Little Seguin Lake

(Christie Geographic Township)

2002 Winter Creel Survey Report

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Executive Summary:

An intensive creel survey was conducted on Little Seguin Lake (a.k.a. Duck Lake) from January 16 – March 31, 2002 as part of a five-lake angler survey project.

Observed fishing effort on Little Seguin Lake was extremely light and we estimate a meagre total fishing effort of only 128 angler hours. Only four parties were interviewed during the survey. These interviews comprised 18.5 angler hours of sampled angling effort. No lake trout were observed caught or harvested and consequently there was insufficient data to generate estimates of total catch, harvest and angling quality. Nevertheless, by inference we consider over-all lake trout catch and harvest to be negligible or close to zero.

We conclude that lake trout plantings for the purpose of providing additional angling opportunities are largely a failure at achieving this objective. Based on recent lake trout assessment studies we speculate that low levels of angling effort are directly related to an exceptionally low abundance of lake trout and resulting poor fishing quality.

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1.0 Introduction

Little Seguin Lake (also known locally as Duck Lake) is located in the geographic township of Christie, now part of the Municipality of Seguin. Although it is readily accessible and immediately adjacent to Hwy 518 and the Isabella Lake Road, it has no public access. The lake is well developed with 21 permanent residences, 40 seasonal residences and 6 undeveloped lots (OMNR, 1999). A portion of the shoreline is also fronted by agricultural land. At 87 hectares (215 acres) (OMNR, 1983), it is considered a small lake trout lake.

Inhabiting fish species include: lake trout, smallmouth and largemouth bass, northern pike, lake whitefish, cisco, rainbow smelt, common whites sucker, brown bullhead, trout perch, rock bass, yellow perch, river chub and pumpkinseed (OMNR, 1983).

Little Seguin Lake is reported to originally have had a native lake trout population (Thurston, 1981). It has an extensive stocking history for both smallmouth bass and lake trout. Over 27,000 fingerling lake trout have been stocked on 19 occasions between 1949 when plantings commenced and 1999, the most recent planting. It is unclear what the original intention was for these plantings but they were probably intended to supplement natural reproduction in an attempt to improve angling quality. Several netting surveys to monitor the status of the lake trout population (Thurston, 1977; Deary, 1990 and McIntyre, 2001) clearly indicate that natural reproduction is negligible and the population is wholly sustained by plantings. The purpose of recent lake trout plantings has been solely to provide artificial angling opportunities.

The purpose of this survey was to evaluate the success of current lake trout plantings at providing artificial angling opportunities.

2.0 Methods

2.1 Field Activities:

Little Seguin Lake was one in a series of five lakes (including Foley Lake #43, Christie Lake #42, Weeden Lake, Star Lake) on which an intensive, creel survey was conducted by private service contract in the winter of 2002.

2.1.1 Scheduling:

Initially the creel survey was intended to cover the period of January 1, 2002 to March 31st (90 days). Due to unsafe ice conditions that prevailed at the beginning of the creel, the start date was postponed until January 16th. Eight creel days not surveyed during that period were rescheduled into the remaining creel period.

Due to the exceptionally low fishing pressure observed throughout the creel period, there was no need to stratify the creel according to day-types (i.e. *Weekdays*" vs. "*Weekend / Holidays*"). An approximately equal proportion of *weekend / holidays* and *weekdays* were surveyed (20 of 28 weekend / holiday days or 71% and 41 of 62 weekdays or 66%). The creel schedule is shown in Appendix A.

2.1.2 Log Activity Counts:

The creel clerk was directed to record as many *activity counts* as possible given the following guidelines:

- On a monthly basis, activity counts should be approximately equally distributed throughout the 10-hour creel day (i.e. 8 a.m. to 6 p.m.) (Appendix B).
- Activity counts to be as close to an instantaneous count as possible.
- The activity count is the total number of anglers fishing (not parties).
- Activity counts to be taken as close to the 'half hour' (i.e. 8:30, 9:30, etc.) as possible to be representative of the hour in which they were taken.
- Activity counts could be 'back calculated' based on interview data when it was certain that all activity could be accounted for. (For example: From interviews conducted at 10 a.m., activity counts for previous hours could be calculated provided the creel clerk was certain that no anglers had departed the lake.)
- Volunteer anglers could collected data at times when the creel operator was not present on the lake to supplemented activity counts. Such data was only acceptable if the creel operator was confident the information was reliable and accurate.

2.1.3 Creel Interview and Biosampling Data:

All anglers fishing on the lake were to be interviewed. Interview data included: date; effort expended (i.e. number in party x hours fished = angling effort), number and species of fish caught and harvested (Table 2).

Any game fish harvested were to be sampled. Collection of biosampling data included: date, species, total length, fork length, weight and fin clips. (*Because no lake trout were observed caught in this survey, no biosampling data is presented.*)

2.2 Estimates of Effort, Catch and Harvest:

Mean daily activity counts by month were determined by summing mean hourly activity counts (Appendix B). Monthly mean daily activity counts were then multiplied by the number of days in the month to determine an estimate of monthly fishing effort (Table 1). The sum of all months produced an estimate of over-all fishing effort for the creel period (Jan. 16 – Mar. 31).

Because we observed no catch or harvest of lake trout, we were unable to generate any estimates of catch, harvest or fishing quality for this species.

3.0 Results

3.1 Effort

Observed fishing effort was exceptionally light on Little Seguin Lake during the winter of 2002 (Appendix A). We estimated no fishing effort for the month of January, only 19.3 angler hours in February and 108.5 in March (Table 1). Over the creel period (Jan. 16 – Mar. 31), total estimate effort was a meagre 127.8 angler hours.

Table 1. Estimated Fishing Effort for Little Seguin Lake, 2002 Winter Creel Survey.

Day-type	Month	Mean Daily Effort	No. of days	Monthly Effort
All	Jan.	0	16	0
	Feb.	0.69	28	19.32
	Mar.	3.5	31	108.5
		Total Estimated Effort:		127.82

(*Formula: Mean Daily Effort x No. of days = Monthly Effort Estimate*)

3.2 Observed Fishing Quality and Catch / Harvest Estimates:

We conducted only 4 interviews that surveyed a paltry 18.5 angler hours of fishing activity. No lake trout were observed caught or harvested (Table 1). Consequently, our estimate of total lake trout caught and harvested is also zero. Similarly, we have no estimate of lake trout fishing quality.

Table 1. Interview Data – Little Seguin Lake 2002 Winter Creel Survey

Date	Lake Trout Caught	Lake Trout Harvested	Effort	Incidental Catch
Jan. 14	0	0	2.0	1 rock bass (volunteer data)
Feb. 17	0	0	4.0	(volunteer data)
Mar. 4	0	0	8.0	
Mar. 16	0	0	4.5	
Total	0	0	18.5	

(Interview data from Jan. 14 and Feb. 17 submitted by volunteer anglers.)

4.0 Discussion

We were very surprised at the exceptionally low levels of fishing pressure exerted on Little Seguin Lake during this survey. Notwithstanding the fact that the Lake has no public access, we anticipated much higher fishing pressure from lake residents, anglers with permitted access (i.e. over private land with permission) as well as anglers crossing private land of absentee seasonal residents. We are unsure if the low fishing pressure is related to access difficulties or poor fishing quality. However, results of the most recent assessment of the lake trout population (McIntyre, 2001) points to an exceptionally low abundance of lake trout and we suspect correspondingly poor angling quality.

Unfortunately we sampled such a small amount of fishing effort (18.5 angler hours – Table 1) that we can make no reliable and empirically based comment on lake trout fishing quality. However, if the above conclusion regarding low lake trout abundance (McIntyre, 2001) is correct, the likelihood of poor fishing quality for lake trout is highly probable. Based on the fact that we observed no lake trout caught or harvested, our estimate of the total number caught and harvested is also correspondingly zero. We acknowledge this conclusion is based on a paucity of interview data and therefor could be inaccurate and misleading. However, considering our estimate of total fishing effort is only 128 angler hours, we believe the actual lake trout catch and harvest to be negligible or close to zero.

Regardless of the reason for the low fishing effort observed, we conclude that lake trout plantings in this lake are largely a failure as they are seemingly providing negligible additional angling opportunities. Although we have no information with which to comment on lake trout angling opportunities that may be created for the open-water fishery, we doubt very much that they are significant. Typically, planted lake trout lakes are fished more intensively in the winter and for this reason stocking assessment by creel surveys are usually conducted during winter months. We anticipate that lake trout angling pressure would likely be less intense during the open-water months than during the winter months.

Also as part of the 5-lake angler survey project of which Little Seguin was one, Star Lake in Christie Township was also surveyed. Star Lake is also stocked with lake trout with the intention of creating artificial angling opportunities. Observations regarding fishing effort and lake trout catch and harvest were dramatically different from Little Seguin Lake located just 6 kilometers to the north. Estimate of total fishing effort was almost 1,500 angler hours and total lake trout catch and harvest were 64 and 41 lake trout respectively (McIntyre, 2003). We anticipated results to be approximately similar on Duck Lake but such was not the case.

We conducted a detailed search of Ministry files and fisheries reports and were very surprised to find but one account of creel data pertaining to Little Seguin Lake. In 1992, a volunteer creel co-operator by the name of Paul Graves submitted creel data for six fishing trips between January 8 and March 21 (OMNR, Little Seguin Lake file). Mr. Graves reported 146.0 angler hours of fishing effort with a resultant catch of 17 lake trout of which 4 were harvested. It took Mr. Graves' fishing party 8.6 hours to catch a lake trout in the winter of 1992 and 36.5 hours to harvest one. All 17 lake trout observed had fin clips and were planted fish. The above observations are quite in contrast to this survey. In 1992, Mr. Graves was reporting 'reasonably good' angling for lake trout and provided some evidence that planted lake trout were surviving 'reasonably well'. Perhaps if a similar amount of angling effort expended by Mr. Graves (146.0 anglers hours) were sampled in our survey, as opposed our meagre 18.5 angler hours (Table 1), we could better comment on relative fishing quality between the two years.

5.0 Acknowledgements

Mr. Stan Sutey of Accipiter Fish and Wildlife Service on the basis of a private service contract with the Ministry of Natural Resources very ably collected Field data.

We gratefully acknowledge the generosity of Mr. Keith Stoneman who gave us permission to access the lake via his property and for the many years he has provided access for stocking purposes.

6.0 Literature Cited

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Appendix A

Little Seguin Lake 2002 Winter Creel Survey Schedule

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
January 2002			16 Creel	17 Creel	18 Creel	19 Creel
20 Creel	21 Creel	22 Creel	23 Creel	24 Off	25 Off	26 Creel
27 Creel	28 Creel	29 Creel	30 Off	31 Off		
February 2001					1 Creel	2 Creel
3 Creel	4 Creel	5 Creel	6 Creel	7 Creel	8 Creel	9 Creel
10 Creel	11 Off	12 Creel	13 Creel	14 Creel	15 Creel	16 Creel
17 Creel	18 Creel	19 Creel	20 Creel	21 Creel	22 Creel	23 Creel
24 Creel	25 Creel	26 Creel	27 Creel	28 Off		
March 2002					1 Off	2 Creel
3 Creel	4 Creel	5 Creel	6 Creel	7 Creel	8 Creel	9 Creel
10 Off	11 Off	12 Creel	13 Creel	14 Creel	15 Creel	16 Creel
17 Creel	18 Creel	19 Off	20 Creel	21 Creel	22 Creel	23 Creel
24 Creel	25 Creel	26 Creel	27 Creel	28 Off	29 Off	30 Off
31 Off						

Appendix B. Creel Activity Counts – Little Seguin Lake Winter 2002 Creel Survey

Time:	8-9 am	9-10 am	10-11 am	11-12 pm	12-1 pm	1-2 pm	2-3 pm	3-4 pm	4-5 pm	5-6 pm	Daily Total
Jan. 16	0	0	0	0	0	0	0	0	0	0	
Jan. 17	0	0	0	0	0	0	0	0	0	0	
Jan. 18	0	0	0	0	0	0	0	0	0	0	
Jan. 19	0	0	0	0	0	0	0	0	0	0	
Jan. 20	0	0	0	0	0	0	0	0	0	0	
Jan. 21	0	0	0	0	0	0	0	0	0	0	
Jan. 22	0	0	0	0	0	0	0	0	0	0	
Jan. 23	0	0	0	0	0	0	0	0	0	0	
Jan. 24	0	0	0	0	0	0	0	0	0	0	
Jan. 25	0	0	0	0	0	0	0	0	0	0	
Jan. 26	0	0	0	0	0	0	0	0	0	0	
Jan. 27	0	0	0	0	0	0	0	0	0	0	
Jan. 28	0	0	0	0	0	0	0	0	0	0	
Jan. 29	0	0	0	0	0	0	0	0	0	0	
Jan. 30	0	0	0	0							
Jan. 31											
Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb. 1	0	0	0	0	0	0	0	0	0	0	
Feb. 2	0	0	0	0							
Feb. 3											
Feb. 4		0				0					
Feb. 5											
Feb. 6			0								
Feb. 7				0							
Feb. 8				0				0			
Feb. 9						0					
Feb. 10					0	0	0				
Feb. 11											
Feb. 12				0	0						
Feb. 13						0	0	0			
Feb. 14				0							
Feb. 15		0									
Feb. 16		0		0					0		
Feb. 17							2	2			
Feb. 18						0	0				
Feb. 19		0	0					0			
Feb. 20											
Feb. 21			0	0			0				
Feb. 22				0	0						
Feb. 23		0					0				
Feb. 24					0				0	0	
Feb. 25						0	0	0			
Feb. 26			0	0							
Feb. 27						0					
Feb. 28											
Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.40	0.00	0.00	0.69
Mar. 1											
Mar. 2						0			0		
Mar. 3					0						
Mar. 4	2	2	2	2							
Mar. 5							0				
Mar. 6											
Mar. 7						0					
Mar. 8			0			0	0				
Mar. 9					0						
Mar. 10											
Mar. 11											
Mar. 12			0			0	0				
Mar. 13					0						
Mar. 14			0						0		
Mar. 15					0						
Mar. 16	1	1	1	1		0	0				
Mar. 17					0			0			
Mar. 18			0				0	0			
Mar. 19											
Mar. 20				0							
Mar. 21				0	0				0		
Mar. 22		0				0					
Mar. 23					0	0			0		
Mar. 24											
Mar. 25					0		0	0			
Mar. 26				0				0			
Mar. 27			0			0	0	0			
Mar. 28											
Mar. 29											
Mar. 30											
Mar. 31											
Mean	1.50	1.00	0.43	0.60	0.00	0.00	0.00	0.00	0.00	0.00	3.53