

Smithers, B.C.  
January 19th. 1956.

The District Supervisor of Fisheries,  
Prince Rupert, B.C.

Herewith please find my annual report of  
the Fisheries in the Babine-Morice Area of District  
# 2, B.C. for the season 1955.

A. TREND OF THE SEVERAL FISHERIES.

There being no commercial fishing in  
this area we can only follow the trend of the  
Fisheries by following the Indian Food Supply Catch.  
The following is a table of the Indian food supply  
catch at Moricetown Canyon broken down to show the  
species for the period 1950 to 1955.

Year	Sock.	Spr.	Steel.	Coho	Pink	Total.
1950	5,735	1,437	225	1,654		9,051
1951	2,808	780	244	419	19	4,267
1952	1,097	1,196	411	487	61	3,252
1953	727	1,271	925	747	151	3,822
1954	445	1,885	231	5,851		8,412
1955	575	1,320	226	1,941	259	4,321.

This table therefore shows that the total for 1955,  
4,321 compares with 1951 when 4,267 were taken.  
Although these catch figures compare there is a great  
difference in the way they are made up. In 1951 the  
Sockeye take was medium while the Coho catch was quite  
small, and in 1955 when the Sockeye catch was poor the  
Coho take was fairly good. Spring, Steelhead and Pink  
remain fairly level over this period. Indians in this  
Area, not liking Pink Salmon as well as the others, do  
not take very many. Over the period 1930 to 1955, 26  
years, the average take by the Indians has been 11,185,  
while over the first ten years of this period the  
records show the average catch to be 14,896, and over the  
last ten years the average to be 7,882 approximately  
half. From this it can be seen that the catch is on  
the decline mainly because of an evolution of the Indian  
to the White mans ways, and partly because there is  
more work that they can do. I do not believe that there  
is the same fishing effort as say ten years ago. For  
the past 6 years it can be seen that the catch has been  
considerably below the average for the past 26 years.

Water levels were low most of the season.  
By the time Sockeye were at their peak at Moricetown,  
water levels were such that the continued use of the  
fishways was necessary.

In the Bear Lake area the Indian Food  
Supply amounted to 830 Sockeye, 950 Spring and 15 Pink  
or a total of 1,795. Indians arrived at Bear Lake this  
season after the Sockeye had started to run and therefore  
did not take as many as they would have liked.  
Comparisons do not mean much here as the population varies  
from year to year.

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A. TREND OF THE SEVERAL FISHERIES cont.

As Coho, Steelhead and Charr in the Bear Lake area are usually taken after our inspections, their numbers are no known.

Sport fishing appeared to be about normal although an increased number of fishermen are now flying into the more inaccessible lakes, their catches are not known but it is presumed that the total catches will be average or above. Steelhead were slow in some areas but became abundant in the late season.

B. CONDITION OF FLEET OF FISHING VESSELS.

As there is no commercial fishing in this area we have no commercial fishing vessels. Most of the boats used are of the flat bottom or river type peculiar to this district, and dug out canoes. A few of the old boats have been discarded being replaced with new boats, more outboard motors are being used. In general the suitability of the boats are improving.

C. DEVELOPMENT OR CHANGES.

1. Fish Culture and Development Branch.

a. The access road into the Babine River Slide was cleared last spring with the result that road conditions as far as the Clifford Creek Hill were good. This hill continues to slide. Slide conditions showed very little change. Loggers have improved the road considerably as far as the old Camp 6 and are now logging almost to Camp 7.

b. Biologist Stokes and assistant made a stream survey of Foxy Creek in the Maxan Lake area, Maxan Creek, and Upper Bulkley River.

c. Engineer Dyson and Biologist Stokes made a combined stream survey of Hanika River.

d. Engineer Hamer planned work on the Moricetown Fishways but cold weather and ice prevented any work. Steel for reenforcing the grates on the fishways is in storage at Moricetown waiting suitable conditions for its installation.

2. Skeena River Investigation.

a. Salmon which were tagged on the Lower Skeena River, in an effort to find out when each population of salmon pass through the fishery enroute to their separate streams. Tagged salmon were recovered mostly at Moricetown and Bear Lake.

b. Samples of adult Lamprey were forwarded to Dr. Vladykov, Sillery, P.Q.

c. Fry samples from Babine Lake were transported and forwarded to Pacific Biological Station, Nanaimo, B.C.

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## C. DEVELOPMENT OR CHANGES cont.

## A. B.C. Forest Service.

a. A heavy cut of timber continues in this area with timber being taken from further back each year. Hauls of 30 to 35 miles are not uncommon.

b. A road is now being built by the B.C. Forest Service, which when completed will run from Houston to McBride Lake. This will be within 6 or 8 miles of Morice Lake. If this road were continued to Morice Lake it would greatly aid inspections.

4. Beaver in this area are increasing to the point where their dams are a hindrance to ascending salmon. The matter is being taken up with the B.C. Game Department for remedial action.

5. The Smithers Rod and Gun Club received approximately 60,000 rainbow trout eggs last spring, these were hatched and approximately 57,000 fry were distributed to different lakes. They contend that some of the fry that were planted several years ago are now returning to the area as steelhead.

6. B.C. Department of Public Works and the B.C. Forest Service are now using the large metal culverts at creek crossings in the construction of new roads. To date these seem to be quite satisfactory for the passage of salmon.

7. Considerable repair work was made on Fishery cabins by one of our Guardians this season. Moricetown cabin was jacked up and new foundations put in, the building was lowered and levelled and a new floor laid. A chimney was erected which now makes the fire hazard very much reduced. Painting was done and the cabin is now more comfortable. This Guardian also made repairs to Donald's Landing Station erecting chimney etc.

8. Equipment on the whole functioned satisfactory with no serious difficulties.

## D. ABUSEMENTS.

This season, owing to the small run, Indians were quite anxious to keep all the salmon they could catch for their own use. In seasons of good runs there is a tendency for them to try to sell salmon. Therefore this season there were few if any sold and the practise has been kept to a minimum.

Sawmills are generally quite good regarding pollution and no cases have been found in this past year which would warrant any action being taken.

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E. CLOSE SEASONS.

With the small run of salmon, no close seasons were kept this season. This was done so that the Indians would have a chance to take sufficient salmon to last them through the winter.

F. STEPS TAKEN FOR PREVENTION OF ILLEGAL FISHING.

1. A guardian was stationed at Moricetown Canyon with the following duties;

a. Prevention of illegal fishing and sale of salmon by the Indians.

b. To regulate fishing and count Indian food supply catch.

c. To inspect several spawning grounds.

d. To repair and keep buildings and equipment in order.

2. One Inspector carried out patrols by foot, boat, car and aircraft.

G. PROTECTION OF WATERS FREQUENTED BY FISH.

A check of sawmills and mines, if in operation, is constantly being made regarding the pollution of waters. Most of the sawmill checks are made during the winter months when roads are passable. No mines were in operation this year.

H. CONDITION OF FISHWAYS.

Ice caused some damage to the fishways at Moricetown Canyon this last winter when several of the gates were bowed down by the great weight of ice. However this did not effect their efficient operation.

I. SPAWNING CONDITIONS.

SOCKEYE.

Sockeye arrived somewhat later than usual with the first Sockeye being caught at Moricetown Canyon on July 8th. The Indian food supply catch amounted to 575, this indicated a low Sockeye run and such was borne out in the estimates of 3,000 to 4,000 on the Nanika River. In 1951 Indians took 2,805 Sockeye and there were an estimated 58,800 on the Nanika River. This shows there is no ratio between Indian catch and escapement. In 1951 Indian catch was 4% of the total and in 1955 it was 12%. Water levels remained low most of the season becoming very low towards the end.

At Bear Lake an estimated 5,000 Sockeye spawned. Although water levels were excellent, only

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*written by Fishery Officer W. L. Elliott*

I. SPAWNING CONDITIONS.

SOCKEYE, cont.

only Asaklots Creek showed any promise with a total of 500 on the stream. This compares reasonably with cycle years. Beach spawning observation was hampered by strong winds and rough water.

SPRING.

On the Bear River it was an average year for Spring with an estimated 15,000 to 20,000 spawners, which compares favourably with the cycle year. Salmon were of good size and approximately 3% were Jacks. Sexes were about even. Water levels were high giving sufficient water for a good seeding.

A light run entered the Morice and Upper Bulkley Rivers, making an escapement estimated at 8,000. This is somewhat better than the cycle year when an estimated 5,000 spawned. Salmon were mostly large, sexes about even with an estimated 5% Jacks.

PINKS.

Pinks used the fishways at Moricetown Canyon almost entirely this season due to the drop in water levels at the time of their arrival. An estimated 7,000 for the Bulkley and Morice Rivers has shown an continued increase in the escapement since the installation of the fishways at Moricetown.

On the Bear River an estimated 5,000 to 8,000 Pinks spawned. This was considered a light escapement but was of good sized salmon with sexes about even.

COHO.

There was a medium escapement to the area with an estimated 25,000 spawners. They were in good condition and of medium and large sizes. There were an estimated 6% Jacks. As this area had cold weather since the 1st. week in November streams were frozen over early and observation made difficult. However Coho were observed spawning after Christmas in a local stream.

Coho were seen at the mouths of streams flowing into Bear Lake, but had not entered at that time. Estimates were therefore not made. I feel there was a medium escapement to this area.

STEELHEAD.

Steelhead entered this area slightly later than usual this fall. Fishermen had medium success in the Bulkley and Morice Rivers, with excellent fishing being experienced just before Christmas.

I. SPawning CONDITIONS. Cont.

STEELHEAD.

A school of steelhead were observed at the outlet of Johanson Lake, apparently all males waiting for the females to arrive. According to Indians this area is very productive for Steelhead.

CHUMS.

Very few Chum salmon ever enter this area and none were observed this year.

DOLLY VARDON.

This predator abounds in the lakes and streams of this area, they become good sized and many sports fishermen prefer them to trout when taken in good condition.

J. GUARDIAN SERVICE.

The Guardian service is comprised of one only guardian stationed at Moricetown Canyon.

K. SUMMARY.

In summary Sockeye escapement was poor, Spring was light to medium, Steelhead were average, Coho were medium and Pinks light to Medium. There was an average catch of trout of average size. The Indian food supply catch although low has raised no complaints to my knowledge. Water levels were low throughout the season. Men ~~were~~ performed their duties and the function of equipment was satisfactory.

W.K. Elliott  
Fishery Officer.

MORTISTOWN CANYON

INDIAN FOOD SUPPLY

Year	Seck.	Spring	Coho	Pink	Steelh'd	Total
1930	4,820	8,078	1,848	208	208	10,280
1931	17,871	1,988	8,860		800	28,539
1932	6,715	8,294	2,821			14,630
1933	1,918	2,363	8,936	272	799	11,881
1934	8,851	1,681	4,735	1	271	10,239
1935	9,111	685	6,715	416	83	17,010
1936	11,723	1,897	2,173	9	139	16,941
1937	10,864	3,548	8,062	2,360	831	22,663
1938	1,951	1,941	8,818	71	1,045	13,826
1939	2,320	960	8,390	639	591	9,900
1940	2,873	336	4,428	209	137	7,983
1941	4,150	1,611	10,924	190		16,885
1942	1,571	1,259	6,204	135	315	8,484
1943	5,827	230	2,843	202	223	8,825
1944	9,154	1,000	1,991	461	461	12,606
1945	8,533	1,250	2,811	563	411	8,248
1946	8,673	759	2,855	5	516	13,208
1947	3,279	1,145	2,501	537	436	7,898
1948	9,829	1,122	1,892	1	206	13,050
1949	7,590	1,500	2,284		169	11,543
1950	5,735	1,437	1,654	19	225	9,051
1951	2,805	780	419		244	4,267
1952	1,097	1,196	487	61	411	3,262
1953	727	1,271	747	151	925	3,822
1954	445	1,885	5,851		231	8,412
1955	7,575	1,320	1,941	259	236	4,321

W.H. Elliott  
Fishery Officer.

Weather Conditions.

The weather during the first few months of 1955 was mild with very little snow. Spring was late and there were no spring floods on local streams. A wet summer kept water levels above normal throughout the salmon season until the first part of November when a sudden cold spell froze over lakes and streams and dropped water levels considerably. This cold weather kept up with only a short break until the end of the year.

The immediate Lakelse Area was subjected to three flash floods before freeze-up but damage to spawning grounds did not appear to be severe. These floods did not affect the spawning areas further in the interior.

Spawning Ground Summary.Sockeye.

The sockeye run of about 25,000 fish can be considered light with all spawning areas showing a decrease on the 1951 year. Allistair Lake spawning grounds were slightly lighter than 1951 but for the size of the area still had a fair seeding. Kispiox, Kitsuungalum and Lakelse areas showed a definite decrease over 1951.

Springs.

Spring seeding can be considered good with a better than average seeding on Kitsuungalum and Copper rivers. A run of about 10,000 fish was found on the Kispiox River but as this whole area was not inspected in 1950 and 1951 one can not make a definite comparison. This run showed a definite increase on the lower river that was inspected in 1950 and 1951. Fish for the most part were very large in size. Springs were found spawning on riffles in the lower Copper River in good numbers. These same riffles carried few fish in cycle years.

Cohoe.

On the streams which a count could be made there were an estimated 52,000 spawners which can be considered an average run. This is a much larger figure than that of 1951 which was about 34,000 or 1952 which was about 32,000. This does not mean that the run was that much better as the increase in count comes from the Kispiox River which carried about 10,000 fish and the Upper Kitsuungalum (Beaver) River which carried about 8,000. These streams were not listed by a figure in 1951 or 1952 as water conditions were such in those years that a figure was impossible.

Pinks.

The Pink run can be considered heavy as compared to the cycle year of 1953 but still not up to the heavy seeding of 1952. The odd year Pinks, as reported before, have been showing an increase since 1947. Lakelse and Kitwanga Rivers and smaller streams counted for about 380,000 fish as compared to about 230,000 in 1953. Kispiox River, not inspected over all



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it's length in 1953, had a good seeding of perhaps 750,000 fish, scattered over it's lower length of about 70 miles. Fish were observed on every riffle on this lower river but no overcrowding seen.

Chums.

The Chum run of about 2,500 fish was light as compared to 1951 when there was an estimated 11,000 on the grounds but better than 1952 when there was only 1,500. Kispiox River carried about 1,500 fish as compared to 15,000 in 1954.

Steelhead.

The Steelhead run was about average; not as heavy as 1954 or 1953. Catches by sport fishermen on the Kispiox River were not as good as in 1954 and catches in the Indian Fishery were only average. Catches by sport fishermen in the Copper and Kitsumgalum Rivers were down as compared to 1954.

Sport Fishing.

Steelhead catches by sport fishermen were down as compared to the good years of 1953 and 1954, although fair catches were made in Kispiox River.

The Cohoe catch was good throughout the area.

Lakelse Lake and River were good producers of both cut-throat and Dollyvarden. Good catches of Dollyvarden were also taken from the Copper River.

Indian Fishery.

The following is the catch from the Indian Fishery as compared to 1954:

	<u>1954</u>	<u>1955</u>
Sockeye	8,100	5,275
Springs	1,690	1,310
Cohoe	2,580	2,330
Steelhead	1,050	1,010
Pinks	1,750	1,550
Chums	<u>380</u>	<u>140</u>
	<u>15,550</u>	<u>11,615</u>

131 permits were issued as compared to 99 in 1954. The increase in Indian fishermen was due to the fact that several fishermen were not taken on at the canneries in the commercial fishery this year. The catch was down on the 1954 figure in spite of the increase in fishermen. Definite decrease in the sockeye run to the main Skeena River and the fact that river levels were high during the Spring salmon fishery combined to make this difference.

Violations.

No violations were found this year and no charges laid. The area was patrolled as often as possible by Inspector and Guardian; posters were put up and regulations were discussed with fishermen in course of patrols.

Guardians.

One Guardian was employed in the Hazelton area of this District to look after the Indian Fishery and to make routine river patrols and some spawning ground surveys.

Logging.

Logging was active throughout the area with an up-swing in the lumber market.

Columbia Cellulose Company started log driving on the Kitsumgalum River this year. Some stream improvement was done by this Company on the Kitsumgalum River this year. Damage to the salmon fishery in this operation was considered to be light.

The Columbia Cellulose Company have completed their logging road on the West Kitsumgalum to Sand Lake and it is reported that they hope to complete this road to the Naas River at Aliyansh by the Fall of 1956.

This Company has also made preliminary surveys on the Copper River with a view to driving logs from their holdings there.

They have started logging their Whitebottom block of timber across the river from Shames. Part of the logs from this operation were brought across the Skeena River at Shames by truck and then sent to Port Edward by rail. The balance was made up into rafts and towed down the Skeena by towboat. These towboats operated satisfactorily during the high and medium water periods but could not operate during low water levels.

Water Rights.

Applications for water rights on six streams were investigated. All but one of these were not salmon streams and the granting of water rights was no problem. The other application made by the Village of Terrace was for water rights on Deep Creek. This River is a salmon producer and was investigated thoroughly. It was decided that if the applicant took only the 500,000 gallons per day as applied for little harm could be done to the salmon runs.

Predators.

A total of 129 harbour seals were killed in the area during the year; 125 of these were killed on the annual Skeena River seal hunt by inspectors Gelley and Giraud and the other 4 were killed during routine patrols on lower Skeena. Only 1 seal nose was turned in to the Terrace office for bounty.

Predation by bears was heavy at Allistair Lake and at Swan Lake. Three Grizzly were killed; one on the Allistair Lake spawning grounds and the other two on Falls Creek at Swan Lake. Predation by Grizzly on the Swan Lake area was exceptionally heavy and it is possible that an organized thinning out of bears on this area would be beneficial.

Stream Clearing.

Two beaver dams were removed from South End Creek at Allistair Lake and one removed from Deep Creek. Total cost of removal was \$23.15 for powder, fuse and caps. Beaver have increased considerably in this area in the last few years due to lack of trapping. It is possible that permits will be issued for trappers to take beaver in the Fall of the year when they are easy to take on the areas in which they are harmful to salmon runs.

Equipment.

A new 10 H.P. Johnson Outboard motor was supplied to this area in place of the 5 H.P. that was used on the Terrace-Lakelse canoe. This motor operated successfully and saved a lot of time and trouble on spawning ground trips.

A six-man rubber boat was supplied for spawning ground inspections. This boat was used on the Kispiox River work to good advantage.

A heavy duty shotgun was supplied as replacement for the one stolen last year.

The 18 ft. Peterborough canoe was recovered with fibre-glass this year.

General.

Work has started on the Terrace-Kitimat Highway with a contract let on the first eight miles on the Terrace end. A slashing contract has been let on the Kitimat end. The Terrace to Kitimat railroad branch line was officially opened this year and a daily passenger service inaugurated.

There has been some improvement in the main highway this year with a few miles of blacktop laid in the Hazelton area.

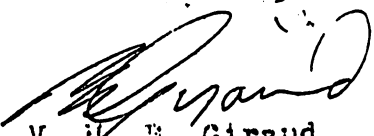
Mining has been slack with only one small base metal mine and a lime quarry operating in the area during the year.

About one million pink salmon eggs were taken from Lakelse River for the Ontario Department of Lands and Forests for stocking streams in the Hudson Bay area. These eggs were taken by Mr. T. Burrige, Fish Culture Biologist from Manaimo, and Mr. C. Armstrong from the Ontario Department of Lands and Forests.

Pacific Western Airlines have been servicing a survey party who are investigating the possible hydro sites on the Naas River.

A radio beam station was installed at the Terrace airport and Canadian Pacific Airlines have established a daily direct flight to and from Vancouver.

Terrace, B. C.  
January 31, 1956.



V. H. B. Giraud  
Fishery Officer.