 1837 Ceded Territory Fisheries Committee
January 17, 2018, 10:00 a.m.
WebEx

1. Introductions
2. Review and approve agenda (Action) Agenda was approved
3. Distribute past meeting minutes (Information) – October 2017 FC meeting Completed via email before meeting
4. Update 2017 Harvest not shared in October (Information)
    a. State – Eric Jensen reviewed creel survey results. Attached (MNDNR FTC booklet)
    b. Band – Tribal harvest summary (April 1 – December 17, 2017) was reviewed. Attached.
5. Update of 2017 assessment data (Information) – new assessment data not shared in October
    a. Annual Fall Assessment (MNDNR) – Forage netting results were reviewed. Attached (MNDNR FTC booklet).
    b. GLIFWC Assessments (Electrofishing) – No new information. Fall electrofishing report was exchanged. Attached.
6. Walleye modeling reports (Discussion)
    a. Split-Sex SCAA – MNDNR
    b. Madsen catch at age - GLIFWC
    c. Lowestoft – GLIFWC

    The modeling subcommittee presented a summary of the GLIFWC and MNDNR catch-at-age modeling results. Results from the Lowestoft model were not presented as the model performance was suspect. Population trends and abundances estimated by the Madsen combined sex SCAA, Madsen split-sex SCAA and the MNDNR split-sex SCAA were similar. All models indicated that biomass of walleye 14 inches and larger and biomass of mature walleye increased from 2017 to 2018. Attached powerpoint and attached modeling reports.
7. Operating model projected impact of various harvest levels in 2018
    a. Walleye modeling subcommittee (Information and discussion)- the purpose of this discussion is to ensure that everyone understands the modeling process and presented results. No decision made on harvest recommendations.

    Modeling subcommittee presented projected changes in SSB from 2018 to 2021. Projections evaluated different fishing intensities, types of fisheries, and allocation. Starting population was based on the MNDNR split-sex SCAA model estimates. Hooking mortality was estimated using the 2016 model and range of observed water temperatures. The regulation for the state fishery was assumed to be a 20-22 inch harvest slot during the ice fishing season and catch and release only during the open water season. The tribal fishery was assumed to be a mix of spearing and gillnetting with proportions similar to those observed in the 2017 season.

    Examples of potential variability in male and female maturation rate as a function of length were presented. Female maturation functions were more variable than male maturation functions.

Maturation functions have been shown to vary considerably between years. The operating model uses maturation functions based on pooled data from the 4 most recent years.

Historical male and female spawning stock in gillnet assessments and from MNDNR split-sex SCAA were shown.

The projected SSB for 2018 from the 2017 projections was compared to the 2018 SSB from this year's MNDNR split-sex SCAA estimate and to 2018 SSB estimate from the 2017 projection with the observed 2018 maturation rate. These comparisons emphasized that the higher than projected increase in the 2018 SSB was driven by above average maturation rates for the 2013 year class.

Projected changes in male and female SSB from 2018 to 2021 under various harvest levels relative to those in the Consensus Plan were presented. Evaluated harvest levels were: 64,000, 90,000, 120,000, 150,000 and 200,000 pounds. Projected changes in the abundance of females $\geq$19 inches (~80% mature), females $\geq$14 inches and males $\geq$14 inches (~80% mature) were also presented.

Attached.

8. Update on the Recovery Plan – Walleye modeling subcommittee (Information/Discussion/Action). Need for managers from tribes and State to convene meeting to develop management potential actions associated with lake status.

   Modeling subcommittee proposed that managers from the tribes and the State convene at a separate meeting to develop a suite of potential management recommendations that could be evaluated by the modeling subcommittee for use in the recovery plan. Jon Gilbert and Melissa Treml will organize this meeting.

9. Northern pike information (Discussion)
   a. Northern Pike surplus production models – GLIFWC
   b. Northern Pike population goals

   Mark Luehring presented results from the updated Northern Pike surplus production model. Attached. Overall, the northern pike biomass remains near the highest observed levels, but the 2017 gill net catch rates were lower than predicted by the model.

10. 2018 Inland Waters (Information/Discussion)
    a. Walleye harvestable surplus and threshold values
    b. Communication plan for upcoming fishing season

    Handout with 2018 walleye harvestable surplus and threshold levels for inland lakes was exchanged. Lake area is now based on GIS Acres. Attached.

11. Other Updates(Discussion)
    a. 2017 Smallmouth bass PE

    Tom Jones presented a summary of the State's tagging efforts to estimate the size of the Smallmouth Bass population in Mille Lacs. A total of 2,078 fish larger than 12 inches were tagged, 6,059 were examined for tags, and 1,777 recaptures had tags. Dr. Carl Schwarz is currently analyzing the data. Attached (MNDNR FTC booklet).

12. 2018 Management and research activities (Discussion)
    a. Spring walleye population estimate - Tom Jones is starting to line up help. There was a brief discussion on availability of crews and potential for GLIFWC, FDL, Mille Lacs, and

USFWS to assist in both the marking and recapture efforts.

b. Invasive Species Monitoring – Brief discussion on annual vs semi-annual sampling for detecting oscillations. A zebra mussel survey requires 3 FTEs for 3-5 days in early August.

c. Large Lake Assessment work – MNDNR noted that the usual sampling was planned for 2018

d. GLIFWC Sampling – GLIFWC noted that it would provide assistance with the walleye population estimate on Mille Lacs, and likely would have minimal sampling of other waters in 2018.

e. OTC fry stocking - 2017 samples being processed by UWSP, 2018 OTC marking will occur

f. Modeling subcommittee assignments TBD

g. Creation of research subcommittee – The group agreed to consider starting a research subcommittee to identify research gaps and collaborate on research projects. Jon Gilbert and Melissa Treml will scope out draft committee charge and membership.

13. Next meeting

a. February 6th Northland Arboretum, Brainerd 10AM

Agenda and minutes

Minnesota 1837 Ceded Territory Fisheries Committee
February, 6, 2018, 10:00 a.m.
Northland Arboretum, Brainerd

1. Introductions

   Attendance sheet distributed.

2. Review and approve agenda (Action) – approved.

3. Presentation on Dr. Vandergoot's technical review (Information/Discussion) – place in agenda when Dr. Vandergoot is available on skype.

   Dr. Vandergoot (USGS Lake Erie Biological Station) presented a summary of his team's review of the Mille Lacs walleye management system. Team members included Troy Zorn (Michigan DNR), Randy Jackson (Cornell University), and Doug Watkinson (Fisheries and Oceans Canada).

   Overall the number of assessment gillnets set in Mille Lacs looks comparable to lakes of similar size and importance. The largest mesh in the MN survey is smaller relative the maximum mesh size used in comparable systems. They felt the largest mesh should be at least 2.5 inches. While they felt this may hinder sampling effectiveness for the largest fish they did not feel it compromised power of the survey to index the population. They also felt that performance of multifilament nets could be affected by changes in water clarity.

   Recreational fishing pressure in Mille Lacs tended to be greater to other notable walleye fisheries.

   The review team believe that AIS have caused significant changes to the Mille Lacs ecosystem and conditions to support walleye production are not the same as they were 20+ years ago. Based on observations in other systems, the team believes walleye yields will be lower.

   Dr. Vandergoot described the management process (LEPMAG) that was used for the complex percid fishery in Lake Erie. This process included structured decision making and stakeholder involvement. Development of management plan included extension simulations and trade-off analyses of different harvest policies.

4. Report from the Modeling Working Group – Potential effects of walleye harvest levels

   Modeling subgroup provided a brief recap of the SCAA models and the projections that were discussed in detail during the January 17th webex. SSB projections under 90,000, 120,000 and 150,000 safe harvest levels were compared to SSB projections in the Consensus Plan. Attached.

5. Review terms of 2017- 2020 Consensus and overage plan.

   a. Compare 2018 population trajectory with the goal established in plan

   b. Determination of State overage and repayment schedule

   The management goals listed in the Consensus Plan were restated and discussed. The Plan states that harvest strategies for 2018-2020 should allow the biomass of mature males to stay relatively stable and mature females to increase relative to estimated male and female SSB levels in 2017.

   The estimated female SSB for 2018 exceeded the projected 2018, 2019, and 2020 SSB levels

defined in the Consensus Plan. Much of this increase was the result of a higher than assumed rate of maturation for females from the 2013 year class. Estimated male SSB for 2018 was slightly higher than the projected 2018 male SSB defined in the Consensus Plan.

Discussion followed on how the higher than assumed maturation rate for females affects the goals of the Consensus Plan. The 2014 and 2015 year classes are not strong, so much of the increase in SSB from the 2013 YC has been achieved with future increase in female SSB due to increased weight of existing mature fish.

There was a lengthy discussion of the goals in the Consensus Plan, and how the immediate goals (percentage of the 2017 population biomass) meshed with the longer term goals of the plan (increase in spawning stock biomass . Consensus was not reached on how to apply these goals to obtain the 2018 harvestable surplus value. State's total overage is 16,050 pounds or 5,350 pounds per year for the remaining 3 years of the Consensus Plan (2018-2020 fishing years).

6. Set 2018 walleye harvest level for Mille Lacs Lake (Discussion/Action) After much discussion, consensus was not reached on a 2018 harvestable surplus level. The Bands and the State agreed to continue discussion on the appropriate harvest level for the 2018 fishery. The MN DNR maintains that a harvestable surplus of 150,000 lbs of walleye will not harm the walleye population.

   After caucus Jim Zorn brought the message back from the tribal perspective. He made 7 points:

   1. Tribes think long term.
   2. The tribes have no place to go, Mille Lacs is the custodian for the lake.
   3. Low productivity and greater uncertainty means that one should be conservative.
   4. Not willing to accept that 20 lbs per net lift is out of the realm of possibility.
   5. 150,000 lbs is outside of the consensus plan
   6. Looking forward to a population estimate this spring. More data will enable the proposed research subcommittee to evaluate.
   7. Bands would be willing to go to 90,000 lbs, being conservative is consistent with tribal values.

   The State reaffirmed that it believes an SHL of 150,000 lb poses no conservation risk to current or future harvests, and that an SHL of 150,000 lb is also consistent with the Consensus Plan.

   a. 2018 walleye harvest level for Mille Lacs Lake

   b. Effect of 2018 harvest on 2019 spawning stock

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

   a. Northern pike 100,000 lb with 50:50 allocation

   b. Yellow perch 270,000 lb with 50:50 allocation. The modeling subgroup will revisit the SHL by fall 2018.

   c. Tullibee and Burbot No SHL, minimize harvest

8. 2017 Management and research activities (Discussion)

   a. Research subcommittee, formation and charges (Action) Jon Gilbert and Melissa Treml will scope out draft committee charge and membership

9. Set date and location for summer meeting (Action) Mille Lacs Band will host on July 19th at Eddy's Resort