

Lake Simcoe Muskellunge Restoration Project Update January to October 2006 By Wil Wegman

Muskies Canada Inc. (MCI) and the Ontario Ministry of Natural Resources (OMNR) along with their partners are hoping to restore a thriving muskellunge fishery to Lake Simcoe. This is a feasible fisheries management objective according to a study completed in 2000. The goal of the Lake Simcoe Muskellunge Restoration Project (LSMRP) is not to simply create a “put grow and take” fishery that will continually require intensive management efforts. Instead the objective of both MCI and OMNR is to restore a self sustaining muskellunge population to Lake Simcoe through a long term restoration project including habitat enhancement and stocking. In an effort to communicate with the general public and anglers who have an interest in restoring a member of lakes Simcoe and Couchiching’s original fish community or possibly fishing muskie once again we will strive to keep you updated on this project.

During the winter of 2006 plans were developed by volunteers from MCI and staff from both the Midhurst and Aurora District Offices of OMNR to once again collect eggs from various locations of Gloucester Pool near Port Severn ON and rear them to the fall fingerling stage to be stocked out into Lake Simcoe. Our best bet given the dollars available to the project was to send all of the eggs collected to be reared at OMNR’s White Lake Fish Culture Station.



Trap Nets

In order to collect eggs, adult muskie are caught in trap nets then artificially spawned (collecting and fertilizing the eggs with milt), the fish are then measured, weighed, tagged and released. Valuable management information is collected through this netting effort. For example, in the fall of 2005 a 46 inch tagged muskie was caught on Gloucester Pool, released and reported to OMNR by an angler. This muskie was a male caught in the spring of 2005. Remarkably, this same fish was incidentally caught yet again by an ice fisherman in the winter of 2006, who also released the fish and reported the tag number to OMNR.



2006 Egg Collection

In the spring of 2006, trap nets were set in Gloucester Pool immediately following the ice out period. With a very warm start to the spring and very little variability in the weather, catches of muskie were lower than 2005. We immediately moved nets around and started to catch fish, said Brad Allan, Midhurst District biologist working on the project.

He explained further, *“Information obtained from working with muskellunge on Lac Seul (Sioux Lookout District) and other lakes in Bancroft District showed that these fish are difficult to capture in trap nets and may have even demonstrated an “avoidance behaviour” towards netting gear. So, as I learned first hand while working up at Lac Seul you have to modify your netting techniques and locations to increase your capture rates”*



The number of muskie captured in Gloucester Pool in 2006 was 14 from 8 sites, compared to 22 from 10 sites caught in 2005 with 7 fewer net sets. OMNR staff and volunteers were able to move the nets around enough to successfully collect three families. There are presently 24 tagged muskie in Gloucester Pool and still 6 in Lake Couchiching (from Muskie work done there in 2005) as part of the LSMRP.

Anglers catching any tagged muskie from Gloucester Pool or Lake Couchiching are asked to call the number on the back of the tag (905-713-7400) and report the uniquely identifiable tag number, tag color, location caught, size (length and girth) and condition of fish upon live release. Similarly, anglers incidentally catching tagged or untagged muskie from Lakes Simcoe or Couchiching are asked to report it (with a picture if possible) to the OMNR at the above noted number. Please remember that the muskie season on Lakes Simcoe and Couchiching has been closed year round since 2005.

The 2006 netting program once again provided valuable information on the muskie population of Gloucester Pool, their spawning habitat, and movement patterns. Information on the fish community has also been collected by OMNR staff. This information will lead to improved understanding and management of Gloucester Pool's fish community and help enhance the management of muskie populations in Ontario.



Muskie being tagged at Gloucester Pool

By early May the last two families of muskie eggs were collected and sent to White Lake Fish Culture Station for rearing. Despite a very successful egg collection the end result was disappointing. Far fewer eggs hatched in 2006 compared to 2005. Given the lower number of muskie to work with, staff at the hatchery focused on the same method and diet that produced the best results in 2005. In spite of their efforts, the difficult task of converting muskie fry to artificial feed could not be accomplished this year despite the method working last year.

With only 62 muskie fry remaining and little chance of rearing these fish to the fall fingerling stage, it was decided to stock them out into Lake Simcoe's Morning Glory Swamp on August 9th 2006. Morning Glory, located on the southeast shores of Simcoe offered excellent habitat and the greatest chance of survival (very few predators) at the time of release.

Muskie Lottery & Toronto Sportsman Show Grant

This past summer, members from MCI began selling tickets for a lottery that would eventually raise over \$15,000. The group was also successful in obtaining a \$10,000 grant from the Toronto Sportsman Shows Inc. Walter Oster, chair of this organization commented: *"We felt that this program is on the right track to ultimately re-establish the mighty muskie back into Lake Simcoe. In order to help make this goal a reality, we knew our contribution would be very well used and would make a real difference. We are therefore proud partners in this terrific project and look forward to the day that Lake Simcoe can once again become a prime destination for avid muskie anglers."* All funds raised this year will help finance 2007 components of the LSMRP.

Jason Borwick, Management Biologist with Aurora District who is also working on the project, commented that *"The funding available this year will help us diversify and improve our odds of success in 2007. For instance, we will now be able to focus some of our efforts on improving existing muskie habitat. This is an integral component of the project and I am excited that we can begin to look at it next year."* He concluded by saying *"I am quite confident that our 2007 stocking results will be better thanks to the tremendous support and profile this project has received."*

Know the Difference Signs

An essential component of the LSMRP is educating anglers about the project and the importance of identifying muskie from northern pike. The "Know the Difference" sign campaign does just that. Although these signs were ready to be put up around Lakes Simcoe and Couchiching this spring, MCI learned of a weather proofing protective coating that could be applied to increase the sign's longevity. It was therefore agreed to take this extra step and send the signs back in for the

additional process. Over 30 locations around the lakes have been identified to insure maximum exposure to the project. Locations included private marinas, public boat launches, provincial parks and municipally owned waterfront locations. As a testament to the project, all locations contacted gave their wholehearted approval for the installation of a “know the difference” sign. Signs are currently being installed which will be completed by the end of November 2006.



Aurora biologist Jason Borwick with muskie



Midhurst biologist Brad Allan with muskie

Projected Plans for 2007

Given the additional funding available for this upcoming year, the project is hoping to have access to multiple rearing facilities and rearing scenarios to increase chances of success. Despite some disappointment and difficulties so far, we are already endeavouring to improve and adapt from lessons learned in years one and two. For instance we will be altering our stocking strategy to include summer fingerlings while still trying to perfect the rearing techniques for fall fingerlings. This will be the first time we will plan for a summer stocking event. In addition, a portion of the eggs will be distributed to Fleming College and the Georgian Bay Hunters and Anglers (a CFWIP partner) for incubation and rearing. This way, should something happen to reduce muskie numbers at one site, there will likely still be enough young muskie at another. With varied methods to raise muskie, it is felt that having more than one facility on board will also allow for a greater chance at finding the most successful rearing method.

At the White Lake Fish Culture Station, manager Glenn Hooper has already outlined some additional goals and experiments that will differ at his site from the 2006 program:

- We anticipate as many as 2,000 two inch muskie ready for stocking into Lake Simcoe in July/07. This will be the first year that any muskie are stocked this early in the year.
- An estimated 500 muskie will be reared to the fall fingerling stage. Working with this relatively small number will enable staff to determine what works best.

Glenn Hooper concluded by saying *“We are looking forward to rearing the muskie as we do walleye, playing to our strengths by converting fish to dry diets after the pond phase and not rearing larvae as we have the past two years. Hopefully by stocking some fry out early, transferring some to others and converting the balance, we can stock a variety of sizes into Simcoe while providing many more fish”.*



A beautiful site for both muskie anglers and muskie researchers is watching your catch swim away alive and healthy.

For more information please contact:

Jason Borwick
MNR Aurora District
905-713-7404
jason.borwick@ontario.ca

Brad Allan
MNR Midhurst District
705-725-7519
brad.allan@ontario.ca

Please visit:
www.muskiescanada.ca