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Box 578,  
Smithers, B.C.  
Jan. 6th. 1958

The District Supervisor of Fisheries,  
Box 218,  
Prince Rupert, B.C.

Herewith please find my annual report of  
Fisheries in the Babine - Morice Area of District  
# 2, B.C. for the season 1957.

A. TREND OF THE SEVERAL FISHERIES.

The following is a table of the Indian  
food supply catch at Moricetown Canyon for the period  
1946 to 1957.

Year	Sock.	Spr.	Steel.	Coho.	Pink	Total
1946	8,673	759	516	3,258	5	13,208
1947	3,279	1,145	436	2,501	537	7,898
1948	9,829	1,122	206	1,892	1	13,050
1949	7,590	1,500	169	2,284		11,543
1950	5,735	1,437	225	1,654		9,051
1951	2,805	780	244	419	19	4,267
1952	1,097	1,196	411	487	61	3,252
1953	727	1,271	928	747	151	3,822
1954	445	1,883	231	5,851		8,412
1955	573	1,320	226	1,941	259	4,321
1956	1,429	3,200	296	1,617		6,532
1957	175	2,450	52	461	22	3,160

The general trend of the Fishery is taken  
from the Indian Food Supply Catch as we do not have a  
Commercial Fishery. From the above table of catches we  
see that the trend this year in comparison with the past  
12 years is considerably lower than the average ( over  
7,000 ) over this period. This year saw the lowest  
Sockeye catch in records since 1930, with Coho having  
one year ( 1951 ) lower. Steelhead are also the lowest  
on record since 1930. The total catch of 3,160 also  
being the lowest on record since 1930. This I feel shows  
the trend for the past year.

This spring there was just an ordinary run off  
of water, rains kept the Bulkley River at a fairly high level  
and in August water levels were extremely high, so high  
in fact that the Indians at Moricetown Canyon were unable  
to even attempt any fishing. It is felt that these waters  
constituted a block to ascending salmon at Agwilget  
Canyon in the Bulkley River. Should this blockage not  
have occurred I feel there should have been a much  
higher escapement to the upper waters of the Bulkley  
River system.

As a result of the continued high water  
at Moricetown Canyon the fishways were used to a limited  
degree the fishways being covered a good part of the  
time.

cont. on page 2.

## A. TREND OF THE SEVERAL FISHERIES, cont.

The Indian food supply catch at Bear Lake amounted to 75 Sockeye and 391 Springs. Indians arrived at Bear Lake from Takla Landing too late to take the sockeye before they had entered the Lake. They were unable to get a very high catch of Spring Salmon because of the high water conditions. Fishing for Coho had just begun and the steelhead fishery had not started at time of my last inspection.

Flying into the more inaccessible areas for sport fishing is becoming more intense. As far as can be ascertained they had very good success. It is possible that the Steelhead fishing was not quite as good in some years in the past. Many excellent catches of Steelhead were made almost up until Christmas when ice conditions made fishing difficult.

## B. CONDITION OF FLEET OF FISHING VESSELS.

As there is no commercial fishing in this area, we have no commercial fishing boats. Most of the vessels used in the Indian Fishery are of the flat bottom or river type peculiar to this district, and dug out canoes. A few of the older boats have been replaced by new ones generally with outboard motors.

## C. DEVELOPMENTS OR CHANGES.

## 1. Fish Culture &amp; Development Branch.

(a) A very small amount of maintenance work was done on the Moricetown Fishways this year, there is still more work required when conditions are suitable.

(b) Some survey work was carried out at Agwilget Canyon with reference to the removal of a block to salmon at certain water levels.

## 2. Skeena River Investigation.

(a) A tagging program was carried out this season with the usual tag recoveries.

(b) Pink Salmon Fry counting was again carried out to primarily estimate their down stream migration population. However interesting results were obtained regarding the migration of other salmon and trout.

## 3. B.C. Forest Service.

(a) The Babine River Slide Access road which taken over by the B.C. Forest Service last year was not opened up until late summer, at which time an inspection was made of the Slide area which showed little change since last inspection.

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## C. DEVELOPMENTS OR CHANGES, cont.

## 3. B.C. Forest Service.

(b) The B.C. Forest Service are continuing their road up the Morice River and have reached almost to McBride Lake. This road should be completed within the next year or so. This road should make it much easier to make inspections of the Morice River Spawning grounds.

(c) The cut of timber continues with high production although there has been a 20% drop over last year because of economic and weather conditions. With the drop in lumber prices some of the smaller operators have been forced to shut down.

## 4. BEAVER.

Beaver continue to increase in this area, although the damage caused this season is not as great as last season. High water this spring washed out most of the bad dams from last year. The continued high water this fall gave the beaver little incentive to build until most of the salmon had reached their spawning grounds. A very mild winter, until this date, may cause trouble on the spawning grounds allowing more dams to be built. Should next season prove to be a year of low water levels, great damage can be anticipated through damage to migrating fry, silting, change of water conditions on the spawning grounds and the obstruction qualities of dams to ascending salmon. Some definite program will have to be made to stop the damage caused by these beaver.

5. The Aluminum Co. of Canada had crews out again this year on the spawning grounds of the Morice River checking the escapements. One crew was stationed on the Morice River just above Owen Creek Canyon. Another crew was at the outlet of Morice Lake and the third crew was stationed at Kid Price Lake checking the Nanika River escapement.

6. The Guardian at Moricetown Canyon did considerable work this year by bringing water to the Moricetown cabin from a spring, some 1,200 feet away. This was very useful from a domestic sense and very valuable from a fire fighting aspect. He also made many repairs to the cabin and assisted in construction and maintenance work on Babine Lake.

7. Equipment on the whole operated satisfactory. Mercury truck # 52-14 was traded in on an International four wheel drive # 5703, which has greatly helped inspections in off highway places, it has saved much time and I feel is much easier on the machine. I am quite pleased with its operation.

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## D. ABUSEMENTS.

The last years of small salmon runs, Indians have been 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 and sell salmon. This year the practise of selling salmon has been held pretty well at a minimum.

Sawmills have been pretty good regarding sawdust pollution and no cases were found in this past year which would warrant action being taken.

## 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. The prevention of illegal fishing and the sale of salmon by the Indians.
- b. To regulate fishing and to count the Indian Food supply catch.
- c. To inspect several spawning grounds.
- d. To repair and keep buildings and equipment in order.

2. An 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. Sawmills are generally checked during the winter months when there are more in operation and when the road conditions are usually better. The Cronin Babine Mine was in operation again this summer under new management, water samples were taken, but by the time the results had been received the mine had closed down. The Sil-Van Mine did some exploratory work but decided to cease operations because of the low price of metals.

## H. CONDITIONS OF FISHWAYS.

At the Fishways at Moricetown Canyon there has been very little maintenance work done this year. A grate was replaced and bolted in place, but there is still another grate required to be put back in. As there were only short periods of low water this year, the use of the fishways was not too apparent.

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I. SPawning CONDITIONS.

SOCKEYE.

Sockeye arrived in the area the last few days of June but in very limited quantities. The total Sockeye Indian Food Supply catch amounted to 175 which indicated a very low escapement. On visiting the Nanika River the escapement was not over 500 sockeye. High water prevailed during most of the ascent and spawning periods.

The Bear Lake escapement was estimated at about 10,000 sockeye which was about the same as last year and the cycle year. The small streams flowing into Bear Lake had almost a nil escapement. The job of recovering dead lake spawners was hindered by very strong winds. All sockeye examined were of good size. High water prevailed during the whole season.

At Johanson Lake sports fishermen reported seeing numbers of Sockeye entering the Lake, I was however only able to recover 3 dead.

At Asitka Lake it was possible to observe about 100 sockeye beach spawning. Have been told that in some years this lake is full of Sockeye.

Sustut Lake Beach Spawning was quite evident this year and over 250 dead were recovered. The total escapement will compare with the cycle year over the whole area.

SPRING

There was a normal escapement of Spring to the Morice River area which compares favourably with the cycle year. Fish were of good size but had a 10 to 15 % Jacks. Water conditions were excellent and there should be a medium seeding. The Upper Bulkley River however was almost a failure; where there are usually 1,000 to 2,000 springs this year there were about 100 to 300. The reason for this is unknown as water levels were good.

The Spring escapement to the Bear Lake area was light this season with approximately 10,000 spawners on the Bear River, 10 - 15 % Jacks. This compares fairly well with the cycle year. Water conditions were excellent and although numbers were not great there should be good results of the seeding. Adult fish were of good size and condition.

PINKS

Approx. 15,000 Pinks spawned under good conditions in the Bear River. This was more than double the cycle year. Sexes were about even and the fish of average size.

Cont. on page 6.

I. SPAWNING CONDITIONS.

PINKS cont.

There was a very light run to the Bulkley River with an estimate of approximately 1,000. There were a good number of Pinks observed in the pool below Hagwilget Canyon and it is believed that the high water levels at this point constituted a blockage to the Pink Salmon escapement. Remedial action I feel should be undertaken to prevent the occurrence in future years.

COHO

Coho in the Bulkley River system were very poor this year, the blockage at Hagwilget Canyon most likely was the prime reason for the low escapement. The McDonnell Lake area had a good run but the salmon did not have to go up the Bulkley River. At Bear Lake the numbers are not known as they had not started to spawn at the time of the last inspection. In all areas there were about 3 to 5 % Jacks.

STEELHEAD

There was a light to medium run of Steelhead and sport fishermen reported good catches over all areas. Aircraft are being used quite extensively by sports fishermen to reach steelhead streams such as the Upper Sustut River. I do not believe that the Steelhead fishing has been quite as good as in other years.

CHUMS

Very few Chums ever enter this area and none were observed this season.

DOLLY VARDON

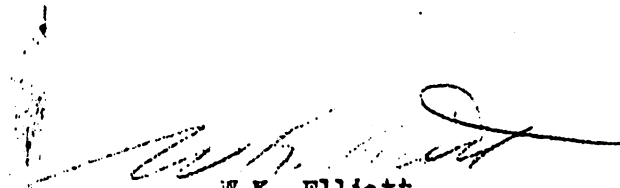
This predator abounds in the Lakes and streams in this area and become good sized, many sports fishermen prefer them to trout when taken in good condition.

J. GUARDIAN SERVICE.

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

K. SUMMARY.

A blockage to salmon at Hagwilget Canyon caused very low escapements of Sockeye, Pinks and Coho Salmon to the Bulkley River system. Spring escapement was about normal. In the Bear Lake area, Springs were about normal, with sockeye and Pinks on the low side.

  
W.K. Elliott  
Fishery Officer.

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WEATHER CONDITIONS

January and February were fairly cold with about average water levels. Water levels dropped in March and were below normal and stayed that way until the end of April. Spring run-off was normal with average high water. Water levels remained above normal throughout July and August but dropped suddenly after the 1st of September, remaining below normal until mid November. There was one flash flood about the middle of November and from then to the end of the year water levels were well up. Weather was mild with some snow but no frost. Lakes and rivers were still open at the end of the year.

SPAWNING REPORTS.Sockeye.

The Sockeye run as a whole was good. Allistair Lake system was very heavily seeded. Kispiox system (Swan and Stevens Lakes) was much better than the cycle year. Kitsumgalum and Lakelse River systems on the other hand were light. The heavy escapement to Allistair and the increase on Kispiox more than made up for the loss on Lakelse and Kitsumgalum. The total Sockeye escapement for the area was estimated to be about 43,000 fish as compared to 30,000 in 1953. It is interesting to note that Sockeye were spawning in good numbers at Allistair Lake for a period of about three months. Fish were found on the grounds in good numbers on August 20th, September 12th, October 9th and 17th and on final check on November 6th. Over 20 tags were recovered from Sockeye on this system.

Springs.

The Spring escapement was one of the best in years. Although it is difficult to put a figure on total escapement because of the nature of the Spring spawning grounds, fish showed up in better than average numbers throughout the area.

Cohoe.

Cohoe seeding was good. Lakelse, Gitnadoix and Kispiox Rivers showed a definite increase on cycle year. These are the main Cohoe producers that are clear enough for an estimate to be made. A good run went into both Kitsumgalum and Copper Rivers but a figure cannot be arrived at on these streams. The total to streams on which an estimate is possible was about 65,000 fish. A good check was made on Kispiox River which was not done in 1953. This stream held about 20,000 fish this year. In 1953 a total of about 25,000 was estimated in the area without counting Kispiox River.

Pinks.

The Pink run was above average but not up to cycle year of 1955. There was a slight increase on Lakelse and Kitwanga Rivers but quite a drop on Kispiox River. A total figure of about 950,000 was estimated in the area this year as compared to about 1,130,000 in 1955. These figures are from only those streams on which an estimate can be made. As stated in other reports this is not the total Pink escapement as Kitsumgalum, Copper and other silty rivers carry some Pinks. It is also known that Pinks sometime spawn in fair numbers in the main Skeena River. During an inspection of the lower river towards the end of the Pink run, dead fish were found in greater than usual numbers in this section. This might indicate a

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Pinks - continued

heavier than normal seeding on the lower Skeena bars. The Pink run came in very early this year and no doubt some of the early spawning in higher water levels was lost due to later low water. Some of the Pinks that arrived early on Kitwanga River died without spawning but percentage is considered to be small.

Chums.

There is never a big Chum run to this area and this year's run can be considered about average. There was a drop on Kitwanga River as compared to cycle year but a fair run on Kispiox River. Small streams frequented by Chums showed an average seeding.

Steelhead.

There was a definite decrease in the Steelhead runs to Kitwanga, Kispiox, Copper and Bulkley systems as compared to last year. Both the Indian fishery and sport fishery showed this trend. Lakelse River on the other hand showed an increase over the last few years and a good run observed.

Sport Fishing.

Catches of Steelhead were down in the early fall as compared to last year but December catches were up on account of the open winter. Spring salmon catches by sport fishermen were good, with a heavy fishery in Kitsumgalum River. Cohoe catches were good on late run fish and Cutthroat and Dolly Varden catches were about average. Steelhead fishing in the Kispiox River is attracting more fishermen every year. Fishermen are coming from all parts of United States and Canada. The record Steelhead for this river for this year was in the neighbourhood of 30 lbs.

Indian Fishery.

The following is the Indian catch as compared to 1956:

	<u>1956</u>	<u>1957</u>
Sockeye	10,750	34,000
Springs	2,000	3,170
Cohoe	3,100	8,750
Steelhead	1,350	980
Pinks	1,200	17,500
Chums	<u>220</u>	<u>600</u>
Totals	<u>18,620</u>	<u>65,000</u>

One hundred and ninety-seven permits were issued in this area and one other for Kasiks River was issued from Prince Rupert, giving a total of 198. Ten families that were not able to fish for themselves received fish from other permit holders. The Indian catch was one of the heaviest in years in this area and over 3 times as many as 1956. Pinks were taken in numbers far greater than ever before. Fishing continued much later in the season than ever before. One of the reasons for this heavy and late fishing was the tagging programme. Indians were leaving their nets in to get tags. Another reason was the fact that numbers going to the commercial fishery were less than last year and work in local sawmills, etc. has fallen off. This throws more Indians into the Fishery. One hundred and fifty-seven permits were issued in 1956.



### Violations.

No charges were laid under the B. C. Fisheries Regulations or the Fisheries Act.

There were six instances where logging companies and sawmills left slash in streams. These were cleared up at once by the companies concerned and no legal action was taken.

A diversion of a slough on the Kitimat River was made by the Provincial Public Works. This caused some mortality in salmon fry. The situation was remedied by Public Works and no legal action was taken.

The area was patrolled by Inspector and Guardian as often as possible. Posters were put up and regulations discussed with fishermen and logging companies in the course of patrols.

### Guardians.

One Guardian, Mr. R. L. Bennett, was employed in the area from June 1st to October 31st. His duties were general patrols of Hazelton area and Indian Fishery in that vicinity. His services were satisfactory.

### Logging.

Cedar pole logging was very active for a few months in the summer due to very high prices. Prices fell sharply by Fall and a general slackening off was the result.

Very few small logging operations were carried on in the area this year.

The Columbia Cellulose and contractors for same were active. This Company has completed a road from Terrace to Lava Lake on the Naas system and has started an access road on Copper River.

Some stream improvement work was done on the Kitsumgalum River to facilitate log driving by the Cellulose. A check on these improvements was made and no damage could be seen.

Columbia Cellulose also towed log rafts in the Skeena River from Shames to Kwinitza. High water levels during the summer made this operation much more successful than last year.

The Columbia Cellulose has made application for a booming ground at the mouth of the Lakelse River. This could be detrimental to salmon runs at certain periods of the year. This was taken up with Mr. Telford, Terrace Manager of the Company, and he agreed that no booming would take place during the time of the year that it could cause damage to the spawning escapement. He also agreed that the booming would not be done without authorization from the Fisheries Department.

### Water Rights.

Six applications for water rights were investigated in the area. These applications were all passed as the granting of same would have no adverse effect on salmon runs.

### Predators.

There were 111 harbour seals killed in the area by Departmental personnel this year. One seal nose was turned in for bounty.

Predators - continued.

Seals are not as numerous as they were before hunting started in 1948.

Damage by bears to salmon runs at Allistair Lake and the upper Kisplox was heavy. No bears were killed.

Stream Clearing.

Nine beaver dams were removed from Seeley Creek near Hazelton, six from Southend Creek (Allistair Lake) and one from Schulbuch- and Creek at Lakelse Lake. Beaver are increasing rapidly as trappers will not go after them due to low fur prices.

Expenses incurred in these operations for powder and fuse were \$108.30.

Equipment.

A new  $\frac{1}{2}$  ton Panel was supplied to the Terrace-Lakelse Area. This vehicle is equipped with no-spin differential and is far ahead of the last one in getting through mud, snow and bad roads.

Aircraft.

Aircraft were used to transport gear and personnel to outlying spawning areas. Services were satisfactory.

General.

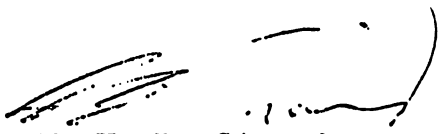
The Kitimat-Terrace highway was officially opened this Fall.

About 2,000,000 Pink eggs were taken from Lakelse River and Kleanza Creek by Fisheries Research Board. These eggs were put in a portable hatchery at Kleanza Creek.

Mining operations have been slack with only one small mine in operation in the Hazelton area.

North-west Power Industries Ltd. continued with surveys of the Naas River. They have been operating out of Terrace with Pacific Western Airlines. It is understood that they have ceased operations for the time being.

A new Federal building was completed in Terrace and the Fishery office has been moved to this building.



V. H. B. Giraud  
Fisheries Inspector.

Terrace, B. C.  
February 12, 1958.