

ANNUAL SPAWNING NARRATIVE - BULKLEY MORICE AREA.

TREND OF THE FISHERIES.

Indian Food Fishery - Moricetown Falls.

A comparative table of the production of salmon from the Indian Food Fishery for the Bulkley Morice sub-district is enumerated below, for the years 1960 to 1964 inclusive. The production of food fish is limited entirely to the Moricetown Indian Band, and the catch is derived from the vicinity of Moricetown Falls fishways.

<u>YEAR</u>	<u>SOCKEYE</u>	<u>SPRINGS</u>	<u>COHO</u>	<u>PINKS</u>	<u>STEELHEAD</u>	<u>JACKS</u>	<u>TOTAL</u>
1960	473	677	892	238	107		2,390
1961	2092	1016	1145	1074	593	1990	7,715
1962	756	1476	1460	557	485	1057	5,735
1963	2316	1859	1395	1593	484	759	8,428
1964	2284	954	960	728	80	610	5,622

It is well to note that the issuance of Food Fish permits to the Moricetown Band has increased somewhat, percentage-wise during the past two years. In other years, an average of 50 permits were distributed, but about 60 have been issued in both 1963 and 1964. The increase may be attributed to the fact that persons over 16 years of age are requested to have permits to participate in the fishery.

Of the total number issued only 5 of these are utilized for net-fishing purposes, with the balance of the permit holders being gaff fishermen. The reason for this incident being the minimum number of suitable net fishing locations available in the canyon directly below the fishways.

It is interesting to note, that of the total production of Spring salmon, 80% of the catch was by gaff hook, while the Sockeye production was represented by a 70% catch by net. This condition is attributed to the fact that the Sockeye presents a smaller target, and as the river levels were comparatively higher than normally encountered during the fishery, the Sockeye made for more difficult recovery by gaff in the turbulent waters.

As this was an 'off year' for Pinks salmon, it is of interest to note that more time was made available to discuss with the Indians the merit and food value of this species. It is felt that a good point has been reached, in that there was an approximate 60% utilization of this species during the past year. This is of particular interest when it is a known fact, that in the past all Pinks were either returned to the water, or left to deteriorate on the banks. A very definite preference has been shown for the female of the species, undoubtedly because of the more appealing contours of same.

Sport Fishery.

Unquestionably, the escapement of Spring, Coho and Steelhead to the Bulkley and Morice River systems, and other smaller streams in the sub-district, are becoming increasingly popular every year, and are annually attracting more and more fishing tourists into the areas during the migrating periods. A great deal of pressure is exercised on stocks of available fish, and this coupled with a very active Indian food fishery makes for a very difficult ascent over the Moricetown fishways, due to the activity created by both types of fishermen. High water conditions made for reasonably poor returns by the individuals participating in the fishery, but nevertheless there were consistently good turnouts every day for an extended period of time.

An attempt was made to record the frequency and production of sport fishermen at Moricetown Falls during the past year, but other duties of the Guardian located there, makes this a most difficult task. The following graph indicates the intensity and production by this group, although it is felt that the numbers may be larger than indicated, this is a fairly accurate survey.

WEEK ENDINGFISHERMEN.....	ESTIMATED PRODUCTION.....			
	DAILY AVERAGE	WEEKLY TOTAL	SPRINGS	COFO	JACKS	STEELHEAD
July 25	2.5	18	1			
August 1	9	65	13			
August 8	33	231	72			
August 15	42	306	35	75	4-600	15
August 22	35	247	31	195	2-300	99
August 29	35	244	-	115	200	32
September 5	22	153		53	36	11
September 12	13	90		19	13	3
September 19	2	16		6		3
September 26	3	23		-	-	-
TOTALS		1393	152	468	1000	164

These figures are representative of those fishermen who were at Moricetown Falls only, and do not indicate any other portions of the river or district.

It is felt that the production of Spring salmon at this location was limited this year due to extreme water levels and the difficulty in landing any of the larger salmon which had been hooked. Water levels undoubtedly kept production at the very minimum all during the Spring salmon attendance at the Falls and fishways.

With the advent of the closure of the upper levels and the spawning areas of the Morice River from September 1 to September 30, it is felt that a step has been taken in the right direction to protect very vulnerable spawning stocks. Several enquiries were made to individual fishermen and groups concerning the closure, and all agreed that no hardship had been created, as there was still plenty of available river space for those interested in the pursuit of Spring salmon for sport purposes.

DEVELOPMENTS AND CHANGES.

The Fish Culture Branch, with the established hatchery on the Manika River, near Morice Lake, transplanted 12 million Sockeye eggs from Anderson Creek, on the Babine Lake to the hatchery for incubation and distribution in the Manika River and/or Morice Lake watershed, in the hopes of rehabilitating the severely depleted Manika River populations.

Logging operations are on the increase in the sub-district, and with the advent of the issuance and the intended development of pulp licences and mills, at or near Houston, which is located at the confluence of the Morice and Bulkley Rivers, it would appear that this will be a cause of more stringent winter inspections to ensure that the debris from the operations will not be deposited in either the main stems of spawning streams, nor in feeder or side streams or lakes contributing to the watersheds. To date there has been little interference with fishery interests in this matter.

There would also appear to be the possibility of the development of several mining properties within the geographical limits of the sub-district, but to date, this activity has been restricted almost entirely to prospecting and diamond drilling. However, the Department has been approached by the Southwest Potash Development Company with regards to a feasibility survey being conducted on property near to and flowing into the Bulkley River. However, further exploration is required before the establishment of a mill is to be seriously considered by the parent company.

ABUSES.

There was one prosecution conducted this year with reference to illegal distribution of salmon by an Indian, who was taken under permit. Both the Indian and the two white men were found guilty of the offence. A sentence of three months imprisonment was given to the Indian and the white men both received fines of one hundred dollars. The fish were confiscated. This offence, when publicised, seemed to terminate any further attempts in the distribution, sale and marketing of salmon, for other than the purposes intended.

Further to the above-mentioned, there would appear to be an illegal procedure being conducted at or near the Bulkley Falls by an unknown group of Indians. Reports reaching this office and confirmed by the Burns Lake conservation officer, Mr. Wm. Richmond, would indicate the volume to be very extensive, amounting to more than one thousand adult Spring salmon being taken, and finding their way to illegal sources. All attempts to apprehend the persons involved were fruitless, as there seemed to exist a system of pre-warning when the undersigned was in the immediate locality. However, during the presence of any enforcement officer, all activities were suspended.

CLOSED SEASONS.

Closed times for the Indian Food Fishery were increased by 24 hours during the 1964 season, and a split or staggered close was introduced. In the past closures were introduced, and extended normally, from 6 P.M. Wednesday to 6 P.M. Friday of each week. This pattern was continued from the opening of the fishery this year, then on August 3, a further 24 hour closure period was introduced to extend from 6 P.M. Sunday to 6 P.M. Monday, in order to facilitate escapement of existing Sockeye and Pink salmon stocks beyond Moricetown Falls.

It had been anticipated, that due to unusually high water levels, and a fairly light Spring salmon production, there would be a good deal of objection and criticism of the additional 24 hour closure. This was not the case. The Indians accepted the loss of time with good grace, after a sufficient verbal discussion was presented, and a full explanation of the closure necessity given.

SPAWNING CONDITIONS - IN GENERAL.

Spawning conditions during the 1964 season can be described as no less than excellent. High water condition prevailed throughout the entire season, and at levels which were higher than at any other recorded period for the past ten years. Migration beyond Moricetown Falls was assisted greatly, due to these levels, and the run of Spring salmon, in particular, gained by this feature. Besides having additional protection from the Indian food fishery due to extreme turbulence, which makes for poor fishing conditions, the volume of water over the actual falls as well as that within the fishways offered prime escapement patterns, and as far as can be determined, were utilized by this species to the fullest.

The high water levels continued throughout the entire season, and therefore facilitated excellent escapement patterns for the other salmon species as well.

One of the unfortunate drawbacks of conditions such as these, is the fact that observation conditions are greatly hampered when spawning ground assessment work is in progress, particularly on the larger streams such as the Morice, Bear and Suskwa Rivers.

REPORT OF THE COMMISSIONERS OF THE BUREAU OF FISHERIES

A station position is established and maintained at Horseshoe Falls during the entire duration of the salmon runs. This position deals particularly and exclusively with the Indian food fishery. In the past two years, it has multiplied, and now some time is spent, of necessity, in dealing with the major sport fishery which has developed at this point.

Supplementing this, the local effort carries out extensive regular patrols throughout the entire sub-district, with particular attention being paid to locations where there appears to be a good deal of stress being exerted, particularly by the sport fishery. This is becoming an increasingly difficult matter, due to the widespread geographical location of available spawning stocks to these persons. It has been found, that with the presence of a fishery officer or wardens, that offenses against the regulations can either be eliminated, if not completely erased.

It is felt that the addition of at least one more position is a necessity, in an effort to equally distribute the work load in the sub-district. A patrolman position, with headquarters at Horseshoe Falls would make patrol time and efforts, at least 75% more effective over the remaining portion of the sub-district, and also increase the overall efficiency of all patrolmen concerned.

REPORT OF THE COMMISSIONERS OF THE BUREAU OF FISHERIES

This species had an estimated total escapement of 18,000 pieces. Of this total approximately 4500 utilized the near lake stream. The balance utilized the spawning areas of the Horseshoe Falls watershed.

Spawning salmon were observed on the two main spawning grounds, located by the species. There was almost an equal distribution of spawners to the near river and Horseshoe Falls. A small number were observed on limited areas as in the middle falls.

About 5,000 fish salmon were located in the main stem of the middle river, but considering the fact that this is an 'off year', the escapement is considered to be fairly strong.

About 5,500 Coho were located in stream flowing into the main stem of the middle river. However, due to the high water conditions the three main supporters of this species were too dark to offer any indication of the populations present. It is apparent that the Coho were good runs, as sport fisherman had excellent returns in the Gosholl, Pusikwa and Horseshoe Falls. It is felt that the number observed indicate a good abundance of the species.

REPORT OF THE COMMISSIONERS OF THE BUREAU OF FISHERIES

Although not particularly strong in any species, the escapement is considered to be suitable, and should provide for good returns. The escapement during the past season compares very favorably with that of the past two years.

O. H. Dussay, Fishery Officer