LOWER FLETCHER LAKE
SPRING LITTORAL INDEX NETTING
1997

by

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INTRODUCTION

Lower Fletcher Lake is a small coldwater lake in McClintock Township located approximately 11 km NE of the community of Dorset. Water quality and physical characteristics are limiting for Lake Trout (Salvelinus namaycush) and the population is currently believed to be very dependent on supplemental stocking.

A Spring Littoral Index Netting (SLIN) program was tendered out in the spring of 1997 to determine the status of the Lake Trout population and the relative abundance of other species to provide information to support future management decisions.

METHODS

A standard method for index netting was duplicated from Lake Trout Synthesis recommendations (Lester et al. 1991). Reference data were necessary for comparisons with more intensive sampling by Fisheries Assessment Units.

Fishing gear was small-mesh monofilament gill net dyed a light green in colour. Each gill net gang (91m) was comprised of six 15.2m panels tied at the brail loops. A gang was comprised of panels of the same mesh size, either 38mm (1 1/2"), 51mm (2"), or 64mm (2 1/2") stretched mesh. Nets were 2.4m tall.

The survey was completed during daylight hours before the surface temperature reached 13^{o}C. The shoreline was divided into sectors of equal length and sampled randomly for 90 minutes. Gangs of different mesh size were used in sequence and set perpendicular to shore. Nets were fished for a minimum of 40 sets or the capture of 20 Lake Trout, which ever occurred first. Over-night sets would only be employed at the completion of the SLIN program to collect fish required for the minimum sample size of 20 Lake Trout.

Data collected from target species included total length, fork length, round weight, fin clips and scale samples. Stomach samples, otoliths and sex was obtained from mortalities. Non-target species were counted and weighed by species.

RESULTS

A total of 13 sets (90 min.) were completed over a three day period from May 12, 1997 to May 22, 1997. Table 1 summarizes catch totals by species.

Table 1 Catch summary, Spring Littoral Index Netting, Lower Fletcher Lake, 1997.

SPECIES	NUMBER CAUGHT	C.U.E. (FISH/91m of net)
Lake Trout	20	1.54
Yellow Perch	23	1.77
White Sucker	23	1.77

The capture of one unclipped Lake Trout confirms that native Lake Trout still exist but represent only 5% of the fish sampled (Table 2). Weights ranged from 140g to 2600g with a mean of 508g. A recent stocking (1995) was well represented in the sample with16 individuals displaying LP clips that ranged from 140g to 360g. Two mortalities occurred which was quite acceptable considering the gilling potential of so many small Lake Trout.

Table 2 Lake Trout sampling summary, Spring Littoral Index Netting, Lower Fletcher Lake, 1997.

SAM	FISH	FATE	FLEN	TLEN	RWT	SEX	MAT	GON	CLIPC	AGE
1	1	R	586	643	2600				3	21
2	2	R	296	323	360				2	3
2	3	R	250	272	220				2	3
2	4	K	289	319	200	2	1	10	2	3
2	5	K	288	319	210	1	1	10	2	3
5	6	R	229	250	150				2	3
6	7	R	475	519	1250				0	7
10	8	R	236	258	140				2	3
11	9	R	255	281	170				2	3
11	10	R	238	259	180				2	3
11	11	R	249	274	160				2	3
11	12	R	244	271	170				2	3
11	13	R	276	303	220				2	3
11	14	R	234	255	140				2	3
11	15	R	259	283	190				2	3
11	16	R	300	331	250				2	3
11	17	R	255	280	140				2	3
12	18	R	407	444	640				3	11
12	19	R	595	655	2585				3	21
12	20	R	268	296	190				2	3

White Suckers (Catostomus commersoni) and Yellow Perch (Perca flavescens) were the only other fish sampled with a total of 23 of each species. These fish were caught in

only a few sets which was likely the result of fish congregating to spawn as both species were ripe during the SLIN program on Lower Fletcher Lake.

DISCUSSION

It appears that the Lake Trout population of Lower Fletcher Lake is largely the result of the district stocking program. The large percentage of recently stocked fish suggests that as they become susceptible to angling they are removed from the population. The capture of only one unclipped fish supports the perception that this is largely an artificial Lake Trout fishery.

Weather conditions were poor on scheduled netting days but there was no observed fishing activity and discussions with locals confirm Lake Trout fishing on the lake is poor.

RECOMMENDATIONS

If consistent with current management strategies, continue stocking Lake Trout and manage with normal seasons and regulations.

REFERENCES

Lester, N.P., M.M. Petzold, W.I. Dunlop, B.P. Monroe, S.D. Orsatti, T. Schaner, and D.R. Wood. 1991. Sampling Ontario Lake Trout stocks: issues and standards. Lake Trout Synthesis, Ont. Min. Nat. Resourc. Toronto. 117p.