

Turning Points in the Development of the British Columbia Salmon Fishery

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Abstract. As the British Columbia salmon fishery developed, the Canadian government, with constitutional responsibility for the resource, faced a number of critical turning points in management policy. In early years, partly for expediency, the allocation of fishing privileges often resulted in efficient levels of effort but little attempt was made to capture any rent generated. Later, usually because of political pressures, efficient solutions were abandoned and open access permitted, resulting in the need for detailed regulations and enforcement. Traps, an efficient means of capturing salmon, were first permitted in 1904 but political considerations never allowed their use beyond limited areas. The traps competed for fish with small boat fishers and often generated considerable profits for their operators. Granting exclusive area fishing privileges was also used as a management tool early in the fishery but later discontinued. Similarly, processors were at one time permitted to limit the number of fishers in an area but eventually this too was disallowed. The traps, exclusive fishing privileges, and restrictions on the number of fishers all limited effort, but also generated rents that were allowed to accrue to the holders of these rights, despite knowledge of the profits generated.

Keywords: British Columbia, Canada, salmon, fishing rights

1. INTRODUCTION

Between 1900 and 1930 the British Columbia salmon industry acquired many of the features that characterize it today. In 1900 the industry was primitive and underdeveloped. Manual methods were used for fishing and processing, one species of salmon dominated output, fishing was restricted to a few areas of the coast, the provincial and federal governments disagreed about jurisdiction and control of the industry, and conservation depended more on the inefficiency of fishing techniques than on fishing regulations.

By 1930 the industry had matured. Major and widespread changes in fishing and processing technology had mechanised fishing and processing, maximum harvest levels for all species and all areas were achieved (and probably exceeded in many areas and years), a series of court cases had defined the jurisdictional responsibilities of the federal and provincial governments, a biological research station was operating, and an international agreement on conservation negotiated.

The expansion of the industry often outran the ability of fishery managers to effectively conserve stocks. With limited knowledge of the resource, hundreds of individual stocks, a duty to conserve, pressures to expand output, competition for valuable access rights, and many miles of coastline to patrol, management authorities grappled with the problem of allocating fishing rights. Over much of this period fishery managers did not have the capability to effectively enforce the necessary regulations if unrestricted access was permitted. Various property rights allocations were developed and tried, including exclusive fishing rights, limitations on fishing licences, and limitations on processing licences, but all were eventually abandoned. By 1930 management evolved to a system of generally open access but with a variety of restrictions on fishing effort.

The rise and fall of several systems of exclusive fishing rights will be reviewed here: the use of fixed fish traps, as opposed to roving fishing boats; limiting the number of processors and allowing them to allocate fishing licences; and granting exclusive area fishing privileges. While each had the potential to efficiently limit effort all were abandoned due to the deficiencies in the property rights they created.

2. TRAPS

2.1. Traps in American Waters

In the 1890s Canadian regulations were in place on the Fraser River, the major British Columbia salmon producing river, but, by themselves, could not provide for the conservation of Fraser River salmon. Americans, using traps, were catching increasing shares of Fraser River bound fish. In three of the four years from 1899 to 1902, including the 1901 “big year”, Americans caught more Fraser River sockeye than Canadians. More than 100 traps were operated each year, on average after 1899, in American waters.¹ Advocates of traps stated that the technique can supply fish at low cost and the fish can be held in a trap and delivered fresh and in the needed quantities to processors. J.P. Babcock, the senior provincial fisheries official, was consistently in favour of traps, arguing that traps are better for conservation as they are more easily regulated.²

2.2. Traps in Canadian Waters

In retaliation Canadian canners applied for and received permission in 1894 to operate a few traps in Boundary Bay, supposedly allowing Canadians the first crack at the salmon. These traps were granted continuing licences but were poorly located and had limited success.

Canadians felt the American pack was made unfairly and was a severe threat to the Fraser fishery.³ The 1902 report of the Fisheries Commissioner for British Columbia complained that there were no limitations on fishing time or method in US waters while Canadian fishers were restricted to gillnets.⁴ Americans were getting fish for three cents each while Canadians were paying at least ten cents each, regarded as particularly unfair when both sold considerable quantities to the British market.⁵ Canadian canners argued for traps while fishers were opposed, stating that traps would replace fishers.⁶

2.3. The 1902 Commission

One Canadian reaction was the appointment of “A Commission on the Salmon Fishery Industry in British Columbia” in 1902. The Commission, reporting in 1903, neither recommended nor rejected the use of trap nets. The conditions under which traps would be permitted, however, were given: all canners should be on the same basis when trap sites are allotted. The Commission rejected as “objectionable” the government operating traps and selling salmon to canners at cost. Auctioning off trap sites was also regarded as “objectionable,” for some unstated reason.

In late 1902 an internal government memo proposed inaugurating traps by either selling locations by auction, having the government operate the traps and selling fish at market price to canners, or having canners form a syndicate to jointly operate the traps. These proposals recognized the potential rent or profits from good trap locations.⁷ By early 1904 the government decided to permit traps. A May 2, 1904 order-in-council rescinded the 1894 ban on all but gillnets and permitted trap net, purse seine and drag seine licences to be issued. There was little attempt, however, to extract any economic rent from those operating these methods of fishing; a trap net licence cost \$75, a purse seine licence \$40.⁸

The first federal licences for traps, other than those in 1894 at Boundary Bay, were issued in 1904. Trap sites were at the southern end of Vancouver Island, along the route followed by migrating Fraser River salmon before they enter Puget Sound to run the gauntlet of the American traps. Only two traps operated in 1904. Sixteen operated in 1905, a “big” run year for the Fraser, and large catches made.⁹ The maximum number operated was never more than twenty, but not all sites were profitable and after 1922 only three to six operated in the southern Vancouver Island area.¹⁰

2.4. Traps in Northern Waters

In northern British Columbia border waters, again in response to traps operating in adjacent American waters, traps were

licenced and operated for a time.¹¹ Two to seven northern traps operated from 1917 to 1920 but were then discontinued due to the decrease in the prices of canned pink and chum salmon, their target species. In 1924, with higher prices for pink and chum salmon, trap net licences were again approved at two northern locations for 1925 and 1926.¹²

The trap operator pressed for renewal in 1927 but fishers objected.¹³ A commissioner was appointed to advise the government and a report tabled in the House of Commons in June 1929. The commissioner recommended traps be allowed in two channels forming part of the border between Alaska and British Columbia, the justification being the adjacent American traps.¹⁴ The report was vigorously denounced in the House of Commons, members said traps would decimate the salmon population and put fishers out of work. The Minister responsible for fisheries stated that the recommendations would not necessarily be carried out and nothing would be done to harm fishers.¹⁵ No further trap licences were issued for the northern boundary area.¹⁶

2.5. Traps between Vancouver Island and the Mainland

In January 1917, with the increased war-time demand for pink and chum salmon, the Minister approved a recommendation that traps be allowed for these species.¹⁷ Only six licences were granted, all in waters between northern Vancouver Island and the mainland.¹⁸ These traps were allowed to operate until the end of the 1920 season.

By 1920 the fisheries department was considering not issuing trap licences except adjacent to the southern and northern borders. The department believed there were insufficient good sites for all who wished them. Much of the BC fishing was done in rivers and inlets, areas where the department felt traps could not be located due to the difficulty of holding the traps in the current.¹⁹ Consequently in January 1921 regulations were changed such that, apart from the waters contiguous to the northern and southern American boundaries, no salmon trap-net licenses were to be issued.²⁰

3. LIMITING ENTRY INTO PROCESSING

Before 1908 there was no requirement to have federal or provincial permission to build and operate a salmon cannery. In 1908 the British Columbia provincial government, as part of a continuing feud with the federal government, brought into force their previously approved Fisheries Act of 1901. The provincial government also passed a Canneries Revenue Act and began requiring licences for canneries.²¹ Although the ostensible reason for the Act was to raise revenue, the true purpose was to limit the number of canneries in northern waters. Before issuing a cannery licence, the province was to get a report on "whether it will interfere seriously with the business of canneries already operating and who are accepting our boat-rating [a form of fishing licence limitation] and have invested large sums of money." The provincial policy is to "limit the number of canneries in an area to make sure that those operating can make a profit and to protect fish . . . if the canneries are operating at a loss they will evade your regulations and they will make inroads upon your capital stock of fish."²² Justifying their action by conservation the provincial government was clearly protecting established canners.

Limiting the number of canneries in northern waters had also been recommended by the federally-appointed Fisheries Commission of 1905-07, primarily for conservation purposes.²³ The federal government likewise instituted cannery licencing in 1908. These regulations stated that no additional canneries would be licenced in the north, an action doubtless stimulated by provincial action.²⁴ Federal restrictions were supposedly for conservation; canners said they would limit the number of boats if the government would limit the number of canneries.

Cannery licences were limited by both governments in the north between 1908 and 1913, after which additional licences were issued. The federal minister indicated that "In earlier years it did not seem feasible to attach fees to the salmon canning and fishing privileges, which this department felt were commensurate with the value of these privileges. Hence, in 1913 the department embarked on the policy of gradually increasing the number of canneries."²⁵ A more relaxed approach to cannery licencing was applied in areas outside the north.

4. LIMITING THE NUMBER OF FISHERS

The 1905-07 Commission also recommended that it "should be officially suggested to the canners interested that they should carry out a fair allotment of the boats among themselves on the lines followed by these canneries in previous seasons..." If the canners cannot agree on an allotment by March 15 then the allotment is to be determined by the area's fishery officer.²⁶ Up to 1908 canners were able to agree among themselves on the number of boats to be fished by each in northern waters. Most licences were "attached" to canneries, allowing canners to restrict and allocate fishers. In 1908, failing to come to an agreement, a committee was selected to set an allocation for 1908 and 1909. The committee's allocation held for 1908 but in 1909 several canners increased their number of boats and in 1910 almost every canner threatened to increase their number of boats. To avoid the increased number of boats the provincial government limited the number of licences it would issue for each area and each cannery for 1910.²⁷

To provide a more permanent solution the federal and provincial governments then agreed to appoint a joint commission. In five weeks the commission visited all the canneries in northern British Columbia, conferred with cannery managers, developed recommendations, and submitted their report. The recommendations were on the total number of gillnet boats for each area and how these boats were to be apportioned between canneries, the allocations to be effective for five years.

The provincial government defended the allocation, arguing that "the rating [allocation] was designed, first to insure permanence to fishing in waters that had already been exploited to their limit, and be only such a limitation could the Government secure conditions whereby a sufficient number of seed fish would reach the spawning bed."²⁸ The reasoning was that, with canners supplying the boats and nets in the north, without limits canners would increase the numbers of boats and conservation thwarted.

The federal view of the 1910 boat allocation was more perceptive. Recognising that although "this regulation made it possible for the Department to readily control the amount of fishing that might be carried on" the northern boat rating was certainly favourable to the established canners. With all fishing licences attached to the current canneries, entry of new canners was blocked. With attached licences and canners supplying almost all the boats and nets, fishers had little choice about where to sell their fish; canners could set the prices paid to fishers.²⁹ This restriction was partially lifted in 1912 when provision was made for issuing licences to "independent" fishers.

5. EXCLUSIVE FISHING PRIVILEGES

5.1. Drag Seines

Exclusive leases were fishing privileges for a specific area. Trap net licences were awarded but the most common type of exclusive lease was for the use of drag or purse seines in specific areas of the coast. Drag seines are fished from shore, purse seines from boats.

Drag seines were always controversial. Originally banned, then allowed under special circumstances, the federal fisheries department later eliminated them. In 1890 all seines were prohibited. But, after claims that salmon could not be caught in sufficient quantity in clear water to support a cannery, drag seines allowed in 1894 with a special permit.³⁰ A drag seine licence gave exclusive fishing privileges for a stretch of coast with at least one creek or small river where fishing took place; in practice but not part of the regulations the licence was usually for about fifteen miles of coastline.³¹

In early years only canneries applied for drag seine licences. Later fishers applied for and "wherever feasible" were granted licences but the department only granted one licence per area, not considering it "feasible, nor desirable in the public interest, to grant different drag seine licences for the same area." Exclusive licences were justified on conservation

grounds: "The run of salmon to these small creeks is . . . not large and will not admit of a great deal of fishing . . . if over-fishing is to be prevented, it is essential that the amount of fishing allowed must be carefully restricted."³² By 1912, 139 drag seine licences were issued. Later, when drag seines were further restricted most licences were again issued to canners.

Drag seine privileges could be valuable and were often favours awarded by the government. In 1903 Henry Doyle, a prominent canner, commented on the awarding of the exclusive fishing privileges associated with drag seines:

"...in a great many instances these licences are sought after and obtained by parties having no intention of utilizing the privilege for legitimate canning purposes, but with the sole object of selling the use of the license to someone else . . ."³³

With the population of the north increasing and the development of purse seining as an alternative to drag seining, the federal government was urged to open up access to fishing. The government appeared to listen and in 1920 announced that drag seines were operating for the last time in BC. The Minister was reported to have stated that the industry was almost a monopoly and since, the fisheries belong to all the people, the government is throwing the industry wide open.³⁴ But action lagged the rhetoric, the 104 drag seine licences issued in 1919 were reduced to 45 in 1920 but 35 were still issued in 1921. As late as 1930 21 were issued and nine still issued in 1934.³⁵ Part of the problem in replacing drag seines was that some runs could not be harvested in any other way.

5.2. Purse Seines

The 1902 Commission also recommended allowing purse seining in BC waters, to increase the Canadian share of Fraser River fish. The first purse seine licence was for Barclay Sound. In August 1903 the BC Inspector of Fisheries was instructed by the Acting Dominion Commissioner of Fisheries to:

"Issue immediately a license for one purse seine to Clayoquot Canning Company, Victoria, for fishing in open waters of Barclay Sound, between Cape Beale and Ucluelet, containing conditions protecting approaches to mouths of inlets and rivers . . . Tentative fee fifty dollars."³⁶

In 1905 the federal department only recorded five leases of exclusive seining privileges. Lease fees varied between twenty-five and two hundred dollars a year.³⁷

Later the areas available for purse seining were expanded, but exclusive licences still issued, not always in open competition. Charlie Clark, who started his long career as a purse seine skipper after World War 1, recalled:

"About that time [1919] they opened up certain areas that you could get a licence. Of course all the canneries on the coast had certain areas nobody else could fish in. All the way right up to Rupert there were no private boats in the canneries. So they opened it up, and being I was in the navy I applied [for an area] . . . I had a Major from Port Alberni with me, but some Colonel back east got it. He didn't know anything about fishing . . . If I'd got it I would have made a fortune out of it, because you sell your fish and nobody against you. Just one area all to yourself. But no way, I couldn't get in."³⁸

6. THE 1917 COMMISSION

By 1917 several policy issues were unsettled. Many objected to the restrictions in the north. Fishers objected to the ban on motor boats, licences attached to canneries, and exclusive seining privileges; a delegation from Prince Rupert objected to the cannery monopoly in the north.³⁹

In January 1917 the Fisheries Advisory Board dealt with some of these simmering policy matters. The Board recommended that, starting in 1918, the practice of attaching fishing licences to canneries end and all licences be issued independent of a cannery and that motor boats be allowed in the north. To allow canners and fishers to plan for these changes, a year's notice was to be given. The department also recommended these changes, the Minister agreed, and the regulations were amended.⁴⁰ A later commission report states that the government also announced the removal of

restrictions on the number of cannery licences, but this is not mentioned by the government.⁴¹

Canners objected and advocated the appointment of a commission of “independent business men” be appointed to investigate the industry. Although department officials did not agree, the Special Fishery Commission 1917 was established. For the first time commissioners were neither public servants nor politicians. With little reason to justify or perpetuate existing policies, a more independent and innovative approach might be expected. The chair was the first economist appointed to a commission.

On the question of whether the number of salmon canneries now operating in district two be limited to the number now operating, the commission recommended that the number of cannery licences not be increased for five years. The existing plants were regarded as more than adequate for the current supply of salmon and five years was required to study the supply of salmon. But licence duties on canneries should be increased on the basis of the number of fish canned and profits made “so that while enjoying adequate return the canneries may contribute to the public treasury, for the propagation and conservation of the salmon or for other proper public purposes, due compensation for the privileges conferred.”⁴²

The Commission recommended that there be no increase in the number of boats in the northern district and that only licences with no connection to a cannery be issued. This licencing system should provide fishers with a more competitive market for their fish.

The Minister concurred and, in announcing policy for 1918, stated that there were to be no additional cannery licences “because it was found that the existing canneries can more than take care of all the salmon that may be allowed to be caught.” But “It is recognized that if the privilege is thus restricted, those engaged in canning should be required to pay into the public treasury a fair proportion of their profits.”⁴³ The fee increases recommended were considerable, six to ten times current levels, with a case tax for canners.⁴⁴

But, with the end of World War I just as the change in policy was proclaimed, the department now faced demands to provide fishing licences for veterans, many of whom were returning to British Columbia and needed work. More than 40,000 from British Columbia had served overseas. The dilemma for the department was how to provide for the veterans while restricting licences and raising cannery licence fees. Members of Parliament recommended that all applications from veterans for gillnet licences be granted, even if this requires going beyond the limited number of licences in northern areas.

7. THE “OPEN DOOR” POLICY

The department now returned to its pre-1917 recommendations, an “open door policy” with no limitations on the numbers of fishing and cannery licences. The runs would be protected by restricting fishing time and hiring more fishery officers.⁴⁵ In January 1920 the “open door” policy was announced. There would be no limit on the number of salmon fishing and canning licences. But there would be racial restrictions on licences, the number available to Japanese-Canadians would be limited. Even though restrictions on the number of fishing and canning licences were now removed, the greatly increased fees, initiated in 1919 with restrictions on licences, remained.

In justifying the open door policy the Minister stated that the industry was almost a monopoly and the fisheries belong to all the people.⁴⁶ The department stated that it had felt for years that the “open door” policy was the appropriate one but held off implementing the policy because of the difficulties in properly protecting all areas, difficulties which are certainly less if “undue competition is prevented.” Now the Department feels it has greater ability to protect the salmon runs and can allow increased numbers of fishers, stating that “the experience of the past year [1920] has shown beyond dispute that it can do this.”⁴⁷ The previous limitation of fishing and canning licences in the north no doubt made regulation of fishing easier but now the department felt it had the capacity to protect stocks even with more fishers.

It wasn't just the privileges of canners that had to be dealt with the move to a free entry policy. Drag seines, operated from shore usually near creek and river mouths, were now considered to be replaceable by purse seine or gillnet fishing.

Canners were unhappy with the results of the significant increase in fishing and canning fees in 1919 and then the lifting of restrictions on the numbers of licences in 1920. The department admitted that "the canners have fair ground for complaint as when the fees were raised the number of canneries was restricted and they had the business all to themselves."⁴⁸ In 1920 prices were high and fish plentiful; canners could absorb the higher fees. In 1921, however, canned salmon prices fell and the increased fees were now having an impact. A number of issues were simmering, ripe conditions for the appointment of another commission.

8. THE 1922 COMMISSION

Another Commission, this time consisting of Members of Parliament, was established in 1922. Perhaps the most significant recommendations of the Commission dealt with restricting Japanese-Canadian access to licences. The Commission also recommended that motor boats be permitted in the north and that licence fees and taxes be lowered. The Commission pointed out that the 1917 Commission had recommended increases in licence fees and the imposition of a tax per case, at the same time the number of canneries was to be limited. Fees were increased and the case tax imposed for the 1919 season but the number of canneries was not limited and additional cannery licences granted. The current Commission now feels the industry is "being unduly hampered by high taxes and license fees," particularly since the increased licence fees and taxes coincided with the post-World War I market slump. Stating that neither fishers nor canners should be burdened with high licence fees and taxes, particularly as the overhead expenses of canners are reflected in the prices paid to fishers, the Commission recommended a substantial reduction in fishing, trap, and cannery fees, to levels considerably below those in 1918 before the last increase.

The recommendations of the Commission were put into force by the department. The number of licences available to Japanese-Canadians was restricted. For others access was open with the payment of nominal fees. All attempts to allocate property rights had now ended.

9. CONCLUSIONS

In the British Columbia salmon fishery between 1900 and 1930 the federal government, with the major jurisdictional responsibility for the fishery, tried a variety of property rights allocations. By 1922, however, the industry was one of open access. Allocations of property rights had come to be viewed by the public and politicians as the creation of monopoly privileges and the generation of profits for those holding the rights. This view was certainly justified as rights were often given as favours and little effort made to capture the rent generated. Speculation in rights further diminished any possibility of expanding their use.

Traps, likely the most efficient fishing method, were never responsible for more than a small proportion of total landings. Perhaps the greatest obstacle to expansion of the trap fishery was political pressure against traps from fishers. Even when traps were proposed for a very limited area, such as the northern border channels, fishers feared their expansion into other areas. The efficiency of properly-placed traps often meant large profits for their operators.

The quality of the property rights awarded also doomed them. Rights holders did not regard the rights as secure and long-lasting. Consequently rights holders appear to have taken little responsibility for managing and conserving the resource. This behaviour added to public and political pressure to end the awarding of exclusive rights.

10. NOTES

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3. Report of the Commissioner of Fisheries for 1903, pp. F1-F2.
4. Report of the Fisheries Commissioner for British Columbia for the year 1902 (1903)
5. Henry Doyle papers, H. Doyle to Minister of Marine and Fisheries, 24 March 1903, reproduced in Newell (1989a), pp. 87-91; New Westminster Columbian, August 12, 1901.
6. Vancouver Daily World, January 25, 1902; National Archives of Canada (hereafter NAC), RG 23, vol. 131, file 222(1), F. Gordeau to Secretary, British Columbia Fishermen's Union, 10 October 1901 and 7 May 1903.
7. NAC, RG 23, vol. 131, file 222(1), Memorandum re Proposed Salmon Traps in British Columbia, n.d., ca. 1902.
8. NAC, RG 23, vol. 124, file 164(4) G.J. Desbaretts to E.L. Newcombe, 2 April 1910.
9. Pacific Fisherman Annual, January 1906, p. 52; Vancouver Daily World, June 27, 1905; Victoria Colonist, July 26, 1905. Daily catches of over 25,000 fish were reported; Annual Report of the Fisheries Branch, Department of Marine and Fisheries, for 1906, p. lxiv.
10. University of B.C. Library, Special Collections, J.H. Todd and Sons Company Records. After 1931 only five sites were used, all within ten miles of Sooke Harbour (Sooke Region Historical Society (1957))
11. Pacific Fisherman, June 1917.
12. NAC, RG 23, vol. 765, file 716-15-12(1) Minute of a Meeting of the Committee of the Privy Council, 10 March 1929; Woodward (1948), pp. 14-15; Newell (1989a), p. 212.
13. The three traps operating near the northern boundary are mentioned in Public Archives of British Columbia (hereafter PABC), GR 435, box 45, J.H. Motherwell to J.P. Babcock, 11 April 1927.
14. NAC, RG 23, vol. 765, file 716-15-12(3), J.N. Ellis to P.J.A. Cardin, 7 May 1929.
15. NAC, RG 23, vol. 765, file 716-15-12(3), Vancouver Daily Province, 11 June 1929.
16. NAC, RG 23, vol. 765, file 716-15-12(4), Memorandum Re Attached Letter from Canadian Fishing Company Limited, 17 July 1940.
17. NAC, RG 23, vol 930, file 721-4-6(6). Extract from minutes of the Pacific Division of the Fisheries Advisory Board, 16-20 January 1917; Ibid., file 721-4-6(11) Memorandum Re attached letter from H. Bell-Irving, 11 January 1918. The 1917 Commission later also recommended that traps be considered where pinks and chums could be taken in good condition for the fresh and frozen market. (p. 45)
18. NAC, RG 23, vol. 932, file 721-4-6(27) W.A. Found to Chief Inspector, 16 September 1920; file 721-4-6(28), Report of meeting of cannery with F.H. Cunningham, 5 October 1920.
19. NAC, RG 23, vol. 930, file 721-4-6(11), Memorandum Re attached letter from H. Bell-Irving, 11 January 1918.
20. Pacific Fisherman, January 1921, p. 42.
21. Victoria Colonist, March 3, 1908. The B.C. government had long advocated limiting the number of canneries in the north.(UBC, Henry Doyle Papers, H.O. Bell-Irving testimony before House of Commons Select Standing Committee on Fisheries, 28 April 1922)
22. PABC, GR 435, box 39, file 340, BC Commissioner of Fisheries to J. D. Hazen, Minister of Marine and Fisheries, 9 December 1911. A later history of the province's involvement in fisheries stated that "provincial policy reflected far more concern with the economic performance of the industry than federal policy." (B.C. Ministry of Agriculture, Fisheries, and Food (1996), p. 45)
23. PABC, GR 435, box 65, Commissioner of Fisheries to Premier, 10 April 1912; box 67, Memo from Assistant Commission to Commissioner of Fisheries, 10 October 1927.
24. Report of Special Fishery Commission 1917 (1918), p. 25.
25. NAC, RG 23, vol. 931, file 721-4-6(18), G.J. Desbarats to C.W. Peck, 1 April 1919.

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27. Francis Millerd papers. Statement Submitted by Mr. W.A. Found, Superintendent of Fisheries, to the Fisheries Commission, 10 July 1917.
28. PABC, GR 435, Box 65, file 608, Memo re Boat-Rating, D.N. McIntyre, Acting Deputy Commissioner of Fisheries, 12 February 1912.
29. Francis Millerd papers. Statement Submitted by Mr. W.A. Found, Superintendent of Fisheries to the Fisheries Commission, 10 July 1917.
30. British Columbia Fisheries Commission 1905-1907 (1908), page 34.
31. NAC, RG 23, file 721-4-6(2), G.J. Desbarats, Deputy Minister of the Naval Service, to G.W. Nickerson, 31 August 1915. There was some hope that the holder of the exclusive right would be interested in conserving the run. Gough (1991), p. 53.
32. NAC, RG 23, file 721-4-6(2), Deputy Minister of the Naval Service to G.W. Nickerson, 31 August 1915.
33. University of Washington Libraries, Manuscript Division, Henry Doyle papers, Doyle to R. Prefontaine, Minister of Marine and Fisheries, 24 March 1903.
34. Vancouver Sun, August 28, 1920.
35. Department of Fisheries of Canada (1958), pp. 123-4. A 1922 listing shows 37 drag seine licences issued, 29 to canneries. (Vancouver Federal Records Centre (hereafter VFRC), Acc 84-85/278, box 500539, file: Agenda Fisheries Investigation 1922, No. of Salmon drag-seine licenses issued during season 1922-23.)
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40. Francis Millerd papers, Statement Submitted by Mr. W.A. Found, Superintendent of Fisheries to the Fisheries Commission, 10 July 1917; Pacific Fisherman, July 1917, p. 34.
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42. Ibid., p. 24.
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