

## Executive Summary

## Saddle Lake #3

2004

A stocking assessment was conducted on Saddle Lake #3 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 2.05 fish per hour. The objective of this assessment was to document the status of the fishery. The management objective for Saddle Lake #3 is to maintain a low-moderate use sub-alpine fishery with the potential of a high-use fishery if angler interest improves. The 2000 stock assessment determined that there was a high probability that significant natural recruitment was occurring due to the fact none of the fish were spawnbound. This is also supported by the good spawning habitat located within the outlet stream. The 2004 field crew did not take notes on the number of spawnbound fish. At this time the fishery consists of abundant rainbow trout less than 300 mm in size. The fish in this lake are growing very slowly and it is recommended that the stocking rate be reduced by 50% to 1300 annually 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 #3 it will be removed from the stocking list prior to the stocking event scheduled for 2008.



Figure 1. Aerial view of Saddle Lake #3. Saddle Lake #2 pictured in the background.

Omineca Region Stocked Lake Assessment Report

**OMINECA REGION  
LAKE STOCK ASSESSMENT REPORT**

**LAKE NAME:** Saddle #3 **BC WBID:** 00169CANO

**LAKE LOCATION:** *Nearest center:* SE 40 km from Valemoun *Drainage:* FRASER  
*UTM:* 11.372011.5826207

**LAKE ATTRIBUTES:** *Surface Area:* 9 Ha *Elevation:* 1240 m  
*Littoral Area:* 7.55 Ha *T.D.S.:* 38 ppm  
*Max Depth:* 7.8 m *Mean depth:* 2.7 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  Westcott and Cadden 1988  
Year(s) Surveyed: 1988; 2000 Zimmerman 2000

**STOCKING DATA:**

*Current Stocking Rate* 278 Fish/Ha Annually  
*Stock Type* **DRAGON**  
*Species* RB  
*Previous Stocking Rate* 278

**SURVEY METHODS:**

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

**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
<b>2004</b>	90	0	0	0	0	0	0	0	0	0
<b>2000</b>	56	0	0	0	0	0	0	0	0	0
<b>1988</b>	0	0	0	0	0	0	0	0	0	0
<b>1900</b>	0	0	0	0	0	0	0	0	0	0

Survey Year	2004	2000	1988	
Effort Hours	44	20	20	
RB CUE:	2.05	2.80	0.00	RB/Net Hour
EB CUE:	0.00	0.00	0.00	EB/Net Hour
# of Sets:	2	1	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 rb < 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 stock assessment is scheduled for 2007.

**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. It may be necessary to reduce the stocking interval to every odd-year or every three-years. Assess lake in 2007 to determine the amount of natural recruitment through an examination of marked individuals. If there is significant natural recruitment recommend taking off stocking list.

**Comments:** The lack of spawnbound fish in the 2000 assessment indicated that natural recruitment may be occurring in the lakes outlet where suitable spawning gravel is located. The contractor in 2004 did not provide comments on the number of spawnbound fish so this years fish cannot be evaluated.  
Reduce stocing rate by 50% until after next assessment.

**Uncertainties:** The amount of natural recruitment occurring in Saddle Lake #3.

### ***Recent Brood Request Comments:***

2005 Assessed in 2004. Evidence of natural recruitment, slow growth. 2500 on a 3 yr cycle next due 2008. May cease stocking pending ageing results. Changed stock to BW for consistency (was NRT)

2004 Assessed in 2000. Evidence of natural recruitment, slow growth. Reduce from 5000 to 2500/a, recc reassess in 2004. Three year cycle next due 2005

### ***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
2004	1	5	138	120	154	12.5	30	19	46	10.5	1.10	0.95	1.26	0.1	0.01
2000	1	14	116	107	126	5.4	19	15.3	23.2	2.6	1.21	1.10	1.33	0.1	0.01
2004	2	10	184	162	211	14.6	68	48	96	13.1	1.09	0.93	1.27	0.1	0.02
2000	2	16	164	130	185	16.4	52	25.3	70.8	14.4	1.14	1.00	1.23	0.1	0.00
2004	3	14	240	204	280	21.9	138	74	200	41.6	0.98	0.63	1.19	0.1	0.02
2000	3	11	217	180	235	16.1	107	69	138	20.6	1.03	0.90	1.18	0.1	0.01
2004	4	8	257	248	270	8.9	173	154	210	17.0	1.01	0.90	1.11	0.1	0.01
2000	4	12	232	217	246	9.3	131	116	154	12.8	1.06	0.95	1.14	0.0	0.00
2000	5	3	242	219	261	21.2	158	117	204	43.5	1.11	1.05	1.15	0.1	0.00

**Table 2. Catch summary for all sample years.**

Sample Year	Sample		Length (mm)				Weight (g)				Condition (k)			
	Size	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Var
2004	37	215	120	280	44.5	112	19	210	57.3	1.03	0.63	1.27	0.13	0.02
2000	56	181	107	261	44.5	77	15	204	49.5	1.12	0.90	1.33	0.09	0.01
1988	0	0	0	0	0.0	0	0	0	0.0	0.00	0.00	0.00	0.00	0.00
1900	0	0	0	0	0.0	0	0	0	0.0	0.00	0.00	0.00	0.00	0.00

**Table 3. Proportion of Catch (by survey year)**

<i>Survey Year</i>	2004	2000
Less than 250 mm	75.7 %	98.2 %
Between 250-350 mm	24.3 %	1.8 %
Between 250-400 mm	24.3 %	1.8 %
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 #3 to 2004.**

Release Date	Species Name	Fish Count	Stock	Mark	Average Size (gm)	Life Cycle Stage
10-Sep-03	RB	2500	DRAGON		1.48	FALL FRY
12-Sep-02	RB	2500	DRAGON		1.09	FALL FRY
21-Sep-01	RB	2500	BADGER TUNKWA		1.67	FALL FRY
21-Sep-00	RB	5000	BADGER TUNKWA		1.18	FALL FRY
13-Sep-99	RB	5000	NRT DRAGON		1.49	FALL FRY
6-Oct-98	RB	5000	PENNASK		0.83	FALL FRY
11-Sep-96	RB	5000	NRT DRAGON		1.33	FALL FRY
13-Sep-95	RB	5000	PREMIER DR		1.37	FALL FRY
6-Sep-94	RB	5000	PREMIER DR		1.7	FALL FRY
31-Aug-93	RB	5000	DRAGON		1.48	FALL FRY
11-Sep-92	RB	5000	PENNASK BEAV		2	FRY
5-Sep-91	RB	5000	PENNASK		0.68	FALL FRY
29-Aug-90	RB	8000	DRAGON		0.7	FALL FRY
30-May-89	RB	2000	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	8.2		13	7.1	44
1	8.1		12		
2	8		12		
3	8		12		
4	4.5		10		
5	0.8		6		
6	0.7		5		
7	0.7		5	6.7	51

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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	Clip	Sex	Maturity
Saddle Lake #3	1	1	rb	3	280	200	0.9	3++	ot	un	f	mt
Saddle Lake #3	2	1	rb	3	259	187	1.1	3++	ot	un	f	mt
Saddle Lake #3	3	1	rb	4	256	159	0.9	4+	ot	un	f	mt
Saddle Lake #3	4	1	rb	4	254	173	1.1	4+	ot	un	f	mt
Saddle Lake #3	5	1	rb	3	265	200	1.1	3+	ot	un	f	st
Saddle Lake #3	6	1	rb	4	268	177	0.9	4+	ot	un	f	mt
Saddle Lake #3	7	1	rb	4	248	168	1.1	4+	ot	un	f	mt
Saddle Lake #3	8	1	rb	4	270	210	1.1	4+	ot	un	f	mt
Saddle Lake #3	9	1	rb	4	264	166	0.9	4++	ot	un	f	mt
Saddle Lake #3	10	1	rb	3	249	183	1.2	3+	ot	un	f	mt
Saddle Lake #3	11	1	rb	4	248	154	1.0	4+	ot	un	f	mt
Saddle Lake #3	12	1	rb	4	250	173	1.1	4+	ot	un	f	mt
Saddle Lake #3	13	1	rb	3	243	148	1.0	3++	ot	un	f	mt
Saddle Lake #3	14	1	rb	3	240	141	1.0	3++	ot	un	f	mt
Saddle Lake #3	15	1	rb	2	186	63	1.0	2++	ot	un	m	m
Saddle Lake #3	16	1	rb	2	162	48	1.1	2+	ot	un	m	m
Saddle Lake #3	17	1	rb	2	173	60	1.2	2+	ot	un	m	m
Saddle Lake #3	18	1	rb	2	187	61	0.9	2++	ot	un	f	mt
Saddle Lake #3	19	1	rb	2	176	69	1.3	2++	ot	un	f	im
Saddle Lake #3	20	1	rb	2	198	75	1.0	2+	ot	un	m	im
Saddle Lake #3	21	1	rb	2	168	60	1.3	2+	ot	un	m	m
Saddle Lake #3	22	1	rb	2	191	70	1.0	2+	ot	un	f	im
Saddle Lake #3	23	1	rb	1	154	46	1.3	1++	ot	un	m	m
Saddle Lake #3	24	1	rb	1	144	34	1.1	1++	ot	un	m	m
Saddle Lake #3	25	1	rb	1	136	24	1.0	1++	ot	un	f	im
Saddle Lake #3	26	1	rb	1	136	26	1.0	1++	ot	un	m	m
Saddle Lake #3	27	1	rb	1	120	19	1.1	1++	ot	un	f	im
Saddle Lake #3	28	1	rb	3	206	79	0.9	3+	ot	un	f	im
Saddle Lake #3	29	2	rb	2	211	96	1.0	2++	ot	un	f	mt
Saddle Lake #3	30	2	rb	3	204	74	0.9	3++	ot	un	f	mt
Saddle Lake #3	31	2	rb	3	218	113	1.1	3++	ot	un	m	mt
Saddle Lake #3	32	2	rb	2	186	78	1.2	2++	ot	un	f	im
Saddle Lake #3	33	2	rb	3	232	119	1.0	3++	ot	un	f	mt
Saddle Lake #3	34	2	rb	3	241	139	1.0	3++	ot	un	f	mt
Saddle Lake #3	35	2	rb	3	228	111	0.9	3++	ot	un	f	im
Saddle Lake #3	36	2	rb	3	231	130	1.1	3+	ot	un	m	m
Saddle Lake #3	37	2	rb	3	258	108	0.6	3++	ot	un	m	st