

Where Did the Walleyes Go?

By Terry Gronwall

In the DEC Region 8's Honeoye Lake adult Walleye survey in 2000 they determined that there were approximately 30,000 adult Walleyes in Honeoye Lake, which is more than the lake could properly support. They were reaching about 15" in length quickly and then their growth slowed down due to lack of enough forage fish for them to eat.

DEC Region 8 then reduced the length limit from 18" to 15" to let the fisherman increase their legal catch rate. The intent was to reduce the Walleye population to an optimum size and create some real trophy size Walleyes. This action should also increase the Yellow Perch population. Yellow Perch are the preferred forage fish for Walleyes.

This action seems to have worked. In the DEC Region 8's Honeoye Lake adult Walleye survey in 2003 they determined that there were approximately 13,000-15,000 adult Walleyes in Honeoye Lake. According to the DEC Region 8 2003-2004 Honeoye Lake Fishing Diary keepers the catch rate had declined to .23 per hour, about half the catch rate of recent years. This is about one Walleye for ever 4 hours of fishing which is still slightly better than the New York State average walleye catch rate of .2 per hour. However, this diary season 24% of the Walleyes caught were over 20" in length compared to 8% or less in previous seasons.

Although we don't have any reliable data on the Walleye catch rates for the 2004 season yet, it seems to be continuing its decline. I base this opinion on my own results and talking to other avid Honeoye Lake Walleye fisherman. Because of this concern, we decided to become proactive to get the facts on the current Honeoye Lake Walleye population trend.

As background information, every spring the DEC Stocks 8.67M Walleye fry in Honeoye Lake. DEC Region 8 and John Foust, FLCC, have done recent studies to confirm that there is no successful natural Walleye reproduction in Honeoye Lake. Therefore the DEC Region 8 Walleye fry stocking is the sole source of our Walleye population. There was no Walleye fry stocking in 1999 due to a DEC hatchery failure and in 2002 due to John Foust's Walleye behavior research study.

Don Bennett, my wife Dorothy, and I met with Brad Hammers, DEC Region 8 fisheries biologist for Honeoye Lake and John Foust, FLCC fisheries biologist on Thursday, July 1st at the FLCC Muller Research Station on the Honeoye Lake Inlet to discuss the current state of the Honeoye Lake Walleye Population and what additional steps we can take to maintain it at an optimum size.

We decided to take some specific actions to try and verify that the stocking of Walleye fry in Honeoye Lake is still getting satisfactory recruitment (e.g. resulting in the

production of Walleye fingerlings). Brad Hammers is going to analyze last year's DEC adult Walleye survey data to produce a length/age chart to document the health and age of our Walleye population. This is done by analyzing scale samples taken as part of the adult Walleye survey last year. We would expect to find that there are strong numbers of 3 & 5 year old Walleyes present (e.g. 1998 & 2000) and no/nil 4 year old Walleyes present (1999).

John Foust is going to prepare a proposal for us to consider funding to use the FLCC electro shocking boat this fall to try and visually confirm that we got satisfactory recruitment from the 2003 and 2004 Walleye fry stocking by looking for Walleyes that are between 4"-12" in length.

Hopefully, these actions will confirm that we are getting satisfactory recruitment from stocking Walleye fry every spring.

We discussed building artificial Walleye spawning beds as a potential action we could take to increase the number of Walleyes in Honeoye Lake if recruitment is found to be an issue due to some change in the lake's ecosystem. This would entail building artificial Walleye spawning beds out of 2"-4" rocks in the inlet and along windy shores in 2'-3' of water. Some Walleyes are genetically conditioned to spawn in the inlet and others along windy rocky shores. This would hopefully create a natural habitat for the Walleyes to successfully spawn every spring.

Brad Hammers and John Foust advised us that the prognosis for creating successful Walleye artificial spawning beds in the Honeoye Lake Inlet is very low. This is due to the very silty water, the relative long distance to the lake from the potential spawning beds with substantial predators along the way, and the lack of a dam or other obstacle to keep the Walleyes from going beyond the artificial spawning beds. The outlook for building successful artificial Walleye spawning beds along windy lake shores is much more promising. However, we do need to understand why we are not currently getting any natural successful spawning activity today along the few existing rocky shores before trying to get approval to move ahead with this kind of project. A research project would need to be performed to locate the lake shore areas that the Walleyes prefer to use to spawn and why they are not currently successful before pursuing this option.

Other actions that could be considered to increase the Walleye population of Honeoye Lake are increasing the number of fry stocked every spring, augmenting the stocking of Walleye fry by stocking Walleye fingerlings from the FLCC Muller Research Station ponds, raise the length limit back to 18" from 15", etc.

In addition to maintaining Honeoye Lake as a premier Walleye fishery in New York State there is the potential for the Walleye population to help us reduce the Eurasian Milfoil too. Dr. Bob Johnson from Cornell has identified a certain type of Weevil that will kill Eurasian Milfoil. We have taken samples of our Eurasian Milfoil to Dr. Johnson to verify that we indeed do have these Weevils present at Honeoye Lake. However, he has a theory that the Sunfish eat the Weevils before the Weevils can kill the Eurasian

Milfoil. He recommends increasing our lakes Walleye population to reduce our Sunfish population to allow the Weevils time to kill some of our Eurasian Milfoil.

We will keep you posted in future issues of the Grapevine about our progress in increasing our knowledge of the Honeoye Lake Walleye population and how to best maintain it at an optimum level.

Where'd the Walleyes Go?

(Part 2)

By Terry Gronwall

Our quest to find out why there are no small walleyes in Honeoye Lake is turning into a journey of discovery. I will give you a brief update on our progress since last July and what our plans are to gather more data on the walleye fry recruitment issue later this fall and next spring.

Brad Hammers, DEC Region 8 was able to analyze their walleye gill net survey data from 1997, 1999, and 2003. What he learned was that in 1997 the smallest walleyes caught in their gill nets were 6-7" long, in 1999 the smallest walleyes caught were 10" long, and in 2003 the smallest walleyes caught were 13-14" long. Also, he was able to confirm that there were no walleyes caught in their 2003 gill net survey from the 2000 and 2001 walleye fry stocking by analyzing the walleye scale samples that they took as part of this survey.

John Foust, FLCC has scheduled an electro-shocking walleye survey for late October, 2004. This will assist us in learning if we had any significant walleye fry recruitment from the 2003 and 2004 walleye fry stocking. We will share the results of this walleye survey data in the spring 2005 Grapevine newsletter and on www.hvaweb.org.

The DEC walleye gill net survey data would suggest that we didn't have any significant recruitment from the walleye fry stocking in 2000 and 2001. However, a walleye gill net survey is not a conclusive indicator. There could be walleyes present from stocking in those years, just not caught in the gill net survey.

The walleye fishing reports I have heard from the 2004 season, though, indicate that most walleyes caught are 18"+ in length. This also would confirm that we did not have any significant walleye fry recruitment in 2000 and 2001.

What this means to Honeoye Lake walleye fishermen for the 2004-2005 season is that there are still 1000's of adult walleyes in Honeoye Lake. They are 5-12 years old and 18-28" long. Some real trophies going up to 8-9 lbs.!!!

However, walleyes that are 5-12 years old are a "lot" harder to catch than ones that are 3-4 years old and 15-18" long.

Having two consecutive years of no walleye fry recruitment could be weather related at the time of the walleye fry stocking in early May or it could be the result of a fundamental change in Honeoye Lake's ecosystem. We will have to collect more data next May when the 2005 walleye fry stocking is scheduled to determine the root cause of the issue.

In early September we applied for an Ontario County Water Resources Council Grant for \$1,500 to fund John Foust at FLCC Environmental Conversation Department to collect and analyze critical lake oriented data when the walleye fry are stocked in early May 2005. In mid-September we were notified that our grant proposal was approved.

This additional data should assist us in determining if our walleye fry recruitment issue is weather related or due to a fundamental Honeoye Lake ecosystem change. If it is determined that there is a fundamental change in the ecosystem of the lake, we will work closely with DEC Region 8 and FLCC to create and implement a plan to address the walleye fry recruitment issue.

We will give you an update from this research activity on our quest to understand why there are no small walleyes in Honeoye Lake in the summer 2005 Grapevine newsletter and on www.hvaweb.org.