

How to Fix Mille Lacs

By Dick Sternberg

Background. It's been more than a decade since I worked on behalf of the Mille Lacs landowners group to expose threats to the walleye fishery that had begun to develop as a result of the new court-ordered "treaty-management" program. With fish-management decisions being made on the basis of treaty dictates rather than biological facts, most of the serious fisheries problems we are experiencing today were easy to predict. Now, after 15 years of treaty management, the walleye population is at an historic low and the DNR seems to be at a loss as to how to solve the problem.

Upon hearing of the walleye nose-dive in 2012 (4.8 walleyes/inshore gill-net lift down from 9.7 in 2011), many felt that the netting results were an anomaly – the population couldn't possibly have plunged by more than 50 percent in a year. So there has been great interest in the 2013 netting results. At first glance, the net counts looked like a big improvement over 2012 – from 4.8 walleyes per net up to 8.7/net in the inshore, and from 9.9/net to 19.2/net in the offshore. But a closer look at the data revealed that 55% of the walleyes netted (365 out of 660) were large young of the year. Normally, only a few yoy walleyes (less than one/lift) are taken in the gill nets; most are too small to get caught in the mesh.

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To get a more accurate picture of how the walleye population is really doing, I looked at the gill-net counts from both 2012 and 2013 not including young of the year. That leaves the 2012 count at 3.8 in the inshore and 9.2 in the offshore nets. The 2013 count stayed the same (3.8) for inshore, but the offshore count dropped to 8.7. In short, the 2013 netting is no cause for optimism.

Hopefully, the larger young will survive better than many other recent year classes and contribute to a future recovery. But as the DNR warns in their recent letter to the Mille Lacs Input Group, "We have seen very good walleye reproduction the past few years only to have these young fish experience high natural mortality at young ages, likely due to predation."

How DNR Sees the Problem. You can find the DNR's assessment of the dismal walleye situation on their web site (<http://www.dnr.state.mn.us/millelacslake/index.html>) under Background FAQ. They admit that "a serious problem has developed; not enough small walleyes are becoming big walleyes."

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In attempting to summarize the causes of the problem, the DNR says: "The problem is complex. Many things are or have been going on at once. They include targeted harvest on smaller and younger walleye, more northern pike and smallmouth bass feeding on walleye or what walleye eat, more walleyes eating walleye, more unwanted aquatic invasive species, a smaller forage base, and less system predictability due to unknown interactions between fish community and new aquatic invasive species."

One thing the DNR did not address in their laundry list is the difficulty for non-band members to catch “keeper” walleyes. Because of the extremely narrow harvest slot in 2013 (only 18- to 20-inch walleyes could be kept), anglers had to return 89 percent of the walleyes they caught. They were also assessed a “hooking-mortality” penalty on the walleyes they released, so when the bite was hot and large numbers of fish were being thrown back, hooking mortality far exceeded the catch of keepers. In July 2013, for example, anglers harvested 13,579 pounds of walleye and were assessed hooking mortality of 38,490 pounds which counts against the non-tribal harvest quota for the year.

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Another laundry-list omission: the alarmingly low percentage of males in the walleye population. In the 2013 sampling, only 39 percent of the walleyes were males. DNR biologists suspect that the gender imbalance is the result of the tribal harvest, which runs 80 to 90 percent male, in addition to the non-tribal harvest which is heavy to males because slot limits force anglers to target the smaller fish. The long-term effects of the gender imbalance are unknown.

What’s the Solution? What is most concerning to me is that many of the most serious problems on the DNR’s list have persisted for more than a decade. In my 2003 paper, *It’s Time for a Change*, I wrote at

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length about the population imbalance that was resulting from an ever-tightening slot limit that allowed harvest of only smaller walleyes. “As long as the Mille Lacs walleye population remains heavily skewed toward the larger size classes, the threat of heavy cannibalism of young-of-the-year walleyes will persist,” I wrote.

But the DNR didn’t need my input on the issues of cannibalism and heavy predation by other fish species; they knew exactly what was going on. “The pattern of year classes starting out strong but diminishing significantly over time has been occurring since 2000,” DNR said in the 2008 Technical Committee report. “Lower survival of young fish may

be a recruitment response to the increased numbers of large fish since treaty management began in 1997,” they concluded.

So if the DNR understood this problem and most of the others on the above laundry list, why haven’t they taken stronger action to solve them? Cannibalism, for example, could be reduced by adjusting the slot to allow more harvest of large walleyes. That, in turn, would increase levels of perch and other forage fish, thereby benefitting smaller walleyes. But as the DNR reminds us every time this solution is proposed, harvest of more large walleyes would put us above the safe harvest level as dictated by the TREATY-MANAGEMENT system.

So how can we fix Mille Lacs? We must discontinue treaty management and establish a biologically-sound system that allows managers to manage with all of the tools at their disposal, not with one hand tied behind their back. That will require the State to go back to court and show that treaty management is un-biological, unfair to anglers and unlikely to restore the premier walleye fishery for which the lake has long been known.