

Leech Lake - Regulation Modification Proposal

Background

The Fisheries Management Plan for Leech Lake 2016-2020 was developed in cooperation with the Leech Lake Fisheries Input Group which is comprised of citizens from various levels of government, angler groups, civic organizations, business owners and individual anglers. Management objectives in the plan were compared to current sampling results to make informed decisions concerning a potential regulation change.

Current regulation: 20-26" protected slot limit, 4 bag with 1 only over 26" in possession

Proposed regulation: 1 Walleye over 20" in possession with a maximum bag limit of 4.

Advantages

- ✓ Maintain balanced population, while mitigating buildup of larger fish
- ✓ Provide increased harvest opportunities
- ✓ Reduce pressure on forage base (primarily Yellow Perch)

Tradeoffs

- ✓ All current management plan objectives for walleye may not be met
- ✓ Potential to re-impose a protected slot limit if harvest adversely impacts abundance of spawning females.

DNR Recommendation

Change to a 1 Walleye over 20" in possession with a 4 fish bag limit beginning in May 2019. If population metrics deviate from management plan objectives DNR may propose harvest reduction strategies in the future.

Data Summary - Data collection and analysis from this year (2018) is not complete; as such all 2018 data on the following pages is preliminary and indicated with an asterisk (*). A few key points are provided below:

- Biomass (pounds/acre) of mature female Walleye has exceeded the management objective plan range 6 of the last 7 years (Figure 1).
- Walleye size structure shows a number of younger year classes (2017, 2016+) in the lake that can replace harvested fish (Figure 2). These year classes are from natural reproduction with no stocking occurring since 2014.
- Fall gill net catch rates for Walleye have been within or above management objective goals for 12 consecutive years (Figure 3).
- Walleye condition (relative "plumpness") has been at or below the lower management plan objective since 2008 (Figure 4) while the Walleye biomass (pounds/net) has steadily increased since 2006 (Figure 5).
- Yellow Perch abundance has been below the management minimum objective five of the past six years (Figure 6).

Contact

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Figures

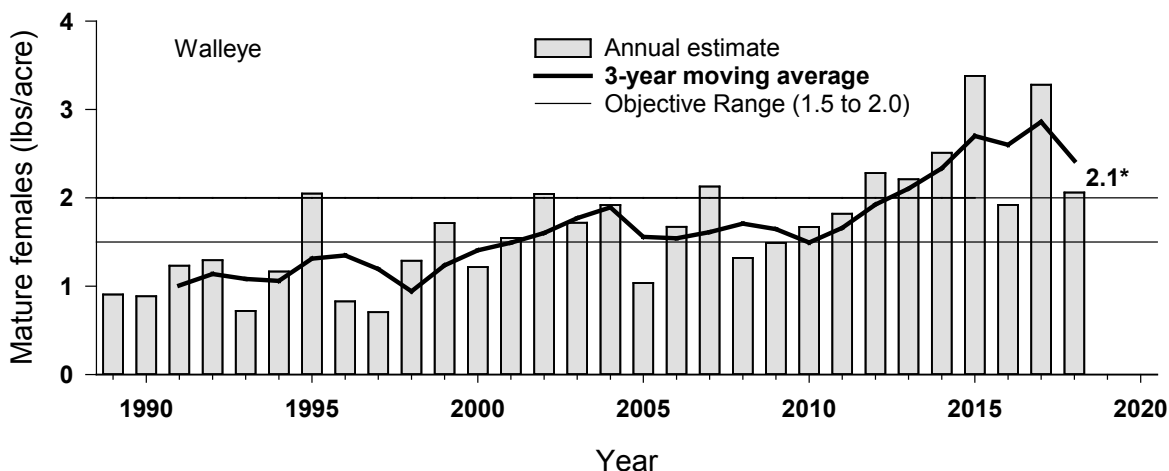


Figure 1. Estimated biomass (pounds/acre) of mature female Walleye in Leech Lake, 1989-2018. Horizontal lines represent the Management Plan Objective Range (50th and 80th percentiles). The darker line represents the 3-year moving average.

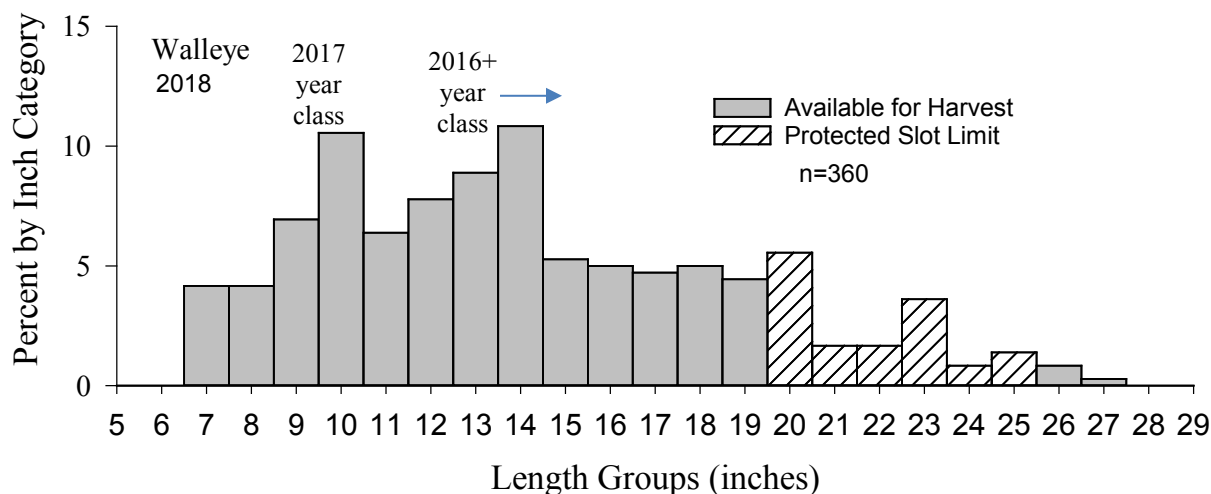


Figure 2. Length frequency distribution of Walleye showing length groups that are available for harvest as well as the length groups of fish that are protected with the current 20-26" PSL from the 2018 fall gill net sample.

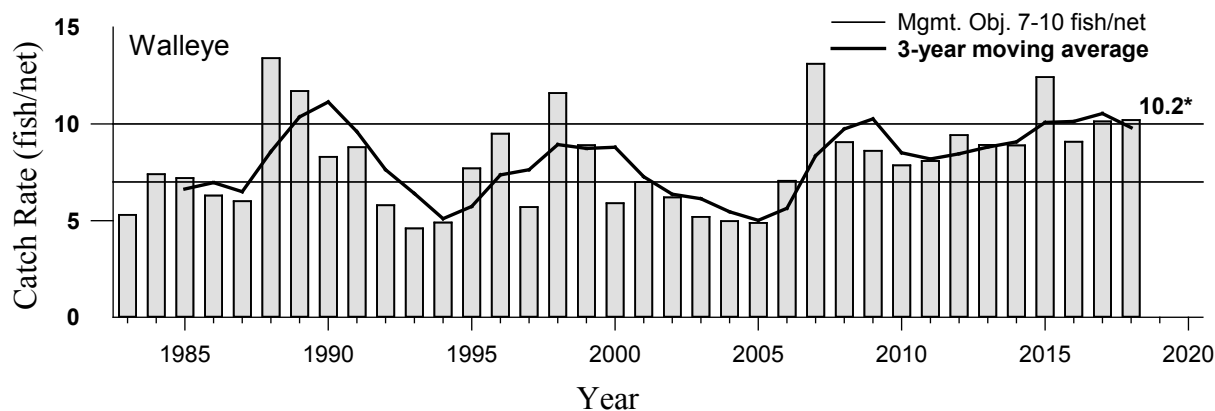


Figure 3. Gill net catch rates (fish/net) of Walleye in Leech Lake 1983-2018. Horizontal lines represent management plan objectives and the darker line represents the 3-year moving average.

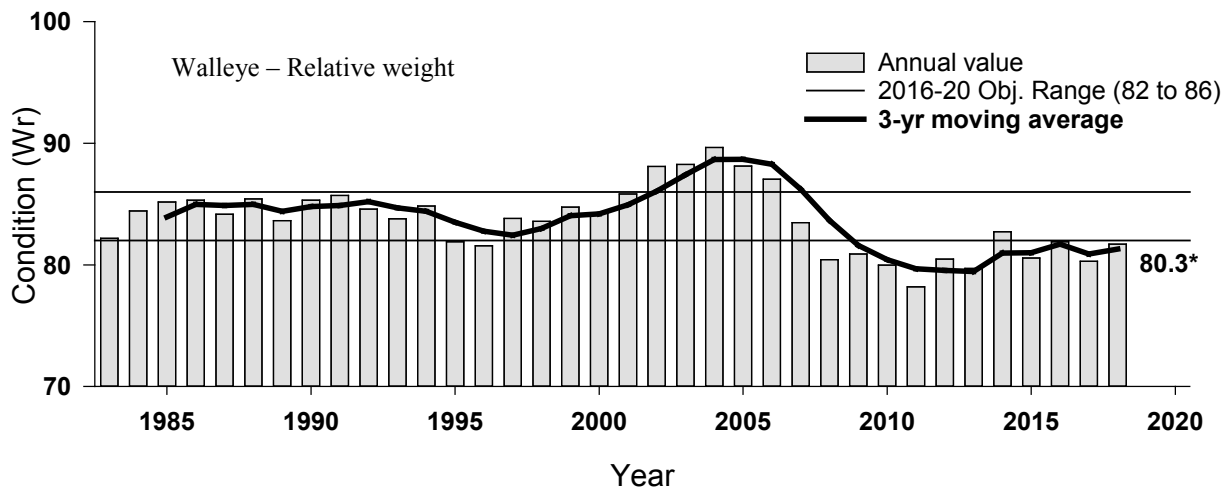


Figure 4. Relative weight (condition index) of Walleye in Leech Lake gill nets. The horizontal lines represent management plan objectives and the darker line is the 3-year moving average. Relative weight is a measure of the relative “plumpness” of a fish.

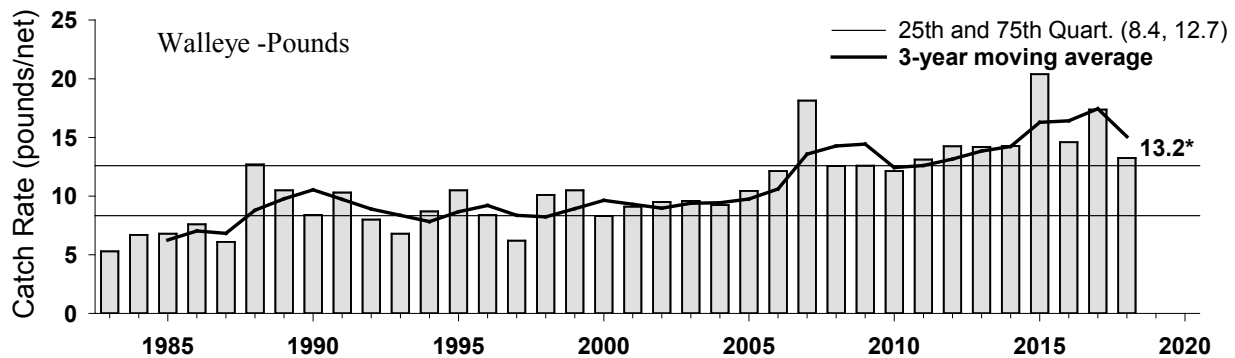


Figure 5. Walleye biomass (pounds per net) has been near or above the 75th percentile since 2006 despite more liberal harvest regulations beginning in 2014.

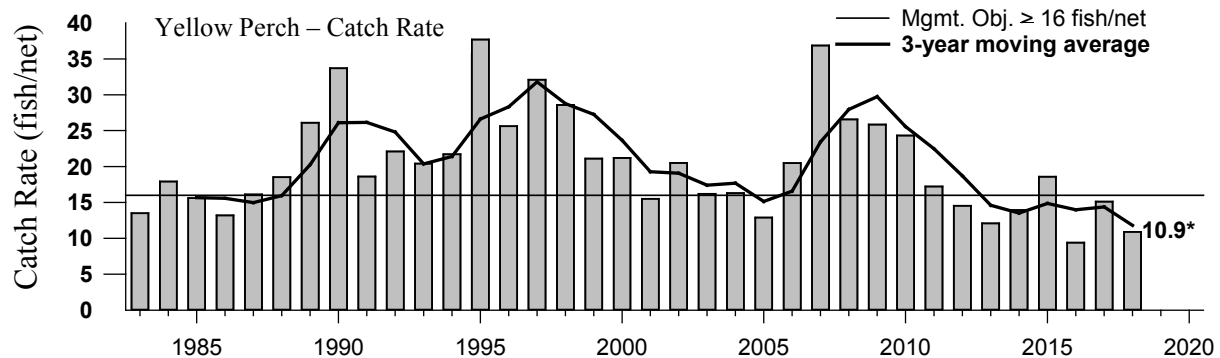


Figure 6. Yellow Perch abundance has been near or below the management plan objective since 2011 despite relaxing Walleye harvest restrictions in 2014 and continued annual cormorant control.

Public Input - The Leech Fisheries Input Group unanimously supported the proposed changes. A public input meeting was held at the Walker Community Center on September 24, 2018. Forty individuals attended the meeting in Walker. Thirteen additional comments were received via email/phone/office walk-ins.

Public meeting on September 24, 2018:

- 36 individuals provided comments during the public open house
- 81% (29) supported modifying the PSL regulation to 1 Walleye over 20” in possession with a 4 fish bag limit
 - One suggested adding a 14” minimum
- 6% (2) supported maintaining the current regulation of a 20-26” PSL
- 14% (5) supported some type of alternate regulation

Open Comment Period, other than public meeting:

- 13 individuals responded during the open comment period
- 54% (7) supported modifying the PSL regulation to 1 Walleye over 20” in possession with a 4 fish bag limit
 - One supported the change but preferred to be a lower statewide limit of 2
- 15% (2) supported maintaining the current regulation of a 20-26” PSL
- 31% (4) supported some type of alternate regulation

Combined Summary:

- 49 individuals provided comments
- 73% (36) Individuals support the suggested proposal
- 8% (4) Supported maintaining the current regulation
- 18% (9) Suggested an alternative regulation