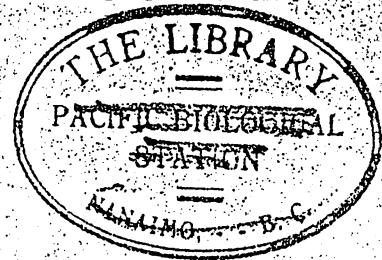


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1922

# BRITISH COLUMBIA FISHERIES COMMISSION

1922



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## Report and Recommendations

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### *Commissioners:*

WM. DUFF, M.P., Lunenburg, N.S., *Chairman*  
C. H. DICKIE, M.P., Duncan, B.C.  
L. H. MARTELL, M.P., Windsor, N.S.  
W. G. McQUARRIE, M.P., New Westminster, B.C.  
A. W. NEILL, M.P., Alberni, B.C.  
A. STORK, M.P., Prince Rupert, B.C.

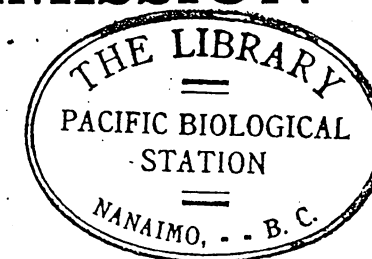


OTTAWA  
F. A. ACLAND  
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY  
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1923

The Honourable ERNEST LAPOINTE, K.C., P.C., M.P.,  
Minister of Marine and Fisheries,  
Ottawa.

SIR,—In compliance with the terms of the Order in Council appointing us Commissioners to investigate the present condition of the fishing industry of British Columbia, we have conducted and completed our investigations in that province and now beg to submit our report thereon with recommendations, looking to the betterment of the industry, which we sincerely trust will be approved and acted on with the least possible delay.

#### THE COMMISSION'S ORIGIN

In the House of Commons, on April 10, 1922, Mr. McQuarrie, of New Westminster, B.C., moved the following resolution:—

“Resolved; That, in the opinion of this House, it is advisable that the Standing Committee on Marine and Fisheries be and the said Standing Committee is hereby authorized and empowered to investigate and consider fisheries conditions in British Columbia, and more particularly, but not so as to restrict the generality of the foregoing, the depletion of the salmon fisheries of the Fraser River District, and to make suggestions for the restoration and conservation of the same; also to investigate and consider fish hatcheries, including the proper system to be adopted, their value as a means of propagation, the methods of operation and the results obtained therefrom; with power as to all the hereinbefore mentioned matters to call for persons, papers and records, to examine witnesses

under oath and to report from time to time.”

The above named Committee in the course of several sittings heard the evidence of witnesses who are actively engaged in the canning branch of the salmon fishing industry, also certain departmental officials. Such evidence however, was largely one-sided and altogether insufficient upon which to base any recommendations for the betterment of conditions affecting the fisheries of the pacific province.

Consequently, the Chairman of the Committee submitted to the House the following report on the Committee's investigations up to the time of prorogation:—

Your Committee has held a number of sittings; has heard certain witnesses and considered certain reports, communications and other documents, but has not been able to make a complete inquiry into the matters submitted to it. However, the members of the Committee are unanimously agreed that the seriousness of fishery conditions at the Pacific coast warrants full and complete investigation.

In order to enable the Committee to make an intelligent and comprehensive report, it is considered absolutely necessary that evidence should be taken in British Columbia where it will be possible to call witnesses, representatives of all classes engaged in the industry. The only alternative would be to bring a large number of witnesses from the British Columbia coast to Ottawa, which would entail very great expense.

Realizing that the functions of this Committee will cease on prorogation, your Committee recommends that a Commission composed of such members of this Committee as the Minister of Marine and Fisheries may deem advisable, be appointed, pursuant to the provisions of the Enquiries Act, Chapter 104 of the Revised Statutes of Canada, 1906, to proceed to British Columbia and to hold sittings at such places and at such times as the Commission may consider expedient, for the purposes of obtaining such further information as may be available. And further, that such Commission be given the usual powers to call witnesses and to examine the same under oath, inspect premises and generally to make full inquiry into all matters and things covered by the resolution and to report.

Parliament having approved the Committee's recommendation, certain members of the said Committee were, by Order in Council of July 10th, appointed Commissioners to continue in British Columbia the investigation begun in Ottawa. The Order in Council referred to reads in part as follows: "That the following members of the said Select Standing Committee be appointed a Commission under Part I of the Enquiries Act, Chapter 104, of the Revised Statutes of Canada, 1906, as amended, with the powers specified in the said part of the said Statute, to proceed to British Columbia and to hold meetings at such places and at such times as they may consider expedient to enable them to obtain such further information as may be available, and more particularly, but not so as to restrict the generality of the investigation, as to whether the export in a fresh condition for purposes other than supplying the fresh fish markets of other species of salmon than sockeye should be permitted, and also as to whether motor boats should be allowed to be used in salmon drift-net fishing operations in Fisheries District No. 2, British Columbia, and to report their findings to the Minister of Marine and Fisheries." Those appointed were:—

Wm. Duff, Chairman.  
A. W. Chisholm.  
L. H. Martell.  
A. Stork.  
A. W. Neill.  
Hon. H. H. Stevens.  
C. H. Dickie.

The Hon. H. H. Stevens having expressed a wish to be relieved from services on the Commission, Mr. W. G. McQuarrie was subsequently appointed in his stead.

Dr. A. W. Chisholm, owing to sickness in his family, was unable to accompany the Commission to British Columbia or take part in its deliberations. Mr. J. J. Cowie of the headquarters staff at Ottawa, accompanied the Commission as departmental representative.

Thus, while the Commission was formally appointed and received its authority by Order in Council for the purpose of overcoming a technicality caused by the prorogation of Parliament, it was in reality a sub-committee of the Select Standing Committee of the House on Marine and Fisheries and its investigation in British Columbia a continuation of those begun by the larger Committee while Parliament was in Session.

#### NUMBER AND PLACE OF SITTING

The first sitting of the Commission took place at Prince Rupert on August 14, and the last one at Vancouver on September 14.

In that comparatively short period the whole coast of British Columbia and part of southeastern Alaska was covered. Meetings were held at and visits of inspection made to the following places:—

1. Prince Rupert, meeting August 14.
2. Prince Rupert, meeting August 15.

4. Visit to Ketchikan and American traps, August 17.
5. Port Essington, meeting August 19.
6. Lowe Inlet, meeting August 22.
7. Bella Bella, meeting August 23.
8. Rivers Inlet, meeting August 24.
9. Sointula, meeting August 25.
10. Visit to Nimpkish River, August 25.
11. Quathiaski Cove, meeting August 26.
12. Nanaimo, meeting August 29.
13. Visit to Sproat Lake, August 30.
14. Port Alberni, meeting August 31.
15. Ucluelet, meeting September 1.
16. Duncan, meeting September 2.
17. Visit to traps at Sooke, September 4.
18. Victoria, meeting September 5.
19. New Westminster, meeting September 7.
20. Vancouver, meeting September 8.
21. Vancouver, meeting September 9.
22. Visit to Steveston, September 10.
23. Vancouver, meeting September 11.
24. Vancouver, private meeting of the Commission, September 13.
25. Vancouver, meeting with American representatives, September 14.

#### WITNESSES EXAMINED

The following is a list of the witnesses who came before the Commission and gave evidence at the various meetings:—

1. James Neville, fisherman, Prince Rupert.
2. John O'Donnell, fisherman, Prince Rupert.
3. Wm. Brown, fisherman, Port Edward.
4. Robert Hanna, fisherman, Prince Rupert.
5. Richard C. Sullivan, fisherman, Prince Rupert.
6. Peter Judge, fisherman, Prince Rupert.
7. Peter Rowick, fisherman, Prince Rupert.
8. David Douglas, manager of Cannery Skeena River.
9. Thomas Dawe, Patrol Boat Captain, Prince Rupert.
10. C. W. Nickerson, broker, Prince Rupert.
11. Thos. H. Johnson, manager Can. Fish & Cold Storage Co., Prince Rupert.
12. John H. Meagher, agent, Prince Rupert Deep Sea Fisheries Union, Prince Rupert.
13. John Dybhaven, manager Royal Fish Co., Prince Rupert.
14. W. E. Williams, lawyer, Prince Rupert.
15. Wm. Wilson, fish inspector, Prince Rupert.
16. Wm. Sims, fisherman, Porcher Island.
17. Charles C. Perry, Indian Agent, Skeena River, Prince Rupert.
18. Henry Collinson (Indian), sherman, Kitkatla Reserve.
19. Judson Thoreau, fisherman, Prince Rupert.
20. Andrew Christensen, fisherman, Prince Rupert.
21. Rev. Peter Kelly, missionary, Nanaimo.
22. James Catt, Hatchery Superintendent, Skeena River.
23. Adam Mackie, Inspector of Fisheries, Prince Rupert.
24. Charles Bathalie, Barton Indian Fisherman, Kincolith.
25. Wm. E. Collinson, Indian Agent, Naas River.
26. Arthur Calder, cannery employee, Naas River.
27. Andrew Mercer, fisherman, Naas River.
28. James Ryan, fisherman, Naas River.
29. Walter B. Walker, cannery manager, Naas River.
30. James B. Bun, cannery manager, Naas River.
31. Martin Paulson, net man (cannery), Port Essington.
32. Peter Nelson, Indian fisherman, Port Essington.
33. James Fleurin, fisherman, Port Essington.
34. Christopher Fox, fisherman, Hazelton.
35. Silas Johnson, Indian fisherman, Kispiox.
36. Hozumi Yonemura, Asst. Sec. Japanese Association, District No. 2.
37. Thoreifour Johensen, fisherman, Skeena River.
38. Thurston Davison, fisherman, Prince Rupert.
39. Robert G. Jihson, cannery manager, Skeena River.
40. James Lamb, cannery manager, Skeena River.

42. Jacob Law, fisherman (Indian), Kitkatla.
43. Nicholas Coulter, fisherman (Indian), Port Essington.
44. Wm. Benson, fisherman (Indian), Port Essington.
45. Wm. Brown, fisherman (Indian), Prince Rupert.
46. Edwin J. Curtiss, cannery manager, Lowe Inlet.
47. James Boyd, fishery officer, Bella Bella.
48. Wathan Wilson, Indian fisherman, Bella Bella.
49. Lorne Williams, Indian fisherman, Bella Bella.
50. Moody Humchit, Indian fisherman, Bella Bella.
51. Harry Humchit, Indian fisherman, Bella Bella.
52. Wm. H. Pierce (Indian), Methodist Minister, Port Essington.
53. Archibald Millar, cannery netman, Bella Bella.
54. John Hunt, cannery engineer, Bella Bella.
55. Richard Winch, cannery owner, Kimsquit cannery.
56. Davidson Manly, cannery manager, Namu.
57. Robert Gosse, cannery owner, Bella Bella.
58. Richard J. Gosse, cannery manager, Bella Bella.
59. Geo. McTavish, cannery manager, Rivers Inlet.
60. Weldon Reid, hatchery superintendent, Rivers Inlet.
61. Arthur Stone, Provincial Fishery Officer, Rivers Inlet.
62. Daniel McCloskey, fisherman, Rivers Inlet.
63. John H. Hickey, cannery owner, Kingcome Inlet.
64. Frank Inrig, cannery manager, Rivers Inlet.
65. Felix Mynotty, fisherman, Malcolm Island.
66. Lawrie Jarvis, fisherman, Sointula.
67. Kassu Dixon, Indian fisherman, Alert Bay.
68. John F. Tait, fishery officer, Alert Bay.
69. Harold Malu, fisherman, Sointula.
70. Bruno Karrie, fisherman, Sointula.
71. Milo Chamber, cannery manager, Alert Bay.
72. Charles Cowe, cannery engineer, Quathiaski Cove.
73. Oscar Overgard, fisherman, Duncan Bay.
74. Thomas Noble, farmer, Quathiaski.
75. Tom Bell, fisherman, Quathiaski.
76. Frank Fontaine, fisherman, Quathiaski.
77. Wm. Law, farmer, Hyacinth Bay.
78. Gustave Morlandi, fisherman, Gowlland Harbour.
79. Robert Walker, school teacher, Gowlland Harbour.
80. Wm. Roberts, fisherman, Campbell River.
81. Bernard Treadcroft, fisherman, Cape Mudge.
82. Arthur Joyce, fisherman, Cape Mudge.
83. Wm. Wiseman, fisherman, Quathiaski.
84. Henry Blair, fisherman, Quathiaski.
85. Edward Treadcroft, fisherman, Campbell River.
86. George Skinner, fisherman, Vancouver.
87. Henry Beadnell, fishery officer, Comox.
88. Wm. E. Anderson, cannery owner, Quathiaski.
89. Chas. Fraser, prof. of zoology, Vancouver.
90. Andrew Paul, Sec. Allied Indian tribes, Vancouver.
91. Alfred Bradford, buyer, Naniamo.
92. Ernest J. Keane, fisherman, Naniamo.
93. Jesse Goodale, fisherman, Naniamo.
94. Joseph Jardine, fish, meal and oil plant, Naniamo.
95. John Galloway, cannery accountant, Naniamo.
96. Herbert Cargan, fisherman, Naniamo.
97. Frank Faulkner, fisherman and buyer, Naniamo.
98. Thos. Listen, fisherman, Naniamo.
99. Edward G. Taylor, Inspector of fisheries, Naniamo.
100. John Stevenson, fisherman, Naniamo.
101. Thos. Kincade, fishery guardian, Qualicum.
102. James Crosdale, fisherman, Port Alberni.
103. Richard Burde, publisher, Port Alberni.
104. Wm. Redford, fisherman, Alberni.
105. Scott McDonald, fish buyer, Bamfield.
106. Edward Taylor, Ins. of Fisheries, Naniamo.
107. John A. Kendall, fish dealer, Port Alberni.
108. Wm. J. Stone, mariner, Port Alberni.
109. Mrs. S. Robertson, Uchucklesit Harbor.
110. Samuel Anderson, fisherman, Port Alberni.
111. Daniel Watts, fisherman, Alberni.
112. Harry West, fish-curer, Clayoquot.
113. Fred L. Smith, fisherman, Uchucklesit.
114. James Crossdale.
115. Ralph Nelson, fisherman, Port Alberni.
116. Fred M. Mathers, Cannery manager, San Mateo.
117. Wm. Redford.
118. Erling E. Peterson, fisherman, Port Alberni.
119. Peter Larson, fisherman, Kildonan.
120. Chester Butterfield, fish buyer, Port Alberni.
121. Godwin Carlson, fisherman, Naniamo.
122. Tadason Ida, Jap fisherman, Ucluelet.
123. Christian Olsen, fisherman, Ucluelet.
124. John Johnson, fisherman, Ucluelet.
125. E. Fernland, fisherman, Clayoquot.
126. Jacob Arnet, fisherman, Clayoquot.
127. Lawrence Rattrey, Sec. Fish and Game Association, Duncan.
128. Harold Prevost, merchant, Duncan.
129. Richard M. Palmer, Duncan.
130. Robert M. Colvin, fishery officer, Duncan.
131. Collins Wallick, Cowichan Bay.
132. John B. Babcock, Asst. Commr. Fisheries, Victoria.
133. Michael McGrath, fisherman, Victoria.
134. Chas. F. Todd, cannery owner, Victoria.
135. Ernest Ditchburn, Chief Inspector Indian Affairs, Victoria.
136. Edward Schelan, missionary, Saanich.
137. Frederick Daly, customs surveyor, Victoria.
138. John A. Beckwith, cannery owner, Victoria.
139. John Grice, ex-fishery officer, Tofino.
140. James Johnson, fisherman, Victoria.
141. Spencer T. Hankey, barrister, Victoria.
142. Bernard Mess, cannery owner, Victoria.
143. John Robertson, fisherman, Victoria.
144. Wm. E. Maiden, Printer & Sec. Fishermen's Protective Association, New Westminster.
145. Robert Reid, fisherman, Whonnock.
146. Joseph McDonald, cannery manager, New Westminster.
147. August John, Indian fisherman, Port Hammond.
148. Andrew Halcrow, fish collector, New Westminster.
149. Joseph Stewart, Indian fisherman, Hope.
150. Clifford Lord, Anglers and Game Association, New Westminster.
151. P. Oyabara, Sec. Jap. Fish Benevolent Society, Steveston.
152. Samuel Holbrook, fisherman, Vancouver.
153. Tilman Gerring, fisherman, Burnaby.
154. Leonard Patterson, fisherman, Annieville.
155. James Gunderson, fisherman, Annieville.
156. Chief Pierre, fisherman, Hope.
157. Louis Nadeau, fisherman, Port Hammond.
158. Thomas Steaves, fisherman, New Westminster.
159. John Brodwick, fisherman, New Westminster.
160. Wm. Maiden, Secretary Fisherman's Association, New Westminster.
161. J. M. McDonald, canner, New Westminster.
162. Wm. Barker, President B. C. Packing Co., Vancouver.
163. Hugh Thornley, President Disabled Veteran's Association, Vancouver.
164. Harry Jones, fisherman, Vancouver.
165. Henry Doyle, Vice President Northern B. C. Fisheries, Vancouver.
166. Henry Irvine, cannery owner, Vancouver.
167. Ben Miller, cannery owner, Vancouver.
168. Francis Millars, cannery owner, Vancouver.
169. Carl Sutor, general manager Fidalgo Fish Co., Seattle, Wash.
170. Sydney Fry, customs officer, Kildonan.
171. Henry Good, customs officer, Nanaimo.
172. Daniel MacPherson, cannery manager, New Westminster.
173. Alexander Harvey, fisherman, Vancouver.
174. David Sanderson, fish merchant, Vancouver.
175. George West, fisherman, Vancouver.
176. Ysaito, Japanese fisherman, Steveston.



177. Am. Reid, Indian representative, Vancouver.
178. Y. Oua, fisherman, Steveston.
179. Wm. Thompson, fisherman, Vancouver.
180. Arthur Wane, fisherman, District No. 2.
181. John Williams, ex. Inspector Fisheries, District No. 2.
182. A. L. Hagar, President Canadian Fish Co., Vancouver.
183. Francis Burke, general manager Wallace Fisheries, Vancouver.
184. John Rice, general manager Lumni Bay Packing Co., Vancouver.
185. George Gorry, fisherman, Vancouver.
186. Robert R. Payne, Canadian Fishing Co., Vancouver.
187. Francis Cunningham, ex. Chief Inspector, Vancouver.
188. H. J. Butterfield, fish dealer, New Westminster.
189. Charles Anderson, fish curer, Vancouver.
190. John Shannon, fisherman, New Westminster.
191. Kadwalader F. Batson, ex. fisherman, New Westminster.

The foregoing list, we submit, is sufficient proof that the enquiry was comprehensive, and that every phase of the fishing industry in British Columbia was duly represented and heard from.

Many matters of more or less urgency and importance in their bearing on the future welfare of the fisheries of the province were laid before the Commission, as well at private interviews as at regular sittings, also in the form of petitions and letters as well as oral evidence.

Several questions were looked upon as of such urgency as to necessitate an early decision. Consequently, after a full discussion and careful deliberation, the Commission immediately following the last sitting, drew up and submitted to the Acting Minister before the end of September last, an interim report, in the form of a memorandum of recommendations, which they very strongly felt should be adopted in time to allow of their applications during the season of 1923.

The Commissioners were absolutely unanimous on all points dealt with in their interim recommendations, with the exception of the one dealing with the closing of the Fraser River to sockeye fishing for five years. Two of the Commissioners differed from the majority, as will appear later, on the question of how over-fishing was to be prevented after the closed period.

The representations that have been made by the various interests concerned in the British Columbia fisheries, as well as the objections raised by certain officials of the Department since the publication of the Commission's interim report have been carefully considered by the Commissioners before the writing of their final report. Our conclusions and recommendations as herein-after set forth have therefore been reached and agreed upon in the full light of the said further representations.

There are three questions which appeal to the Commission as of outstanding importance and urgency, and which we propose dealing with first. These are (a) the prohibition of gasoline boats in salmon drift-net fishing in District No. 2. (b) the squeezing of white men out of the fishing end of the industry as a result of too many licenses being issued to orientals, and (c) the depleted condition of the Fraser River in so far as the sockeye fishing is concerned.

The discussion of each question together with the recommendation for the solution of each is numbered for the sake of convenient reference.

#### 1. GASOLINE BOATS IN DISTRICT NO. 2

In order, as was alleged in the Order-in-Council, that the amount of salmon fishing in District No. 2 might be controlled as contemplated by the boat rating, (the assigning of a certain number of boats to each cannery) established by Order-in-Council of 1910, there was passed in 1911 a regulation which prohibited the use of boats other than those propelled by sails or oars in salmon fishing—of all kinds be it noted—in District No. 2. It may be explained that District

No. 2 embraces the whole coast of British Columbia, and the islands opposite, from Cape Caution, on the mainland which is almost abreast of the north end of Vancouver Island, northward to the northern boundary of the province, a distance, as the crow flies, of approximately 380 miles.

The utter ineptitude of this prohibitive regulation applying as it did to such a tremendous stretch of fishing area, was quickly demonstrated by the fact that in the very next year 1912, a new regulation was passed limiting the prohibition to salmon fishing by drifting with gill-nets. In other words by the new regulation motor boats were allowed for trolling and seining, wherever that method of fishing was legal throughout the district, but not for gill-net drifting.

It should be explained that drifting by sail and row boats is necessarily confined to certain rivers and inlets such as Rivers Inlet, Skeena River, Naas River, and certain defined areas at their mouths or approaches.

In 1917 yet another Order-in-Council affecting this question was passed by which the prohibition was to be entirely removed on the 1st of January, 1918. In the meantime representations were made, by the interests that were to be affected, against this latest regulation, and on the strength of these the matter was referred to what is known as the Sanford Evans Commission of 1917.

That Commission recommended "that under existing conditions the new policy be not put into effect, but that the prohibition of the use of motor boats in gill-net areas in District No. 2 be continued for a further period of five years, when the question can be reconsidered."

The "existing conditions" alluded to in the foregoing and which caused the Sanford Evans Commission to recommend the continued prohibition of motor boats for five years were, in that Commission's own words:—

"We have suggested a period of five years before a change of policy is considered. Cannery licenses have been issued for new canneries which are either not yet constructed or not yet fully equipped. If motor boats were allowed these canneries would undoubtedly provide for financing them, and start the rush for that class of boats which would spread through the whole district. On the other hand if motor boats are not to be allowed the policy should be fixed for a period long enough to show a return for the new canneries upon an equipment of row boats or sail boats."

The end of the five year period has been reached, and the conditions set forth in the foregoing paragraph have disappeared. The prohibitive regulation is still in effect however.

Your Commissioners found that the chief opposition to the use of motor boats came from the canners. They argued that in the event of a fisherman who had such a boat being allowed to use it, every fisherman would clamour for one, and as very few fishermen were in a position to provide one for themselves, the initial cost of financing the change would fall on the canners, who meantime are not in a position to face this expenditure. It was further argued that fishermen would not be able to earn enough to repay this extra indebtedness, that the greater efficiency of motor boats would entail a further extension of the closed periods in order to conserve the supply, and that the ease and speed with which such boats can shift their position would render supervision by the fishing officers much more difficult.

We also found on the Skeena and Naas Rivers a number of white fishermen and Indians who had no wish to see the regulations changed in this respect, because of a fear that their earnings might not be so much greater with a motor than with a row boat as to pay for the extra cost of hire and gasoline. Their main objection, however, we found to spring from a fear that the Japanese fishermen, who are in a position, through their organization, to acquire motor

On the other hand we did not find any white fisherman who did not agree that if a fisherman had a motor boat and thought he could improve his condition and add to his comfort while fishing by using it, he should be allowed to use it.

An ex-cannery manager on the Skeena testified that with motor boats in use white fishermen would be induced to fish on that river.

A cannery manager at Rivers Inlets gave it as his personal opinion that "the day is past when a fisherman should be asked to push himself around with a pair of sticks."

The fishermen of Malcolm Island, who live in District No. 3, where motor boats are not debarred, but who fish at Rivers Inlet, 40 miles away, in District No. 2, where such boats are prohibited, strongly object to a fisherman being compelled any longer to use a comfortable sail and row boat if he owns and desires to use a comfortable motor boat.

The Commissioner fail to see how it can be successfully maintained that a fisherman will demand from a cannery a motor boat if he knows that its use will leave him nothing at the end of the season but a big debt to the canner.

It seems to us that the matter of financing the use of motor boats is altogether beside the question. The solution of that is entirely in the hands of the cannerymen. They should not, and we feel sure will not be so foolish as to hand over to any fisherman a motor boat without setting the share for hire of a boat and nets so high as to cover the extra cost. Therefore, as the fisherman ultimately has to pay for the motor boat out of its catch, he is not likely to use it if there is no prospect of his earning something with it. In any case, we do not approve of the principle of the Government being asked to protect the cannerymen from an expenditure which they themselves can quite easily avoid if necessary.

From the point of view of conservation we would remark that if and when the time comes that the number of motor boats reaches the point when, by reason of their greater efficiency, the supply of salmon becomes in danger, ways and means will, without a doubt, be found for dealing with such a contingency. The argument that supervision by fishery officers would be rendered more difficult is so puerile in our opinion as to scarcely merit consideration. The fear of the white fisherman that he would be crowded out by the Japanese if motor boats are permitted, will be completely removed by the proposed restriction on the issue of licenses as suggested in recommendation No. 2.

All concerned, whether in canning or fishing, professed a degree of anxiety to see more white fishermen engaged in the industry. But we confess to being at a loss to know how any real white fisherman can ever be induced to fish with gill-nets in northern British Columbia in a shelterless row boat in which he has to stay out day and night.

We realize that just as there would be no canning industry without men to catch the fish, there would be little or no employment for fishermen without the cannery and the capital he brings to the common industry. Consequently we have no desire to suggest that the Government take any steps calculated to injure the canning branch any more than the fishing branch of this great industry. We are bound, however, to hold the balance justly between the two, and it may be said now as later, although it should not be necessary to say so, that all the following recommendations have been considered and decided upon with that continually in our minds.

Your Commissioners, therefore, with all the evidence before them, have unanimously reached the conclusion and so recommend that the regulation preventing the use of motor boats for salmon gill-net fishing in District No. 2 be amended to permit of their use beginning with the season of 1924.

## 2. REDUCTION OF FISH LICENSES TO OTHER THAN WHITE BRITISH SUBJECTS AND INDIANS

Our investigations have made it clear to us that all the interests concerned, excepting of course the Japanese Fishermen's Associations and allied interests, profess to be as one as to the desirability of having white fishermen employed to a greater extent in the salmon fishery of British Columbia.

Members of the House of Commons from the Pacific province, white fishermen's associations, Indian fishermen and their representatives, organizations such as the G.W.V.A., and the people of British Columbia generally, have consistently and strongly urged that steps be taken towards restoring the fishery for white fishermen and Indians. Those cannerymen who appeared before the Committee of the House last session expressed themselves as also as desirous of seeing more white fishermen in the industry, and suggested a slight reduction in the licenses issued to oriental fishermen to start with.

As a result of this pressure the Department, in June last, decided to gradually eliminate the oriental fishermen from the fishery by beginning in 1923 with the following reduction in the number of licenses issued in 1922.

### GILL NETTING

Fishing Districts Nos. 1 and 3, a 15 per cent reduction.

Fishing District No. 2, Rivers and Smiths Inlets a 50 per cent reduction.

Fishing District No. 2, Skeena and Naas Rivers a 10 per cent reduction.

In the remainder of the province and on all kinds of licenses a 15 per cent reduction.

It should be explained that as a result of urgent representations in the beginning of the year 1922, the number of licenses to orientals for trolling was reduced by 33½ per cent, while a reduction of 25 per cent is being made effective in 1923.

It will thus be seen that the question we have to consider in this connection is not whether Oriental licenses should be reduced in number, but what percentage of reduction should be decided upon in order to bring about the displacement of Orientals by white fishermen in the shortest possible time without disrupting the industry.

In the light of the evidence placed before us we do not think the Department's rate of reduction is, except in two instances—gill netting licenses in Rivers and Smiths Inlets, where the proportion of Orientals employed is very small, and trolling licenses, at all commensurate with the huge disproportion at present existing, especially in the north, between the number of white and Oriental licenses issued.

For example, the Department's proposed cut in the Skeena River District is 10 per cent of last year's issue to Orientals. As the total number of Oriental licenses on that river last year was approximately 640—the total to all licenses was 1,080—means that there will be but 64 fewer Oriental licenses on the Skeena in 1923, and as there are 14 canneries there would be short of Japanese licenses to the extent only of four or five each.

In view of the large total number involved we consider the Department's reduction inadequate and will not substantially relieve the situation. Even if there is not one additional white fisherman employed in 1923, the 64 Orientals who drop out would, as a matter of fact, be not missed on the Skeena. Indeed many, including cannerymen, who are competent to judge, think that there are too many boats fishing the river now, and that quite as many fish would be caught by fewer boats. The same thing is true of the Naas river. In 1922 there were 156 Oriental licenses on the Naas. The Department's 10 per cent cut would mean that there would be 14 fewer Oriental licenses in 1923, and as there are 14 canneries there would be short of Japanese licenses to the extent only of one or two each.

We have been told by the canners and some officials of the Department that owing to the difficulty and hardship connected with fishing a river like the Skeena, and the need for much knowledge and experience in handling boats and gear thereon, it is impossible to find white men fit to take the place of the Japanese as fish producers, and that a reduction of more than 10 per cent would seriously cripple the industry.

We do not admit this. Those of us who have some coast knowledge of fishing and the fishing business know that while to men unaccustomed to fishing the conditions on the Skeena, or any other river for that matter, would appear hard and difficult, to real fishermen, river fishing, even on the Skeena, would be comparatively easy.

It has been further represented to us, by the Department, that while the number of licenses available to naturalized Orientals has been limited on the Skeena, there has been no limit, for some years, to the number available to white and Indian fishermen, and that while the regulations contain nothing to prevent an increasing number of such from obtaining licenses there has been no increase in white fishermen.

That is not surprising in view of the following facts:—(1) the limit placed in Japanese licenses being so high as to preclude the possibility of many white fishermen getting into the business, (2) the method by which Orientals are secured by the canner, and (3) the conditions under which they operate.

Real difficulty as we see it lies in the fact that the canners hire whatever number of Oriental fishermen they require through the agency of an Oriental "boss". He controls the operations of those fishermen, who work and live at a comparatively cheap rate, and drives them to produce fish to the utmost limit of their capacity.

This system, of course, relieves the canners of all the trouble that may be incidental to looking for capable white fishermen and employing them consequently, and quite naturally no doubt—looking at it from the canner's point of view alone—there is no inducement of any kind whatever held out to white fishermen of the proper type. The fact is that white fishermen should not be expected to compete against such a system.

In our interim report we recommended that Oriental licenses of all kinds be issued in 1923 should be 40 per cent less than the number in 1922.

On the Skeena river, which after all is the fishery that matters most in this connection, there would be, under our proposal, 256 fewer licenses in 1923. This amounts to a reduction of about 18 licenses per cannery on the average. Therefore it does not appear to us that any great difficulty will be experienced by the canners in replacing that number with white and Indian fishermen. But even if a sufficient number cannot be found in time to make up the difference this year—and no extra effort is being made so far as we know to find such—it may not be detrimental, in our opinion, either for the future salmon supply of the river, or the industry generally, as there would still be over 800 boats left to fish the river in 1923. It must be also remembered that some of the biggest years on the Skeena occurred when the fleet of boats fishing was considerably less than 1,000. Then, in 1924, when gasoline boats come into use, there will be much less trouble in replacing Orientals.

The difficulty of substituting white fishermen for two or three hundred Orientals in the southern parts of the province is admittedly not nearly as great as in the north. This is borne out by the fact that while last year the total number of gill-net licenses issued to fishermen of all kinds in the Fraser River district was only 1,926, of which 390 were held by whites and 870 by Orientals, in recent years, before the river became so denuded of sockeye, there have been, in the big run years especially, as many as 3,000 licenses issued a great part of which were used by white men. For example we find that in 1913 there were 1,071 licenses held by white fishermen and 1,081 by Orientals in

We therefore, again, recommend and most strongly urge that the number of licenses of all kinds, excepting trolling licenses, issued to other than white British subjects and Indians in 1923 be 40 per cent less than the number issued in 1922. With respect to licenses for trolling we recommend that the Department's arrangement for this year be undisturbed.

In order to insure that all canners will have to make efforts in equal measure to find white fishermen, we would recommend that the reduced number of Oriental licenses should be allotted to the canneries operating in District No. 2 in proportion to the average number of Oriental licenses fishing for each during the years 1920, 1921, 1922.

We recommend that any Oriental who enlisted in the Canadian army and served overseas in the European War should be given the first preference in the granting of licenses issued to Orientals.

We further recommend that naturalized Orientals who reside and have previously been licensed to fish in a locality for which a license is sought should have preference in the issue of licenses to such; those having resided and fished in the locality for the longest time to get first consideration.

### 3. NATURALIZATION PAPERS.

The Commission realize that the matter of the method of granting naturalization papers is beyond its scope, but it became clear to us during our investigations that flagrant abuses are prevalent among Orientals in the securing of such papers for the purpose of obtaining fishing licenses.

In order to put an end to these practices we recommend that all naturalization papers held by Orientals in the province of British Columbia be recalled and carefully scrutinized, and that these and all such papers that may be issued in future to Orientals have attached thereto a photograph of the person naturalized, also his finger prints in accordance with conditions approved by law.

### 4. RESTORATION OF THE FRASER RIVER SOCKEYE FISHERY

There is no need for entering into a detailed history of the depletion of the Fraser as a sockeye river. It is well known to your department and to all concerned. For the purpose of this report it will suffice, therefore, if its salient features only are touched.

Every fourth year, up to and including the year 1913, the sockeye fishery of this river resulted in a huge catch. In the year following a big year the catch was much less; in the second and third years it was smaller still.

The greater proportion of the fish on their way in from the sea to the river where they spawn and die, pass through United States waters and since 1901, the fishermen of that country have been taking, by means of traps and seines, a much greater toll of the passing runs than Canadian fishermen who operate gill-nets in the river and the approaches to it; namely, about 60 per cent by United States fishermen and 40 per cent by Canadians.

The supply soon after that date began to show signs of overfishing, in the small run years, consequently a joint commission met in 1908 and formulated regulations looking to the preservation of the fishery. These regulations were approved by the government of Canada, but were rejected by the Senate of the United States.

Then in 1913, a big run year, with a pack of 719,000 cases of sockeye, there occurred a rock slide at Hell's Gate, through blasting operations in making the C.N.R., track on the left bank of the river, which so filled up the narrow gorge as to cause an obstruction through which the ascending fish could not make their way. Consequently very few fish reached the spawning places up river in that year, with the result that four years later, 1917, which should have been



a reproduction of the big 1913 run, the pack amounted only 148,000 cases which was less than some of the previous poor run years. The succeeding fourth year, 1921, with a pack of 39,000 cases, was worse than any previous poor year in the history of the fishery except three, and those three happened since 1913. It should be noted that the sockeye pack in 1913, taking the whole Fraser river system into consideration, was the largest of any big year in the history of the fishery.

This desperate condition of a once highly valuable fishery at last drove both governments to the point of making a serious effort to restore it. An International Commission was, therefore, appointed in 1918 to investigate this and other fisheries matters and decide on what measures were necessary to rehabilitate the Fraser river sockeye fishery. A treaty was drawn to which were appended regulations limiting fishing operations on both sides, and providing for the complete stoppage of fishing for twelve days at the height of the season in the Fraser river system during a period of eight years. This treaty was approved by the Canadian government and by the President of the United States, but the Senate of the United States refused to ratify it. This was due to strong opposition from the state of Washington, evidently because of a claim that the matter was one for that state to deal with directly; also because the proposals were considered to be less than half measures and useless for the purpose of restocking the Fraser.

The question was next taken up with the Fisheries Board of the state of Washington, which had recently been appointed with administrative power sufficiently wide to enable it to take whatever steps were necessary for effectively dealing with this matter. Consequently, representatives of the board and of your department met in December 1921, and tried to reach an agreement as to what joint action should be taken with regard to the Fraser. Both sides agreed that there must be a complete stoppage of fishing for five years to restore the sockeye runs. The Canadian representatives would only agree to this on condition, however, that at the end of the five year period the use of purse seines be prohibited and the use of traps and gill-nets properly regulated, as in their opinion, the use of such appliances, as in the past, would render the loss involved during the five years stoppage not worth enduring.

The Washington State Board representatives on the other hand claimed that the case was one which required immediate action, and that the question of what should take place six or seven years hence should not prevent them from taking the necessary steps now to bring back the sockeye run. They considered it unwise for them to tie the hands of their successors in office beyond the closed period. No middle ground seems to have been discovered on which to break this deadlock, consequently the conferences of December 1921, broke up and left the Fraser in the same state as before.

Being of the opinion that this unfortunate breakdown in the negotiations might have been avoided, and having been told, at the beginning of this investigation in Ottawa, by the official who represented your department at the conference in December 1921, that "he regards it as nothing short of an international crime to leave this matter unsettled, as both countries are losing a vast amount of money" we considered it our duty to give particular attention to this question with a view to suggesting some practicable course of action which would, in the first place restore the supply of fish, and in the second make reasonable provision against future depletion.

With this end in view we heard oral evidence and read prepared statements concerning the restocking of the Fraser from both fishermen and cannerymen. It should here be noted that the following observations and conclusions with respect to this question are those of a majority of the commissioners only.

The evidence of the white fishermen of the Fraser shows that through their association, representing 300 or so, including some Indians, they assented to the five year closing proposed in December 1921, provided the fishermen of the United States also ceased operations for that time, and were prepared to give up the use of seines and to have the use of traps regulated on the resumption of fishing. Realizing no doubt, since the conference of 1921, that it was useless to expect the United States fishermen to abolish seines entirely, the Fraser river fishermen's association are now of the opinion that there should be no total closing and suggest instead a cessation of sockeye fishing during the month of July, and an extension of the weekly close season. They fear that total stoppage of sockeye fishing for five years would so depreciate cannery equipment, and so disorganize the operating staffs of the canneries as to put some of them beyond the probability of ever opening up again.

They, however, seem to ignore the fact that prior to the destruction of the big run years many of the canneries closed up voluntarily during the off years and operated only during the big run years. They also overlook the further fact that most of the canneries have been closed now for some years anyway as a result of the rockslide of 1913. The following shows the number of canneries operating on the Fraser or near its mouth in each of the years since 1913.

1913—34 canneries.	1918—21 canneries.
1914—20 "	1919—15 "
1915—22 "	1920—11 "
1916—23 "	1921—15 "
1917—29 "	1922—10 "

The reason for so many canneries operating in the years from 1915 to 1917 is that those were war years which created an abnormal demand for the cheaper varieties, such as pinks and chums. After 1918 there came a slump in the market and these varieties were hard to dispose of. Consequently, we find in 1919 when the sockeye pack had once more to be counted on as the mainstay of the canneries the number operating dropped down to 15, while last year, 1922, no more than 10 operated.

If, then, the present condition of the sockeye fishery of the Fraser will permit of only 10 canneries operating, with a whole season's fishing to scrape together a small pack, we confess to being entirely unable to see how even that comparatively small number will ever find it worth their while to open up if a whole month is cut off the sockeye season during the next five years, even if that month is not a very prolific one.

The fishermen's association further say that the poor runs now coming to the river have caused fewer traps and seines to be operated by United States fishermen, and as a greater proportion of the small runs is now being taken by Canadian fishermen they should be allowed to continue.

That, however, is a shortsighted view and while it may be a good thing for the matter of 300 or more white fishermen to be allowed to continue fishing sockeye even for one month, especially with the prospect of the Japanese fishermen being reduced in number, it holds no hope of restoring the river to its former productiveness and rebuilding the industry.

The British Columbia Cannerymen's Association, which do esnot by any means represent all the cannerymen who have canneries and money invested on the banks of the Fraser, stated that in the opinion of all those vitally interested in the river fisheries the stoppage of sockeye fishing for five years would be disastrous to the fishermen, cannerymen, and general business interests and is considered unnecessary.

The evidence of the few cannerymen who operated on the Fraser last year was, of course, against total closing for five years. Their attitude would appear to be due to a somewhat selfish point of view, inasmuch as they seem to be satisfied to continue so long as the few are left alone to deal with the diminished runs. In fact we were told by the head of one of the largest canning companies in British Columbia, who closed 10 of their canneries but operated 4 of the 10 in operation on the Fraser last year, that he had benefited by the closing of so many canneries, especially competitor's canneries, and was able to get along with things as they are, and did not want to be prevented from packing sockeye for five years.

On the other hand, we found that some of the large cannerymen just as strongly urged the total closing of the river. The Anglo-British Columbia Packing Company, for example, with 7 canneries on the Fraser, all of which have been closed since 1921, and who thus rightly claim to be as much concerned as any other company over what the ultimate end of the sockeye fishery of the river is to be, protested most emphatically against the attitude of the few remaining operators. This company maintains that the restoring of the sockeye to the Fraser can only be brought about by the entire closing of the river for a term of years under suitable regulations agreed to by the authorities on both the Canadian and United States sides.

The general manager of the British Columbia Packing Company, who owns a large cannery on the Fraser, which is also closed, declared that nothing short of a total cessation of sockeye fishing for a number of years would bring back anything approaching large runs to the river. He is convinced that closing in July only is absolutely useless and would be simply playing with the question, as most of the fish go up the river in August.

The vice-president of the Northern B.C. Fisheries testified that the opportunity should not have been missed in December 1921 of closing the Fraser, simply because definite guarantees as to what was going to be done in six years time could not then be had.

The general manager of the Fidalgo Island Fish Company, testifying from the standpoint of a United States packer, said total stoppage of sockeye fishing for a period of years was the only remedy for the present condition of the river. Closing in July would do little good as the majority of the fish is caught after July 20th. In the past year the July catch was practically nothing. Our own records show that the total pack of sockeye on the Fraser in 1922 was 48,844 cases. Of that number 4,406 cases only were packed in July, and of the July pack 4,000 cases were packed in the last week of the month. He further said that he was convinced that no responsible person on the United States side would want to operate seines after the closing without proper restrictions. Seine fishing even now is being drastically limited in United States waters.

Mr. Babcock, the Provincial Commissioner of Fisheries, than whom there is none with more first hand knowledge of the Fraser sockeye fishery and the reproductive possibilities of the spawning grounds of the river, stated in the course of his evidence that the restoration of the sockeye is all a matter of permitting a sufficient number of fish to ascend annually to the spawning beds. He was quite emphatic that no half measures such as July closing would do any good as enough fish would not escape.

So, with the evidence of our fishermen and cannerymen before us we went into conference with the members of the Washington State Fisheries Board at Vancouver on this vital question.

The matter was discussed from all points of view in the most friendly spirit and with a serious desire to find a way out of the impasse that would be mutually beneficial.

Partial closing, in accordance with the laws of the fishermen's association was put forward and discussed, but the Washington State people were firmly convinced that any such closing would not save the sockeye from extinction, and that it would be as well to continue as at present until the inevitable end came. It was finally agreed on both sides that the river should be closed to sockeye fishing entirely for five years, a period covering the lifetime of the fish.

Commissioners McQuarrie and Martell dissented from this agreement for the same reason that your departmental representatives dissented in December, 1921, namely, that the Washington State representatives could not give definite guarantees that fishing with seines and traps would not be resumed on the same scale as previously, and also on the ground that cessation of sockeye fishing during the month of July should be tried out for a period of years, provided the Americans would agree to the same arrangement. Consequently, the majority of the Commission, consisting of Chairman Duff, the Commissioners Dickie, Neill and Stork, reached an understanding with the Board which in effect is as follows: That both sides recommend to their respective proper authorities that the Fraser River district, its approaches and Puget Sound, be totally closed to sockeye fishing for five years, and that fishermen on both sides of the line be allowed to fish for spring and other kinds of salmon under proper regulations as to the size of mesh, etc. The Washington State representatives further agreed, in order to more strictly prevent the taking of sockeye, that they would recommend the prohibition of the landing or sale of sockeye from the district affected during the closed period. It was also agreed that a permanent joint advisory commission should be appointed as soon as the necessary authority had been obtained on both sides, which would be empowered to discuss and formulate such regulations as may be found suitable and necessary for the closed period, also for protecting the fishery from again becoming depleted when fishing is resumed.

The majority of your Commissioners feel that we are bound to accept the undertakings of the Washington State representatives in good faith. It shows, in our judgment, a lack of faith that will lead to no action whatever to begin asking at this stage for ultimate guarantees and prospective regulations. The greatest and most important consideration meantime is to get representatives of both sides together in a commission, such as is proposed, at the earliest possible date, and let them thresh out between them what is necessary in the shape of regulations for both the closed period and the period after. The Canadian side of the Commission would not as a matter of course agree to any regulations calculated to work an injury to Canadian fishery interests. In short we are convinced that in such a joint commission lie all the guarantees for the future regulation and conservation of the fishery that can reasonably be expected.

We are further convinced that to allow things to remain as at present or to take any measures short of total stoppage of sockeye fishing for five years, will culminate in either complete extermination of the sockeye from the Fraser or the continuation of the industry on such a miserable small scale as to keep most of the canneries closed indefinitely.

The majority of your Commissioners therefore recommend that authority be given, with the least possible delay, for taking up definitely with the Washington State Board the constitution of such a commission, as is proposed, with a view to its operating on the basis of the understanding reached at the aforementioned conference.

We are of the opinion that the Canadian part of the Commission should consist of one departmental official, one representative of the cannerymen, and one representative of the fishermen of the Fraser River district, with a properly qualified scientist and legal representative attached thereto in the capacity of advisors.

## 5. LICENSE FEES AND TAXES

The Commission went carefully into this question and have come to the conclusion that the industry, particularly the salmon fishing branch of it, is being unduly hampered by high taxes and license fees. In this connection a comparison with the fees charged for licenses on the Atlantic seaboard will demonstrate that the British Columbia industry has been unreasonably overtaxed.

It is very remarkable that coincident with the start of depressed marketing conditions and falling values in 1919, the fees for licenses to fish and for licenses to can fish were increased tremendously, while, on each salmon caught by seines and traps, and on each case of salmon canned a new tax was imposed. The drop in values and the condition of the industry resulting therefrom may be judged by the following: the value of the canned salmon production of British Columbia in 1918 was, in round figures, \$14,000,000; in 1919, \$13,000,000; in 1920, \$12,000,000; and in 1921, \$5,900,000.

The extent of the increase in fees and taxes will be realized from the following comparative statement of those imposed prior to 1919 and after;

	1918	1919 and after
Salmon gill net license..	\$ 5	\$ 10
" drag seine..	50	150
" purse seine..	75	300
" trap net..	75	500
" cannery license..	50	500
" tax per case..	nil	4c. per case on sockeye and 3c. on others.

There seems to have been no justification for the Department's action in this respect. In fact the step appears to have been due to a mistake on the part of the Department in assuming that a recommendation of the Sanford Evans Commission of 1917 would be adopted, but which was rejected.

From 1908 to 1912 the number of cannery licenses was restricted. From the latter date to 1917 the policy of restriction was departed from conditionally. In 1917 cannery licenses were informed that beginning with 1918 restrictions would be removed unconditionally.

The Sanford Evans Commission recommended a reversion to the restrictive policy of 1908-12, but with this stipulation, that in return for the greater privileges given to the industry through limitation of canneries, and the allotment of restricted fishing areas, the license fees and taxes imposed be greatly increased.

That recommendation, however, was not adopted, consequently, there have since been no restrictions placed on the number of cannery licenses to be issued. But fees were increased and new taxes imposed, evidently without consideration of the fact that there was to be no "quid pro quo" such as the 1917 Commission proposed in the shape of limited competition and other privileges.

We do not think the hard lot of the fisherman should be made harder by high license fees and taxes on the result of his operations. Neither do we think that the business of canning should be hampered by unnecessarily high fees. All such additions to the overhead expenses of the cannery are usually in the first instance reflected in the price paid to the fisherman for his catch.

We, therefore, most strongly urge that the following scale of annual fees be put into effect just as soon as it is possible to do so:—

Abalone, crab, clam and other shell fishing license..	\$ 1 00
Herring or pilchard drag seine license..	5 00
Herring or pilchard purse seine license..	5 00
Sturgeon gill or drift net license..	1 00
Smelt or sardine license..	1 00
Salmon trolling license..	1 00
Salmon drift or gill net license..	1 00
Salmon drag seine license..	20 00
Salmon purse seine license..	20 00
Salmon trap net license..	50 00

The fee for a license to catch any kind of fish for commercial purposes, other than those named above, should be not more than \$1.00. We further recommend that the holder of a license of fish should, under proper endorsement and registration by the officers concerned, be enabled to fish with it in any district of British Columbia without the payment of an additional license fee.

In our interim report we recommended that the tax of 4 cents on a case of sockeye and 3 cents on a case of other kinds be raised to 10 cents and 5 cents respectively as an offset to the reduction on fishing and canning license fees.

Since that report was written, however, further evidence has been laid before us as to the unsatisfactory condition of the industry and the increasing competition it has to meet in the world markets from Siberian and Japanese canned salmon, which we felt merited consideration.

Having carefully reconsidered the question, therefore, in the light of the further representations made to us, we revoke that part of the recommendation which covers this point in our interim report, and now recommend that the tax on cases of canned sockeye and other kinds be left at 4 cents per case for sockeye and 3 cents for other kinds, as at present.

We also recommend that the tax of half of one cent on each salmon caught in drag seines, purse seines and trap nets be abolished.

## 6. DRAG AND PURSE SEINES

There are several conflicting opinions held with regard to the advisability of permitting the use of purse and drag seines in salmon fishing.

Those who use drag seines allege that purse seines are more destructive than drags, inasmuch as they move about in the open and swoop down on any school of fish that may be sighted. Purse seiners, on the other hand, say that drag seines are the more objectionable as they lie in wait near the mouth of a creek and scoop up the schools gathering there to ascend the stream for spawning. Gill netters, again, condemn both purse and drag seines as equally destructive.

We think that an unlimited and widespread use of either purse or drag seines is a sure and quick way of depleting the supplies of salmon. But it was made clear to us that there are places on the coast outside of rivers where gill nets have not as yet been proved to be effective in catching salmon in reasonable large quantities. With this in mind, therefore, we recommend that drag and purse seines be not permitted to be operated for salmon except where their use has been demonstrated to be the only effective and reasonably economic method of catching such fish. We most strongly urge that in cases where drag or purse seines are permitted for salmon fishing none but white British subjects and Indians be employed in the operation of such.

In our interim report we recommended that where purse or drag seines are allowed the boundary within which fishing with such seines is prohibited should be moved out to not less than half a mile from the mouth of the creek or stream.

We have reconsidered this decision and in view of the fact that differences in the configuration of the coast line and in the depth of water near the mouth of the various creeks might result in the half-mile boundary being so far out, in some cases as to be quite useless for practical fishing purposes, we would now recommend that the boundary be placed, in each case, at not less than four hundred yards from the mouth of the creek or stream. In cases where this limit is deemed to be too close in we recommend that the Chief Inspector be empowered to have it moved out to half a mile or more, as may be considered necessary after due investigation.

We would point out, in this connection, that as the Nimpkish river does not fall under the designation of a creek, subsection 19 of section 19 of the Special

Fishery Regulations for British Columbia should be amended so as to include this river with the rivers at present exempted therein from the boundary regulation for creeks.

#### 7. COWICHAN BAY AND DISTRICT.

The bay, river and district of Cowichan on Vancouver Island is looked on as being more of a sport fishing than a commercial fishing centre. For that reason part of the bay has been closed to commercial fishing for purposes of conservation.

It was demonstrated to us that greater protection in this regard is required, and in the light of the evidence adduced at our meeting at Duncan we recommend that no fishing with nets be permitted in Cowichan Bay or River inside of a line from Separation Point to Cherry Creek, except as provided for Indians, and that no fishing with nets or live bait be permitted in Swanson Narrows, including Maple and Burgoyne Bays, between a line drawn from Graves Point to Erskine Point and a line drawn from Separation Point to Musgrave Point, and that paragraph (b) of subsection 12 of section 19 of the Special Fishery Regulations for British Columbia be amended accordingly.

In connection with this recommendation we desire to note that the Fish and Game Association of Cowichan were emphatic in the expression of their opinion that the hatchery of Cowichan river is wrongly placed, is too far from the sea, and is not reached by many runs of salmon. They suggest that it be moved to a suitable point lower down the river where parent fish can be taken more readily by a better method than gill netting, where sites for ponds are available, and where there is a sufficient water supply to be had by gravity.

We would recommend, therefore, that this matter of the hatchery site be looked closely into and action taken for its removal in accordance with the foregoing suggestion, if the facts are found to be as stated.

#### 8. SEASONAL CLOSE TIME FOR SOCKEYE SALMON

North of parallel 49.30 north latitude, fishing for sockeye commences annually on June 20th.

The regulation, however, provides that in a small section on the east side of Vancouver island, lying between parallels 50 and 51 north latitude, sockeye fishing may commence on May 1st, and that fishing for "creek sockeye" by drag seines on all parts of the coast may commence also on May 1st.

In the interests of conservation of the sockeye in the small section referred to, and in the interests of conservation of "creek sockeye"—especially in view of the fact that there is now no limit to the number of fishing licenses that may be issued, and no fishing reservations to certain canneries, we are of the opinion that there should be no exception made in this regard. To that end we recommend that all the words in the said provision, beginning at the end of the 12th line of subsection 8 of section 22 of the Special Fishery Regulations for British Columbia be struck out.

We would point out that the word "early" in the 10th line of the said subsection should be changed to "earlier."

#### 9. WEEKLY CLOSE SEASONS

South of the 51st parallel of north latitude the weekly close season for salmon fishing, except by traps, is 42 hours, beginning at midnight Friday and ending Sunday at 6 p.m. North of the 51st parallel of north latitude it is 48 hours beginning on Friday at 6 p.m. and ending on Sunday at 6 p.m. In the waters of district No. 3, which lie north of the latitude named, drag and purse seine fishing is stopped for 24 hours only each week.

With a view to maintaining, if not increasing the annual supply of fish by permitting a greater number to escape capture weekly, and make their way to the spawning areas, we, in our interim report, recommended the adoption of a uniform weekly close time of 60 hours for the whole of British Columbia.

On reconsideration of the matter, however, and while still believing in a uniform close season, we feel that its length might with safety be somewhat modified in view of the following:—(1) that in the preceding recommendation fishing for sockeye by drag and purse seines, which previously commenced on May 1st, will not now start till June 20, (2) that the weekly closed period may be so long as to increase the difficulty of making the fishery sufficiently attractive to capable white men.

We therefore recommend that the weekly close season for salmon fishing, except by trolling, be 48 hours, beginning on Saturday at 6 a.m. and ending on the following Monday at 6 a.m. in all parts of British Columbia, except in that part of the Fraser river between New Westminster Bridge and Mission Bridge, the weekly close season shall be from Saturday at 6 p.m. to Monday following at 6 p.m.

#### 10. FINES FOR ILLEGAL FISHING

Section 80 of the Fisheries Act provides that any gear, implement, boat, etc., used in violation of the Act shall be confiscated, regardless of whether the violation is or is not one of the most trifling character.

Section 92 of the Act permits the offender to appeal to the Minister for the return of the confiscated material. Many trifling breaches of the law occur in the course of the fishing season, and the confiscation of boats, gear, etc., which are invariably handed back to the owner, takes places frequently, with the result that the law is ridiculed and made contemptible.

The only reason we have heard given for the existence of such a ridiculously harsh law is that sometimes local magistrates are too lenient, consequently fishery officer finds it difficult to prevent violations.

We do not think that reason a sufficient one to justify the Department either in having secured such legislation or in allowing it to remain any longer operative.

We, therefore, most strongly urge and recommend that section 80 of the Fisheries Act be so amended as to abolish compulsory confiscation, and leave it to the option of the magistrate as to whether or not he, in accordance with the nature and importance of the offence, should confiscate the material involved.

In this connection we found, especially in the north, evidence, more or less clear, of a good deal of fishing before the end of the weekly close seasons of the marks set near the mouths of creeks, within which seine fishing is prohibited, being largely ignored also of more netting than the law allows being frequently used.

We appreciate the fact that a change in the administration of the northern district took place in the middle of the season, and that the conditions described above may be a legacy of the administration prior to last season.

In any case we urge the necessity of such steps being taken as will adequately guard against any such lapse in future.

#### 11. THE HERRING FISHING

In the course of our sitting at Nanaimo we discovered that much irritation existed amongst gill net fishermen at the use of purse seines for herring in Departure Bay during the last ten years. We were much astonished at the same time to find that such seines were being actually used all during that time in Departure Bay in spite of a regulation which prohibited their use.



The following are the facts connected therewith:—In Order in Council March 1910 under "Prohibited Areas" subsection (b), section 17 of the Regulations, the use of drag seines, not purse seines, were permitted in Departure Bay during daylight hours.

By Order in Council of February 1913, paragraph (a) of section 8 of the 1913 regulations, was amended to permit the use of purse seines in British Columbia. Section 17 "Prohibited Areas" was of course not affected by the amendment of 1913. Consequently purse seines remained debarred in Departure Bay. Some departmental official, however, evidently forgot all about the "Prohibited Area" regulation and issued instructions that purse seines were legal for herring fishing anywhere in British Columbia from that time on. As a result of this blunder purse seines have been allowed to be used illegally in Departure Bay in all the years up to 1922. Then, in order to legalize what had been going on illegally for 10 years, the Department procured an Order in Council in April, 1922, which amended the "Prohibitive Area" clause and permitted purse seines to be used in Departure Bay.

In all the circumstances, and in the light of the evidence laid before us, we have come to the conclusion that gill netters with their smaller boats should be left unmolested to fish for herring in Departure Bay, and that purse and drag seines with their larger boats be kept outside a line drawn across the mouth of the bay. We therefore recommend that paragraph (b) of section 20 of the Special Regulations for British Columbia be amended so as to prohibit the use of both drag and purse seines for herring in Departure Bay.

A large and lucrative industry has, within recent years, sprung up in Alaska through the packing of mild cured, fat herring for markets in the eastern states. Our herring fishery in British Columbia is carried on chiefly in the late fall and winter when the fish come into the harbours and bays in large quantities. These fish, however, are not sufficiently fat for the mild cured trade. Those in a position to know maintain that fat herring of a class equal to Alaska herring and suitable for mild curing, are to be got outside the harbours during early summer, especially in the vicinity of Prince Rupert. We feel, therefore, that British Columbia might very well secure a share of this trade that is entirely Alaska's at present, and would recommend that some tests be made by means of drift nets to find out whether fat herring can be secured in quantities, and whether, by curing them in the required style, there is any probability of developing the business.

We also recommend that all fishing operations for herring be suspended from 12 p.m. Saturday to 12 p.m. Sunday of each week.

#### 12. HALIBUT

On the question of protecting the halibut fishery of the Pacific against entire depletion by over-fishing, we found all of one mind, namely: that a close season for a period of three months should be arranged in conjunction with the United States authorities, who are equally concerned.

We also found much dissatisfaction and impatience as a result of nothing having been done especially in the last two years to hasten the completion of an agreement with the United States dealing specifically with this matter.

In fact this inaction was so keenly felt that the general manager of the Canadian Fishing Company of Vancouver in the course of his evidence informed the Commission that last year his company at its own expense sent a lawyer to Washington, D.C., in order to find out the cause of the delay.

From this it transpired that the United States authorities were quite willing to negotiate a treaty dealing with the halibut fishery alone, but that the Canadian authorities since 1918 have insisted on such a treaty forming part of a larger one covering port privileges, lobster fishing, tariff on fresh fish, etc., on which both sides could not and were not likely to agree without such

It would now seem as a result of the lead and pressure from the trade the Department in the course of the past summer took some steps towards taking up with the United States authorities the question of arranging a treaty dealing with the halibut situation alone. The winter season of 1922-23 has gone, however, and so far as we are aware, we are no nearer to a joint agreement.

We would, therefore, urge that everything possible be done on our side to expedite the conclusion of an international treaty or agreement for a close season, extending from November 15th to February 15th, annually, and which shall become effective on the 15th of November, 1923.

We would also recommend that experiments be made to ascertain the movements of said fish, the banks where they are to be found, and as to the advisability of closing certain banks for certain periods, to be used as breeding grounds for said halibut.

#### 13. EMBARGO ON THE EXPORTATION OF CERTAIN KINDS OF SALMON

For the purpose of developing the canning of what are known as the cheaper grades of salmon, pinks, chums, etc., in Canadian canneries, the canneries for some years have made urgent representations to the effect that the sale of such fish in a fresh state to United States buyers be prohibited. Fishermen on the other hand, have just as urgently requested to be allowed to continue selling those fish which were hard to dispose of at any price a few years ago to any buyer who is in a position to pay the highest price.

In the light of all the evidence submitted to the Commission from both sides, we are of the opinion that the fishermen should be free to sell their catch in the most profitable market and that there should be no embargo on the exportation of the cheaper grades of salmon, such as is desired by the canners. We, therefore, recommend accordingly.

It has been brought to our attention, however, that pinks and chums, etc. which are purchased by American buyers in a fresh state for canning purposes, frequently reach the American canneries in a practically decomposed condition, and which when canned are labelled British Columbia Salmon packed in the United States. The Commission carefully discussed this matter and a certain remedy was suggested, but owing to their being divided as to the advisability of restriction in the premises, no recommendation is hereby made.

#### 14. LIFE-SAVING PATROL

In order that halibut fishermen and fishermen fishing for salmon off shore, may, as far as possible, be assured of assistance when in distress, through stress of weather or other cause, we recommend that the matter of placing a sufficient number of suitable seaworthy boats on the coast ready to proceed to the assistance of fishing crafts in distress be gone into carefully by the Department, and that such action as may be found advisable be taken.

#### 15. DOG FISH

We strongly recommend that there be no restrictions whatsoever placed on the catching of dog fish, so long as fishing operations for such do not directly interfere or conflict with fishing operations for salmon. In order to minimize the amount of destruction caused by this pest we further recommend that the utilization of this fish by reduction plants be encouraged in some way, either by financial or other assistance. And, if it is deemed necessary and practicable after further investigation, that a bounty be paid for the catching of such fish.



## 16. CLAMS

For the protection and perpetuation of the clam fishery we recommend that there be established a close season during which these shell fish may not be taken for canning, selling fresh or for any other purpose.

The close season should cover the period which may be found, after further investigation, to be best for the protection of the fishery. We also recommend that a size limit be established in order to prevent wastage of immature clams.

## 17. CRABS

The crab of British Columbia is a very delicious food fish. Considerable quantities are at present taken both for consumption fresh and for canning. The evidence laid before us with regard to this shell fish points to the necessity for some protection especially during the spawning season. In fact those engaged in this fishery desire it to be protected. We, therefore, recommend that an adequate close season be established during which no crabs may be taken for any purpose.

## 18. ENEMIES OF SALMON

We were much impressed with the complaint, made at practically all the meetings, of the great amount of destruction of salmon in all its stages of growth, by seals, sea lions, trout, ducks and other birds. We are convinced that a systematic war waged against such enemies of the salmon would go very far towards the maintenance of the industry on a greater scale than at present. We would strongly urge, therefore, that steps be taken to ascertain what practicable means would be most effective in destroying the enemies named, and, if found necessary, that financial encouragement in the shape of a bounty be given in the carrying out of such plans as may be devised.

## 19. TAKING OF SALMON BY INDIANS FOR DOMESTIC PURPOSES

We are of the opinion that the Indians should be allowed to continue taking salmon above the fishing boundaries for food for their families. Not, however, in unlimited quantities whenever or wherever they think fit. We therefore recommend that the system at present in use, under subsection 2 of section 13 of the regulations, of issuing permits to Indians to take fish for their own use be continued. We would suggest, however, that it should be made easy as possible for Indians to obtain such permits. If it is found to be more convenient to the Indians and if it can be adequately controlled in that way, the issue of permits might very well be made through the Indian agents.

## 20. SALE OF BAIT TO AND LANDING OF FISH BY UNITED STATES VESSELS IN BRITISH COLUMBIA PORTS

The sale of bait to United States halibut fishing vessels in British Columbia ports constitutes a very important branch of the herring industry, particularly of Vancouver Island, where the fish are taken in great quantities and where outlets for its disposal at remunerative rates are somewhat limited.

At our meetings on the west coast of Vancouver Island, we found much dissatisfaction and irritation over the effect of the regulation passed on the 9th of May, 1922, which, owing to its restrictions, was actually interrupting trade and causing great loss to producers and sellers of bait. The regulation referred to, amongst other things, stipulated that United States fishing vessels may be permitted to purchase bait and ice at any port in the province of British Columbia upon an undertaking to the satisfaction of the Minister of Customs and Excise, that catches of fish made with any baiting so supplied shall be

We found that the conditions as to landing catches could not be and were not strictly carried out. We also found that it was quite unnecessary to make use of such a landing condition in order to bring United States vessels to our ports. These would continue to come in any case so long as our people give facilities for landing, and can offer a sufficient price for their catches.

Consequently, in September last, we authorized the Chairman to send the following telegram to the Acting Minister from Vancouver:—

"Commissioners find provisions in Order-in-Council ninth May, nineteen twenty two demanding American vessels buying bait on Pacific Coast to give undertaking to land catches in British Columbia ports not only useless but the cause of much irritation amongst those who have bait to sell. They therefore ask you to have the Order-in-Council referred to amended immediately by substituting the following for the part of the order which deals with purchasing bait. 'And fishing vessels registered in the United States of America shall be permitted to purchase bait, ice and supplies and ship crews at any port in British Columbia provided that each vessel shall first have procured from a Canadian Customs officer a license to purchase bait, ice and supplies, etc. and the fee for such license shall be one dollar per vessel.'"

We are pleased to note that, some weeks later, after further pressing representations, the ill-advised irritating regulation was amended in accordance with the telegram quoted above and to the entire satisfaction of every one concerned.

## 21. CLOSE SEASON FOR COD OF THE GENUS 'SEBASTODES'

Prior to and since April, 1922, fishing for such cod has been prohibited during the months of January and February in the waters on the east side of Vancouver Island. By Order-in-Council of April, 1922, this prohibition was extended to the west side of the Island.

The Commission found, while on the west coast, not only that such a close season was quite unnecessary but that it was evidently established notwithstanding representations from the fishermen affected and the retail fish dealers of Vancouver against it.

While there may be some reasonable excuse for such a close season in the comparatively narrow inside waters on the east side, there is absolutely no reason for a two months stoppage of fishing in the open Pacific on the west side where frequent gales in the first two months of the year provide sufficient protection from overfishing.

It would seem that the main reason for extending the close season to the west coast was to make its enforcement easier on the east side by stopping supplies of such fish coming on the market from any district. That is an altogether insufficient reason in our opinion.

We were prepared to recommend the abolition of a close season on the west coast of Vancouver Island, but we understand that since the beginning of the year, the Department on further direct representations being made through a member of this Commission, has amended the regulation and restricted the close season to the east side of the Island.

Whereas there exists a close season during January and February for cod comprised of the genus "Sebastes" in District No. 1, and part of District No. 3, and whereas cultus or ling cod, which is scientifically known as *ophiodon elongatus*, and which spawns in January and February, does not come under the close season provided for the genus *sebastodes*; and whereas the spawning time for cod properly defined as *sebastodes* is said to be considerably later in the year, we would draw the attention of the Department to this evident error.

Tables are given at the end of the memorandum to show that the number of parent fish taken for hatchery use is so small as to have no effect in depleting the runs to the natural spawning beds. That same argument can surely be used with equal force to show that the spawn taken from a very insignificant number of fish secured for artificial use is of little value in restocking a river like the Skeena.

Table A, of the memorandum shows that approximately 14,000 parent fish are taken yearly from the Skeena for the hatcheries, and these have practically reached the spawning grounds when taken.

A comparison of this small number of parent fish for hatchery use with the enormous number allowed to pass up river for natural spawning during the weekly close season shows that the artificial output is comparatively less than the proverbial drop in the bucket.

Figures taken by the local fishery officers give the average catch per boat per night on the Skeena as sixty sockeye during the whole 1922 season. There were 1,000 boats fishing. Consequently, with operations completely stopped for two nights each week no less than 120,000 fish on the average make their way up river every week end. As corroboration of this the manager of the McTavish cannery at Rivers inlet informed us in the course of his evidence that, based on the nightly catch at the inlet, 80,000 fish escape up river in one night during the weekly close season. Besides, many fish escape even when the nets are in the water and while the nets are not in the water in the course of the week.

Thus, with a ten weeks' fishing period, approximately 1,200,000 fish escape capture and proceed up the Skeena to spawn. If this is not the case, then it is foolish to continue to have weekly close seasons.

In view of these figures, even after the allowance is made for destruction of eggs naturally deposited, it seems to be ridiculous to claim that the spawn of 14,000 fish hatched artificially is of any material help in maintaining the annual run to the Skeena against the great drain made on it yearly.

It appears to us that hatcheries were built and operated in the past in a blind unmethodical way, and evidently for the purpose of making this service an important one. This is borne out by the fact that the Bon-Accord hatchery in the Fraser district was found, after 30 years' operation, to be useless, owing to its situation and closed in 1914.

Then again hatcheries were multiplied in the Fraser district at a time when the bulk of the run to that river was being taken and used by Americans.

During the period from 1901 to 1921 the number of hatcheries serving the Fraser increased from 1 to 6. In that same period 60 per cent of the sockeye runs to the Fraser was being annually taken by United States fishermen while the fish were making for the river.

If, again, hatcheries are beneficial in maintaining runs of fish, why has the Naas river been entirely neglected in this respect? Anyway is one hatchery considered sufficient for Rivers inlet where eight canneries operate?

In the memorandum referred to it is alleged the evidence given the commission regarding hatchery results was, with very few exceptions, from men who had no knowledge of the subject, and who had never seen a hatchery in operation. We wish to point out that in addition to some evidence from hatchery officers the evidence chiefly came from cannerymen and fishermen who are looking for results in the shape of increased supplies for all the money that is being spent on artificial hatching and cannot find any. And that after all is the real test.

The manager of the Northern B.C. Fisheries cannery at Namu testified that a small private hatchery at his place had been stocked with about a million fry annually for the last six years, but no results are apparent.

The general manager of the B.C. Canning Co. testified that he failed to see any result anywhere from the operation of hatcheries, and thought it would be much better to expend the money in taking care of the spawning beds.

The head of a cannery and general fish business in New Westminster said the past hatchery methods have proved a failure, and the newer methods are not beyond the experimental stage yet, and nothing has been proved. His advice is, improve the spawning grounds by eliminating predatory birds and fishes.

The head of the British Columbia Fishing and Packing Co. in the course of a reference to their private hatchery on the Nimpkish River said he would rather depend on natural propagation.

The general manager of the Wallace Fisheries testified that hatcheries have given no results in sockeye hatching, and the money would be better spent on natural propagation.

The head of the firm of Todd & Sons was asked a straight question by the Commission, if, as a result of the long experience as a canner, he would say hatcheries should be continued or not, in view of the fact that nobody seems able to give any concrete evidence of their value. His answer was to this effect, that having the hatcheries it would be a mistake to clear them out, but there should be closer observations and more experimental work. We confess that it does not seem good advice to continue spending a large sum of money on the hatcheries simply because they are there.

We have no desire to advise the closing up of all hatcheries and bringing to an end all operations connected therewith simply on the strength of what we have heard and seen so far. We do feel most strongly, however, in the light of all the evidence heard and documents consulted that the Department should move slowly until we have more definite and satisfactory proof that the industry and the country is receiving some return for the annual expenditure of more than \$130,000 in B. C. alone.

It was made quite evident to us that the old hatchery methods were of little commercial value. It was made equally plain that the retaining pond system which is still in the experimental stage and expensive by reason of the feeding of the fish, has, as yet given no proof of its efficiency. There is a widespread belief, however, that the system of placing eyed eggs in gravel by means of specially constructed boxes, will prove more effective than any other, especially in seeding remote streams, and streams from which the naturally deposited eggs have been washed out and destroyed by freshets.

Consequently, we urge that before the service is extended, some definite experimental tests should be carried on for a series of years. We make the condition, however, that the operations be carried on and observations made directly under competent scientific supervision, not under fishery officers or hatchery officials alone who have no scientific knowledge.

We also recommend that more attention be paid to improving the spawning places by ridding them of enemies of the salmon, and clearing streams for the passage of the fish, and by taking such other measures as may be deemed prudent in the premises.

## 27. HELLS GATE OBSTRUCTION

The opinion was expressed, more especially by Indians, that the obstruction at Hells Gate was still such as to impede the passage of fish when the water is low. Others, including the Provincial Assistant Commissioner of Fisheries, who has given much attention to this part of the river, consider that the fish have no difficulty in getting through the Gate at any time.

We would therefore recommend that before any more money is expended on clearing out what may be left of the rock slide, the Department should institute close systematic observation of the condition of the Gate when the water is the lowest, and see whether the fish are prevented from going freely through.

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22. WEEKLY CLOSE SEASON FOR HERRING IN PENDER HARBOUR

We cannot find any satisfactory reason for the regulation which prohibits any one from fishing for herring in Pender Harbour from 10 o'clock on Saturday forenoon to 3 o'clock on the following Monday afternoon. In our opinion such a restriction is excessive as a protective measure. We therefore recommend that subsection 3 of section 27 of the British Columbia regulations be struck out, and that general Sunday close season of recommendation No. 11 be applied in its stead.

23. ORDERS IN COUNCIL

We would suggest that so far as it is reasonably possible no Order in Council should be put in effect without due notice of its purport having been first given to those engaged in the industry.

24. THE NASS RIVER AND ADJACENT ALASKA SALMON FISHERIES

The Commission had a conference in Vancouver with Mr. C. E. Garfield, who represented the Alaska Fisheries Commission, in connection with matters affecting the salmon fishery of the Naas river and the nearby fishery of southern Alaska. As a result of the discussion that took place we recommend that steps be taken to get in touch with the authorities who administer the fisheries of Alaska with a view to reaching a satisfactory understanding of questions affecting the fisheries in the boundary waters between British Columbia and Alaska.

25. PRACTICAL SCIENTIFIC INVESTIGATIONS

We are of the opinion that the Marine Biological Board as at present constituted is not in a position to adequately deal with such scientific questions as may be of direct practical value to the fishing industry. And, after all, unless investigations of practical value rather than those of merely scientific interest are the main object of a Scientific Board, the \$40,000 or more spent annually on its upkeep is, in our opinion, largely wasted.

The present Board consists of professors who are on the active staff of various Universities throughout the country. The Chairman is a retired Professor of Queens University. There is no scientist holding a permanent position on the Board and giving his whole time to scientific fisheries work, apart from Professor Prince, whose time is very largely taken up acting in the capacity of secretary-treasurer to the Board.

For example, we found during our investigations, that Mr. McLean Fraser, professor of Zoology in the University of British Columbia, gives attention to the work of the Biological Station at Departure Bay, B.C. during summers and intervals in his work at the University. We submit that it is impossible, under these conditions, for him or any other scientist, no matter how competent he may be, to do justice to the scientific problems pertaining to the exploitation and development of the Pacific Coast fisheries. The Atlantic coast with its somewhat more varied problems is in like case.

While we think that at least one capable marine scientist should be permanently appointed and made resident all the year round on either coast to devote all his time to the solution of practical scientific problems, we are not prepared meantime to outline any scheme for the reorganization of the present Board. We would very strongly urge and recommend, however, that the question as it affects the fisheries as a whole, be fully and closely investigated with a view to devising some satisfactory plan whereby reorganization along the lines herein indicated may be carried out.

26. HATCHERIES

There are twelve government hatcheries in British Columbia from which are distributed one hundred million salmon of various kinds annually. Six serve the Fraser river, two the Skeena, one Rivers inlet, one Anderson lake, Vancouver island, one Kennedy lake, Vancouver island and one Cowichan lake, Vancouver island. The annual cost for operating these establishments runs to between \$130,000 and \$140,000.

In an endeavour to find out some definite proof as to whether such a large expenditure of public money was of such commercial value to the salmon fishing industry, as to justify its continuance, we devoted much time and consideration to this question.

Many allegations were made to us by those interested in artificial propagation with a view to showing that the percentage of artificially produced fish reaching maturity is greater than that by natural propagation, and that therefore artificial propagation must be of value in maintaining supplies.

Apart from the fact that the number of fish handled artificially is infinitesimal compared with what nature deals with, we were told by Dr. McLean Fraser, the scientist in charge of the biological station at Departure Bay, who must be accepted as something of an authority, "That he did not think those who said a greater percentage reached maturity from artificial hatching than the natural process, had any basis for it. They do not know. Such statements are being continually made but we do not know."

A memorandum prepared evidently by those directly interested in the continued operation of hatcheries has been placed in the hands of the commissioners in which an effort is made to show what benefits the industry has derived from hatcheries.

It begins with a statement to the effect that in spite of the fact of increased fishing on the Skeena, the pack of sockeye in the five-year period 1918-22 was larger than the pack in the five year period 1913-17, and that were it not for artificial propagation there would be no possibility of the runs being maintained. It goes on to show that in Rivers inlet there was in the five year period 1908-12 a pack of 482,000 cases, in the 1913-17 period, 388,000 cases, and in the 1917-21 period, 342,000 cases, and concluded that the figures show there has been a depletion, which would have been much greater were it not for the operations of the one hatchery serving the inlet. Curiously enough the pack of three five year periods are given for Rivers inlet, but in the case of the Skeena those by two periods only are given. If the compilers of the memorandum had given the pack on the Skeena for the period 1908-12, as in the case of Rivers inlet, it would have been seen that there has been depletion there also rather than an increase. Taking three five year periods then for the Skeena the figures are in round numbers 1908-12, 636,000 cases; 1913-17, 423,000 cases; 1918-22, 538,000 cases.

On the Skeena there is a weekly close season of 48 hours all through the season during which no nets are allowed in the water, and salmon have the utmost freedom to ascend the river for spawning purposes. Yet the memorandum referred to ignores this great means of replenishing the stock of fish, and assuredly asserts that but for artificial hatching the runs could not be maintained against the great amount of fishing now going on.

We have examined this statement closely and compared the possibilities of natural and artificial propagation and this is what we find. From 1903 to 1908 there were three and a half to four and a half millions of sockeye fry annually placed in the Skeena from the hatcheries. From 1908 to 1912 and after, there were ten to twelve millions of fry placed in the Skeena annually. Yet in each of the two five year periods from 1913 to 1922 the sockeye pack of the Skeena fell far below that of the preceding five year period which had very few artificially hatched fish to rely on.

The Commission was appointed to investigate the fisheries of British Columbia and make such recommendations as are deemed necessary for their advancement. It may seem, therefore, at first sight, that such a question as the reorganization of the staff charged with the administration of the fisheries generally does not come within the scope of our inquiry. Yet we feel very strongly that if the recommendations herein submitted are to be effectively carried out, to say nothing of the needs of the fisheries of Canada as a whole, there must be a reorganization of the Department which controls the affairs of this important basic industry.

The departmental administration of the fisheries is perhaps of a more direct and intimate controlling nature than that connected with any other great industry. Fishing for most of the kinds of fish caught in our waters can only be engaged in under license from the Department. All canning and many of the curing establishments likewise operate under license. The millions of dollars invested in the industry are thus subject to the granting of a license from year to year, while the regulations under which operations are conducted may be frequently and needlessly changed to an irritating degree through lack of proper knowledge on the part of the administration.

Those who administer the Fishery Laws almost daily control large business undertakings and prescribe the conditions under which they may operate.

It is therefore not desirable to place so much power in the hands of any but men who know the industry from the inside, can sympathize with its aspirations and promulgate regulations based on sound practical business lines. But the administration of the fisheries calls for much more than simple regulation and protection. The fisheries constitute a great natural resource capable of producing far more than they have yet done. There must be, however, practical minds to plan and carry out practicable schemes for improving and extending it to its utmost extent.

The request for a complete change in the administration of the fisheries is not at all new. Fishermen, canners and fish dealers of all kinds through their various associations have been clamouring for it for many years but without effect.

As an example of the urgency that exists for reorganization, we would quote the following from a statement submitted to the Commission at Vancouver by the President of the Canadian Fisheries Association:—

"We have used the editorial columns of our trade paper, the 'Canadian Fisherman,' we have passed resolutions at our national conventions, and have had committees composed of practical men in the business wait on the previous and present Governments in our effort to accomplish that in which we are all in agreement, viz: the separation of the fisheries from marine, and the appointment of a Deputy Minister of Fisheries. We accomplished nothing, I am sorry to say, but we have renewed our activities with the present Government. The following organizations and public service bodies have passed resolutions and forwarded or delivered to the Premier and Ministers the most urgent kind of resolutions endorsing our application:—

The executive of the Canadian Fisheries Association by wire, letter and in person.

The different branches of the Canadian Fisheries Association.

The British Columbia Salmon Canners Association, by letter and in person by special committee.

The Vancouver Board of Trade, by wire and in person by special committee.

The Manufacturers Association of British Columbia.

The British Columbia division of the Canadian Manufacturers Association.

The National Executive of the Canadian Manufacturers Association.

The following is a copy of a resolution passed by the Canadian Fisheries Association in December, 1921:

"The Canadian Fisheries Association unanimously requests the separation of the Fisheries Department from that of Marine, and urges appointment of Deputy Minister of Fisheries, who will have direct access to the Minister. The whole future progress and development of great Canadian fisheries awaits a distinct departmental administration and the whole time of a Deputy Minister devoted to its interests."

The following is a copy of a telegram sent to the Premier by the British Columbia Salmon Canners Association in December, 1921:

"The fishermen and canners throughout Canada have for years persistently urged the Government to recognize the paramount importance of the great fishing industry by separating it from the Department of Marine, connection with which has been detrimental to the welfare of the fishing and packing industries. They recognize that the reconstruction of the Cabinet under your leadership will afford a fitting opportunity for creating a Department of Fisheries administered by a Minister and specially qualified staff to deal with all matters pertaining thereto; a course which is rendered particularly necessary by the critical condition of the salmon fisheries of the Pacific coast, where the supply of fish is threatened with utter depletion unless prompt and drastic measures are taken to conserve the remaining supply. Your sympathetic consideration is earnestly desired."

The President of the Fisheries Association ends his statement with this appeal to us:

"Our work of years has brought no results to date. It is earnestly hoped by the entire fishing industry of the Dominion that this Commission will recommend and urge the separation of the Department of Fisheries from that of Marine and the appointment of a Deputy Minister of Fisheries."

The head of a large canning company in the course of a statement submitted to the Commission at its Vancouver meeting, emphasized the lack of a practical familiarity with the industry on the part of the present administrative officers and the need for reorganization in the following terms:

"Wisdom in devising fishery regulations cannot be expected without a full understanding both of the fisheries as a whole and of each individual case to be dealt with."

"As illustrative of this it may be mentioned that in January last on the recommendation of the Department an Order in Council was passed establishing a close season for trout on the mainland of British Columbia from 16th of February to 25th May. An angler wrote to the press that it was hard to understand who could have advised the Department to pass such extraordinary regulations. The various anglers associations promptly asked to have the Order in Council changed, and this was done within a fortnight after it was originally made. The very fact of the change being made was proof that Ottawa lacked sufficient knowledge of the conditions to qualify them to pass judgment on the matter.

"In commercial salmon fishing a similar state of affairs prevails. Changes in the regulations are made without rhyme or reason and often have to be changed back almost immediately when their unworkability or unfairness is pointed out to the officials."

"In the instances referred to above I have endeavoured to show that all classes in British Columbia, anglers as well as commercial fishermen, have protested against the methods of administration, and that the Department itself in frequently reversing its own actions, justifies the criticisms made.

"In connection with the frequent and bewildering changes in the regulations, the Commission, of its own knowledge, can testify that the British Columbia regulations, which were passed and published in April 1922, no doubt after due consideration by the officials, have been amended in so many instances, in less than a year, as to make it almost impossible for a fisherman or even a canner to grasp just what are the regulations he has to work under."

There is no doubt at all that for many years those in high places, owing to inability or failure in some way to appreciate the importance of the industry, have looked on fisheries administration as of such little account as to allow it to become a sort of departmental football which was first kicked into the Marine Department, from a separate position of its own, then into the Naval Department and from there back into the Marine.

It is a fact well known to all who take any interest in the matter, that fisheries administration, notwithstanding the use of the name in designating the Department, is for all practical purposes, nothing more or less than a branch of the Marine Department. And, by reason of that fact the great fishing industry does not receive the attention it so insistently calls for, and to which it is so justly entitled.

Not only is this so, but the executive head of the Fisheries Branch, we find, is actually rated for salary purposes in the Civil Service Commission's classification list away below most of the heads of branches in the Marine Department. This, notwithstanding that the fisheries head has to deal with many more and varied problems, including many intricate international questions, than the head of any Marine branch.

We, therefore have no hesitation in characterizing the placing of the fisheries administration thus in such an inferior position in the Marine Department as an injustice to the splendid business men who are struggling, without much encouragement, to build up on sea and shore a big national industry and who keep calling for a separate department to aid them.

We would, therefore, most strongly urge that the unsatisfactory conditions at present surrounding fisheries administration be terminated. To that end we recommend that a Fisheries Department, entirely separate from the Marine Department, and complete within itself with a separate Deputy head, possessing practical knowledge of the fisheries and a competent qualified staff, either with or without a separate Fisheries Minister, as the Government may see fit, be established with as little delay as possible. We believe an efficient well informed separate administration, even if it costs more than the present one, would effect economies more than sufficient to cover the extra cost by its ability to prevent useless, costly services from being foisted on the Department.

#### CONCLUSION.

We desire to say in conclusion that while our inquiry was concerned with the fisheries of British Columbia only, some phases of it, particularly the question of administration, have a direct bearing on the fishing industry of Canada as a whole. Consequently, whatever action may be taken as a result of our investigations, it will have a direct effect for good or ill on many thousands of people and much invested capital.

It may not be out of place to remind you that no less than 100,000 fishermen and fish workers are directly engaged in the industry as producers; while the number directly depending on the labours of those producers for food and shelter may be estimated, conservatively, at 250,000. Probably as many more in subsidiary lines of work, such as boat and shipbuilding, barrel and box making, rope making, etc., etc., are largely dependent on the result of the fisheries for employment.

The capital invested in boats, vessels, fishing gear and the various canning and fishcuring establishments, runs up to \$50,000,000. The value of the whole production of the industry is at present less than \$40,000,000. It has been as high as \$60,000,000. If it is again to reach that high water mark, and there is no good reason why with proper care and attention to the development of this great basic industry, it should not supply a much larger portion of wealth to Canada, we feel that much more understanding, care and attention must be given to it. To that end the foregoing recommendations are directed.

Therefore, in subscribing our names to this report, we confidently hope that the recommendations contained therein, will not only receive such consideration as the importance of the fisheries merit, but will be approved and made effective with the least possible delay.

All of which is respectfully submitted.

(Sgd.) WILLIAM DUFF,  
Chairman.

(Sgd.) C. H. DICKIE,  
Commissioner.

(Sgd.) LEWIS H. MARTELL,  
Commissioner.

(Sgd.) W. G. McQUARRIE,  
Commissioner.

(Sgd.) ALAN W. NEIL,  
Commissioner.

(Sgd.) FRED STORK,  
Commissioner.

OTTAWA, Ont.,

February 28, 1923.

#### MINORITY REPORT

I am not in accord with my fellow Commissioners on the question of a 40 per cent reduction in licenses to be granted to other than white and Indian fishermen on the Skeena and Naas rivers and waters adjacent thereto, and I respectfully recommend that the reduction does not exceed 25 per cent for the year 1923 for the district in question.

On the question of exportation of fresh salmon I also differ from the opinions of my fellow Commissioners, feeling confident that it would be in the best interests of British Columbia were no fresh salmon or steelheads exported, except after being cleaned, iced and packed in boxes, containing not more than 200 lbs. of said fish. I would recommend the exemption from this regulation of all spring salmon caught in the waters adjacent to Barclay Sound until it is demonstrated to the satisfaction of the Fisheries Department that marketing conditions were more favourable than was indicated by evidence given at Alberni respecting the year 1922.

(Sgd.) C. H. DICKIE.

OTTAWA, ONT.,

February 28, 1923.