Vancouver, March 24th, 1903.

Hon. R.Prefontaine,

Minister Marine & Fisheries,

Ottawa, Ont.

Dear Sir:-

In accordance with my promise to you, made during our interview last November, I herewith beg to submit the following report concerning the salmon fishing industry, more particularly that portion relating to the Fraser River fishing. This report has been delayed owing to my desire to embody in it the results of last season's operations, so as to show the comparative results on Puget Sound and the fraser in what is considered an off year. The canning industry in these waters may be said to have reached its maximum in 1901, which was a "big year", and last season having been the reverse, the two taken together will enable you to see the situation as it exists to-day.

As the tables covering pack will show, up to the year 1891 practically all the fishing was done on our side of the line; the percentage for Puget Sound having been only 4 9/10% in 1889 and 3 7/10% in 1890. In 1891 a cannery was built near the boundary line, and traps were operated on Point Roberts. This was the first introduction of trap fishing in Puget Sound waters, and from that time on the percentage of pack grew steadily in their favor, until in 1898 for the first time the preponderance of pack was secured by the American canners, and ever since they have succeeded in maintaining their advantage.

I understand that in 1895 the Dominion of Canada and the United States, in appointing the joint commission to investigate the fisheries in international waters, laid down the rule that where the principal matters were equal, small questions should be decided in

favor of the country having a preponderance of interest. At that time such questions arising in connection with the Fraser River fish would have been decided in our favor, we then representing 67 2/10% of the total for that year, and having maintained the leading position up to that time. To-day, however, should a similar recommendation be made, the Americans would have the advantage both on last season's showing as well as for the four previous years.

In considering how the preponderance of interest has been allowed to pass away from us it will not do to simply take the figures stated, as all of the pack obtained on the Fraser does not represent fish caught in Canadian waters. Quite a percentage of our pack was obtained from fish caught in American traps, purse seines, and even gill nets, so that were steps taken to-day by the United States authorities to prohibit the exportation of fresh salmon, the percentage of Puget Sound would be increased, and ours correspondingly reduced. To illustrate this I would mention that while last season was a poor one, we imported from Puget Sound sufficient salmonto fill 30212 cases, representing .09 2/10% of our total pack.

The percentage that can be obtained by Puget Sound packers in poor years will be correspondingly greater than in years of a heavy run of fish. Whereas inthe latter case their traps become so full of fish that it is necessary to let down the web and let the fish escape, so as to prevent the loss of the webbing, in a poor season where such a glut of fish does not occur they can retain practically every fish that enters the trap, and thus our supply is curtailed. Again, on a question of quality the Americans have the advantage, as the bulk of their fish is in good condition on arrival at their canneries, as they are then in a state of physical perfection, while by the time the salmon have run the gauntlet of all the traps, they have been so delayed that they are further advanced toward spawning, and are consequently softer than would be the case had their travels been free of interruption. In a big run also where they are released from traps in which they may have been confined for several days they are more or less bruised through having

rubbed against the walls of the trap in their efforts to escape.

The quantities of fish that can be obtained at one time by trap fishing, and the fact that by holding fish in the traps until they are ready to handle them, enables the Puget Sound packers to prepare plants of larger daily capacity than can generally be done on the Fraser. Traps are personal property, and can be depended onfor a supply if the fish run. Gill net fishermen cannot be controlledin the same way, consequently the Fraser River canners have hadmore risk in their operations, and therefore have contented themselves with smaller plants. Thus, while there were 42 plants operated on the Fraser against 21 on Puget Sound - a difference of 100% - the value of the Puget Sound plants are only $185,567 less than those on the Fraser.

The differences, however, extend still further, for while they have fewer plants, their packing capacity is equal to ours - as is shown by results - and to do the same amount of work they only require about 65% of the labor. This of course means cheaper packs on the average, as there are fewer demands for a share of the money expended. The Fraser, in its efforts to maintain supremacy, has been increasing the number of gill nets, operating which not only means that the number of fishermen have increased, but that in addition the competition resulting amongst this vast army of fishermen has caused heavy advances in the price of fish.

The cost of trap fishing has, if anything, been reduced, owing to the broader knowledge that has been acquired by experience, so that they have not suffered from the same cause. Our increased efforts moreover have not correspondingly increased our returns, for the percentage in favor of Puget Sound has continued to mount up.

The tables covering gear operated show that on the Fraser the increased value has been brought about by the increase in labor employed, and all this increase is chargeable to gill net fishing alone. Puget Sound on the other hand has divided its increased investment in fishing appliances over various items. Gill nets in 1901 while in number only one eight of those fished on the Fraser

are all the way from 400 to 600 fathoms long, as compared to 150 fathom nets on the Fraser, so that while only the same amount of labor is employed in operating a net, the men have three or four times the chances for making catches, and consequently can afford to sell at a less amount per fish. Set nets, drag seines, purse seines and even traps, have been increased in effectiveness, so that the returns are greater, although the number of men employed has not been increased.

Trap fishing on the Sound has also resulted in retarding the progress of the fish, so that local conditions have been completely changed. In former years salmon used to enter the Fraser in separate and distinct "runs". Sometimes two, sometimes four or five runs would occur in the one season, from July 1st to August 25th. These runs generally, if not always, represented the fish ascending different tributaries of the Fraser, and presumbably those ascending first were making for those spawning beds farthest removed from the river's mouth. With the advent of trap fishing however all this was changed. The numerous obstacles encountered checked the progress of the early runs until they were joined by the later ones, and thus to-day our catches are all made in practically ten days' time, so much have the Puget Sound operations reduced our period of working time.

As is shown by the joint report of Prof.Prince and Mr. Rathbun, the fish pass through Canadian waters before entering American waters, and, after passing Discovery Island, divide, some coming up Haro and others up Rosairio Straits. Their report is in error, however, in stating that those fish coming up Haro Straits enter the Fraser without going near Boundary Bay and Point Roberts. On the contrary, they travel in almost a direct line from the head of San Juan Island to Cherry Point on the Mainland, passing Stuart, Spieden and Waldron Islands en route, and sometimes taking the Saturna Island, and again the Orcas Island shore, so that good sized runs pass both places. Some of the best traps on Puget Sound are on Stuart and Waldron Islands, and along Douglas Channel.

A little careful study of tidal conditions will explain this point beyond any question. The natural instinct of the salmon compels it to seek fresh water when the spawning time approaches. The fish, entering the Straits of Fuca from the ocean, finds the brackish water along the Vancouver Island shore, where it is driven by the heavy incoming tides, the current of which, owing to the shape of the passage, being directed toward the American shore. This forms quieter waters on the Canadian side.

The tides from the Northern end of the Gulf of Georgia, crossing the mouth of the Fraser, sweep the fresh water of that river in an easterly direction, past Point Roberts into American territory. This fresh or brackish water, still forced along by the tidal current, is carried down Rosario Straits, where it is met by the pressure of the current from Admiralty Inlet, and turned toward the Straits. This accounts for the greater body of fish taking the Rosario Straits passage instead of Haro Straits, which receive comparatively little of the Fraser water except in big years, when the volume of fresh water descending the river is so great that a portion of it crosses the gulf and enters Haro Straits through Active Pass. This argument is further proved by the fact that practically no fish are found in the passages between San Juan, Orcas, Lopez, and the smaller islands composing the group separating Rosario and Haro Straits, and the reason of their not frequenting those waters is easily shown by the shape of the northern end of Orcas Island, which acts like the bow of a ship in turning off the waters.

The gill net fishing on Puget Sound is mostly restricted to that portion made muddy by the Fraser River outflow. Traps are situated wherever suitable driving ground for the piles can be found in the course taken by the fish. Purse seines are fished in all portions of the Sound, wherever fish are seen jumping. Their operations embrace all the waters on the American side, from the Straits of Fuca to Point Roberts.

If purse seine fishing is permitted on our side of the line from (and including) the Straits of Fuca to the 49th parallel it not only will help to put our industry on a more even basis with

Puget Sound by extending the length of our season's operations, but will enable us to secure fish before they enter American waters. This applies not only around the southern end of San Juan Island, but also to the waters from Discovery to Saturna Island. The fish caught by this method will also arrive at the canneries in primer condition than those caught in gill nets after being delayed by the American traps.

Traps should be allowed in the same territory to enable us to regain at least a portion of our lost ground, but while these appliances would prove of immense advantage to us, not only as regards the percentage we would obtain, but also as regards cost of pack, the matter is one that should be dealt with after the question of foreshore jurisdiction is definitely settled between the Dominion and Provincial Governments, and some fair and equitable measure agreed upon that will give due consideration to those vested interests that are affected by the existing state of affairs, and who have stood the brunt of the American attack.

In a report just submitted to the Provincial Government by Mr. J.P.Babcock, that gentleman advocates limiting the use of traps to the South coast of Vancouver Island, from Discovery Island west. Mr. Babcock states that so doing would not materially affect the fishermen, and through confining traps to the one section for "some years", so as to move deliberately in demonstrating the effect and value of traps, would result in giving better protection to the vested interests.

I cannot follow Mr. Babcock's argument for several reasons. In the first place, the American traps in Haro Straits do intercept our fish, and the use of traps and purse seines in the neighboring Canadian waters would give us the opportunity of retaliating. If this reason can be justifiably advanced for permitting their use in the Straits of Fuca, it is equally as much entitled to consideration when applied to the territory between Discovery Island and the 49th parallel.

In the second place, there is at the present time, more or less talk concerning the disposal by the Provincial Government of

the foreshore of the Straits of Fuca. Not only have the vested interests been ignored to a large extent in granting these applications, but in addition some applications that were properly filed have been set aside, or ignored, for others filed at a later date.

The trap locations in the course taken by the fish in coming up the Straits of Fuca are very limited in number, owing to the exposure to ocean swells, or the character of the bottom, rendering it difficult if not impossible to fish traps profitably. The few places where traps could be put in and where their operations can be looked upon to produce satisfactory results, have in practically every case been granted to those who, from the standpoint of vested interests, are least entitled to them.

The fact that these locations are already granted - or such action is contemplated - would be most detrimental to the vested interests, as it would be depriving them of the opportunity to reimburse themselves for the vast expenditures made during the last few years to maintain their position, and would instead introduce a competition more harmful to their interests than the one they are experimenting to-day.

All of the fish making for the Fraser River enter the Straits of Fuca and travel along the South shore of Vancouver Island. They may not always follow the same channel when in American waters, but in the Straits they invariably follow the same shore. Thus, while there is a good chance of their evading American traps, those situated in the Straits would, if any good at all, make excellent catches every year as long as the fish were available. This steadiness of catch would mean a lower average cost of fish year after year than is possible on the American side, or in the less confined waters of our own country. If, therefore, an individual, or company, obtaining a good trap location on the Straits, and in all other respects enjoying equal privileges with the canner whose plant was situated on the Fraser and whose fishing operations were limited to gill nets, were inclined, they could put the price of their finished product at a figure netting them a handsome profit, while

causing the less fortunate Fraser River competitor severe loss. The furtherance of the Provincial Government's present policy would therefore have an entirely opposite effect on the vested interests to that anticipated by Mr. Babcock in his report.

The argument might be advanced that the Fraser canners could enjoy the benefits of the Straits of Fuca traps, but unless they are prepared to erect new plants within a reasonable distance of those waters they could enjoy no benefit from them, as their location is so distant from the present canning plants as to make it out of the question to transport the fish and have them arrive in prime canning condition. Traps situated this side of Discovery Island could be profitably worked in connection with the present plants, so that if anything it is more reasonable to ask for the privileges for those waters in preference to the Straits.

The settlement of territorial jurisdiction however only affects the trap question, and while, as stated above, until that matter has been disposed of no steps should be taken with the object of permitting their use; still the permitting of purse seines is not subject to the same objections. The comparatively small cost of a purse seine puts it in the power of the fisherman to operate one successfully, so that all classes of labor would profit by their introduction. In taking up this question, however, I believe that not only should permission be granted to fish purse seines - and drag seines also if desired - in waters south of the 49th parallel, but that their use should be extended to the waters of Northern British Columbia as well.

In South Eastern Alaska all the canneries use purse seines to a very large extent in their fishing operations, and it may be questioned whether they confine their use exclusively to their own waters. To my knowledge one cannery alone fishes the waters within a radius of 150 miles of their plant, and operates some 24 purse seines. Their pack of 75,000 to 100,000 c/s yearly, as compared to the 15,000 to 20,000 c/s pack of one of our Northern plants, is much cheaper, owing to the greater amount over which to distribute their labor charge.

If purse seines are permitted in the Northern waters they not only would result in giving employment to a greater number, and that with more opportunities to the fishermen, but in addition it would put the industry upon a more permanent basis by increasing the packs and making them more uniform one year with another. In nearly all the Northern fishing grounds the waters are very deep, thus presenting opportunities for purse seines where drag seines and gill nets are quite useless. This applies most particularly to fishing in rainy or cloudy weather (which is most prevalent), when the fish swim deeper than when the sun is shining. In this dismal weather, although the fish may be extremely plentiful the present methods prove unprofitable, which would not be the case with the first mentioned method.

A careful study of the chart showing the rivers and inlets opening into Hecate Straits and its landward approaches will show the same conditions as regards fresh water and tidal influences as prevail in the Fraser River approaches. The fresh water from the Skeena and Naas rivers, as well as that from the various smaller rivers and streams ascended by salmon, and which empty into such arms of the sea as Portland Canal, Observatory Inlet, Work Canal, Kitimatt Arm, Gardiner Canal and many smaller inlets too numerous to mention, all eventually work their way into Hecate Straits, and the fish, being led by their natural instincts to follow this water, can be secured by purse seines in the Straits, whereas neither drag seines nor gill nets could be profitably used. It is more than likely too that fish heading for the fresh water streams in American territory - which streams also empty into Hecate Straits - could be caught in Canadian territory, and thus enable us to handicap the American operations in Alaska in a similar manner to their interference with the Fraser River.

As regards the use of drag seines, I would also suggest a decided change from present methods. To-day drag seining is only allowed under special license, which gives the holder of such license exclusive fishing privileges over an extensive area. This policy is most detrimental to a proper development of the industry, as in

the first place I do not know of a single instance in which actual bona fide fishermen have secured the privilege; and in the second place, in a great many instances these licenses are sought after and obtained by parties having no intention of utilizing the privilege for legitimate canning purposes, but with the sole object of selling the use of the license to someone else. Thus they receive an income from something that costs them nothing, and for which if any sum was paid the Government should obtain the benefit of. Of course, the only parties capable of purchasing such rights are the cannery owners, for we have no fishermen here who could afford to pay from $150 to $200 for an outfit, and a further $200 to $300 per year for a license, and then find a market for their fish at profitable prices. If this fishing is to be as fully developed as it is in other parts of the Dominion I would suggest drag and purse seine licenses be granted to fishermen direct, under exactly similar conditions as those governing the granting of gill net licenses. This would enable bona fide fishermen to own and operate these nets, and would build up a permanent and steady class of resident fishermen working to their own advancement, and the establishing of the industry upon a more staple basis.

In presenting this I would mention that our idea is to enlarge the industry, and, in doing so, benefit ourselves by the greater opportunities such action would give birth to. If the Department sees fit to adopt our suggestion as to the elimination of the present special drag seine privileges, they will be taking away from us alone probably half of the total number of seine licenses issued up to the present time. Naturally we would not advocate depriving ourselves of these were it not that we believe we could gain more benefits by the greater number that would be operated by the individual fishermen were they placed in the position to avail themselves of such an opportunity.

There is one exception to this rule, however, which I think will be justified. That is that where the holder, or obtainer, of special territorial privileges for seining purposes will immediately erect and maintain at his own expense a hatchery for the propoga-

tion of salmon, his special privileges should be guaranteed him as compensation for his enterprise.

In concluding this report, which I trust covers the points upon which you desired information, I will refer once more to the growth of the Puget Sound industry at the expense of the Fraser River by giving the following quotation from the report just submitted to the Washington State Legislature by Mr.T.R.Kershaw, the State Fish Commissioner. Speaking of the salmon fishing he says:

"Within the last few years the fisheries industry on the "lower Sound has grown with great rapidity, until to-day the Puget "Sound district furnishes over 82% of all of the capital employed "in the State in the fishing industry; over 77% of the number of "persons employed; over 79% of the earnings of labor employed; over "86% of the value of the output for the State, and over 85% of the "taxes received by this office. The Puget Sound district should "therefore be credited with about 80% of the fisheries industry "of the entire state".

Yours very truly,

Signed Henry Doyle

MEN EMPLOYED.

Year	Fraser	Puget Sound
1889	No record	138
1890	"	85
1891	"	149
1892	"	155
1893	8402	No record
1894	7868	"
1895	8659	"
1896	9722	"
1897	13636	3375
1898	15058	3516
1899	13570	5378
1900	13891	5319
1901	13141	8657
1902	10902	8265

FRASER RIVER

FISHING GEAR OPERATED

Year	Gill Nets		Seines	Sundry Appliances	Steamboats		Total
	No.	Value	Value $	Value	No.	Value	Value $
1889	No record		No record	No record	No record		No Record
1890	"		"	46858	24	84525	"
1891	"		"	No record	No record		"
1892	"		"	"	"		"
1893	1174	132000	3000	50090	26	102300	287300
1894	1667	187500	2000	64400	36	150890	404700
1895	1734	195000	2000	70800	40	154480	422280
1896	2646	295425	3000	124030	43	193300	615755
1897	2318	868275	-	139080	50	193100	600455
1898	2643	301925	1800	149000	51	196965	648790
1899	2722	306213	2109	170250	55	220000	698563
1900	3711	417824	2109	222660	57	228000	870284
1901	3532	397350	2100	211920	59	236000	847370
1902	2686	337875	2400	170360	60	240000	750635

COMPARISON PACKING OPERATIONS

FRASER RIVER.

Year	Canneries		Pack	Percentage of combined
	No.	Value	Cases	Fraser and Puget Sound pack
1889	15	450000	308122	.95 1/10%
1890	17	510000	244637	.96 3/10%
1891	21	630000	178954	.86 5/10%
1892	20	600000	80215	.66 8/10%
1893	24	720000	457797	.79 2/10%
1894	26	780000	363967	.78 7/10%
1895	30	900000	400368	.67 2/10%
1896	32	960000	356984	.53 3/10%
1897	42	1260000	860459	.63 5/10%
1898	44	1320000	256101	.39 1/10%
1899	47	1410000	510383	.45 5/10%
1900	44	1320000	316582	.40 3/10%
1901	46	1440000	990252	.41 2/10%
1902	42	1260000	327095	.35%*

* Of this 35% there were 30212 cases representing 9 2/10% of the total Fraser pack obtained from fish caught in American waters.

COMPARISON PACKING OPERATIONS

PUGET SOUND.

Year	Canneries		Pack	Percentage of combined
	No.	Value	Cases	Fraser and Puget Sound pack
1889	2	30000	15810	.04 9/10%
1890	1	30000	9230	.03 7/10%
1891	2	55000	27800	.13 5/10%
1892	2	60000	36236	.31 2/10%
1893	3	90000	121000	.20 8/10%
1894	4	120000	102000	.21 3/10%
1895	6	150000	193525	.33 8/10%
1896	11	220000	312361	.46 7/10%
1897	12	255450	494026	.36 5/10%
1898	18	358500	400200	.60 9/10%
1899	18	384650	927500	.64 5/10%
1900	19	424750	469450	.59 7/10%
1901	25	860000	1414990	.58 8/10%
1902	21	1074433	609659	.65%