

2006 Community Fisheries Involvement Program Report

**Moon River of Eastern Georgian Bay
Walleye Culture and Index Netting Project**

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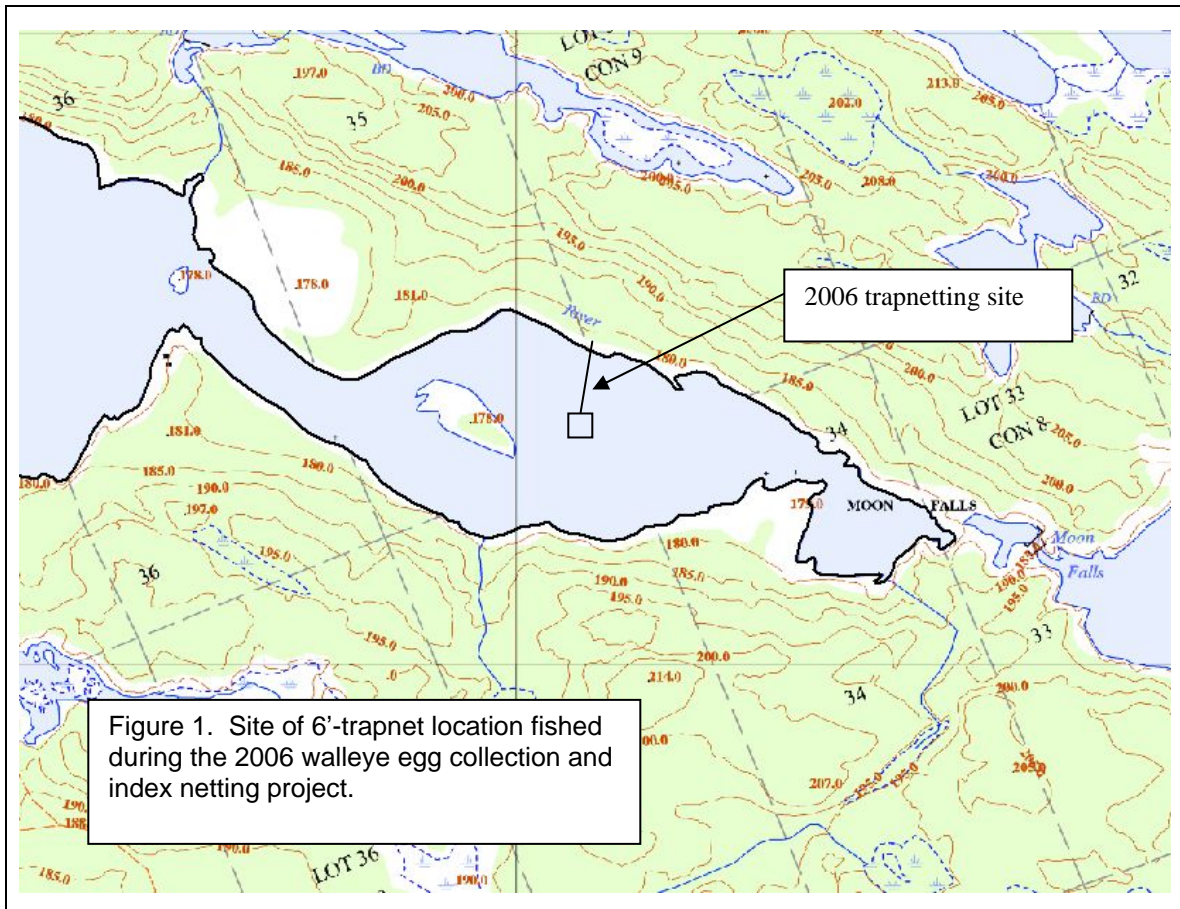


Introduction:

In 1997, the Moon River Walleye Association commenced walleye culture and stocking efforts to assist in the rehabilitation of the Moon River walleye fishery. The project has occurred annually since that time with a reported 4.45 million fry and almost 5000 summer fingerlings having been planted. The project was continued in 2006 under the banner of the Eastern Georgian Bay Stewardship Council in partnership with the Ministry of Natural Resources' Community Fisheries and Wildlife Involvement Program (CF/WIP).

Methods:

Due to high flow velocities and low water levels in Georgian Bay, access to the Moon Basin spawning area was delayed until May 2nd, at which time netting operations commenced. A 6'-trapnet was set at the location identified by the Upper Great Lakes Management Unit – Owen Sound Office (UGLMU), as indexing site #3 (Figure 1)



Results and Discussion:

Catch Results:

A total of 170 were captured over the duration of the project that encompassed 11 net-nights of fishing effort. Additional fish captured are shown in Table 1.

Table 1. Catch Summary for a 6'-trapnet fished at Index Site #3

Date Set	Date Lifted	Net Nights	Water Temp	Walleye	N.Pike	S.M. Bass	L.M. Bass	Brown Bullhead	Rock Bass	C.W. Sucker	R.h. Sucker	Channel Catfish	Black Crappie
02-May	03-May	1	nr	28	2	1	2	2	1	0	0	0	0
03-May	04-May	1	12	31	0	1	1	4	0	1	0	1	0
04-May	05-May	1	12	15	3	5	1	16	0	0	0	0	1
05-May	06-May	1	11	21	2	3	1	10	0	0	0	1	0
06-May	07-May	1	12	22	1	3	2	5	0	0	0	0	0
07-May	08-May	1	13	15	0	1	9	15	0	0	0	0	0
08-May	10-May	2	12	27	4	1	2	33	0	0	2	0	0
10-May	12-May	2	13	10	1	10	2	81	2	2	0	3	0
12-May	13-May	1	14	1	0	7	4	34	4	0	0	0	0
Total		11		170	13	32	24	200	7	3	2	5	1
CPUE				15.4	1.2	2.9	2.2	18.2	0.6	0.3	0.2	0.5	0.1

In the absence of criteria with which to stratify data for the purpose of calculating a relative abundance index for walleye (i.e. Catch-Per-Unit-Effort, CPUE) we pooled all the catch data collected. Our walleye CPUE was 15.4 walleye per net-night (Table 1).

Walleye Total Length Analysis:

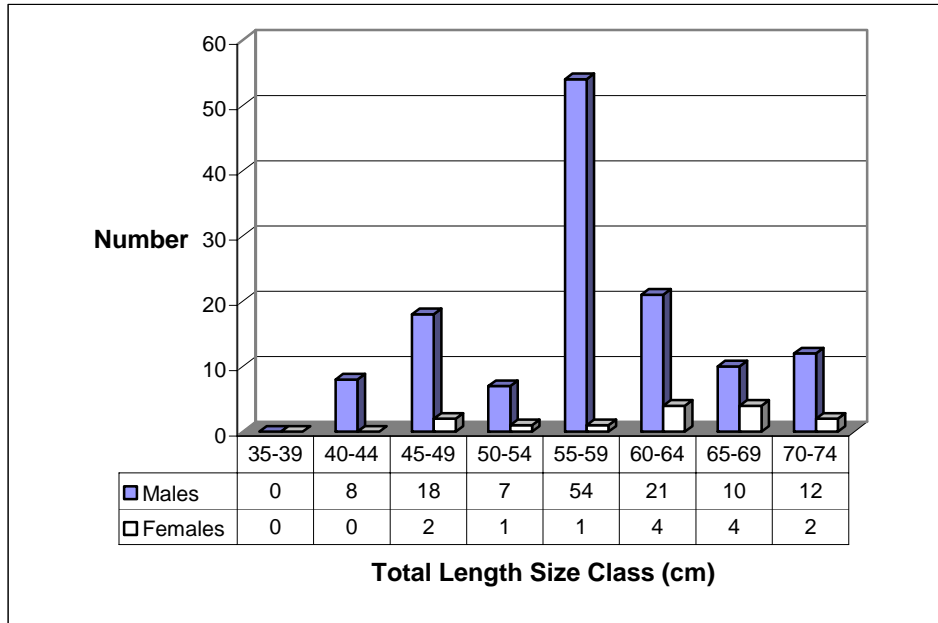
We randomly sampled 144 of the 170 walleye captured for size class analysis (Appendix A). Mean total length of 130 male and 14 female walleye sampled was 57.9 cm. and 62.2 cm. respectively.

Our observed size class structure shows an absence of recent walleye recruits to the spawning population (Figure 2). Less than 20% of walleye sampled (N=144) were smaller than 50 cm in total length. In healthy populations exhibiting good recruitment, these size classes are much more abundantly represented.

We observe an exceedingly low number of females in the catch. Only 10% (14 of 144) of walleye sampled were female, and of the 14 female fish caught – only 3 were in “ripe” condition for egg collection purposes.

Of the 170 walleye caught during the project, 58 or 34.1% had ‘spaghetti’ tags attached to them. These tags were applied by the UGLMU during spring index netting operations conducted in 2005.

Figure 2. Total Length (cm) size distribution of male (N=130) and female walleye (N=14) sampled at Moon Falls, Spring 2006.



Egg Collection, Incubation and Stocking Results:

Eggs were collected and stocked as per the following schedule:

Date	Number of Eggs Collected	Number of Fry Successfully hatched	Stocking Location
May 3	160,000	80,000	Arnold's Bay
May 4	130,000	100,000	40,000 fry – Pond 60,000 - Arnold's Bay
May 10	48,000	40,000	Arnold's Bay

A total of approximately 180,000 fry were planted into Arnold's Bay of Eastern Georgian Bay.

Of 40,000 fry planted into the Moon River Cabins' pond, 257 were reared to the summer fingerling stage and planted into Arnold's Bay on July 24, 2006.

Acknowledgements:

Appreciation is expressed to volunteers who participated in egg collection and netting operations: Bill McRobb, Sid Larson, Kim Orr, Brian Goltz, Steven Benthon, Steven Gauthier, Stewart Potter, George Potter, Brandon Bomholt, Bill McRobb Jr., Ron Kwok, Sylvia MacDonald, Stacy Power, Matthew Rowe and Eric McIntyre.

Many thanks are extended to Bill McRobb who supervised the egg collection and netting operations. Bill also provided the boat and motor for field operations as well as incubating eggs at the CFIP hatchery located at his place of business in Arnold's Bay. Bill also supervised the harvest of summer fingerlings from the rearing pond also situated on his property. Without his efforts, this project could not have taken place.

Appendix A. Summary of total length data collected from male and female walleye sampled at Moon Falls, Spring 2006

Male Walleye				Female Walleye
40.7	55.2	58.5	61.0	47.5
41.9	55.5	58.5	61.1	49.5
41.9	55.9	58.5	61.3	54.0
42.2	55.9	58.5	61.5	59.5
42.7	56.0	58.5	61.6	60.2
43.0	56.0	58.5	61.6	60.7
43.7	56.1	58.5	62.0	61.3
44.9	56.2	58.6	62.1	62.8
45.0	56.4	58.8	63.2	65.2
45.5	56.6	58.8	63.5	69.3
45.5	56.7	59.0	63.5	69.3
45.7	57.0	59.0	66.0	69.8
45.9	57.1	59.0	66.9	73.1
46.0	57.2	59.0	67.0	73.5
46.0	57.2	59.2	67.2	
46.0	57.3	59.5	67.8	
46.4	57.4	59.5	68.0	
46.5	57.9	59.5	68.8	
46.6	58.0	59.6	69.4	
47.2	58.0	59.6	69.4	
47.3	58.0	59.8	69.7	
47.4	58.0	59.8	70.5	
48.9	58.0	60.0	70.7	
48.9	58.0	60.0	70.9	
49.3	58.1	60.4	71.2	
49.3	58.1	60.5	71.6	
50.9	58.2	60.5	71.7	
52.5	58.2	60.5	72.4	
53.3	58.2	60.6	72.6	
54.4	58.3	60.7	72.9	
54.5	58.4	61.0	73.2	
54.5	58.4	61.0	74.5	
54.8			74.6	
	57.87		Mean Total Length (cm)	62.55
	1.377		Confidence Level(95.0%)	4.728
	0.696		Standard Error	2.189
	58.45		Median	62.05
	7.933		Standard Deviation	8.189
	130		Sample Size	14