

Recommendations on the legislative proposal to reduce Minnesota's statewide Walleye bag limit

Outdoor News recently reported that a bill (S.F. 12) has been introduced to reduce the statewide Walleye limit from six to four fish. No specific reasons for the proposed regulation change were provided in the ON article.

Minnesota anglers generally support reasonable regulation changes when there is a specific problem being addressed (i.e. poor size/quality, declining catch rates, low abundance, slow growth, over abundance) and the potential gain for the population or fishery justifies the trade-off in lost harvest opportunity.

Proposals to reduce the Walleye limit have been discussed for a number of years at Fisheries Roundtable events and Species Workgroup meetings. Advocates for the change express concerns that increasing fishing pressure and ever advancing technologies may be stressing Walleye populations, and have offered a mix of biological and social reasons for supporting a change.

- Reduce potential over-harvest
 - A lower statewide limit would moderate harvest across all lakes
 - Reduce harvest during hot bite periods, and on high catch rate lakes
- Statewide 4 fish limit would level playing field
 - Some large destination Walleye fisheries are already at 4 fish limit
- 6 fish limit is excessive
 - No one needs to harvest 6 Walleye
- Lower bag limit sends a good conservation message

MNDNR Fisheries Walleye Technical Committee has modeled potential harvest saving from the proposed limit reduction. Overall harvest savings from this adjustment are expected to be minimal due to the small proportion of the total Walleye harvest that occurs from six fish limits. However, it is suggested that harvest reduction could be somewhat higher on certain lakes, or during seasonal “hot bite” periods.

Assuming the regulation change was effective in reducing harvest by some proportion, how would less harvest effect Walleye populations, or improve Walleye fisheries?

When discussing the potential effects of harvest reduction, it is essential to understand the different types of Walleye populations we have in Minnesota.

Natural reproduction lakes. This group includes many of Minnesota's large destination Walleye fisheries. These lakes likely generate most of the concern about overharvest due to casual observations of high fishing pressure. However, it should be noted that high angler catch rates that attract high fishing pressure, are an indicator of good Walleye populations. Natural Walleye populations are very resilient with an intrinsic ability to compensate for high harvest. As long as ample spawning stock is maintained for reproduction intensive harvest can actually stimulate better recruitment of young Walleye by reducing density suppression. This basic biological principle is being recognized and more

frequently incorporated into comprehensive lake management plans. For example, the Red Lakes harvest plan not only identifies a minimal level of spawning stock to maintain, but prescribes increased harvest to reduce spawning stock abundance when in surplus. The larger natural reproduction lakes are high priority and are monitored with frequent survey rotations. If there are indications that spawning stock needs additional protection size based regulations are far more effective than bag limits. Regulations that reduce overall harvest when it is not needed will only result in higher natural mortality and suppression of subsequent year-classes. These large destination Walleye fisheries are too important, both economically and traditionally, to be managed with a one size fits all bag limit.

Fry stocked lakes. This group of lakes provides a second tier of mid-size Walleye fisheries throughout Minnesota. Walleye fry stocking is used to supplement poor natural reproduction where spawning habitat is limited but other environmental conditions are suitable for growth and survival. Fry stocking is a very economical management tool that provides some excellent Walleye fisheries that rival the natural lakes on a slightly smaller scale. Recruitment from fry stocking responds very well to harvest, similar to natural lakes. These populations tend to turn over quickly, are dominated by younger fish with good growth rates, providing good angler catch rates and harvest opportunity. Because fry production is supplemented by stocking there is no need to maintain a certain level of spawning stock which frees up available productivity to maximize both harvest and recruitment potential. If the objective of harvest reduction is to improve quality/size by stockpiling more large older fish in the population it should be done with the understanding that it will reduce recruitment from future fry stocking events. While this may be a desirable management objective for some select lakes it should not be broadly applied to all fry stocked lakes.

Fingerling (including yearling and adult) stocked lakes. Stocking advanced fingerlings, yearlings or adults is the most intensive and expensive Walleye management strategy used in Minnesota lakes. This strategy essentially forces Walleye into environments where they would not normally be present. Fingerling stocking does provide an alternative species opportunity in hundreds of smaller Minnesota lakes, but rarely produces the type of fisheries found in natural or fry stocked lakes. Since angler catch rates are generally low on fingerling stocked lakes, the proposed bag limit adjustment would be inconsequential in most instances. To better understand the effectiveness of fingerling stocking DNR managers have been using a Walleye Stocking Evaluation Tool (WAEstock) which includes an estimate of fish returned to the angler (harvest) from the number of fingerlings stocked. Results are often disappointingly low, indicating that far more stocked fingerlings are lost to natural mortality than are harvested by anglers. If anything, rather than looking for ways to reduce harvest on fingerling stocked lakes, it would be advisable to find ways to improve the return to anglers from the substantial investment in fingerling stocking programs.

The biological implications of a reduction in the statewide Walleye bag limit suggest that at best we would be asking anglers to sacrifice harvest opportunity for little or no gain. In fact, if lower bag limits prove effective on certain lakes or hot bite periods, lower harvest could actually have negative effects on some of our best Walleye fisheries.

It is understood that social considerations often drive legislative proposals as much as biological implications. Do the social considerations listed have merit for moving this proposal forward?

The concept of leveling the playing field with a 4 fish bag limit statewide ignores far more significant differences that exist between lakes and Walleye fisheries. To suggest that some of the destination Walleye lakes currently managed with a 4 fish limit are at a disadvantage ignores that fact that those lakes already have excellent Walleye fisheries attracting lots of anglers. This is hardly a disadvantage.

Suggesting that a 6 fish bag limit is excessive, and no one needs 6 fish, is entering a very slippery slope. Since no one truly depends on fish for subsistence anymore no one needs a 4 fish or even a 2 fish bag limit. It is important to recognize the differences in angler types and their access to angling opportunities. A 6 fish bag limit may seem excessive to an avid angler that fish multiple times a week, opposed to the occasional angler that fishes a couple times per year. We need to be careful not to apply our own individual perspective across all divergent users of the resource.

Unnecessarily lowering the statewide Walleye limit sends the wrong conservation message. It implies that Minnesota anglers are overharvesting Walleye populations when in most cases there is no evidence to support that. In fact, there are some prominent Minnesota lakes where more aggressive harvest would benefit the population, the fishery and local economies. Individual lakes that actually need harvest reduction can and should be managed by special regulation.

A better conservation message is that conservation is not simply protection or preservation of natural resources, but includes wise use of those resources. That message is particularly important at a time when there is increasing pressure and criticism from protectionist/animal rights groups that oppose consumptive use. A better and more factual conservation message is that Walleye are a valued renewable resource, angler harvest is wise sustainable use, and that angler harvest can be an effective tool to manage and maintain healthy productive Walleye fisheries in Minnesota.

Gary Barnard, Bemidji MN

Follow up question/answer

I thought I should answer this right away since it is likely to come up. While employed with MNDNR Fisheries I was an advocate for changes to statewide Northern pike regulations, but now am coming out in opposition to changing statewide Walleye regulations. Why the difference? I consistently opposed the Walleye bag limit reduction proposal internally while employed with DNR, for good reason. The basic biological principle of density dependant suppression affects both Northern and Walleye similarly. Both species respond to harvest with increased recruitment of young fish to the population. However, objectives for Northern pike and Walleye fisheries are night and day different. The most desirable attribute of a good Walleye fishery is frequent recruitment of strong year classes that drive angler catch rates and harvest opportunity. The most desirable attributes of a good Northern pike fishery are the opposite, low recruitment with size and age distributions dominated by larger older pike.