

From the Michigan DNR on December 18, 2008

Thank you for taking time out of your valuable schedule to assist Fisheries Division and the Department of Natural Resources in our request for your opinion of the proposed change to a Statewide fishing regulation to increase the Daily Bag Limit (DBL) for salmon in the Great Lakes. This proposal included increasing the DBL from a maximum of 3 to maximum of 5 fish, in combination with other trout species. Your input is highly valued and we considered each response in our formulation of the final recommendation. We heard from nearly 300 interested citizens and approximately 70% of those responses were in favor of increasing the DBL for salmon to 5 fish per day.

The proposed rule change to allow for up to 5 salmon per day (no more than 3 of the 5 can be brown trout, lake trout or steelhead) was discussed at three monthly meetings of the Natural Resources Commission. The Michigan Charter Boat Association and about 30% of the survey responses were not in favor of increasing the DBL for various reasons. Each comment that we received along with the discussion we had with anglers presented legitimate points of view, regardless of opinion. Because this regulation does not have a major biological impact, we feel that alternate views are important and that the decision should be primarily based on social considerations. On December 10, 2008, the proposal to increase the DBL for salmon in all public waters, in combination with other trout species, was approved and will become effective April 1, 2009. However, this regulation change incorporates a new management tool that provides an objective evaluation that will allow the Department to modify the bag limit for salmon if fishing success and catch rates changes significantly.

Fisheries Division staff spent a considerable amount of time assessing the comments and concerns submitted by you and we used those comments in the development of a suitable proposal to move forward with a regulation change. A proactive approach (attached) was detailed in November that evaluated the catch per effort of Charter anglers (fish caught per hour) for Chinook salmon over a 22 year period, and assessed Charter anglers catching 3 or more Chinook salmon per day. Using our established data from mandatory charter boat reporting for Lake Michigan, baselines were established for catch rates (0.165 fish per hour) and angler success of catching 3 or more salmon per day (13.1%) which represented "breaking points" based on real data where the DBL could be changed.

Currently both of these benchmarks are being exceeded, which means that catch rates and angler success is high. Under this new proactive approach, both of these benchmarks will need to fall below their baseline values to change the regulation (decrease the DBL back to three). If just one of the indicators drop below the baseline, the regulation will remain in place for a 5 fish DBL in combination. Likewise, if the regulations revert back to 3 fish (meaning both falling below baseline levels), it will take both benchmarks to improve beyond their respective baseline values in order for the Department to change the DBL back to 5.

This tool gives the Department the ability to be more proactive, providing opportunity for

annual review, and implement regulation changes as needed using this predefined management tool. When fishing is really good and salmon abundance is high, the 5 fish limit would likely be in effect. Conversely, when fishing is really poor and there are perhaps not as many fish, the limit would revert to 3. The Department will have the ability to make this assessment and consider a regulation change each year based on that years fishery data.

Chinook salmon – Benchmarks for Lake Michigan Catch Rates and Angler Success

Background

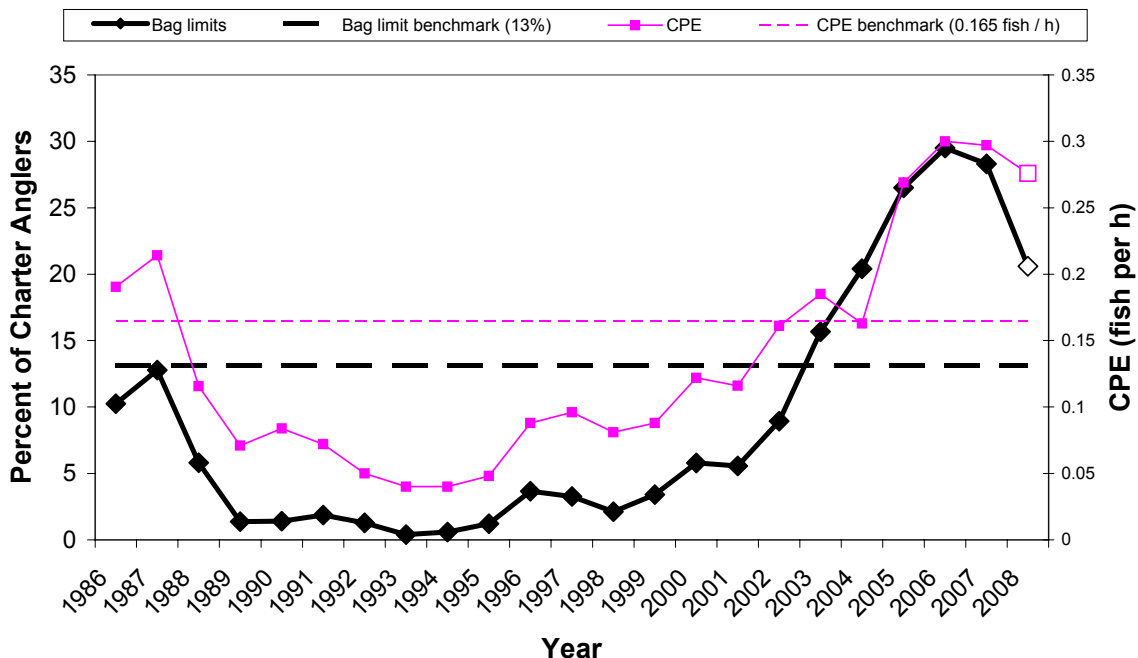
As part of the “Review of Salmon and Trout Management in Lake Michigan” by Keller et al. (1990), salmon fishing regulations were modified in response to the “atypically poor” Lake Michigan salmonine sport fishery in the period 1987-1989. The recommendations in the Keller et al. (1990) report were to reduce the indiscriminate loss of salmonid stocks to enhance sportfishing, and more specifically, reduce possession limits from 5 fish per day to a total of 5 salmon in combination, but no more than 3 of any one species.

For Chinook salmon, the regulation change resulted in a reduction in the daily bag limit (DBL) from 5 fish per day to 3 fish per day. Specified with this recommendation in the Keller et al. (1990) review was the goal that the proposed regulation would be a short-term change, and the long-term approach would be to reinstitute the original daily catch limits when catch rates and abundance levels warranted such action.

Approach

Using 1986 as a “benchmark” year, we used angler success and catch rates in the charter fishery to evaluate recent conditions. The catch rates in the charter fishery declined between 1987-1989. However, catch rates in the fishery have been increasing over time and they exceeded 1986 levels in 2003. Likewise, the proportion of anglers reaching the 3 fish DBL was low in 1990 and has been increasing over time. The proportion of anglers catching 3 or more Chinook salmon increased beyond 1986 levels (10% of anglers catching 3 fish per day) starting in 2003. In recent years, over 25% of anglers are catching the current DBL of 3 fish. Based on these results, the conditions outlined in Keller et al. (1990) were met starting in 2003.

Percent of Charter Anglers Catching 3 Chinook Salmon per Day and Catch Rate (fish per h) of Chinook Salmon



Application

- Use individual catch statistics from the charter fishery to compare current year to the benchmarks (Table 1) for changes to the daily bag limit (DBL) regulation (data available are from April – September online reporting; minimum of 10% of expected annual charter reports).
- Select only charter fishers targeting salmonines by excluding trips with perch and walleye catches.
- Calculate the frequency distributions for the number of Chinook salmon harvested by angler to estimate angler success, defined as the percent of charter anglers catching 3 (or more) salmon per day. Compare to the benchmark value of 13% (>13% = 5 DBL, <13% = 3 DBL).
- Compare the catch rates (number of fish harvested per hour) to the benchmark value of 0.165 (>0.165 = 5 DBL, <0.165 = 3 DBL).
- If angler success and catch rates agree, then recommend changing the DBL accordingly. If one is above the respective benchmark while the other is below, there should be no recommendation to modify the DBL.

Table 1. Comparing benchmark values for the charter fishery

	1986	1998	2006	1998-2006 (avg.)
Catch Rates (fish per hr)	0.190	0.081	0.300	0.165
Percent Charter Anglers Catching 3 or more Chinook salmon per day	10.2%	2.1%	29.5%	13.1%