

Considering a Minimum Size Limit Reduction for Lake Erie Walleye

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Introduction

Over the last decade, the walleye stock in the east basin of Lake Erie has produced seven strong recruitment events (hatches), resulting in a marked increase in the number of sublegal (< 15 inches) walleye being caught and subsequently released by New York anglers. However, because 90% of the walleye fishing effort occurs offshore at water depths greater than 30 ft, barotrauma is common. Barotrauma is tissue damage including, but not limited to, bulging eyes and protruding stomach caused by a change in water pressure when fish are reeled up from deep water and results in poor post-release survival for the majority of walleye caught in the east basin of Lake Erie. Therefore, a reduction in the minimum size limit to 12" was considered to provide anglers with an expanded opportunity to keep walleye that would otherwise die after being released. The initial push for this consideration was made by Lake Erie walleye anglers following observations of excessive mortality of sublegal fish in the offshore fishery.

Reducing the minimum size limit to 12" is not expected to have an impact on the walleye population or the sustainability of the walleye fishery. An analysis of the impacts of barotrauma and a 12" minimum size limit on the walleye fishery determined that in most years the total walleye mortality would remain similar to what it would be under the current 15" minimum size limit. In years following strong recruitment events when there are an increased number of sublegal walleye, a 12" minimum size limit would result in a net decrease in total walleye mortality as offshore anglers would have an opportunity to attain their limit without needing to release fish that have poor post-release survival. The overall impact to the nearshore walleye fishery would likely be minor as only 10% of the walleye fishery currently occurs there.

To help determine the level support from anglers for this regulation change, Bureau of Fisheries staff reached out to Lake Erie walleye anglers via an online angler survey and discussed the issue at two public meetings. The objective was to use the information obtained from anglers to help inform a decision to move forward with this regulation change.

Methods

Stakeholder outreach was accomplished via a simple web-based survey developed using Alchemer® and through direct contact with anglers at meetings, events, and by phone. The online survey was delivered to 581,323 DEC Delivers Fishing and Boating newsletter subscribers and current licensed anglers. The survey was active from January 13 – January 29 and included a brief background statement about the Lake Erie walleye fishery, the effects of barotrauma, and a rationale for potentially decreasing the walleye MSL to 12 inches. The survey instrument included the following three questions:

1. Have you fished Lake Erie for walleye in the last 5 years?
 - Yes
 - No
2. How do you feel about lowering the minimum size limit of walleye from 15 inches to 12 inches in Lake Erie?
 - Strongly Support
 - Support
 - No opinion



- Oppose
- Strongly Oppose

3. Prior to this survey, were you aware that barotrauma was an issue for Lake Erie fisheries?

- Yes
- No

Following the survey, Lake Erie Fisheries Research Unit staff participated in an outreach event at the Greater Niagara Fishing and Outdoor Expo which included a presentation at the Walleye School on February 17 and a poster at the DEC Open House on February 18 outlining the survey results and rationale for the proposed regulation change. The Lake Erie Fisheries staff also attended a meeting of the Eastern Lake Erie Charter Boat Association on February 27 which included an open dialogue about the proposed change.

Results

A total of 4,401 surveys were completed. Most respondents (57%) had fished Lake Erie for walleye in the last 5 years (Figure 1). Among all respondents, the majority (56.1%) either supported or strongly supported lowering the walleye MSL on Lake Erie from 15 inches to 12 inches, while 30.1% either opposed or strongly opposed the proposed change. Those who had fished the lake for walleye in the last 5 years had a higher amount of opposition (38.9%) than those who had not recently fished the lake for walleye, but this group of anglers were generally in support (53.8%) of the proposed change. Those who had not fished for Lake Erie walleye in the last 5 years were also generally in favor of the change (Figure 1). Additionally, those who had fished the lake for walleye in the last 5 years had a higher awareness (57.5%) of barotrauma issues on Lake Erie than those who had not fished the lake for walleye in the last 5 years (24.2%; Figure 2).

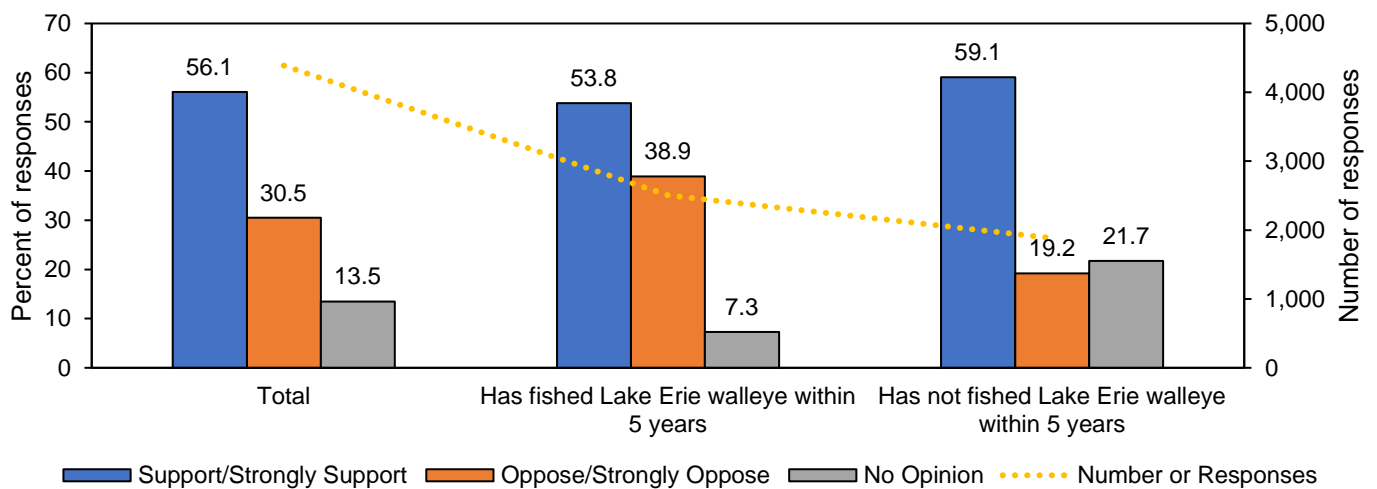


Figure 1. Angler opinions on lowering the minimum size limit for walleye in Lake Erie from 15 inches to 12 inches.

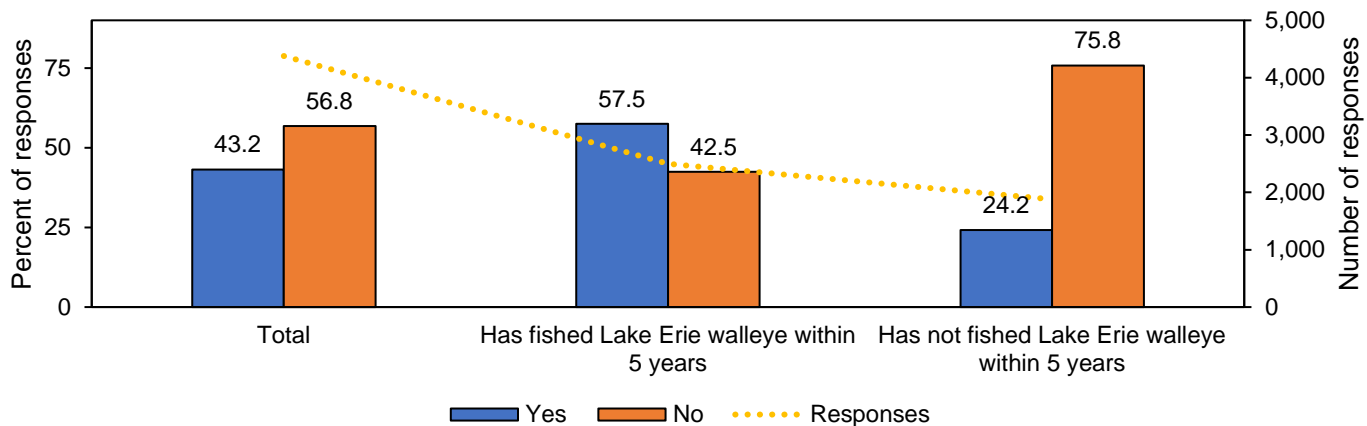


Figure 2. Angler awareness of barotrauma issues for Lake Erie fisheries.

Many stakeholders at the Niagara Expo were initially confused and concerned about the regulation change for two reasons: 1) Many thought the regulation would force anglers to keep walleye between 12 and 15 inches, and 2) Anglers were concerned the regulation would increase fishing effort and walleye harvest in the nearshore fishery and be detrimental for the local walleye population. Following discussions with the Lake Erie fisheries staff, many stated they would have changed their opposed responses to the survey if they had more clearly understood what the regulation change would entail. Although most stakeholders at the event were ultimately supportive, others remained strongly opposed.

The Eastern Lake Erie Charter Boat Association also had general support for the regulation change, but a few members voiced strong opposition, citing the nearshore fishery impacting the local walleye population and questioning the extent of barotrauma impact on offshore-caught walleye. In addition to organized outreach, Unit Staff spoke with many anglers individually about the regulation. These conversations largely mirrored the interactions described above.

Discussion

The high number of responses to the online survey indicates that the results are likely representative of the Lake Erie walleye angling population or those who may be interested in fishing the lake in the future. While there was majority support (56% combined) for a reduction in the MSL, the discrepancy in opposition between anglers who had fished Lake Erie for walleye (39%) and those had not (19%) was somewhat surprising and highlighted the need for further public outreach to determine stakeholder concerns.

The general impression from the two public events matched closely with the survey results—majority support with some vocal and determined opposition from concerned Lake Erie walleye anglers. One major takeaway from the survey and follow-up interaction with stakeholders was the need for a clear, concise explanation of the regulation change and the implications the change would likely have to the anglers and the fishery. Throughout the course of our angler interactions, it also became clear that there was a considerable amount of misinformation and rumors regarding the regulation circulating on fishing message boards and by word-of-mouth. In hindsight, it may have been beneficial to do more outreach about the regulation prior to the online survey. Even though this regulation was supported by the majority of anglers, confusion regarding the intent of the regulation, the vocal minority opposition, and the fact that this regulation was not necessary to ensure fishery sustainability, resulted in a decision not to move forward with the regulation change at this time.