

**Michie Creek Adult Chinook Salmon Enumeration Project
Final Report**

**Prepared For: Yukon River Panel
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ABSTRACT

On August 10, 1999, a conduit counting fence was installed approximately 3 kilometres upstream from the confluence with the McClintock River on Michie Creek. The weir was fish tight and operational from August 10 to September 11. The objective was to enumerate the number of adult chinook spawners returning to Michie and determine the proportion of hatchery to wild origin chinook. Live sampling was conducted at the weir on a limited basis. As well, carcass pitch was conducted to recover coded-wire tags.

In total, 395 adult chinook passed through the counting fence during the period of operation. The run was comprised of 352 males (89%) and 43 females (11%). The total count through the weir accounted for 51% of the 779 (1118 total - 226 removed for brood stock - 113 ladder mortalities) that successfully ascended the Whitehorse Rapids Fishway. A total of 319 enumerated chinook were adipose clipped, denoting hatchery origin. Hatchery marked fish comprised 81% of the total count. Of the 395 returning spawners, a total of 113 were live sampled as they passed through the weir. Carcass pitch was conducted on September 10 & 11. Weir personnel canoed the creek from Michie Lake to the weir site. Zero carcasses were found over the two day period and little evidence of spawning was observed (approx. 5 redds). Only 18 live chinook were seen. Signs of heavy bear activity were seen along the entire creek, suggesting heavy predation and providing reason for the lack of carcasses. In addition to the weir count, approximately 20 chinook were observed spawning in a 0.5 km section immediately below the weir. The weir was removed in the afternoon of September 11, as fish were no longer holding below the weir and had stopped ascending the fishway in Whitehorse.

Michie Creek Adult Chinook Enumeration 1999: Cumulative Count

Date	Males	Females	Daily Total	Cumulative	Daily Clipped	Cumulative Clipped
10-Aug	0	0	0	0	0	0
11-Aug	0	0	0	0	0	0
12-Aug	0	0	0	0	0	0
13-Aug	10	1	11	11	6	6
14-Aug	2	2	4	15	4	10
15-Aug	5	1	6	21	6	16
16-Aug	12	0	12	33	10	26
17-Aug	18	3	21	54	16	42
18-Aug	22	1	23	77	18	60
19-Aug	21	2	23	100	20	80
20-Aug	83	13	96	196	75	155
21-Aug	13	2	15	211	12	167
22-Aug	10	0	10	221	9	176
23-Aug	15	2	17	238	15	191
24-Aug	2	0	2	240	2	193
25-Aug	1	0	1	241	1	194
26-Aug	2	0	2	243	2	196
27-Aug	4	1	5	248	4	200
28-Aug	18	3	21	269	16	216
29-Aug	34	4	38	307	29	245
30-Aug	0	0	0	307	0	245
31-Aug	0	0	0	307	0	245
1-Sep	2	0	2	309	2	247
2-Sep	11	1	12	321	11	258
3-Sep	36	3	39	360	5	292
4-Sep	1	1	2	362	1	293
5-Sep	11	1	12	374	10	303
6-Sep	2	0	2	376	1	304
7-Sep	3	1	4	380	3	307
8-Sep	7	1	8	388	2	313
9-Sep	6	0	6	394	5	318
10-Sep	0	0	0	394	0	318
11-Sep	1	0	1	395	1	319

Michie Creek Adult Chinook Enumeration 1999: Daily Males

Date	SCL	MCL	LCL	SUN	MUN	LUN	Daily Totals
10-Aug	0	0	0	0	0	0	0
11-Aug	0	0	0	0	0	0	0
12-Aug	0	0	0	0	0	0	0
13-Aug	0	5	1	0	3	1	10
14-Aug	0	1	0	0	1	0	2
15-Aug	0	5	0	0	0	0	5
16-Aug	0	7	3	0	1	1	12
17-Aug	0	14	2	0	1	1	18
18-Aug	0	13	5	0	2	2	22
19-Aug	0	19	1	0	0	1	21
20-Aug	0	62	13	0	4	4	83
21-Aug	0	10	2	0	0	1	13
22-Aug	0	8	1	1	0	0	10
23-Aug	0	11	3	0	1	0	15
24-Aug	0	2	0	0	0	0	2
25-Aug	0	1	0	0	0	0	1
26-Aug	0	2	0	0	0	0	2
27-Aug	0	3	1	0	0	0	4
28-Aug	0	15	1	0	1	1	18
29-Aug	1	26	1	0	1	5	34
30-Aug	0	0	0	0	0	0	0
31-Aug	0	0	0	0	0	0	0
1-Sep	0	2	0	0	0	0	2
2-Sep	1	9	0	0	1	0	11
3-Sep	0	31	3	1	1	0	36
4-Sep	0	1	0	0	0	0	1
5-Sep	0	7	2	1	1	0	11
6-Sep	0	1	0	0	0	0	1
7-Sep	0	1	1	0	0	1	3
8-Sep	0	4	1	0	0	2	7
9-Sep	0	6	0	0	0	1	7
10-Sep	0	0	0	0	0	0	0
11-Sep	0	1	0	0	0	0	1
Totals	2	267	41	3	18	21	352

S = small (0-50 mm)

M = medium (51-75 mm)

L = large (76 mm & up)

CL = adipose clipped

UN = unclipped

Michie Creek Adult Chinook Enumeration 1999: Daily Females

Date	SCL	MCL	LCL	SUN	MUN	LUN	Daily Totals
10-Aug	0	0	0	0	0	0	0
11-Aug	0	0	0	0	0	0	0
12-Aug	0	0	0	0	0	0	0
13-Aug	0	0	0	0	0	1	1
14-Aug	0	0	2	0	0	0	2
15-Aug	0	0	1	0	0	0	1
16-Aug	0	0	0	0	0	0	0
17-Aug	0	0	0	0	0	3	3
18-Aug	0	0	0	0	0	1	1
19-Aug	0	0	0	0	0	2	2
20-Aug	0	0	3	0	0	10	13
21-Aug	0	0	0	0	0	2	2
22-Aug	0	0	0	0	0	0	0
23-Aug	0	0	1	0	0	1	2
24-Aug	0	0	0	0	0	0	0
25-Aug	0	0	0	0	0	0	0
26-Aug	0	0	0	0	0	0	0
27-Aug	0	0	0	0	0	1	1
28-Aug	0	0	0	0	0	3	3
29-Aug	0	0	1	0	0	3	4
30-Aug	0	0	0	0	0	0	0
31-Aug	0	0	0	0	0	0	0
1-Sep	0	0	0	0	0	0	0
2-Sep	0	1	0	0	0	0	1
3-Sep	0	0	1	0	0	2	3
4-Sep	0	0	0	0	1	0	1
5-Sep	0	0	0	0	0	1	1
6-Sep	0	0	0	0	0	0	0
7-Sep	0	1	0	0	0	0	1
8-Sep	0	1	0	0	0	0	1
9-Sep	0	0	0	0	0	0	0
10-Sep	0	0	0	0	0	0	0
11-Sep	0	0	0	0	0	0	0
Totals	0	3	9	0	1	30	43

S = small (0-50 mm)

M = medium (51-75 mm)

L = large (76 mm & up)

CL = adipose clipped

UN = unclipped

Michie Creek Adult Chinook Live Sampling 1999

Date	Scale Book #	Scale Row #	FL	Sex	Condition	Adipose Clip	Tag #	Comments
13-Aug	45434	1	720	M	3	Y	n/a	
13-Aug	45434	2	694	M	3	Y	n/a	
13-Aug	45434	3	823	F	2	N	n/a	
13-Aug	45434	4	777	M	3	Y	n/a	
13-Aug	45434	5	614	M	3	N	n/a	
14-Aug	45434	6	879	F	2	Y	n/a	
14-Aug	45434	7	691	M	3	Y	n/a	
14-Aug	45434	8	910	F	3	Y	n/a	
15-Aug	45434	9	625	M	3	Y	n/a	
15-Aug	45434	10	765	F	2	Y	n/a	no scales/partial clip
16-Aug	45435	1	776	M	3	Y	n/a	partial clip
16-Aug	45435	2	684	M	3	Y	n/a	
16-Aug	45435	3	641	M	3	Y	n/a	
16-Aug	45435	4	775	M	3	N	n/a	
16-Aug	45435	5	606	M	3	Y	n/a	
16-Aug	45435	6	825	M	3	Y	n/a	
16-Aug	45435	7	715	M	3	Y	n/a	
16-Aug	45435	8	775	M	3	Y	n/a	
17-Aug	45435	9	875	F	3	N	n/a	
17-Aug	45435	10	685	M	3	Y	n/a	
17-Aug	45436	1	818	F	3	N	n/a	
17-Aug	45436	2	772	M	3	Y	n/a	
17-Aug	45436	3	695	M	3	Y	n/a	
17-Aug	45436	4	865	F	3	N	n/a	
17-Aug	45436	5	786	M	3	Y	n/a	
18-Aug	45436	6	771	M	3	Y	n/a	
18-Aug	45436	7	740	M	3	Y	n/a	
18-Aug	45436	8	805	M	3	N	n/a	
18-Aug	45436	9	606	M	3	Y	n/a	
18-Aug	45436	10	755	M	3	Y	n/a	
19-Aug	45437	1	704	M	3	Y	n/a	

19-Aug	45437	2	706	M	3	Y	n/a
19-Aug	45437	3	714	M	3	Y	n/a
19-Aug	45437	4	767	M	3	Y	n/a
19-Aug	45437	5	612	M	3	Y	n/a
19-Aug	45437	6	691	M	3	Y	n/a
19-Aug	45437	7	745	M	3	Y	n/a
20-Aug	45437	8	848	F	3	N	n/a
20-Aug	45437	9	827	F	3	Y	n/a
20-Aug	45437	10	681	M	3	Y	n/a
20-Aug	45438	1	690	M	3	Y	n/a
20-Aug	45438	2	852	M	3	Y	n/a
20-Aug	45438	3	811	M	3	Y	n/a
20-Aug	45438	4	n/a	F	3	N	n/a
20-Aug	45438	5	765	M	3	Y	n/a
20-Aug	45438	6	715	M	3	Y	n/a
20-Aug	45438	7	735	M	3	N	n/a
20-Aug	45438	8	752	M	3	Y	n/a
20-Aug	45438	9	678	M	3	Y	n/a
20-Aug	45438	10	712	M	3	N	n/a
20-Aug	45439	1	773	M	3	Y	n/a
20-Aug	45439	2	660	M	3	Y	n/a
20-Aug	45439	3	890	M	3	N	n/a
20-Aug	45439	4	766	M	3	Y	n/a
20-Aug	45439	5	765	M	3	Y	n/a
20-Aug	45439	6	863	M	3	N	n/a
20-Aug	45439	7	795	M	3	Y	n/a
20-Aug	45439	8	806	F	3	N	n/a
20-Aug	45439	9	895	F	3	N	n/a
20-Aug	45439	10	745	M	3	Y	n/a
20-Aug	45440	1	778	M	2	N	n/a
21-Aug	45440	2	892	M	3	Y	n/a
21-Aug	45440	3	766	M	3	N	n/a
21-Aug	45440	4	777	M	3	Y	n/a
21-Aug	45440	5	830	F	3	N	n/a
21-Aug	45440	6	900	F	3	N	n/a

22-Aug	45440	7	485	M	3	N	n/a
23-Aug	45440	8	819	F	3	N	n/a
23-Aug	45440	9	847	F	3	Y	n/a
23-Aug	45440	10	781	M	3	Y	n/a
23-Aug	45441	1	725	M	3	N	n/a
23-Aug	45441	2	805	M	3	Y	n/a
23-Aug	45441	3	636	M	3	Y	n/a
23-Aug	45441	4	695	M	3	Y	n/a
26-Aug	45441	5	681	M	3	Y	n/a
27-Aug	45441	6	614	M	3	Y	n/a
27-Aug	45441	7	785	M	3	Y	n/a
27-Aug	45441	8	645	M	3	Y	n/a
27-Aug	45441	9	825	F	4	N	n/a
28-Aug	45441	10	873	F	3	N	n/a
28-Aug	45442	1	736	M	3	Y	n/a
28-Aug	45442	2	626	M	3	N	n/a
28-Aug	45442	3	817	F	3	N	n/a
28-Aug	45442	4	816	M	3	Y	n/a
28-Aug	45442	5	867	F	3	N	n/a
28-Aug	45442	6	824	M	3	N	n/a
29-Aug	45442	7	768	F	3	N	n/a
29-Aug	45442	8	793	M	3	N	n/a
29-Aug	45442	9	826	F	3	N	n/a
29-Aug	45442	10	656	M	3	Y	n/a
29-Aug	45443	1	796	M	3	N	n/a
29-Aug	45443	2	783	M	3	N	n/a
29-Aug	45443	3	732	M	3	Y	n/a
29-Aug	45443	4	716	M	3	Y	n/a
29-Aug	45443	5	822	F	3	Y	n/a
29-Aug	45443	6	846	M	3	N	n/a
29-Aug	45443	7	867	F	3	N	n/a
29-Aug	45443	8	765	M	3	Y	n/a
29-Aug	45443	9	735	M	3	Y	n/a
29-Aug	45443	10	676	M	3	Y	n/a
29-Aug	45448	1	494	M	3	Y	n/a

29-Aug	45448	2	656	M	3	Y	n/a
29-Aug	45448	3	654	M	3	Y	n/a
29-Aug	45448	4	532	M	3	N	n/a
29-Aug	45448	5	627	M	3	Y	n/a
29-Aug	45448	6	805	M	3	N	n/a
1-Sep	45448	7	636	M	3	Y	n/a
2-Sep	45448	8	720	F	3	Y	n/a
2-Sep	45448	9	670	M	3	Y	n/a
2-Sep	45448	10	600	M	3	Y	D03233
3-Sep	45447	1	583	M	3	Y	D03182
n/a	45447	2	640	F	3	Y	n/a
n/a	45447	3	920	M	3	N	n/a

FL = fork length (mm)

Michie Creek Daily Water Temperature & Depth 1999

Date	8:00 AM		4:00 PM		10:00 PM	
	T	D	T	D	T	D
10-Aug						
11-Aug			14.5	59.5	14	59.5
12-Aug	11	59	14	59	13	58.5
13-Aug	11	58.5	11	58.5	11.5	59
14-Aug			13	64.5	13	66
15-Aug	11	65	12	64.5	11	63.5
16-Aug			12	61.5	12	61
17-Aug			11	60.5	11	59.5
18-Aug	8.5	59.5	12	58.5	11	58.5
19-Aug	8.5	58.5	12.5	57		
20-Aug	10	56.5	13	54	11	53.5
21-Aug			11	52.5	11	52.5
22-Aug			11	52.5	9.5	53
23-Aug	8	52	8.5	52.5	9	52.5
24-Aug	8	52.5	8.5	52.5	8	52.5
25-Aug	8	54	8.5	54	9	55.5
26-Aug	8	55	8	55	8.5	55
27-Aug	8	55	8.5	54	9	54
28-Aug			9	54	9	55
29-Aug	8	57	9	57	9	56.5
30-Aug	7	56				
31-Aug						
1-Sep					9	53.5
2-Sep	6.5	53.5	9	53.5	8	53.5
3-Sep	7.7	54	9	54	9	54
4-Sep	6.1	54			8	54
5-Sep	5.5	54.5	8	54.5	8	55
6-Sep	5.5	55	6.5	55	6.5	55
7-Sep	5.7	57.5	7.7	58.5	6.5	58
8-Sep	6.7	59	6.5	60		
9-Sep	6.7	68.5	6.5	69	6.5	68.5
10-Sep	6.8	68				
11-Sep	Weir Pulled					

T = temperature (Celsius)

D = depth (centimetres)