

ANNUAL NARRATIVE REPORT - BULKLEY-MORICE AREA.
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TREND OF THE SEVERAL FISHERIES.

Indian Food Fishery.

For information purposes, listed below are the Indian Food Fishery production records taken from the Moricetown Falls area for the period 1956 to 1963 inclusive.

<u>YEAR</u>	<u>SOCKEYE</u>	<u>SPRING</u>	<u>COHO</u>	<u>PINKS</u>	<u>STEELHEAD</u>	<u>JACKS</u>	<u>TOTAL</u>
1956	1,429	3,200	1,617		296		6,532
1957	175	2,450	481	22	52		3,160
1958	165	2,874	244	4	112		3,399
1959	824	2,513	1,237	985	315		5,714
1960	472	677	892	238	107		2,390
1961	1,016	2,092	1,145	1,078	593	1,990	7,914
1962	645	1,148	1,328	500	395	1,615	5,031
1963	2,316	1,859	1,595	1,593	484	759	8,406

(In addition to the above a total of 22 Chums were taken in 1963.)

Outs tanding comparative features of the above table are herewith listed:-

1. The Sockeye production was almost twice that of any previous year recorded in the above table.
2. Spring Salmon production, though very strong, does not compare with past years' production.
3. Coho exploitation continues at a very high level.
4. Pink salmon production figures are the highest recorded in the past 8 years, and from available records, is the highest take ever recorded in this fishery.
5. Total production is the highest recorded since 1950.

A total of 60 permits were issued for this fishery which indicated an increase of approximatley 20% over the past five years. The increase is due, in part, to the insistence of having teen-age Indians fish for food purpose, under permit, for statistical reasons, even though they perhaps belong to another part of a 'family group'. Permit distribution limitation is almost impossible due to the very complicated and unorthodox family proceedures. In instances four children originating from an original familys took may end up answering to four distinct and different family names, depending entirely on how, and by whom, the child may be raised. These four children may or may not live in one common household. On mayy occasions, they will reside in four seperate homes. All efforts to try and develop a systematic 'family name' system have been abandoned, for obvious reasons, thus the resultant necessisty for individual permits.

95% of all permit holders utilized gaff hooks, and accounted for almost 100% of the total catch. The other holders of permits engaged in a short-net fishery in the main canyon, with very poor production results.

Closed period were comprised of 24, 48 and 96 hour periods, and to a lli intents and purposes were adhered to and observed fairly well by the greater part of the active fishermen. Some difficulty was encountered with a group of teen-aged Indians, but the matter was shortly cleared up. During the closed periods, escapements observed by Departmental personnel indicated fair to strong runs of salmon migrating over and beyond the fishways. This observation proved erroneous, and would tend to suggest that the salmon defenitley take advantage of the times when foreign objects are removed, such as gaff hooks, etc.

The Fish Culture and Development branch this year secured approximately 12 $\frac{1}{2}$ million sockeye eggs from the Babine Lake system, and transplanted same into the established hatchery at Nanika River. Eggs are to be incubated at this location and released into Morice Lake, in the hope of rehabilitating the depleted Nanika River stocks of Sockeye. At one time a very substantial Sockeye escapement was recorded in the Nanika River, but in the past 10 years populations have diminished to an average annual escapement of not more than 2,500 adult Sockeye.

LEGAL.

One prosecution was initiated and brought to a successful conclusion during the past year. An individual was apprehended in a road block, and charged with illegal possession of Sockeye salmon. The resultant prosecution brought a fine of \$100.00.

CLOSED SEASON AND WEEKLY CLOSURES.

During the early part of the year a 24 hour closure was in effect, when relatively poor returns were being realized by the Indian food fishermen. This poor production was brought about by high water levels. When the run-off abated, a 48 hour weekly closed period (6 PM Wednesday to 6PM Friday) was initiated. After there had been a fairly reasonable fishery and returns were good, a 72 hour closure was brought into effect, to allow a reasonable escapement period for the abundant Pink salmon population which had accumulated below the Moricetown Falls. The Indian accepted the closure gracefully and there were no infractions observed or recorded.

STREAM INSPECTION DURING MIGRATING PERIOD.

Regular inspection of all streams were carried out during the migration period. Bear Lake inspections were made with the use of the Departmental aircraft, and on two other occasions trips were made to this system by aircraft other than those utilized by the Department. All in all good coverage was obtained. In general observation conditions were favourable, and good assessments were realized.

SPAWNING CONDITIONS.

A light and mild winter snowfall brought about one of the lightest 'run-offs' experienced in a number of years. As a result stream levels at no time during the year reached extreme levels. Spring salmon migration which commenced during the peak of high water levels made easy passage beyond Moricetown Falls, and utilized the ladders somewhat more than is apparently done. Light and low water levels during the early part of the Sockeye migration were experienced, but consistent rains later corrected this situation, and by the time stocks were on the spawning beds, water levels can be described as no less than excellent.

PREVENTION OF OFFENSIVE ACTIVITIES.

A guardian is established at Moricetown Falls, to help control the production from the Indian Food Fishery. The local Officer makes regular patrols to the locality, time and circumstances permitting. Other than that, patrols are conducted in areas where sport fishing may be intense at any particular period. Efforts are made to educate the general public in the ways of migrating salmon, detrimental practices are outlined and commented on, and any other matters which may come up pertaining to migrating salmon stocks.

Although Departmental personnel at this point are aware that there are some illegal activities being conducted, with specific reference to the distribution of salmon taken by Indians, and intended for food purposes, limited staff prevents any positive legal action being introduced. A very effective 'spy system' is in operation in and near Moricetown and the arrival of local personnel is always heralded well in advance. Road blocks set up this year proved to be very effective, and it is felt that this method would deter activities for limited periods of time.

Due to the distance from one side of the Area to another, (approximately 150 miles) supervision over the entire structure is very difficult. It is known that activities were being conducted in the Burns Lake area, but inadequate staff representation made

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constant and effective patrols almost impossible due to pressures in other location. Co-operation by the Burns Lake and Smithers R.C.M. Police and Mr. Wm. Richardson the Provincial Conservation Officer at Burns Lake was greatly appreciated, and it is felt that their influence further the cause to prevent illegal activities, such as the sale and distribution of salmon which were intended to supplement the Indians winter diet.

In view of the existing situation and with the obvious expansion of the sport fishing, it is strongly recommended that a staff of at least two additional patrolmen be allotted to the area for a period of approximately two months during the extreme pressure period.

ESTIMATED SPAWNING POPULATIONS. (by Location).

Bulkley System.

Sockeye.

This species had approximately 3,000 pieces on the Upper Morice and Nanika River spawning grounds, evenly divided between the two rivers. Fish appeared to be in Excellent condition, with good water levels.

Pinks. This species had a banner year in the Upper Bulkely River from Telkwa to Houston. It is estimated that a return of 25,000 pieces was derived from a brood year escapement of less than 2,000. Spawning conditions were excellent.

Springs. Approximately 10,000 spawners on grounds. 7,500 on Morice River, 1,500 on Upper Bulkley proper, with balance distributed over Bulkley River. Though not a tremendously strong run, this can be considered satisfactory.

Coho. Approximately 11,000 Coho were located. This run is considered to be strong. More attention is being paid to this species and extra efforts are being made to locate spawning locations.

Bear Lake system.

Sockeye. A light escapement of approximately 8,000 Sockeye were counted on the Bear Lake system.

Springs. Approximately 8,000 on the Bear River. Considered medium.

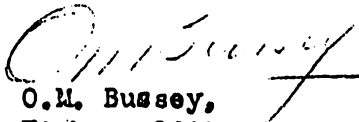
Coho. Estimated 2,000 observed. Excellent possibility of more in area, but not counted due to extremely difficult type of stream terrain, and particularly dark waters.

Pinks. A phenomenal escapement of 15,000 of this species stemmed from a weak brood year compensated somewhat for lighter stocks of other species. Very encouraging.

SUMMARY.

With the exception of two very strong Pink salmon escapements, the overall picture appears to be of average consistency. The escapement is suitable, but could be strengthened with reference to Spring and Sockeye populations.

Spawning conditions were favourable, with no floods nor drought periods to interrupt spawning processes.


O.M. Bussey,
Fishery Officer.

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COMPREHENSIVE REPORT ON THE INDIAN FOOD FISHERY SITUATION AT MORICETOWN FALLS

AND CORRECTIVE SUGGESTIONS.

1963 ESCAPEMENT

1963 INDIAN FOOD CATCHES.

3,000	SOCKEYE	2,316
10,000	SPRINGS	1,859

The above illustration is provided for its comparative value of catch as opposed to escapeemnt. With weak escapements being the rule rather than the exception, it would appear that there is an extremely unfair balance of production by the Indian. In 1963, with a very weak escapement of less than 6,000 possible spawning adults, the Indian Food Fishery at Moricetown secured almost 50% of the entire run, when it is felt that even if there had been a 100% escapement, this would also have been very poor.

Although there is a very strong suggestion of duplication in the case of the Spring salmon, it must be considered that the average weight of these fish is in excess of 20 pounds, and constitutes a terrific poundage.

The total production of all species by piece and poundage for 1963 is listed herewith:--

SOCKEYE	2,316 pos.	11,600 pounds
SPRINGS	1,859	40,900 "
COHO	1,395	13,950 "
PINKS	1,593	8,000 "
STEELHEAD	484	3,870 "
JACKS	759	2,250 "
	<u>8,406</u>	<u>80,570</u> "

This production was taken over an issuance of 60 permits to approximately 25 families.

Population estimation at Moricetown is Total- 250 persons. Adults-100. It is unlikely that more than 150 persons shared in the entire production.

Over the past years, with the advent of the tourist, and the general education of the public tourist, sale of this fish has become imminent. It is felt that a goodly portion of the product finds its way to sources other than that for which it was intended. Proof of this is very difficult to obtain, but is a commonly acknowledged factor.

A second but equally, if not more, important factor is the loss of fish impaled with gaff hooks. In the case of the Spring salmon, fishing for this species is conducted at high water levels, and loss in this case is more often than not due to the size of the fish, rather than the intent to purposely release the fish. This loss can be considered as being 'natural'.

Not so in any other case. While the Indian is in pursuit of Sockeye salmon, there is a co-incidental blending of Coho and Pink salmon. As Pink salmon are considered as 'coarse' fish, there is no doubt that this species is released after being impaled on the gaff, lifted from the water for observation, and then intentionally thrown back, where undoubtedly mortality is an end result of the abuse shown the fish. On one occasion during the past year in the company with the District Supervisor from Prince Rupert, Mr. R.G. McIndoe, observation of this fishery over an extended period of time showed that for every 11 (eleven) fish gaffed, only one was retained, and this because it was either a sockeye or Coho - the rest were apparently Pinks salmon.

Meetings with the Indians to try and eliminate this unnecessary waste and mortality, have been fruitless. The only possible means to help solve the problem, and the end results, are herewith outlined, with any observations further to the suggestions gratefully accepted.

1. Abolition of the use of gaff hooks after week ending July 20, in each year.
In effect, this would permit the Indian to obtain his Spring salmon before this period, when other means of securing same would be unreasonable due to high water levels.
2. UTILIZATION OF DIP-NETS ONLY AFTER JULY 20 OF EACH YEAR.

In this instance, when dip-nets were utilized, any Pink salmon obtained in same could be returned to the water unharmed, and could continue on to the spawning grounds unmolested. This would also terminate loss of Sockeye, Coho, Steelhead etc. which, when not properly hooked wiggle off the gaff, and to all intents and purposes, can be considered lost to the fishery entirely, both as a food fish, and also as a tentative reproducer.

This matter has been discussed with the Indians and to date, there has been no serious objection to the suggestion.

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The above could be instituted but with certain modifications, some of which are listed below:....

- i) Only a limited number of nets could be permitted for use, so close control can be maintained over the catch, due to the extreme efficiency of the method.
- ii) Net could be issued by resident guardian for limited period each fishing day.
- iii) To insure adequate escapements beyond this very efficient method, a system of alternate closure days could possibly be instituted., or a two or three day fishing week be initiated.
- iv) Only certain members of any one household (not family) be issued a permit. Often several members of other families are resident under one roof, and often up to three families.
- v) Although difficult, some attempt should be made to qualify the volume of fish considered essential to supplement the Indian diet.
- vi) Any Indian with over a fixed amount of income would, of necessity, give up his fishing privilege to another of less substantial means of support.

POSSIBLE DEROGATORY EFFECTS, and POSSIBLE CONTROLS.

Undoubtedly fish taken by dip-net will present a much more saleable product, without the benefit of the gaff scarr, which is often quite hideous, and tends to depreciate the value of the fish, by white man standards. To combat this feature, the following method is suggested to be implemented at Moricetown Reservation only.

- i) No fish in a green(fresh) condition is to be transported off or beyond the limits of the reservation, or the buildings thereon.
- ii) Any person found violating any terms of the agreement, will by common consent, surrender his privilege to use dip-nets.
(This will offer no immediate concern, as normally, there has been an ample supply of Spring Salmon obtained.)
- iii) All nets are to be signed for, and received from the Guardian, and must also be returned, on the same day.
- iv) Only nets issued by the Guardian or Fishery Officer, may be used.
No other nets will be allowed.

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It is hoped, that with the implementation of this type of fishery, we can control production and not have a recurrence of this years' type, when in excess of 50% of a total run was lost to an Indian Food Fishery. It is also apparent that additional staff may be required initially to successfully bring about such an evolution. Further development of the matter would readily be appreciated.

O.M. Bussey
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Fishery Officer.

Smithers, B.C.
January 8, 1964.

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Mr. J.R. MacLeod,
District Supervisor of Fisheries,
Prince Rupert, B.C.

ANNUAL SPAWNING REPORT.

BEAR LAKE SYTEM 1963.

Several trips by air, were made into this area during the season. Stocks of Spring salmon did not exceed those recorded in past years, but were still considered to be fairly satisfactory. There was a very good Pink salmon escapement to the system, which can not be considered usual, but is excellent considering that the stock originated from a very weak brood year.

Weather conditions offered less than good volumes earlier in the season, but during the critical period sufficient levels were maintained. There was very little run-off during the early part of the year.

INDIAN FOOD FISHERY.

There was no attempt made by the few local Indians to secure any fish for winter food purposes. All salmon seemed to prefer to remain further downstream than they had in the past, and to get the fish to smokehouses and/or home, would have entailed a great deal of effort. However, during the entire year there was a great deal of exploration activities in the area, and the Indian population were fairly steadily employed, and will be able to purchase necessary winter food supplies with earnings derived from their employment by the firms engaged in the operations in the locality.

SOCKEYE. An estimated total escapement of 8,000 pieces to entire system. Considered light.

SPRINGS. Total escapement of approximately 8,000 to Bear River. Moderate escapement.

COHO. Approximately 2,000 observed, but excellent possibility of more being present but unobserved. Considered good.

PINKS. Stemming from a weak cycle year the 15,000 escapement can be considered nothing less than phenomenal. Excellent.

<u>STREAM</u>	<u>SPECIES</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>Intensity.</u>
Auklotz Cr	Sockeye	G	F	E	F	G	Heavy
		C	C	C	B	NO	
Bear River	Sockeye	F	C	E	E	G	MED
	Spring	M	K	G	H	H	MED
	Coho	D	NO	F	F	F	MED
	Pinks	D	NO	F	NO	K	MED - HEAVY
Salix Creek	Sockeye			C	C	C	LIGHT
	Coho				C	NO	
Bustut Lake	Sockeye	NR	B	C	C	C	LIGHT
ASITKA Lake	Sockeye	NO	NO	C	NO	NO	FAILURE
Johanson Lake	Sockeye	NR	A	C	C	C	LIGHT.

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