

Executive Summary

Saddle Lake #2

2004

A stocking assessment was conducted on Saddle Lake #2 during the fall of 2004. Both a standard sinking and a floating gillnet 90 m in length were set on September 20, 2004. The total sampling effort was 44 hours resulting in a gillnet catch per unit effort (CPUE) of 1.05 fish per hour for rainbow trout. The objective of this assessment was to document the status of the fishery. The management objective for Saddle Lake #2 is to maintain a low-moderate use sub-alpine fishery. At this time the fishery consists of abundant rainbow trout less than 300 mm in size. The ageing results for the 2004 assessment suggest substantial natural recruitment as the population is composed of age two, three, four, and five year old fish. The stocking interval for Saddle Lake #2 is once every three years. The fish in this lake are growing very slowly and it is recommended that the stocking rate be reduced to 500 per year and the fish be marked for two years with a follow-up assessment in 2007 to determine the amount of natural recruitment. If significant natural recruitment is found to be occurring at Saddle Lake #2 it will be removed from the stocking list prior to the stocking event scheduled for 2008.



Figure 1. Photo of Saddle Lake #2 September 2004.

Omineca Region Stocked Lake Assessment Report

**OMINECA REGION
LAKE STOCK ASSESSMENT REPORT**

LAKE NAME: Saddle Lake #2 **BC WBID:** 00164CANO

LAKE LOCATION: *Nearest center:* 40 km SE from Valemoun *Drainage:* FRASER
UTM: 11.372234.5826867

LAKE ATTRIBUTES: *Surface Area:* 1.99 Ha *Elevation:* 1219 m
Littoral Area: na Ha *T.D.S.:* 6 ppm
Max Depth: 7 m *Mean depth:* 4 m

MANAGEMENT OBJECTIVE:

- Objective 1 Family Fishery (High CPUE <30 cm)
- Objective 2 Average Quality (30-40 cm)
- Objective 3 Above Average (40-50 cm)
- Objective 4 Trophy (20% > 50 cm for RB, 20% > 40 cm for EB)

MANAGEMENT/SURVEY HISTORY:

Previous gill net assessment(s): no yes CSTC 2000
Year(s) Surveyed: 2000

STOCKING DATA:

Current Stocking Rate 754 Fish/Ha every 3 years
Stock Type **DRAGON**
Species RB
Previous Stocking Rate 1256

SURVEY METHODS:

Method	Date (yy.mm.dd)	Survey Agency	Crew
Fish	SGN 2004-09-20	BCCF	Chad Robertson, Kevin Mernickle
Chem.	DO, TDS na		
Physical	bathymetric 1988-09-01	MOE	R.G. Westcott
Temp.	profile na		

Netting Specs: *Net type:* Standard Experimental *Net length:* 90m (3x30m)
Setting: Sinking and Floating *Panel Mesh:* Standard

SURVEY RESULTS:

Catch

	RB	EB	RSC	LKC	LSU	CSU	NSC	CAS	BT	LT
2004	46	0	0	0	0	0	0	0	0	0
2000	85	0	0	0	0	0	0	0	0	0
1900	0	0	0	0	0	0	0	0	0	0
1900	0	0	0	0	0	0	0	0	0	0

Survey Year	2004	2000	
Effort Hours	44	20	
RB CUE:	1.05	4.25	RB/Net Hour
EB CUE:	0.00	0.00	EB/Net Hour
# of Sets:	2	1	

Next Assessment **2007**

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SURVEY CONCLUSIONS:

Objective	Objectives Achieved		Reason
	Yes	No	
1. Family	<input checked="" type="checkbox"/>	<input type="checkbox"/>	abundant numbers of rainbow < 30cm
2. Average	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Above Average	<input type="checkbox"/>	<input type="checkbox"/>	
4. Trophy	<input type="checkbox"/>	<input type="checkbox"/>	

RECOMMENDATIONS:

Assessment: The next assessment is scheduled for the fall of 2007 to determine the amount of natural recruitment.

Management: The management goal of this fishery is to maintain a sub-alpine fishery. The fishery supports an abundant number of fish that are less than 30cm in length. Considering the low number of fish stocked in three-year intervals natural recruitment may be occurring. Re-evaluate in 2007 for a determination of natural recruitment.

Comments: Change stocking to annual release of 500- for 2 years with two marked cohorts; next assessment in 2007.

Uncertainties: The amount of natural recruitment occurring at Saddle Lake #2.

Recent Brood Request Comments:

Assessed in 2004, slow growth. Helicopter release, 1500 on 3 yr sched. Next due 2008. Evidence of natural recruitment- may cease stocking pending ageing results. Changed stock to BW for consistency (was NRT)

History of Angling Regulations

No special angling regulations.

Reported by: Adrian Clarke

Date: Feb-05

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Table 1. Rainbow trout physical attributes for sample years:

Sample Year	Sample		Length (mm)				Weight (g)				Condition (k)				
	Age	Size	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Var
2000	1	39	125	103	146	11.7	24	15.1	34	5.4	1.20	0.96	1.45	0.1	0.01
2004	2	10	197	169	226	18.1	85	51	132	27.0	1.09	0.94	1.24	0.1	0.01
2004	3	3	220	202	229	15.3	112	91	130	19.6	1.05	0.96	1.10	0.1	0.01
2000	3	3	254	245	260	8.1	187	166	215	25.0	1.14	1.05	1.22	0.1	0.01
2004	4	19	232	197	279	21.9	130	86	220	33.1	1.03	0.85	1.25	0.1	0.01
2000	4	7	254	237	282	17.9	184	131	255	45.1	1.10	0.98	1.20	0.1	0.01
2004	5	7	259	219	295	23.9	170	106	230	41.3	0.97	0.80	1.12	0.1	0.01
2000	5	1	255				172				1.04				

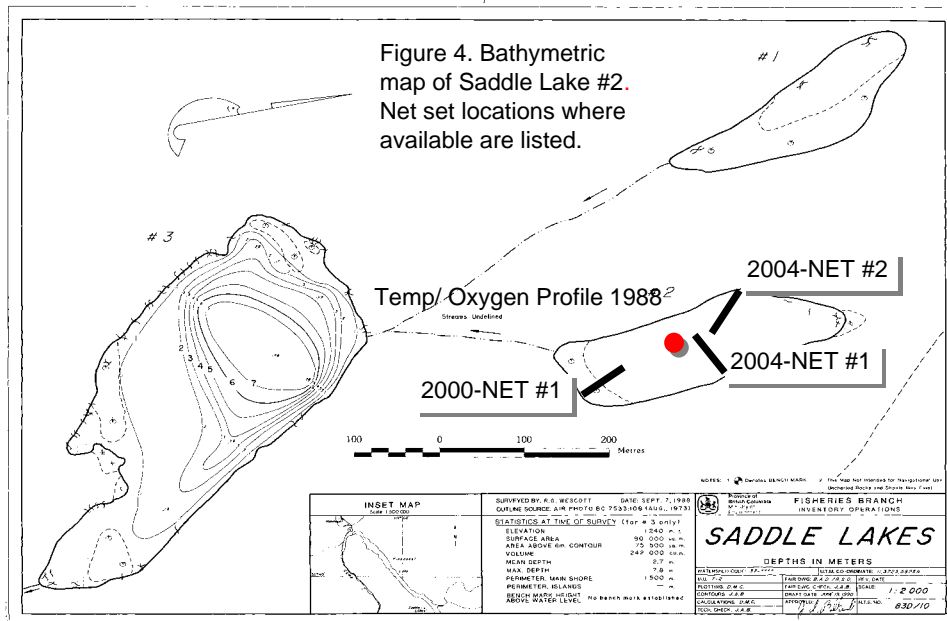
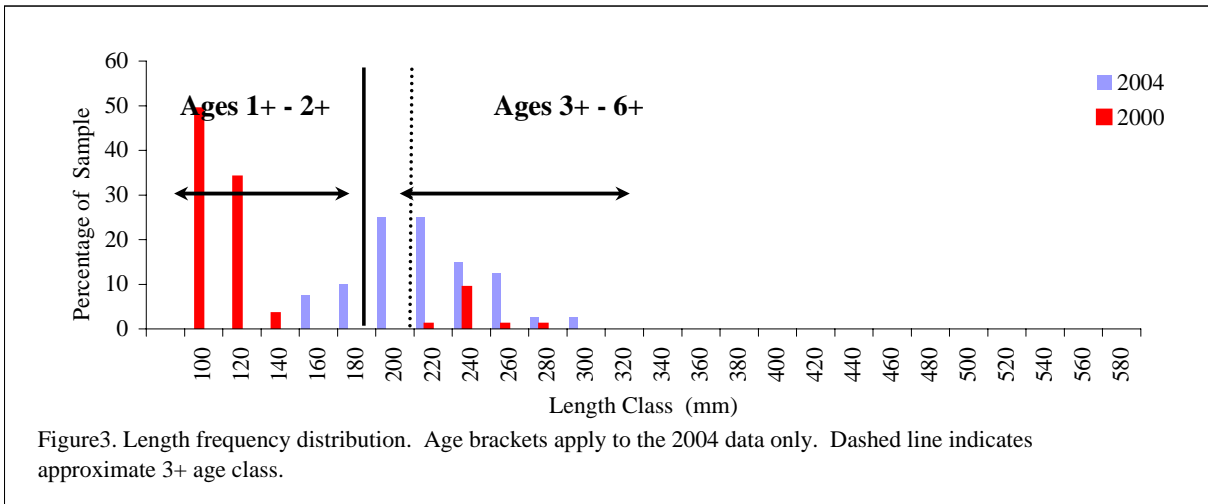
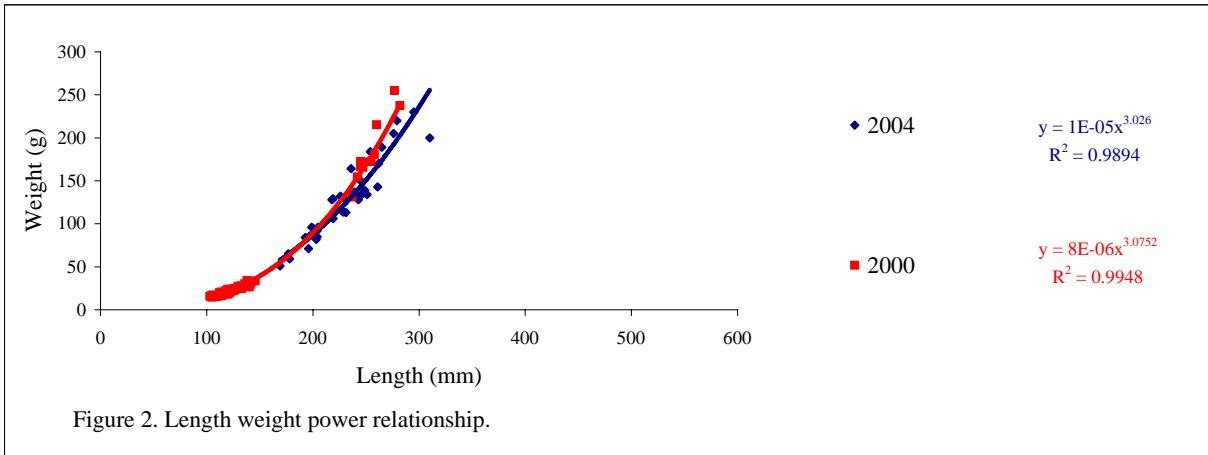
Table 2. Catch summary for all sample years.

Sample Year	Sample														
	Size	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Var	
2004	40	229	169	310	31.7	126	51	230	43.5	1.03	0.67	1.25	0.12	0.02	
2000	85	139	103	282	31.7	43	15	255	56.4	1.19	0.96	1.45	0.10	0.01	

Table 3. Proportion of Catch (by survey year)

Survey Year	2004	2000
Less than 250 mm	77.5 %	94.1 %
Between 250-350 mm	22.5 %	5.9 %
Between 250-400 mm	22.5 %	5.9 %
Greater than 400 mm	0.0 %	0.0 %
Greater than 500 mm	0.0 %	0.0 %

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Table 4. Stocking History for Saddle Lake #2 to 2004.

Release Date	Species Name	Fish Count	Stock	Mark	Average Size (gm)	Life Cycle Stage
12-Sep-02	RB	1500	DRAGON		1.09	FALL FRY
13-Sep-99	RB	2500	NRT DRAGON		1.49	FALL FRY
11-Sep-96	RB	2500	NRT DRAGON		1.33	FALL FRY
31-Aug-93	RB	2500	DRAGON		1.48	FALL FRY
29-Aug-90	RB	2000	DRAGON		0.7	FALL FRY
30-May-89	RB	500	TUNKWA		10.8	YEARLING

Table 5. Dissolved Oxygen/ Temperature Profile

07-Sep-88					
Depth (m)	DO mg/L	DO %sat	Temp. °C	pH	Cond (25°C)
0	8.5		13		7
1	8.5		13		
2	8.4		13		
3	8.2		13		
4	8.2		12.5		
5	6.6		11.5		
6	0.75		9.5		
7	bottom		bottom		

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Table 6. Stock Assessment for 2004 (see lakes files for additional survey data).

Lake	Sample#	Site	Species Caught	Age	Length (mm)	Weight (grams)	Condition (k)	Scale Age	Structure	Sex	Maturity
Saddle Lake #2	1	2	rb	5	262	170	0.9	5+	ot	m	mt
Saddle Lake #2	2	2	rb	4	236	164	1.2	4++	ot	f	st
Saddle Lake #2	3	2	rb	4	279	220	1.0	4+	ot	f	st
Saddle Lake #2	4	2	rb	5	245	150	1.0	5+	ot	f	st
Saddle Lake #2	5	2	rb	4	237	136	1.0	4++	ot	f	st
Saddle Lake #2	6	2	rb	2	177	65	1.2	2++	ot	m	mt
Saddle Lake #2	7	2	rb	4	239	132	1.0	4++	ot	f	st
Saddle Lake #2	8	2	rb	2	226	132	1.1	2++	ot	f	im
Saddle Lake #2	9	2	rb	5	219	106	1.0	5+	ot	m	m
Saddle Lake #2	10	2	rb	2	218	128	1.2	2++	ot	m	m
Saddle Lake #2	11	2	rb	3	229	130	1.1	3++	ot	f	st
Saddle Lake #2	12	2	rb	4	197	86	1.1	4++	ot	m	m
Saddle Lake #2	13	2	rb	2	178	59	1.0	2++	ot	m	m
Saddle Lake #2	14	2	rb	4	205	96	1.1	4++	ot	m	m
Saddle Lake #2	15	2	rb	2	193	84	1.2	2++	ot	m	m
Saddle Lake #2	16	2	rb	4	249	139	0.9	4+	ot	f	st
Saddle Lake #2	17	2	rb	4	223	116	1.0	4+	ot	m	m
Saddle Lake #2	18	2	rb	5	261	143	0.8	5+	ot	f	im
Saddle Lake #2	19	2	rb	4	231	113	0.9	4+	ot	m	m
Saddle Lake #2	20	2	rb	4	243	128	0.9	4+	ot	f	mt
Saddle Lake #2	21	2	rb	4	204	92	1.1	4+	ot	m	m
Saddle Lake #2	22	2	rb	2	201	94	1.2	2++	ot	m	m
Saddle Lake #2	23	2	rb	3	228	114	1.0	3++	ot	f	mt
Saddle Lake #2	24	2	rb	4	251	134	0.8	4+	ot	f	mt
Saddle Lake #2	25	2	rb	4	229	114	0.9	4+	ot	m	m
Saddle Lake #2	26	1	rb		310	200	0.7	n/a	ot	m	im
Saddle Lake #2	27	1	rb	2	169	51	1.1	2++	ot	m	m
Saddle Lake #2	28	1	rb	2	196	71	0.9	2++	ot	f	im
Saddle Lake #2	29	1	rb	5	254	184	1.1	5+	ot	f	st
Saddle Lake #2	30	1	rb	5	295	230	0.9	5+	ot	f	mt
Saddle Lake #2	31	1	rb	4	265	189	1.0	4++	ot	f	st
Saddle Lake #2	32	1	rb	3	202	91	1.1	3++	ot	m	m
Saddle Lake #2	33	1	rb	5	276	205	1.0	5+	ot	f	mt
Saddle Lake #2	34	1	rb	2	204	85	1.0	2++	ot	un	un
Saddle Lake #2	35	1	rb	4	219	112	1.1	4+	ot	f	st
Saddle Lake #2	36	1	rb	4	199	96	1.2	4+	ot	m	m
Saddle Lake #2	37	1	rb	2	203	82	1.0	2++	ot	f	im
Saddle Lake #2	38	1	rb	4	219	129	1.2	4+	ot	f	st
Saddle Lake #2	39	1	rb	4	239	137	1.0	4+	ot	f	mt
Saddle Lake #2	40	1	rb	4	246	134	0.9	4+	ot	f	mt