



Your file / Votre référence

Our file / Notre référence

May 22, 1987

Timing of Bulkley/Morice Coho Stocks in the Skeena

Recently a request was made for information relating to the timing of Bulkley/Morice coho stocks throughout their migration route. No directed coho tagging programs have been conducted in the Skeena which would provide this kind of information, however there are other sources which when combined give a fairly clear picture of the run-timing of these stocks.

During the late 1950's and early to mid 1960's daily counts of salmon through the Moricetown fishway (attached tables) were conducted. Coho begin to show up at Moricetown during the last week of July or first week of August. Peak abundance generally occurs during the second, third and fourth weeks in August.

As one proceeds downstream from Moricetown the data is limited to observations by the local fisheries officers as to when coho begin showing up in the sport and native fisheries (presented in table below).

The Skeena test fishery at Tye also provides useful information relating to the timing of Skeena coho. Since 1960 the average arrival date of coho at the test fishery is July 15. The earliest and latest arrival dates during this time period were July 6 and July 24 respectively.

When comparing the arrival dates of coho at the test fishery to coho at Moricetown fishway there appears to be about a 15 to 20 day difference. Considering the distance between Tye and Moricetown it seems reasonable to assume that a portion of the coho arriving at Tye in mid-July are destined for the Bulkley/Morice. Below is a table summarizing the known and suspected timing of Bulkley/Morice coho along the Skeena.

Timing of Bulkley/Morice coho from Tye to Moricetown

	<u>TYEE</u>	<u>TERRACE</u>	<u>KITWANGA/HAZELTON</u>	<u>MORICETOWN</u>
ARR.	E. to M. July	E. to M. July	M. to L. July	L. July to E. Aug
PEAK	L. July to E. Aug	L. July to E. Aug	E. to M. Aug	M. to L. Aug

Coho escapement figures to the Bulkley/Morice have shown a steady decline from an average of 15,498 during the 50's to 9,666 in the 60's, 5,248 in the 70's and 2,154 from 1980 to 1986. This is misleading however as in the 1970's and 1980's the number of tributaries surveyed has declined substantially. From 1950 to 1986 only two tributaries (Kathlyn and Toboggan Creeks) have a near complete escapement data set. Of the remaining tributaries all were surveyed annually

during the 50's and 60's after which they have only been inspected periodically. In general escapement levels appear to have declined, with the exception of Tobogan Creek, however the extent of the decline is difficult to evaluate.

If conservation actions are to be considered for the various fisheries along the Skeena they should be concentrated to the peak timing periods to minimize the impacts on the fisheries and maximize the benefits to these stocks.

TABLE VIII. Daily Counts of Salmon and Steelhead Trout Utilizing the Moricetown Fishways, August 11 to September 8, 1959.

<u>Date</u>	<u>Sockeye</u>	<u>Chinook</u>	<u>Coho</u>	<u>Pink</u>	<u>Steelhead</u>	<u>Total</u>
Aug. 11	15	7	18	-	-	40
12	35	37	65	2	5	144
13	11	9	4	-	1	25
14	26	15	79	212	7	339
15	43	30	195	261	27	556
16	32	13	198	366	47	656
17	12	12	369	337	8	738
18	11	12	678	225	7	933
19	22	41	788	322	57	1,230
20	14	1	230	423	16	684
21	10	11	330	458	10	819
22	14	11	603	212	41	881
23	5	6	467	106	28	612
24	3	1	468	131	60	663
25	9	2	280	88	15	394
26	1	30	436	47	28	542
27	1	8	44	18	1	72
28	1	1	24	26	-	52
29	3	1	21	37	6	68
30	1	1	36	21	3	62
31	2	3	126	22	8	161
Sept. 1	3	4	200	12	23	242
2	6	11	453	11	66	547
3	1	5	124	4	32	166
4	-	1	201	7	28	237
5	1	1	36	2	4	44
6	-	3	164	3	11	181
7	1	1	77	-	49	128
8	-	-	124	1	26	151
<b>Total</b>	<b>283</b>	<b>278</b>	<b>6838</b>	<b>3354</b>	<b>614</b>	<b>11,367</b>

TABLE IX. Daily Counts of Salmon and Steelhead Trout  
Utilizing the Moricetown Fishways,  
July 17 to September 9, 1961.

<u>Date</u>	<u>Sockeye</u>	<u>Chinook</u>	<u>Coho</u>	<u>Pink</u>	<u>Steelhead</u>	<u>Total</u>
July 17	4	2	-	-	-	6
18	9	1	-	-	-	10
19	91	3	-	-	-	94
20	37	11	-	-	-	48
21	10	1	-	-	-	11
22	-	-	-	-	-	-
23	13	2	-	-	-	15
24	168	15	-	-	-	183
25	187	75	-	-	-	262
26	125	47	1	4	-	177
27	739	239	4	22	-	1,004
28	301	79	3	12	-	395
29	61	6	1	8	-	76
30	96	33	3	60	-	192
31	204	43	3	72	-	322
Aug. 1	406	27	2	104	4	543
2	363	26	15	61	2	467
3	1081	152	132	119	29	1,513
4	491	41	91	316	8	947
5	267	7	42	311	5	632
6	104	8	67	293	-	472
7	59	5	104	165	13	346
8	47	3	103	368	7	528
9	121	12	230	568	10	941
10	217	13	344	735	14	1,323
11	44	19	223	598	19	903
12	35	5	162	440	11	653
13	20	6	206	587	20	839
14	20	7	182	496	3	708
15	17	5	168	337	7	534
16	23	3	311	566	23	926
17	21	5	733	680	46	1,485
18	4	4	263	348	37	656
19	1	-	79	227	6	313
20	2	1	266	243	21	553
21	7	1	680	254	46	988
22	-	-	288	101	14	403
23	1	-	279	47	18	345
24	2	1	494	152	106	755
25	-	4	217	49	45	315
26	2	1	238	60	55	356
27	-	-	55	32	44	131
28	1	-	51	20	26	98
29	-	-	87	15	20	122
30	-	-	220	11	24	255
31	-	2	408	24	39	473

TABLE IX. (Cont'd)

<u>Date</u>	<u>Sockeye</u>	<u>Chinook</u>	<u>Coho</u>	<u>Pink</u>	<u>Steelhead</u>	<u>Total</u>
Sept. 1	-	1	205	6	23	235
2	-	-	95	2	16	113
3	-	-	60	1	19	80
4	-	-	11	-	1	12
5	-	-	7	-	1	8
6	-	-	7	-	1	8
7	-	-	19	-	3	22
8	-	-	17	-	4	21
9	-	-	30	-	2	32
<b>Total</b>	<b>5401</b>	<b>916</b>	<b>7226</b>	<b>8514</b>	<b>792</b>	<b>22,849</b>

TABLE X. Daily Counts of Salmon and Steelhead Trout Utilizing the Moricetown Fishways, July 25 to August 17, 1962.

<u>Date</u>	<u>Sockeye</u>	<u>Chinook</u>	<u>Coho</u>	<u>Pink</u>	<u>Steelhead</u>	<u>Total</u>
July 25	1	-	-	-	-	1
26	3	1	-	-	-	4
27	10	7	-	-	-	17
28	20	9	-	-	-	29
29	200	35	-	-	-	235
30	142	58	-	-	-	200
31	39	73	-	-	-	112
Aug. 1	27	69	-	-	-	96
2	64	186	3	-	-	253
3	38	103	-	-	-	141
4	9	22	-	-	-	31
5	50	53	3	-	-	106
6	16	55	18	-	-	89
7	18	43	41	-	-	102
8	39	79	120	2	2	242
9	118	110	373	-	10	611
10	31	16	245	-	9	301
11	10	13	160	4	4	191
12	10	11	156	12	8	197
13	29	38	334	1	6	408
14	10	48	110	5	8	181
15	7	43	80	3	2	135
16	55	79	1607	25	105	1,871
17	2	18	787	36	52	895
<b>Total</b>	<b>948</b>	<b>1169</b>	<b>4037</b>	<b>88</b>	<b>206</b>	<b>6,448</b>

TABLE II. DAILY COUNTS OF SALMON AND STEELHEAD TROUT UTILIZING THE LEFT BANK MORICETOWN FISHWAY, JULY 23 TO SEPTEMBER 1, 1968

Date	Sockeye	Chinook	Coho	Pink	Steelhead	Unidentified	Total
July 23	8	-	-	-	-	-	8
24	64	1	-	-	-	1	66
25	51	8	-	-	-	-	59
26	172	29	-	1	-	5	207
27	65	15	-	-	-	2	82
28	705	49	3	-	-	3	760
29	1390	88	9	27	2	20	1536
30	617	55	27	35	1	6	741
31	50	12	2	4	1	1	70
Aug. 1	180	41	22	12	2	3	260
2	439	84	236	50	2	40	851
3	30	-	55	1	1	-	87
4	92	9	163	21	1	1	287
5	235	33	565	33	45	6	917
6	101	10	167	9	11	-	298
7	35	6	136	82	1	-	260
8	64	5	251	168	1	12	501
9	59	5	458	40	3	-	565
10	15	2	167	21	4	-	209
11	4	2	90	29	-	-	125
12	26	8	1021	111	11	-	1166
13	16	1	691	77	10	-	795
14	4	1	139	4	-	-	148
15	4	-	246	56	-	-	306
16	10	-	732	132	5	-	879
17	-	-	117	77	-	-	194
18	-	-	225	107	-	12	344
19	6	-	1326	231	5	3	1571
20	1	-	753	177	4	1	936
21	-	-	320	124	-	-	444
22	-	-	212	193	-	-	405
23	-	-	743	208	3	-	954
24	-	-	1190	123	5	-	1318
25	-	-	361	88	1	1	451
26	1	-	871	63	9	-	944
27	-	-	290	30	3	-	323
28	-	-	47	47	-	-	94
29	-	-	9	26	-	-	35
30	-	-	39	37	-	-	76
31	1	-	23	43	-	-	67
Sept. 1	-	-	18	27	-	-	45
TOTALS	4445	464	11724	2514	134	117	19398

TABLE III. DAILY COUNTS OF SALMON AND STEELHEAD TROUT UTILIZING THE LEFT BANK, MORICETOWN FISHWAY, JULY 31 TO AUG. 27, 1966

Date	Sockeye	Chinook	Coho	Pink	Steelhead	Unidentified	Total
July 31	70	1	-	-	-	-	71
Aug. 1	27	-	-	-	-	-	27
2	12	-	-	-	-	-	12
3	55	-	16	-	-	-	71
4	52	3	11	-	-	-	66
5	99	7	42	-	-	-	148
6	95	12	22	-	1	18	148
7	85	22	122	-	-	-	229
8	20	-	84	-	-	-	104
9	14	3	58	-	11	5	91
10	17	-	146	-	10	-	173
11	10	-	343	-	14	5	372
12	45	2	241	-	7	-	295
13	134	9	1,028	15	70	-	1,256
14	124	2	1,077	15	66	-	1,284
15	55	3	396	33	50	-	537
16	10	1	118	13	-	-	142
17	45	-	633	16	16	-	710
18	26	-	367	-	-	-	393
19	93	-	766	5	-	-	864
20	28	-	762	36	-	-	826
21	44	-	3,235	69	-	-	3,348
22	7	-	784	45	-	-	836
23	2	-	1,329	16	-	-	1,347
24	7	-	1,151	4	-	-	1,162
25	7	-	394	2	2	-	405
26	-	-	64	8	-	-	72
27	1	-	226	7	-	-	234
TOTALS:	1,184	65	13,415	284	247	28	15,223

(b) Effect of the Native Fishery on Migration

During recent years prior to 1965, the native fishery was operated on a five-day per week basis and the weekly closed period extended from 6:00 P.M. Wednesday to 6:00 P.M. Friday. Figure 4 which depicts the fishway counts and weekly closed periods in 1961 clearly illustrates that substantial increases in abundance occurred each Thursday and Friday and these were followed by sharply decreased

PARTIAL BIBLIOGRAPHY - BULKLEY MORICE COHO

A Re-Assessment of Moricetown Falls as an Obstruction to Salmon Migration  
R. N. Palmer, 1964

The status of the Nanika - Morice Sockeye Salmon. Population and the  
Moricetown Native Food Fishery in 1967 and 1968. D.R. Harding, 1969

An assessment of Salmon Migration and the Native Food Fishery at Moricetown  
Falls in 1966. R.N. Palmer, 1967

An assessment of the Native Food Fishery at Moricetown Falls in 1965.  
R.N. Palmer 1966

Meristic Characters of Pacific Salmon and Steelhead Trout captured at  
Moricetown Falls 1961 - 1966. (Manuscript Report) D.R. Harding and  
J.D. Buxton, 1971

Moricetown Falls as a Hazard to Salmon Migration .  
(Bull. Fish. Res. Bd Can. 86 -1950) D.J. Milne