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Book _____

UNITED STATES-CANADA FISHERIES

HEARINGS

BEFORE THE

→ COMMITTEE ON FOREIGN AFFAIRS

HOUSE OF REPRESENTATIVES

SIXTY-THIRD CONGRESS

SECOND SESSION

ON

H. R. 13005

FEBRUARY 20, 1914

STATEMENT OF

MR. MILLER FREEMAN, OF SEATTLE, WASH.

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COMMITTEE ON FOREIGN AFFAIRS.

HOUSE OF REPRESENTATIVES.

SIXTY-THIRD CONGRESS.

(Committee room, gallery floor, west corridor. Telephone 230.)

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WILLIAM G. SHARP, Ohio.

CYRUS CLINE, Indiana.

JEFFERSON M. LEVY, New York.

JAMES M. CURLEY, Massachusetts.

J. CHARLES LINTHICUM, Maryland.

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B. F. ODEN, *Assistant Clerk*.

D. OF C.
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FISHERIES TREATY BETWEEN UNITED STATES AND DOMINION OF CANADA.

COMMITTEE ON FOREIGN AFFAIRS,
HOUSE OF REPRESENTATIVES,
Washington, D. C., Friday, February 20, 1914

The committee met at 2.30 o'clock p. m., Hon. Henry D. Flood (chairman) presiding.

Present: Representatives Cline, Linthicum, Townsend, Vaughan, Bartholdt, and Fairchild.

The CHAIRMAN. The committee will come to order. This is a bill, H. R. 13005, to give effect to the provisions of a treaty between the United States and Great Britain concerning the fisheries in waters contiguous to the United States and the Dominion of Canada, signed at Washington on April 1, 1908, and ratified by the United States Senate April 13, 1908.

Mr. Freeman is here representing some Pacific coast parties who are engaged in the fishery business. He has to leave to-night and asked to be heard before he went away. We would be glad to hear you now, Mr. Freeman.

Mr. LINTHICUM. Would this bill affect the Pacific coast?

Mr. FREEMAN. Yes.

Mr. LINTHICUM. Are you for or against the bill?

Mr. FREEMAN. I wanted to make a statement in behalf of the people engaged in the salmon fisheries of Puget Sound, outlining the position they have had in the matter, and merely presenting the points as I find them.

The CHAIRMAN. I introduced this bill H. R. No. 13005 at the request of the Bureau of Fisheries, and that is the bill you are addressing yourself to?

Mr. FREEMAN. Yes. I am here in compliance with a request to present a statement before this committee relative to the bill you now have before you intended to put into effect the provisions of the international fisheries treaty covering the boundary waters of the United States and Canada.

STATEMENT OF MR. MILLER FREEMAN, SEATTLE, WASH.

Mr. Chairman, I should like to call your attention to the fact that Mr. Woodruff has introduced a bill similar to this except that I believe by an understanding of the two international commissioners, Dr. Smith and Prof. Prince, Saginaw Bay has been excluded, that bay being merely local, and Dr. Smith tells me it is not involved in an international way; that fisheries there do not need to be governed by an international body.

Mr. CLINE. I should like to understand for my own information whether you expect to discuss the relative merits of all three of these

bills which have been introduced here, touching the same subject, or whether your remarks will be confined to any one of them?

Mr. FREEMAN. They are the same bill, I think, with the exception of just excluding Saginaw Bay, are they not, Mr. Chairman?

The CHAIRMAN. H. R. 13005 and H. R. 13300 are exactly the same bill with that exception. I have not looked over this one introduced by Mr. Miller.

Mr. FREEMAN. I am not familiar with the bill introduced by Mr. Miller.

Mr. LINTHICUM. May I ask you whom you represent? Are you just speaking as an individual, or are you representing somebody?

Mr. FREEMAN. I am here in behalf of the Puget Sound Canned Salmon Association. I think, as far as my remarks are concerned, they will apply generally to this question of the ratification of the regulations as covered in this treaty, the details of which are not important to us except as relating to Puget Sound.

It was suggested that I should come here, make inquiry about the status of this matter, and ask for a reasonable delay until we could communicate with our people or I could return, and that delay being for the purpose of securing a new investigation and a revision of these regulations, which our people thought unfair from our standpoint.

Mr. CLINE. Who prescribes these regulations?

Mr. FREEMAN. The regulations were formed by a commission of two members, one appointed by the Government of Great Britain, of which Prof. Prince was one. They have had two or three over there, and Dr. Jordan was appointed for the American Government.

Mr. TOWNSEND. Dr. Jordan, of Stanford University?

Mr. FREEMAN. Dr. David Starr Jordan.

The opinion of the cannery men in the fishing interests of Puget Sound has been that not sufficient time and thought and scientific investigation were given to the consideration of the questions in our waters, and I was expected to ask for an extension of time on this treaty sufficient to permit of a new investigation being made by competent authorities. We were willing to leave it to Dr. Smith, for instance, to go there and make an impartial and dispassionate investigation, with an idea of having the facts come before the Government, and make new regulations, and then have a treaty passed in that form.

Mr. BARTHOLDT. Let me ask you if the changes which you desire should be made in these regulations, would the changed provisions still comply with the provisions of the treaty?

Mr. FREEMAN. I am informed that Canada having passed these regulations and carried out its part of the bargain, which is part of the compact of this treaty that the two countries are to get together through this commission, formulate regulations, and they are to be ratified by their respective legislative bodies, and those regulations then are to be in effect. This treaty was duly ratified in 1908, I think. The regulations, if I am not mistaken, were filed in 1910, two years later. Canada accepted those regulations. This country has deferred action. It was reported to us that the Government of Great Britain has felt that the delay has been very great, and they are asking now that this country fulfill its part of this agreement. I do not want to state this as quoting the Government, because that

can be done by other people; but I understand that notice has been served by Great Britain that after this delay of great length, if we do not complete our part of the deal the treaty is to be abrogated, and they ask now for action at once.

Some of the regulations in this bill are decidedly detrimental to the American interests, and while we have been promised by the American representative of the international commission that they will be so modified as to eliminate the objectionable features, I wish to call the attention of your committee to some of the points in the regulations as included in this bill that cause our people great hardship and the enforcement of which would mean that the fishing operations on the American side would be greatly curtailed, to the immense advantage of the Canadians. It was because of these unwarranted and burdensome restrictions that we had expected to get a delay in the matter until they could be modified by the international commission.

The Fraser River is not included in the territory covered by the international treaty. If there is any virtue in having a single control, the entire area where fishing is carried on should be covered.

The close season in section 62, from August 25 to September 15, affects all the different species of salmon and will prevent the fishing for humpbacks, as the best and greatest part of the run is during this close-season period.

The weekly close season, as provided in section 63, makes the period 48 hours instead of 36 hours. This increase of 12 hours is unreasonable and an injustice to the American interests and altogether in favor of the Canadians.

Section 64 abolishes the jigger. As traps are built to catch fish and the jigger is an essential part of the traps, this provision should be stricken out.

Section 65 requires that mesh of trap leads be exactly 4 inches, which is impracticable.

Section 66 prohibits purse seine fishing within 3 miles of any river, whereas the present Washington State law makes the distance 2 miles. There is no just reason for this increase of distance.

Mr. TOWNSEND. Mr. Chairman, have we a map of Puget Sound here available?

The CHAIRMAN. Not a good one.

Mr. FREEMAN. An ordinary atlas would do, or I could draw it in a moment.

Mr. TOWNSEND. Just give the committee a notion of how much of that water of Puget Sound is American water and how much Canadian water.

Mr. FREEMAN. If I had a chart I could explain it very quickly.

Mr. FAIRCHILD. What do you mean by a new investigation of Puget Sound?

Mr. FREEMAN. The former investigation, it is felt by our people, was not fair to American interests. I say this without intent to register any criticism. I do not know what the custom of these hearings is. I do not want in my informal reply to questions to have it implied that I am here making reflections upon so great an authority as Dr. Jordan or any other gentleman.

Mr. CLINE. Let me ask you a question. When were these stipulations here approved by Canada?

Mr. FREEMAN. Dr. Smith can tell you that. They were approved by Canada within a short time after the regulations were filed.

Mr. CLINE. If these regulations were not satisfactory to your people, how does it come that you have waited for six or eight years before you come here to make this request?

Mr. FREEMAN. It is four years. The opposition on the part of our people was so bitter that we think it has had the effect of deferring the acceptance of these regulations in Congress.

Mr. CLINE. I should have thought you would have proceeded then to have a reinvestigation of the whole matter if you are not satisfied with the regulations as they were made out by the commissioners six, seven, or eight years ago.

Mr. FREEMAN. Not necessarily so. I think it was felt that these regulations were put in as having been adopted by the two commissioners when they were filed. There they were of record. There was one recourse they had at that time; that was to oppose what they felt was too extreme. More than that there was a very strong feeling against Federal control and bureaucracy out in our country.

Mr. CLINE. Have there been any steps taken prior to this to have a new investigation made and the regulations revised?

Mr. FREEMAN. The treaty is supposed, as a matter of fact, to have been dead; that when Congress failed to act at that time, that settled it. I think everyone felt so until the British Government has again called it up.

Mr. CLINE. The treaty was ratified eight years ago. That made it—

Mr. FREEMAN. 1908. The regulations were formed and presented, I think, in 1910.

Mr. LINTHICUM. Can you tell me anything about the depletion of the catch in those waters?

Mr. FREEMAN. Would not you gentlemen prefer that I finish my very brief statement, and then I would be glad to answer any questions? I can define my position, and then I will be glad to answer any questions.

Mr. TOWNSEND. I just wanted to ask you one question. Does this Canadian-American line, the international water line, come down between Vancouver Island and Clallam County, or do we claim all that water up there [indicating]?

Mr. FREEMAN. We have an equal division of these waters, as shown by this red line [indicating].

Mr. TOWNSEND. That international line runs along here halfway between Vancouver Island and Clallam County, Wash., and then how does it go up there [indicating]?

Mr. FREEMAN. Right about in through here, through this Haro Strait, I think.

Mr. TOWNSEND. Halfway between Washington and Vancouver Island in Haro Strait. In a general way it is an imaginary line that runs—

Mr. FREEMAN. Halfway. That line is the boundary line. That little point is Point Roberts.

Mr. TOWNSEND. That is Point Roberts?

Mr. FREEMAN. Yes, coming down here [indicating].

As I explained, it has been expected that upon learning of the revival of this treaty matter application could be made here for a new investigation, particularly because now a new international commissioner has been appointed, who is serving, who must not have been familiar with the full facts, and whom we thought it would be perfectly proper to ask that he go over the ground, or have capable representatives go over the ground, to determine what the actual conditions are in the American waters from the American standpoint. I learned since arriving in Washington that the State Department felt that action was necessary at once, so I endeavored to ascertain what would be the likelihood in case these regulations as now provided for in this bill should pass, what protection Americans might have in the way of securing modifications or prevent what we may consider an injustice being done as against the Canadian rights. I interviewed at once Dr. Smith. Dr. Smith got in touch with Prof. Prince, the international commissioner, who wrote him February 10 a letter I present to go in the record.

Also, I made inquiry of the State Department, Mr. J. B. Moore, counselor, as to whether in his opinion these regulations, if adopted, would be fixed and of a permanent and inflexible character. He replies at some length in effect that these regulations are not of a permanent inflexible character and it is placed within the power of the two Governments by joint or concurrent action to modify the regulations at any time as experience and changing conditions may suggest.

Mr. FAIRCHILD. I suggest that the letter be read.

Mr. FREEMAN. This letter is from Prof. Prince, dated February 10, Ottawa, Canada, and reads as follows:

OTTAWA, CANADA, February 10, 1914.

Dr. HUGH M. SMITH,

*International Commissioner, Bureau of Fisheries,
Washington, D. C., U. S. A.*

DEAR MR. SMITH: I was very much pleased to receive your wire and to note the favorable aspect of international fishery matters, thanks to your efforts. I went across to our House of Commons, but Mr. Hazen was in the midst of pressing business in the house, and he left over the consideration of your wire until this morning.

You would receive my reply, framed after my conference with the minister and deputy minister, this morning. While I am convinced that some of the changes which you regard as necessary do not vitally affect the regulations as a whole, the Government here feel that at this late stage they would invite severe criticism if they authorized me to guarantee detailed changes, which are to be the subject of immediate investigation. Article VI of the treaty, in its last clause, provides for our joining in amendments, if our investigations justify them, and that surely is sufficient. Extensive salmon-hatchery operations under the auspices of both countries we can strongly urge, more strongly than in recommendation 2, Part II, of Jordan and Prince's Code.

I sincerely hope that any opponents of the regulations will feel that in your hands their views are safe and that we can, after investigation, meet any difficulties, but the Government here are impatient of the long delay that has occurred.

With best wishes, I am,

Yours, faithfully,

(Signed)

EDWARD E. PRINCE.

DEPARTMENT OF STATE,
Washington, February 13, 1914.

MILLER FREEMAN, Esq.,
New Willard Hotel, Washington, D. C.

DEAR SIR: Referring to our conversation of yesterday afternoon, concerning the bill pending in Congress to give effect to the treaty for the preservation of food fishes in the waters contiguous to the United States and Canada, I desire to repeat that the prompt adoption of this measure appears to be essential to the accomplishment of an object of great importance to the permanent interests of the people of both countries. The regulations to which the bill proposes to give the force and effect of law were formulated by the international commission for which the treaty provides, but, as is wisely stipulated in the treaty, these regulations are not of a permanent and inflexible character. In the first place, they are, by the terms of the treaty, to remain in force only for a period of four years from the date of their promulgation, and thereafter until one year from the date when either Government shall give notice to the other of its desire for their revision. But even this is not necessarily definitive; for, in the second place, by the express terms of the last clause of Article VI of the treaty, it is placed within the power of the two Governments, by joint or concurrent action upon the recommendation of the commission, in which both countries are equally represented, to modify the regulations at any time as experience and changing conditions may suggest. Of this clause due notice is taken in the pending bill, which provides that immediately after the bill becomes a law the United States commissioner shall begin inquiries with a view to determine what modifications in the regulations are required by existing conditions. In this task the cooperation of the Canadian commissioner is already assured, for, although he is unable to give in advance a guaranty as to what the results of the investigation will be, he states that he will "undertake conjoint investigation without delay." It thus appears that all reasonable precautions have been taken to safeguard the interests of fishermen on both sides of the line.

In our conference, at which the American commissioner was present, you pointed out that it might be desirable to adopt some measure, not embraced in the existing regulations, to prevent the destructive taking of undersized and immature salmon at or near certain feeding grounds which, although not in territorial waters, are in waters adjacent to the coast. It is represented that these fishes, if permitted to develop, come into territorial waters to spawn and that the taking of them in an immature state, before they have reached the spawning age, cuts off a source from which the stock is replenished and threatens seriously to diminish the supply. This subject, as it appears directly to affect the preservation of the fisheries in contiguous waters, would seem to be a proper one for the investigation and consideration of the international commission under the treaty and pending bill, and it is not improbable that measures might be devised for the correction of destructive practices such as have been described.

I am, sir, your obedient servant,

(Signed) J. B. MOORE, *Counselor*.

For the Secretary of State:

There are two features there I want to call the attention of the committee to. One is that Prof. Purvie implies that he will immediately join in a modification of these regulations, if desired, after these regulations are passed, to endeavor to meet the conditions more satisfactorily. Also what is of equal importance to our people is the inference or the implied promise of extensive salmon-fishery operations under the auspices of both countries, which we can strongly urge. Something which our people are very greatly interested in is the question of propagation on a scale of considerable magnitude to maintain those fisheries.

MR. TOWNSEND. Can you give the committee any idea of the salmon packed there now?

MR. FREEMAN. Yes.

MR. TOWNSEND. I wish you would do that; that is, on the American side.

MR. FREEMAN. The salmon packed on the American side of Puget Sound last year was 2,583,463 cases.

Mr. TOWNSEND. How many cans to a case?

Mr. FREEMAN. Forty-eight 1-pound cans.

Mr. TOWNSEND. This is all packed on the American side?

Mr. FREEMAN. Yes, sir; the value of that product was \$13,329,168.

Mr. TOWNSEND. That is, at the Puget Sound market?

Mr. FREEMAN. The Puget Sound pack.

Mr. LINTHICUM. What was it five years ago?

Mr. FREEMAN. In 1909 the total pack was 1,632,949 cases.

Mr. CLINE. Are you familiar with the bill introduced by Mr. Flood?

Mr. FREEMAN. Yes.

Mr. CLINE. Do you not think that would reach the desired end that you want, by the enactment of this bill, or a similar one, where it provides "That immediately after the passage of this act the International Fisheries Commission shall begin with a view to determining what modifications in the regulations herein provided for are required by existing conditions, and shall transmit to Congress, at the opening of its next session, through the Secretary of State, recommendations for such modifications as the International Fisheries Commission shall decide to be proper and necessary."

Would that not be a good court for you to apply to?

Mr. FREEMAN. That is in effect what this correspondence bears on. It is implied by Prof. Prince and also quoted by the Department of State. I wanted to check it up as clearly as possible, in a way that our people could understand. I wish to say that the attitude that we take is that we have been fearful of Federal control.

Mr. CLINE. How could you get an examination of this proposition you submit without a commission being appointed?

Mr. FREEMAN. The commission still exists. Dr. Smith is the international commissioner for this country and Prof. Prince for Canada. I wish to suggest that I think it would be highly advisable if Dr. Smith could attend this committee and elaborate to a considerably greater extent on the scientific features of this treaty. I suggested to him a little while ago that he come up, but he had an appointment which he could not break.

Mr. CLINE. I do not see how you could get any quicker action than you could by the passage of a bill of this character.

Mr. FREEMAN. This, by the way, is a new bill with the provision in it, as I understand, to immediately modify existing regulations. That was suggested to be written in there by Dr. Smith.

Mr. CLINE. I inquire whether you are opposed, and the people that you represent, to any Federal regulation at all of the salmon fisheries in Puget Sound?

Mr. FREEMAN. I wish to say that our people rather do not want to be put in the position of opposing any good legislation for the maintenance of the fishing industry if it may be decided in the wisdom of Congress or this administration, after proper consideration, that such administration is to be a benefit to the industry. It is felt by the fishing interests generally, I believe, that they do not want to interpose any active opposition.

Mr. TOWNSEND. In order to get some facts into the record, I want to call the attention of the committee to a publication that Mr. Freeman has referred to, entitled "Pacific Fisherman Year Book. January, 1914." I find a statement on page 40, under the subhead

“Pack of canned salmon on Puget Sound from 1887 to 1913, by species.” In that statement I find that the total value in 1913 was—are these dollars?

Mr. FREEMAN. Yes.

Mr. TOWNSEND. I find here that the pack of canned salmon on Puget Sound in 1913 was \$13,329,168.

Mr. FREEMAN. That is correct.

Mr. TOWNSEND. The year before \$2,283,791.

Mr. FREEMAN. That is correct.

Mr. TOWNSEND. I think the committee would be much interested to know what that increase of \$11,000,000 was due to, from 1912 to 1913. It might operate very effectively on our minds.

Mr. FREEMAN. I will be glad to tell you briefly. I think that Dr. Smith could perhaps enlighten you better from the scientific point of view on these matters. I am the publisher of this journal, and have been now going on 11 years. The salmon on Puget Sound do not run regularly. The sockeye runs particularly heavily every four years; 1913 was the fourth year. Here [indicating] is the fourth year. Here it is again. You see those figures out there—

Mr. TOWNSEND. Yes; but let us get the value of them. This committee is supposed to deal with diplomacy, but we are very much interested in the material conditions of the country. If you will permit me, Mr. Chairman, I will read from this yearbook. In 1913 the value in dollars, as stated here by this publication that I have identified in the record, was \$13,329,168. The year before it was two million and some hundred thousand dollars. But the fourth year above that it is practically \$8,000,000. The year above that it is \$2,669,095; is that right?

Mr. FREEMAN. Yes, sir; that is 1905. The fourth year above that runs up again to \$5,615,433.

Mr. LINTHICUM. That is 1905?

Mr. FREEMAN. Yes, sir.

Mr. TOWNSEND. I have quoted enough of the figures, Mr. Chairman, to show that this total of value of the pack on the American side runs up to \$13,000,000 in 1913, and the smaller figures in between are to be accounted for because, as the witness states, the sockeye comes only in great quantities every four years.

Mr. FREEMAN. Yes, sir.

Mr. LINTHICUM. In other words, those fish that were born in those fresh waters in 1909, for instance, will return four years afterwards to spawn themselves.

Mr. FREEMAN. Yes, sir; that is correct. They mature in four years.

Mr. LINTHICUM. And return to practically the same stream that they were originally.

Mr. FREEMAN. That is the assumption.

Mr. LINTHICUM. Will you tell us what method you are using now for catching fish up there?

Mr. FREEMAN. On Puget Sound?

Mr. LINTHICUM. Yes.

Mr. FREEMAN. Traps and purse seines.

Mr. LINTHICUM. Are not a great many of those fish drowned in those traps, or what you call pound nets?

Mr. FREEMAN. No, sir.

Mr. LINTHICUM. They are all used in the cannery?

Mr. FREEMAN. Yes, sir.

Mr. LINTHICUM. And none used for fertilizer purposes?

Mr. FREEMAN. No, sir; absolutely not. The purse-seine method is shown there in the book.

Mr. LINTHICUM. I know the method. You continued the system of those pound nets or traps, as I would term them, and you increased in 1909, when it was how much—8,000,000?

Mr. FREEMAN. No; you are speaking of cases, are you?

Mr. LINTHICUM. Dollars.

Mr. FREEMAN. Yes.

Mr. LINTHICUM. In 1909 up to \$8,000,000 and in 1913 to \$13,000,000, and you are catching vastly more fish, are you not?

Mr. FREEMAN. Yes, sir.

Mr. LINTHICUM. What effect is that going to have on the supply?

Mr. FREEMAN. That is one of the questions that is open to a more thorough investigation than it has been given in the past. Dr. Smith will be able to enlighten you as to the habits of the fish, but the point, so far as these boundary waters of Puget Sound and Fraser River are concerned, is that Fraser River, a Canadian stream, is the chief spawning stream. I am not making an argument for or against this proposition, but for the purpose of explanation. The local governments of the province of British Columbia and the State of Washington have endeavored for years to come to some agreement with reference to the control of these waters where they are interwoven, but it has not been successful. That is the theory upon which I believe Congress is proceeding with reference to the treaties respecting these boundary waters.

The CHAIRMAN. Did I not understand you to say that the reason you had a large catch in 1913 was because of the spawn of 1909 coming back?

Mr. FREEMAN. Yes, sir.

Mr. CLINE. Why did you not have a large catch in 1912 when the spawn of 1908 came back?

Mr. LINTHICUM. And less fish.

Mr. TOWNSEND. Now with reference to these figures in the table as presented here, and to which this gentleman has referred, we have five varieties of salmon, and when he speaks of the large packs the year before—1911, I believe it was——

Mr. CLINE. I am led to understand by your statement that they change around—one set comes up one year and another variety the next year. Is that what you want the committee to understand?

Mr. FREEMAN. The runs of the different species are variable.

Mr. TOWNSEND. I suggest, Mr. Chairman, that these very interesting tables be incorporated in this record.

The CHAIRMAN. That will be done.

(The tables referred to are as follows.)

Pacific coast canned salmon pack, 1913.

District.	Kings, Springs, Chinooks.			Reds, Sockeyes, Bluebacks.			Medium Reds, Cohoes, Silversides.		
	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.
Alaska.....	32,840	.....	1,327	1,917,961	17,628	28,790	73,218	721	3,438
Puget Sound.....	716	518	.....	967,119	485,426	220,554	20,440	38,351	2,225
Columbia River.....	28,738	96,633	66,745	.....	.....	11,152	10,437	19,408	11,124
Sacramento River.....	.....	950	.....	.....	.....	.....	.....	.....	.....
Outside streams.....	4,827	6,957	4,172	13,458	5,778	3,381	24,011	12,893	13,942
Total American pack.....	67,121	105,058	72,244	2,898,538	508,832	263,877	128,106	71,376	30,729
British Columbia....	34,282	1,579	5,188	290,063	270,368	411,747	52,937	7,946	8,939
Total pack of entire coast..	101,403	106,637	77,432	3,188,601	779,200	675,624	181,043	79,322	39,668

District.	Pinks, Humpbacks.			Chums.			Steelheads.			Total.
	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	Full cases.
Alaska.....	1,377,586	4,766	20,564	261,161	5,668	825	.....	.....	.....	3,746,493
Puget Sound.....	761,776	17,167	12,943	54,100	2,125	.....	.....	.....	.....	2,583,463
Columbia River.....	.....	.....	.....	13,181	.....	122	1,137	3,785	4,017	266,479
Sacramento River.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	950
Outside streams....	4,141	159	177	17,349	316	.....	600	.....	.....	112,161
Total American pack.....	2,143,503	22,092	33,684	345,791	8,109	947	1,737	3,785	4,017	6,709,546
British Columbia....	148,799	12,928	31,160	76,369	1,596	.....	.....	.....	.....	1,353,901
Total pack of entire coast..	2,292,302	35,020	64,844	422,160	9,705	947	1,737	3,785	4,017	8,063,447

Canned salmon jacks, by grades, 1910-11-12-13.

Grade.	1913	1912	1911	1910
Pink.....	2,392,166	1,556,128	2,373,595	598,815
Red, Sockeye, Blueback.....	4,643,425	2,544,435	1,869,927	2,262,401
Coho, Silverside, Med. Red.....	309,033	621,817	676,141	502,837
King, Spring, Chinook.....	285,472	426,338	627,714	409,402
Chum.....	432,812	808,630	592,790	530,990
Steelhead.....	9,539	7,198	8,618	5,576
Total.....	8,063,447	5,956,953	6,140,887	4,316,453

California canned salmon pack, 1913.

Company.	Cannery location.	Chinooks.		Total, full cases.
		1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	
Carquinez Packing Co.....	Sacramento River.....	950	.....	950
Klamath River Packing Co.....	Klamath River.....	3,897	2,479	6,376
Total.....	.....	4,847	2,479	7,326

Pack of canned salmon in Alaska from 1898 to 1913, by species.

Year.	Coho, or Silver.		Dog, or Chum.		Humpback, or Pink.	
	Cases.	Value.	Cases.	Value.	Cases.	Value.
1898.....	54,711	.....	5,184	.....	109,399	.....
1899.....	39,402	.....	1,931	.....	149,159	.....
1900.....	50,984	.....	30,012	.....	232,022	.....
1901.....	65,509	.....	47,464	.....	541,427	.....
1902.....	82,723	.....	159,849	.....	549,602	.....
1903.....	120,506	.....	35,052	.....	355,799	.....
1904.....	85,741	.....	21,178	.....	299,333	.....
1905.....	67,394	\$215,875	41,972	\$113,056	168,597	\$498,194
1906.....	109,141	382,109	254,812	730,235	348,297	1,046,951
1907.....	85,190	337,384	184,173	547,757	561,973	1,799,280
1908.....	68,827	274,089	218,513	554,197	644,133	1,733,379
1909.....	56,556	231,029	120,712	274,110	464,873	1,114,839
1910.....	114,026	559,666	254,218	773,409	554,322	1,764,055
1911.....	129,704	752,283	303,823	1,215,692	1,021,356	4,493,966
1912.....	170,384	791,023	638,525	1,600,444	1,303,365	3,410,928
1913.....	77,377	271,078	267,654	623,424	1,402,916	3,687,446

Year.	King, or Spring.		Red, or Sockeye.		Total.	
	Cases.	Value.	Cases.	Value.	Cases.	Value.
1898.....	12,862	.....	782,941	.....	965,097	.....
1899.....	23,400	.....	864,254	.....	1,078,146	.....
1900.....	37,715	.....	1,197,406	.....	1,548,139	.....
1901.....	43,069	.....	1,319,335	.....	2,016,804	.....
1902.....	59,104	.....	1,685,546	.....	2,536,824	.....
1903.....	47,679	.....	1,687,244	.....	2,246,210	.....
1904.....	41,956	.....	1,505,548	.....	1,953,756	.....
1905.....	42,125	\$141,999	1,574,428	\$5,335,547	1,894,516	\$6,304,671
1906.....	30,834	116,222	1,475,961	5,620,875	2,219,044	7,895,392
1907.....	43,421	181,718	1,295,113	5,915,227	2,169,873	8,781,366
1908.....	23,730	99,867	1,651,770	7,524,251	2,606,973	10,185,783
1909.....	48,034	207,624	1,705,302	7,610,550	2,395,477	9,438,152
1910.....	40,921	214,802	1,450,267	7,774,390	2,413,054	11,086,322
1911.....	45,378	363,024	1,320,705	8,552,512	2,820,966	16,198,833
1912.....	52,594	310,847	1,904,258	10,776,987	4,060,129	16,890,229
1913.....	34,167	140,914	1,964,379	9,136,616	3,746,493	13,859,478

Oregon coast canned salmon pack, 1913.

Company.	Cannery location.	Cainooks.			Silversides.			Chums.		Total full cases
		1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	1-pound talls.	1-pound flats.	
Barnes, F. C., & Co.	Waldport.....	1,175	185	.....	1,477	1,995	.....	80	80	4,992
Barnes, F. C., & Co. ¹	Yaquina Bay...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coquille River Fish. Co-Op. Pkg. Co.	Prosper.....	.....	.....	.....	4,040	.....	1,010	.....	.....	5,050
Elmore Pkg. Co. ²	Umpqua, Alsea, Siletz, Nestucca, Nehalem.	.....	.....	.....	2,700	3,558	429	165	.....	6,852
Kyle, Wm., & Sons.	Florence.....	.....	.....	.....	3,644	.....	637	.....	.....	4,281
Macleay Estate.....	Rogue River.....	.....	1,520	1,500	.....	1,000	1,403	.....	.....	5,423
Oregon Fisheries Co	Bay City.....	1,600	1,000	.....	1,000	.....	.....	1,000	.....	4,600
Prosper Canning Co	Prosper.....	.....	.....	.....	.....	.....	3,800	.....	.....	3,800
Tallant-Grant Pkg. Co. ³	Florence.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tallant-Grant Pkg. Co.	Empire City.....	.....	.....	.....	.....	3,300	.....	.....	.....	3,300
Southern Oregon Co	Marshfield.....	.....	.....	.....	.....	.....	4,083	.....	.....	4,083
Umpqua River Co-Op. Pkg. Co. ¹	Gardiner.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Union Fishermen's Co-Op. Pkg. Co. ¹	Wheeler.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	.....	2,775	2,705	1,500	12,861	9,853	11,422	1,245	80	42,441

¹ Not operated 1913.² Cannery at Garibaldi, Tillamook Bay, not operated.³ The two Florence canneries combined forces in 1913 and operated but one plant, the joint pack being shown for Wm. Kyle & Sons.

Pack by waters, 1864-1913.

Year.	Puget Sound.	Grays Harbor.	Willapa Harbor.	Columbia River.	Coastal streams of Oregon.	Smith River, Cal.
	<i>Cases.</i>	<i>Cases.</i>	<i>Cases.</i>	<i>Cases.</i>	<i>Cases.</i>	<i>Cases.</i>
1864.....						
1865.....						
1866.....				4,000		
1867.....				18,000		
1868.....				28,000		
1869.....				100,000		
1870.....				150,000		
1871.....				200,000		
1872.....				250,000		
1873.....				250,000		
1874.....				350,000		
1875.....				375,000		
1876.....				450,000		
1877.....	5,500			380,000	7,804	
1878.....	1,238	5,420		460,000	16,634	4,277
1879.....	1,300			480,000	8,571	
1880.....	5,100			530,000	7,772	7,500
1881.....	8,500			550,000	12,320	
1882.....	7,900			541,300	19,186	
1883.....	1,500			629,400	16,156	
1884.....	5,500			620,000	12,276	
1885.....	12,000			553,800	9,310	
1886.....	17,000			448,500	49,147	
1887.....	22,000			356,000	73,996	
1888.....	21,975	37,000	22,500	372,477	92,863	2,347
1889.....	11,674			309,885	98,800	
1890.....	8,000			435,774	47,009	
1891.....	20,529	500	8,000	398,953	24,500	
1892.....	26,426	16,500	14,500	487,338	83,600	
1893.....	89,774	22,000	16,195	415,876	52,778	1,500
1894.....	95,400	21,400	15,100	490,100	54,815	1,500
1895.....	179,968	11,449	22,600	634,696	77,878	2,250
1896.....	195,664	21,274	24,941	481,697	87,360	
1897.....	494,026	13,300	29,600	552,721	60,158	
1898.....	400,200	12,100	21,420	487,944	75,679	
1899.....	919,611	24,240	21,314	332,774	82,041	
1900.....	469,450	30,800	26,300	358,772	12,237	
1901.....	1,380,590	41,500	24,000	390,183	58,618	
1902.....	581,659	31,500	39,492	317,143	44,236	
1903.....	478,488		5,890	339,577	54,861	
1904.....	291,488	27,559	26,400	395,104	98,874	
1905.....	1,018,641	22,050	14,950	397,273	89,055	
1906.....	430,602	22,000	14,440	394,898	197,332	
1907.....	698,080	14,000	13,382	324,171	79,712	
1908.....	448,765	14,000	20,457	253,341	52,478	
1909.....	1,632,949	19,787	12,024	274,087	58,169	
1910.....	567,883	51,130	14,508	391,415	103,617	
1911.....	1,557,029	61,671	25,850	543,331	153,828	
1912.....	416,125	54,507	24,887	285,666	77,765	2,200
1913.....	2,583,463	54,922	8,422	266,479	42,441	
Total.....	15,104,997	630,609	477,172	18,055,675	2,103,979	21,574

Pack by waters, 1864-1913—Continued.

Year.	Klamath River, Cal.	Eel River, Cal.	Sacramento River.	Alaska.	British Columbia.	Total.
	<i>Cases.</i>	<i>Cases.</i>	<i>Cases.</i>	<i>Cases.</i>	<i>Cases.</i>	<i>Cases.</i>
1864.....			2,000			2,000
1865.....			2,000			2,000
1866.....						4,000
1867.....						18,000
1868.....						28,000
1869.....						100,000
1870.....						150,000
1871.....						200,000
1872.....						250,000
1873.....						250,000
1874.....			2,500			352,500
1875.....			3,000			378,000
1876.....			10,000		7,247	467,247
1877.....		8,500	21,500		58,387	481,691
1878.....		10,500	34,017	8,159	89,946	629,191
1879.....			13,855	12,530	61,093	577,349
1880.....		6,250	62,000	6,539	61,849	687,010
1881.....			181,200	8,977	169,576	930,573
1882.....			200,000	21,745	240,461	1,030,592
1883.....			123,000	48,337	163,438	981,831
1884.....			81,450	64,886	123,706	907,918
1885.....			90,000	82,415	108,517	857,042
1886.....			39,300	142,065	152,964	848,976
1887.....			36,500	206,677	204,083	899,256
1888.....	4,400		68,075	412,115	184,000	1,217,792
1889.....			57,300	719,196	417,211	1,614,066
1890.....			25,065	682,591	411,257	1,609,696
1891.....			19,353	801,400	314,511	1,578,746
1892.....			2,281	474,717	248,721	1,354,083
1893.....	1,600		23,336	643,654	610,202	1,876,915
1894.....	1,700		28,463	686,440	492,232	1,887,150
1895.....	1,600		25,185	626,530	587,692	2,169,848
1896.....			13,387	966,707	617,782	2,408,812
1897.....			38,543	909,078	1,027,183	3,124,609
1898.....			29,731	965,097	492,551	2,484,722
1899.....	1,600		32,580	1,078,146	765,519	3,257,825
1900.....			39,304	1,548,139	606,540	3,091,542
1901.....			17,500	2,016,804	1,247,212	5,186,407
1902.....	2,500		14,043	2,436,824	627,161	4,194,558
1903.....			8,200	2,246,210	873,847	3,607,073
1904.....	3,400		14,407	1,953,756	465,894	3,276,882
1905.....			2,780	1,894,516	1,167,822	4,607,087
1906.....				2,219,044	629,460	3,817,776
1907.....				2,169,873	547,459	3,846,677
1908.....				2,606,973	566,303	3,962,317
1909.....	5,633			2,395,477	993,060	5,391,186
1910.....	8,016	6,000		2,413,054	760,830	4,316,453
1911.....	7,604		4,142	2,820,066	948,965	6,122,486
1912.....	20,000	11,000		4,060,129	996,576	5,948,855
1913.....	6,376		950	3,746,493	1,353,901	8,063,447
Total.....	64,429	42,250	1,357,947	44,196,359	18,995,198	101,050,186

Pack of canned salmon in Alaska, by districts, from inception of the industry.

Year.	Southeast Alaska.		Central Alaska.		Western Alaska.		Total.	
	Canneries.	Pack, cases.	Canneries.	Pack, cases.	Canneries.	Pack, cases.	Canneries.	Pack, cases.
1878.....	2	8, 159					2	8, 159
1879.....	2	12, 530					2	12, 530
1880.....	1	6, 539					1	6, 539
1881.....	1	8, 977					1	8, 977
1882.....	1	11, 601	2	10, 244			3	21, 745
1883.....	4	20, 040	2	28, 297			6	48, 337
1884.....	4	22, 189	2	42, 297		1, 400	7	64, 886
1885.....	3	16, 728	2	52, 687	1	14, 000	6	83, 415
1886.....	4	18, 660	2	74, 583	3	48, 822	9	142, 065
1887.....	5	31, 462	2	102, 515	3	72, 700	10	206, 677
1888.....	6	81, 128	6	241, 101	4	89, 886	16	412, 115
1889.....	12	141, 760	21	461, 451	4	115, 985	37	719, 196
1890.....	12	142, 901	19	421, 300	4	118, 390	35	682, 591
1891.....	11	156, 615	14	511, 367	5	133, 418	30	801, 400
1892.....	7	115, 722	6	295, 496	2	63, 499	15	474, 717
1893.....	8	136, 053	11	399, 815	3	107, 786	22	643, 654
1894.....	7	142, 544	10	435, 052	4	108, 844	21	686, 440
1895.....	7	148, 476	10	327, 919	6	150, 135	23	626, 530
1896.....	9	262, 381	12	485, 990	8	218, 336	29	966, 707
1897.....	9	271, 867	13	382, 899	7	254, 312	29	909, 078
1898.....	9	251, 385	14	395, 009	7	318, 703	30	965, 097
1899.....	9	310, 219	14	356, 095	9	411, 832	32	1, 078, 146
1900.....	16	456, 639	14	492, 223	12	599, 277	42	1, 548, 139
1901.....	21	735, 449	13	562, 142	21	719, 213	55	2, 016, 804
1902.....	26	906, 676	12	583, 690	26	1, 046, 458	64	2, 536, 824
1903.....	21	642, 305	12	417, 175	27	1, 186, 730	60	2, 246, 210
1904.....	12	569, 003	11	499, 485	32	1, 885, 268	55	1, 953, 756
1905.....	13	433, 607	9	371, 755	25	1, 089, 154	47	1, 894, 516
1906.....	20	767, 285	8	473, 021	19	978, 735	47	2, 219, 044
1907.....	22	887, 503	8	522, 836	18	759, 534	48	2, 169, 873
1908.....	23	1, 011, 648	8	425, 721	19	1, 169, 604	50	2, 606, 973
1909.....	19	852, 870	8	391, 054	18	1, 151, 553	45	2, 395, 477
1910.....	23	1, 066, 399	10	432, 517	19	914, 138	52	2, 413, 054
1911.....	32	1, 580, 868	11	499, 743	21	743, 206	64	2, 823, 817
1912.....	51	2, 033, 648	14	625, 062	22	1, 395, 931	87	4, 054, 641
1913.....	42	1, 793, 851	14	447, 267	23	1, 505, 375	79	3, 746, 493
Total.....		16, 215, 101		11, 767, 811		16, 379, 090		44, 194, 622

¹ Experimental pack.

Southeastern Alaska canned salmon pack, 1913.

Name.	Cannery location.	Kings.		Reds.			Medium Reds.		
		1-pound talls.	$\frac{1}{2}$ -pound flats 8 dozen.	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats 8 dozen.	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats 8 dozen.
Admiralty Trading Co.	Gambier Bay.	61	.....	855	.....	.....	1, 173	.....	.....
Alaska Packers' Assn.	Loring and Wrangell.	.....	.....	4, 097	.....	.....	2, 019	.....	.....
Alaska Pac. Fisheries.	Yes Bay, Chomley and Chilkoot	50	110	5, 093	.....	10, 928	1, 839	.....	857
Alaska Fish Co.	Waterfall.	250	.....	550	.....	.....	350	.....	.....
Alaska Sanitary Pkg. Co.	Wrangell.	.....	.....	115	438	.....	230	49	59
Astoria and Puget Sound Pkg. Co.	Excursion Inlet.	.....	.....	4, 242	1, 514	965	2, 432	280	.....
Barnes, F. C., & Co.	Lake Bay.	.....	.....	846	.....	.....	786	.....	.....
Canoe Pass Pkg. Co. ¹	Canoe Pass.	.....	.....	.....	.....	.....	.....	.....	.....
Deep Sea Salmon Co.	Cape Edwards	.....	.....	2, 802	1, 008	.....	2, 098	.....	.....
Fidalgo Island Pkg. Co.	Ketchikan.	.....	.....	182	447	956	73	.....	160
Gorman & Co.	Two canneries	.....	.....	1, 764	1, 137	660	1, 873	217	182
Hawk Fish Co.	Ilawik Inlet.	.....	.....	3, 894	.....	.....	551	.....	.....
Hidden Inlet Canning Co.	Hidden Inlet.	.....	.....	105	.....	.....	.....	.....	.....
Hoonah Pkg. Co.	Hoonah.	.....	.....	7, 370	.....	.....	307	.....	.....
Hume, Herbert ¹	Nakat Inlet.	.....	.....	.....	.....	.....	.....	.....	.....
Irving Pkg. Co.	Karheen.	.....	.....	1, 234	.....	.....	402	.....	.....
Kake Pkg. Co.	Kake.	.....	.....	.....	145	30	30	.....	225
Kasaan Company ²	Kasaan.	.....	.....	.....	.....	.....	.....	.....	.....
Kuiu Island Pkg. Co.	Beaulere.	.....	.....	763	.....	.....	603	.....	.....
Lindenberger Pkg. Co.	Craig.	.....	.....	1, 652	.....	.....	955	.....	.....
Metlakahtla Industrial Co. ¹	Roe Point.	.....	.....	2, 110	.....	.....	1, 205	.....	.....
Myers, Geo. T., & Co.	Metlakahtla.	.....	.....	.....	.....	.....	.....	.....	.....
North Pac. Pkg. & Trdg. Co.	Chatham.	.....	.....	8, 147	.....	.....	2, 809	.....	.....
Northwestern Fisheries Co.	Klawack.	375	.....	1, 883	.....	.....	478	.....	.....
Oceanic Pkg. Co. ³	Quadra, Hunter Bay, Santa Ana, Dundas Bay.	26	.....	6, 730	6, 058	.....	3, 368	.....	.....
Pacific American Fisheries.	Waterfall.	.....	.....	.....	.....	.....	.....	.....	.....
Pac. Coast* & Norway Pkg. Co.	Excursion Inlet.	109	.....	24, 344	.....	.....	3, 648	.....	.....
Pillar Bay Pkg. Co.	Petersburg.	.....	.....	150	1, 034	13	766	175	808
Point Warde Pkg. Co. ¹	Bay of Pillars.	.....	.....	1, 692	.....	.....	1, 611	.....	.....
Pure Food Fish Co.	Point Warde.	.....	.....	.....	.....	.....	.....	.....	.....
Shakan Salmon Co. ²	Ketchikan.	.....	.....	371	.....	.....	148	.....	.....
Sanborn-Cram Co.	Shakan.	.....	.....	.....	.....	.....	.....	.....	.....
Starr-Collinson Pkg. Co.	Burnett Inlet.	.....	.....	350	.....	.....	250	.....	.....
Sunny Point Pkg. Co.	North Arm.	.....	.....	1, 170	.....	.....	192	.....	.....
Swift, Arthur & Co. ¹	Sunny Point.	.....	.....	271	.....	.....	160	.....	.....
Skowl Arm Pkg. Co.	Heceta Island.	.....	.....	.....	.....	.....	.....	.....	.....
St. Elias Pkg. Co. ¹	Skowl Arm.	.....	.....	156	.....	.....	101	.....	.....
Taku Canning & Cold Stg. Co.	Alek.	.....	.....	.....	.....	.....	.....	.....	.....
Tee Harbor Pkg. Co.	Taku Harbor.	25	.....	978	.....	3, 887	4, 004	.....	1, 147
Thlinket Pkg. Co.	Tee Harbor.	.....	.....	5, 112	.....	.....	907	.....	.....
Walsh-Moore Canning Co.	Funter Bay.	.....	.....	17, 751	3, 085	2, 379	6, 164	.....	.....
Wiese Pkg. Co.	Ketchikan.	.....	.....	212	.....	.....	64	.....	.....
Yakutat & Southern Rwy.	Rose Inlet.	.....	.....	2, 441	.....	.....	.....	.....	.....
	Yakutat.	.....	.....	36, 479	.....	.....	12, 316	.....	.....
Total.		896	110	146, 001	14, 866	19, 818	53, 912	721	3, 438

¹ Did not operate.² Shown under Gorman & Co.³ Absorbed by Alaska Fish Co.

Southeastern Alaska canned salmon pack, 1913—Continued.

Name.	Pinks.			Chums.			Total full cases.
	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats 8 dozen.	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats 8 dozen.	
Admiralty Trading Co.	14,958			3,594			20,641
Alaska Packers' Assn.	187,307			28,117			221,540
Alaska Pac. Fisheries.	114,411		3,999	37,082		265	174,634
Alaska Fish Co.	13,600			1,050			15,800
Alaska Sanitary Pkg. Co.	15,568	1,344	325	608			18,736
Astoria and Puget Sound Pkg. Co.	17,036			3,687			30,156
Barnes, F. C., & Co.	20,515			6,031			28,178
Canoe Pass Pkg. Co. ¹							
Deep Sea Salmon Co.	6,739			8,113			20,850
Fidalgo Island Pkg. Co.	35,614	2,672	9,910				50,014
Gorman & Co.	85,300	586	6,082	23,094	2,619	65	123,579
Hawk Fish Co.	24,031			6,244			34,720
Hidden Inlet Canning Co.	15,245			1,203			16,553
Hoonah Pkg. Co.	22,220			1,616			31,513
Hume, Herbert ¹							
Irving Pkg. Co.	21,265			2,265			25,166
Kake Pkg. Co.	17,550			9,950			27,930
Kasaan Company ²							
Kuiu Island Pkg. Co.	27,251			11,778			40,395
Lindenberger Pkg. Co.	46,230			2,100			50,937
	52,560			127			56,002
Metlakahtla Industrial Co. ³							
Myers, Geo. T., & Co.	49,476			10,938			71,370
North Pac. Pkg. & Trdg. Co.	34,939			3,238			40,913
Northwestern Fisheries Co.	111,973			8,552			136,707
Oceanic Pkg. Co. ³							
Pacific American Fisheries.	59,876			11,023			99,000
Pac. Coast & Norway Pkg. Co.	26,367	164	248	12,585	3,049	495	45,854
Pillar Bay Pkg. Co.	16,522			8,276			28,100
Point Warde Pkg. Co. ¹							
Pure Food Fish Co.	25,717						26,236
Shakan Salmon Co. ³							
Sanborn-Cram Co.	27,100			5,100			32,800
Starr-Collinson Pkg. Co.	9,649			5,859			16,870
Sunny Point Pkg. Co.	14,902			1,332			16,665
Swift, Arthur & Co. ¹							
Skowl Arm Pkg. Co.	12,626			1,257			14,140
St. Elias Pkg. Co. ¹							
Taku Canning & Cold Stg. Co.	18,367			8,414			36,780
Tee Harbor Pkg. Co.	19,822			4,667			30,508
Thlinket Pkg. Co.	60,230			19,766			109,375
Walsh-Moore Canning Co.	8,371			530			9,177
Wiese Pkg. Co.	37,895						40,336
Yakutat & Southern Rwy.	2,880						51,675
Total.	1,274,070	4,766	20,564	248,196	5,668	825	1,793,851

¹ Did not operate.² Shown under Gorman & Co.³ Absorbed by Alaska Fish Co.*Central Alaska canned-salmon pack, 1913.*

Name.	Cannery location.	Kings (1-pound talls).	Reds.		Medium reds (1-pound talls).	Pinks (1-pound talls).	Chums (1-pound talls).	Total (full cases).
			1-pound talls.	$\frac{1}{2}$ -pound flats (8 dozen).				
Alaska Packers' Association.	Kasilof, Larsens Bay, Chignik, and Alitak.	7,632	131,890		5,796	10,664	1,920	157,902
Columbia River Packers' Association.	Cuignik.	169	23,857	4,958	1,774	6,747		37,505
Fidalgo Island Packing Co.	Point Graham.	204	25,702				890	26,796
Kodiak Fisheries Co.	Kodiak.		8,305		169	15,299		23,773
Libby, McNeil & Libby	Kenai.	3,062	20,291		2,054	23		25,430
Northwestern Fisheries Co.	Orea, Kenai, Uyak, Chignik.	4,037	107,637		2,061	16,344	1,490	131,569
Pacific American Fisheries.	King Cove.	229	35,743				695	36,667
Seldovia Salmon Co.	Seldovia.	60	5,870		1,430	222	43	7,625
Total.		15,393	359,295	4,958	13,284	49,299	5,038	447,267

Western Alaska, or Bristol Bay, canned-salmon pack, 1913.

Name.	Cannery location.	Kings.		Reds.		
		1-pound talls.	$\frac{1}{2}$ -pound flats (8 dozen).	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats (8 dozen).
Alaska Fishermen's Packing Co.	Nushagak and Koggiung	148	1, 217	82, 324	.....	1, 756
Alaska Packers' Association.	Nushagak (2), Koggiung (2), Naknek (3), and Ugagak.	3, 131	.....	707, 389	.....	.....
Alaska-Portland Packers' Association.	Nushagak	3, 587	.....	63, 111	.....	1, 235
Alaska Salmon Co.	Wood River	1, 343	.....	27, 019	.....	.....
Bristol Bay Packing Co.	Kvichak	60	.....	62, 150	.....	.....
Columbia River Packers' Association.	Nushagak	3, 321	.....	42, 542	1, 310	.....
Naknek Packing Co.	Naknek	11	.....	96, 625	484	427
North Alaska Salmon Co.	Koggiung, Lockonock, Nushagak, and Ugagak.	1, 279	.....	213, 122	216	596
Northwestern Fisheries Co.	Nushagak	3, 556	.....	35, 393	.....	.....
Pacific American Fisheries	Port Moller	74	.....	43, 123	752	.....
Red Salmon Canning Co.	Ugashik	41	.....	39, 837	.....	.....
Midnight Sun Packing Co.	Kotzebue Sound ¹	.....	.....	.....	.....	.....
Total	.....	16, 551	1, 217	1, 412, 665	2, 762	4, 014

Name.	Cannery location.	Medium reds (1-pound talls).	Pinks (1-pound talls).	Chums (1-pound talls).	Total (full cases).
Alaska Fishermen's Packing Co.	Nushagak and Koggiung	.....	.....	1, 731	87, 176
Alaska Packers' Association	Nushagak (2), Koggiung (2), Naknek (3), and Ugagak.	3, 305	22, 409	.....	736, 234
Alaska-Portland Packers' Association.	Nushagak	1, 018	13, 707	.....	82, 688
Alaska Salmon Co.	Wood River	311	4, 850	.....	33, 523
Bristol Bay Packing Co.	Kvichak	235	.....	.....	62, 445
Columbia River Packers' Association.	Nushagak	316	7, 652	.....	55, 141
Naknek Packing Co.	Naknek	.....	505	.....	98, 052
North Alaska Salmon Co.	Koggiung, Lockonock, Nushagak, and Ugagak.	139	3, 643	.....	218, 995
Northwestern Fisheries Co.	Nushagak	933	.....	5, 995	45, 877
Pacific American Fisheries	Port Moller	.....	.....	201	44, 150
Red Salmon Canning Co.	Ugashik	.....	1, 216	.....	41, 094
Midnight Sun Packing Co.	Kotzebue Sound ¹	.....	.....	.....	.....
Total	.....	6, 022	54, 217	7, 927	1, 505, 375

¹ No salmon packed.*Recapitulation Alaska canned salmon pack, 1913.*

Districts	Kings.		Reds.			Medium Reds.		
	1-pound talls.	$\frac{1}{2}$ -pound flats (8 dozen).	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats (8 dozen).	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats (8 dozen).
Western Alaska	16, 551	1, 217	1, 412, 665	2, 762	4, 014	6, 022	.....	.....
Central Alaska	15, 393	.....	359, 295	.....	4, 958	13, 284	.....	.....
Southeast Alaska	896	110	146, 001	14, 866	19, 818	53, 912	721	3, 438
Total	32, 840	1, 327	1, 917, 961	17, 628	28, 790	73, 218	721	3, 438

Recapitulation Alaska canned salmon pack, 1913—Continued.

Districts.	Pinks.			Chums.			Total (full cases).
	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats (8 dozen).	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats (8 dozen).	
Western Alaska.....	54,217	.....	.....	7,927	.....	.....	1,505,375
Central Alaska.....	49,299	.....	.....	5,038	.....	.....	447,267
Southeast Alaska.....	1,274,070	4,766	20,564	248,196	5,668	825	1,793,851
Total.....	1,377,586	4,766	20,564	261,161	5,668	825	3,746,493

Alaska Packers' Association salmon pack, 1913.

District.	Sockeyes.			Reds (1- pound talls).	Springs (1- pound talls).	Medi- um reds (1- pound talls).	Pinks (1- pound talls).	Chums (1- pound talls).	Total (full cases).
	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats (8 dozen).						
Bristol Bay.....	.....	.....	.....	707,389	3,131	3,305	22,409	.....	* 736,234
Central Alaska.....	.....	.....	.....	131,890	7,632	5,796	10,664	1,920	157,902
Southeastern Alaska.....	.....	.....	.....	4,097	.....	2,019	187,307	28,117	221,540
Total, Alaska.....	.....	.....	.....	843,376	10,763	11,120	220,380	30,037	1,115,676
Puget Sound.....	204,056	20,490	37,995	.....	.....	141	126,030	27	388,739
Grand total....	204,056	20,490	37,995	843,376	10,763	11,261	346,410	30,064	1,504,415

Northwestern Fisheries Co. salmon pack, 1913.

District.	Kings, 1-pound talls.	Reds.		Medium reds.		Pinks, 1-pound talls.	Chums, 1-pound talls.	Total full cases.
		1-pound talls.	1-pound flats.	1-pound talls.	1-pound flats.			
Western Alaska.....	3,362	34,746	.....	923	.....	.....	5,876	44,907
Central Alaska.....	4,010	106,386	.....	2,036	.....	16,092	1,483	130,007
Southeast Alaska.....	26	5,838	6,834	3,189	118	109,839	10,969	136,813
Total.....	7,398	146,970	6,834	6,148	118	125,931	18,328	311,727

North Alaska Salmon Co. pack, 1913.

Location.	Springs, 1-pound talls.	Reds.			Medium reds, 1-pound talls.	Pinks, 1-pound talls.	Total full cases.
		1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.			
Nushagak.....	1,249	36,359	216	.....	139	3,242	41,205
Kogiung.....	.....	74,034	.....	596	.....	173	74,803
Lockonok.....	.....	74,338	.....	.....	.....	.....	74,338
Ugaguk.....	30	28,391	.....	.....	.....	228	28,649
Total.....	1,279	213,122	216	596	139	3,643	218,995

Gorman & Co. salmon pack, 1913.

District.	Reds, Sockeyes.			Medium reds, Cohoes.		
	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.
Alaska.....	1,764	1,137	660	1,873	217	182
Puget Sound.....	53,684	26,608	13,247	196	10,207	.....
Total.....	55,448	27,745	13,907	2,069	10,424	182

District.	Pinks.			Chums.		Total, full cases.
	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	1-pound talls.	$\frac{1}{2}$ -pound flats, 8 dozen.	
Alaska.....	85,300	586	6,082	23,094	66	120,961
Puget Sound.....	58,090	8,075	.....	11,115	.....	181,222
Total.....	143,390	8,661	6,082	34,209	66	302,183

Puget Sound canned salmon pack; official P. S. S. C. A. figures, 1913.

Name.	Cannery loca- tion.	Springs.		Sockeyes.			Medium Reds.		
		1-pound talls.	1-pound flats.	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats (8 dozen).	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats (8 dozen).
Apex Fish Co.....	Anacortes.....	75	.....	37,000	26,800	13,550	1,106	.....	3
Astoria & P. S. Canning Co.....	Chuckanut.....	.....	.....	30,168	14,870	9,954	270	2,727	26
Ainsworth & Dunn.....	Blaine.....	.....	.....	56,894	35,500	9,983	964	.....	.....
Alaska Packers' Associa- tion.....	Semiahmoo, Point Rob- erts, Ana- cortes.....	.....	.....	204,056	20,490	37,995	.....	.....	.....
Blaine Packing Co.....	Blaine.....	12	.....	30,485	.....	2,445	.....	.....	.....
Bellingham Canning Co.....	Bellingham.....	.....	.....	46,030	18,371	3,431	295	.....	.....
Coast Fish Co.....	Anacortes.....	.....	.....	33,658	9,783	5,114	5,886	2,369	.....
Carlisle Packing Co.....	Village Point.....	275	.....	39,696	23,197	22,689	1,203	.....	.....
Everett Packing Co.....	Everett.....	.....	.....	14,000	7,600	3,850	6,000	1,000	1,000
Friday Harbor Packing Co.....	Friday Har- bor.....	.....	.....	32,751	12,065	8,656	4	.....	.....
Fidalgo Island Packing Co.....	Anacortes.....	.....	.....	38,403	28,140	17,255	70	1,043	66
Gorman & Co.....	Anacortes, Port Ange- les.....	.....	.....	53,684	26,608	13,247	196	10,207	.....
George & Barker Co., The. Hodgson & Graham.....	Point Roberts.....	.....	.....	12,883	18,350	15,075	800	2,912	.....
Hidden Inlet Canning Co.....	Richardson.....	.....	.....	7,733	6,193	.....	.....	.....	.....
Key City Packing Co.....	do.....	.....	.....	11,000	.....	2,850	.....	.....	.....
Lummi Bay Packing Co.....	Port Town- send.....	.....	.....	45,168	.....	.....	608	.....	.....
Pacific American Fish- eries.....	Lummi Island.....	22	3	26,296	22,931	6,804	512	1,231	13
San Juan Fishery & Pack- ing Co.....	Bellingham, Anacortes.....	332	515	72,457	180,528	20,297	1,283	16,865	1,001
Seattle Packing Co. (float- ing cannery).....	Seattle.....	.....	.....	32,600	.....	.....	750	.....	.....
Sims, E. A.....	Lopez Island.....	.....	.....	3,778	1,900	.....	.....	.....	.....
Sinclair Island Canning Co.....	Port Town- send.....	.....	.....	39,137	.....	.....	323	.....	.....
Smiley & Co., J. L.....	Sinclair Is- land.....	.....	.....	12,080	.....	10,106	.....	.....	.....
San Juan Canning Co.....	Blaine.....	.....	.....	38,235	17,000	5,250	170	.....	.....
Shaw Island Canning Co.....	Friday Har- bor.....	.....	.....	20,540	.....	.....	.....	.....	.....
West Coast Packing Co.....	Shaw Island.....	.....	.....	.....	.....	5,350	.....	.....	.....
Weidling & Ind. Fish Co. (floating cannery).....	Blaine.....	.....	.....	17,400	15,100	4,850	.....	.....	.....
	Seattle.....	.....	.....	10,987	.....	1,803	.....	.....	116
Total.....		716	518	967,119	485,426	220,554	20,440	38,354	2,228

¹ Includes 5,000 cases $\frac{1}{2}$ -pound flats.

Puget Sound canned salmon pack; official P. S. S. C. A. figures, 1913—Continued.

Name.	Cannery location.	Pinks.			Chums.		Total pack (full cases).
		1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats (8 dozen).	1-pound talls.	1-pound flats.	
Apex Fish Co.....	Anacortes.....	56,000					134,534
Astoria & P. S. Canning Co.....	Chuckanut.....	80,958	489	1,668	5,995	104	97,229
Ainsworth & Dunn.....	Blaine.....	34,699					138,040
Alaska Packers' Association.....	S e m i a h m o o, Point Roberts, Anacortes.	126,030			27		388,598
Blaine Packing Co.....	Blaine.....	3,905					36,847
Bellingham Canning Co.....	Bellingham.....	31,513		12			99,652
Coast Fish Co.....	Anacortes.....	37,671	417		11,839	1,967	108,704
Carlisle Packing Co.....	Village Point.....	42,115	710	5,050			134,935
Everett Packing Co.....	Everett.....	13,500		1,650	11,000		59,000
Friday Harbor Packing Co.....	Friday Harbor.....	33,190					86,666
Fidalgo Island Packing Co.....	Anacortes.....	19,924			209		105,110
Gorman & Co.....	Anacortes, Port Angeles.	58,090	8,075		11,115		181,222
George & Barker Co., The.....	Point Roberts.....	16,651			665		67,336
Hodgson & Graham.....	Richardson.....	3,102	737				17,765
Hidden Inlet Canning Co.....	do.....	2,500					16,350
Key City Packing Co.....	Port Townsend.....	24,292					70,068
Lummi Bay Packing Co.....	Lummi Island.....	23,905	1,282	395	1,721		85,125
Pacific American Fisheries.....	Bellingham, Anacortes.	150,955	5,457	4,718	4,349		458,757
San Juan Fish & Packing Co.....	Seattle.....	6,440					39,790
Seattle Packing Co. (floating cannery).	Lopez Island.....						5,678
Sims, E. A.....	Port Townsend.....	15,538			924		55,922
Sinclair Island Canning Co.....	Sinclair Island.....	2,975					25,161
Smiley & Co., J. L.....	Blaine.....	18,300			115		79,070
San Juan Canning Co.....	Friday Harbor.....	1,700					22,240
Shaw Island Canning Co.....	Shaw Island.....			50			5,400
West Coast Packing Co.....	Blaine.....						37,350
Welding & Ind. Fish Co. (floating cannery).	Seattle.....	7,823			6,131	54	26,914
Total.....		761,776	17,167	12,943	54,100	2,125	2,583,463

Pack of canned salmon on Puget Sound from 1887 to 1913, by species.

Year.	Number of canneries.	Spring.		Sockeye.		Medium red.	
		Cases.	Value.	Cases.	Value.	Cases.	Value.
1888.....	4						
1889.....	2	240	\$1,200			7,480	\$37,400
1890.....	1	1,000	5,000			3,000	15,000
1891.....	2	382	2,101	5,538	\$24,921	5,869	19,368
1892.....	2	86	473	2,954	11,816	7,206	24,500
1893.....	3	1,200	6,480	47,852	103,371	11,812	59,060
1894.....	3			41,781	188,014	22,418	89,672
1895.....	7	1,542	7,325	65,143	273,108	50,865	154,218
1896.....	11	13,495	67,475	72,979	350,299	82,640	264,448
1897.....	12	9,500	39,045	312,048	1,248,192	91,000	282,133
1898.....	18	11,210	50,624	252,000	1,058,400	98,600	335,240
1899.....	19	24,364	103,180	499,646	2,368,334	111,387	418,176
1900.....	19	22,350	134,100	229,800	1,149,000	128,210	512,800
1902.....	21	30,049	150,245	372,301	2,047,655	85,817	429,085
1903.....	22	14,500	72,500	167,211	1,003,260	103,450	413,800
1904.....	13	14,441	69,352	109,264	653,871	118,127	447,851
1905.....	24	1,804	9,922	825,453	4,952,718	79,335	337,174
1906.....	16	8,139	48,834	178,748	1,251,236	94,497	472,485
1907.....	14	1,814	16,326	93,122	698,416	119,472	476,288
1908.....	11	95,210	666,470	170,951	1,196,657	128,922	644,922
1909.....	24	13,019	72,604	1,097,904	6,183,360	143,133	630,446
1910.....	15	10,064	60,324	248,014	1,673,095	162,755	895,153
1911.....	20	21,823	172,582	127,761	1,168,145	256,124	1,591,185
1912.....	22	20,252	101,706	184,680	1,660,173	149,727	365,534
1913.....	31	1,234	5,247	1,673,099	10,871,178	61,019	235,372

Pack of canned salmon on Puget Sound from 1887 to 1913 by species—Continued.

Year.	Chum.		Pink.		Total.	
	Cases.	Value.	Cases.	Value.	Cases.	Value.
1887.....					22,000	
1888.....					21,975	\$126,356
1889.....	1,145	\$3,435	2,809	\$7,584	11,674	49,619
1890.....	4,000	12,000			8,000	32,000
1891.....	3,093	10,825	5,647	15,246	20,529	72,461
1892.....	16,180	56,630			26,426	93,419
1893.....	11,380	31,295	17,530	47,331	89,331	247,537
1894.....	22,152	60,918	9,049	24,432	95,400	363,036
1895.....	38,785	94,741	23,633	62,556	179,968	591,948
1896.....	26,550	73,013			195,664	755,235
1897.....	23,310	64,103	57,268	171,804	494,026	1,805,277
1898.....	38,400	105,600			400,200	1,549,864
1899.....	31,481	86,427	252,733	734,241	919,611	3,710,358
1900.....	89,100	245,025			469,450	1,940,925
1901.....					1,380,590	
1902.....	93,492	467,460			581,659	3,094,445
1903.....	12,001	30,002	181,326	407,984	478,488	1,927,546
1904.....	49,656	124,254			291,488	1,295,328
1905.....	41,057	102,643	70,992	212,976	1,018,641	5,615,433
1906.....	149,218	708,781			430,602	2,481,336
1907.....	50,249	150,847	433,423	1,300,269	698,080	2,642,146
1908.....	47,607	142,821	6,075	18,225	448,765	2,669,095
1909.....	53,688	128,916	370,993	902,342	1,632,949	7,917,608
1910.....	146,942	514,297	108	388	567,883	3,143,256
1911.....	104,321	392,122	1,046,992	4,302,344	1,557,029	7,727,524
1912.....	60,760	154,193	700	2,185	416,125	2,283,791
1913.....	56,225	124,970	791,886	2,092,401	2,583,463	13,329,168

Recapitulation, canned salmon pack outside rivers, 1913.

Districts.	Chinooks.			Bluebacks.			Silversides.		
	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.
Washington coast.....	2,052	355	193	13,458	5,778	3,381	11,150	3,040	2,520
Oregon coast.....	2,775	2,705	1,500				12,861	9,853	11,422
California coast.....		3,897	2,479						
Total.....	4,827	6,957	4,172	13,458	5,778	3,381	24,011	12,893	13,942

Districts.	Pinks.			Chums.		Steel- heads, 1-pound talls.	Total, full cases.
	1-pound talls.	1-pound flats.	$\frac{1}{2}$ -pound flats, 8 dozen.	1-pound talls.	1-pound flats.		
Washington coast.....	4,141	159	177	16,104	236	600	63,344
Oregon coast.....				1,245	80		42,441
California coast.....							6,376
Total.....	4,141	159	177	17,349	316	600	112,161

Columbia River canned salmon pack, 1913.

Company.	Cannery location.	Steelheads.			Columbia River chinooks, fancy.		
		1-pound talls.	1-pound flat.	1-pound flat, 8 dozen.	1-pound talls.	1-pound flats.	1-pound flats, 8 dozen.
Altoona Packing Co.....	Altoona, Wash.....	.....	.....	550	275	3,600	4,880
Booth Fisheries Co.....	Astoria, Oreg.....	.....	.....	.....	3,878	5,443	8,015
Columbia River Pkrs. Assn...	Astoria, Oreg.; Rooster Rock, Oreg.	.....	817	413	1,804	² 2,320	.....
Megler, J. G., & Co.....	Brookfield, Wash.....	.....	.....	.....	1,446	3,966	2,254
McGowan, P. J., & Sons.....	Warrendale, Oreg.; Ilwaco, Wash.	.....	532	1,305	2,092	11,754	7,512
Pillar Rock Packing Co.....	Pillar Rock, Wash.....	.....	.....	.....	6,115	3,654	5,193
Sanborn-Cutting Co.....	Astoria, Oreg.....	.....	.....	.....	150	6,161	7,450
Seuffert Bros. Co.....	The Dalles, Oreg.....	280	1,630	225	.....	6,967	4,857
Tallant-Grant Packing Co....	Astoria, Oreg.....	.....	.....	.....	.....	6,398	1,328
Union Fishermen's Co-op. Packing Co.....	do.....	.....	.....	.....	4,843	11,022	9,346
Warren Packing Co.....	Warrendale, Oreg.; Cathlamet, Wash.	857	806	1,524	1,081	8,780	5,753
Total.....	.....	1,137	3,785	4,017	27,922	70,065	56,588

Company.	Columbia River chinooks, standard.			Silversides.			Blue-backs,	Chums.		Total (full cases).
	1-pound talls.	1-pound flats.	1-pound flats, 8 dozen.	1-pound talls.	1-pound flats.	1-pound flats, 8 dozen.	1-pound flats, 8 dozen.	1-pound talls.	1-pound flats, 8 dozen.	
Altoona Packing Co.....	.....	.....	1,490	.....	.....	215	115	.....	.....	11,125
Booth Fisheries Co.....	.....	.....	.....	133	180	2,435	.....	133	.....	20,217
Columbia River Pkrs. Assn.....	26,229	8,564	1,579	3,972	3,163	656	3,721	7,603	13	63,929
Megler, J. G., & Co.....	.....	.....	3,163	2,750	1,434	.....	.....	2,642	.....	17,655
McGowan, P. J., & Sons.....	816	.....	103	2,124	404	1,910	1,854	1,850	.....	32,256
Pillar Rock Packing Co.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14,962
Sanborn-Cutting Co.....	.....	.....	1,250	4,600	2,950	.....	.....	700	.....	23,261
Seuffert Bros. Co.....	.....	.....	952	2,932	1,222	1,582	.....	.....	.....	20,647
Tallant-Grant Packing Co.....	.....	.....	.....	.....	1,500	.....	.....	.....	.....	9,226
Union Fishermen's Co-op. Packing Co.....	.....	.....	.....	1,236	3,070	208	.....	.....	.....	29,725
Warren Packing Co.....	.....	339	.....	.....	.....	94	3,880	253	109	23,476
Total.....	816	26,568	10,157	10,437	19,408	11,124	11,152	13,181	122	266,479

¹ Includes both fancy and standard.² Ovals.

Pack of canned salmon on the Columbia River from the inception of the industry to 1913.

Year.	Number of canneries.	Chinook.		Blueback.		Silversides.	
		Cases.	Value.	Cases.	Value.	Cases.	Value.
1878.	30						
1879.	30						
1880.	29						
1888.	28						
1889.	21	266,697	\$1,600,182	17,797	\$101,051		
1890.	21	335,604	1,946,087	57,345	290,069		
1891.	22	353,907	2,038,566	15,482	284,242		
1892.	24	344,267	1,996,388	66,547	372,909	4,176	\$20,880
1893.	24	288,773	1,559,374	30,459	152,295	29,107	116,428
1894.	24	351,106	1,895,976	43,814	224,430	42,758	171,032
1895.	24	444,909	2,428,658	18,015	86,523	99,601	329,683
1896.	24	370,943	1,840,511	16,983	81,518	44,108	141,145
1897.	22	432,753	1,804,221	12,972	51,888	60,850	197,762
1898.	23	329,566	1,490,394	66,670	300,015	65,431	222,465
1899.	17	255,824	1,458,175	23,969	134,723	29,608	112,055
1900.	16	262,392	1,821,258	13,162	92,184	44,925	202,163
1902.	14	270,580	1,428,743	17,037	86,465	10,532	44,732
1903.	16	301,762	1,610,614	8,343	42,867	12,181	49,869
1904.	20	320,378	1,944,690	12,911	78,048	31,254	118,357
1905.	19	327,106	1,962,636	7,768	46,608	26,826	114,011
1906.	19	311,334	1,868,007	7,816	54,712	41,446	124,338
1907.	19	258,433		5,504		31,757	
1908.	14	210,096		8,581		31,432	
1909.	15	162,131	1,203,546	27,908	214,561	42,178	185,070
1910.	15	244,285	1,882,137	6,234	34,287	68,922	363,688
1911.	15	405,862	2,204,185	5,988	47,904	79,416	549,478
1912.	15	220,317	1,988,526	8,210	85,384	31,842	177,248
1913.	15	192,116	1,664,670	11,152	93,677	40,969	175,412

Year.	Dog or chum.		Steelhead trout.		Total.	
	Cases.	Value.	Cases.	Value.	Cases.	Value.
1866.					4,000	\$61,000
1867.					18,000	288,000
1868.					28,000	392,000
1869.					100,000	1,350,000
1870.					150,000	1,800,000
1871.					200,000	2,100,000
1872.					250,000	2,325,000
1873.					250,000	2,250,000
1874.					350,000	2,625,000
1875.					375,000	2,250,000
1876.					450,000	2,475,000
1877.					380,000	2,052,000
1878.					460,000	2,300,000
1879.					480,000	2,640,000
1880.					530,000	2,650,000
1881.					550,000	2,475,000
1882.					541,300	2,600,000
1883.					629,400	3,147,000
1884.					620,000	2,915,000
1885.					553,800	2,500,000
1886.					448,500	2,135,000
1887.					356,000	2,124,000
1888.					372,477	2,234,862
1889.			25,391	\$108,587	309,885	1,809,820
1890.			42,825	171,300	435,774	2,407,456
1891.			29,564	118,156	398,953	2,440,964
1892.			72,348	288,892	487,338	2,679,069
1893.	2,311	\$6,933	65,226	260,904	415,876	2,095,934
1894.			52,422	209,688	490,100	2,501,126
1895.	22,493	62,591	49,678	203,542	634,696	3,110,997
1896.			49,663	198,652	481,697	2,261,826
1897.			46,146	165,440	552,721	2,219,311
1898.			26,277	60,352	487,944	2,073,226
1899.	11,379	33,836	11,994	39,186	332,774	1,777,975
1900.	17,696	63,706	20,597	102,985	358,772	2,282,296
1901.					390,183	1,942,660
1902.	10,401	41,604	8,593	42,965	317,143	1,644,509
1903.	10,000	37,500	7,251	36,255	339,577	1,777,105
1904.	20,693	52,691	9,868	48,892	395,104	2,242,678
1905.	25,751	65,206	9,822	49,110	397,273	2,237,571

1 Of these, 2,846 cases, valued at \$23,203, were packed with Sockeyes brought from Puget Sound.

Pack of canned salmon on the Columbia River from the inception of the industry to 1913—Continued.

Year.	Dog or chum.		Steelhead troct.		Total.	
	Cases.	Value.	Cases.	Value.	Cases.	Value.
1906.....	27,802	69,505	6,500	32,500	394,898	2,149,062
1907.....	22,556		5,921		324,171	1,763,490
1908.....	16,884		10,726		253,341	1,380,708
1909.....	24,542	57,115	17,283	99,796	1 274,087	1,760,088
1910.....	66,538	232,883	5,436	31,203	391,415	2,544,198
1911.....	53,471	203,198	8,594	47,399	543,331	3,052,164
1912.....	18,699	46,590	6,958	22,108	285,666	2,319,856
1913.....	13,303	29,486	8,939	49,142	266,479	2,012,387
Total.....					17,512,344	99,125,174

¹ 55 cases of Humpbacks, valued at \$132, were also packed with Humpbacks brought from Puget Sound.

Washington coast canned salmon pack, 1913.

Name.	Cannery location.	Chinooks.			Bluebacks.		
		1-pound talls.	1-pound flats.	½-pound flats, 8 dozen.	1-pound talls.	1-pound flats.	½-pound flats, 8 dozen.
F. C. Barnes & Co.....	South Bend.....	59					
Elmore Packing Co.....	Aberdeen.....						
Fisherman's Co-op. Pkg. Co. ¹	do.....						
Grays Harbor Packing Co. ²	do.....						
Hoquiam Packing Co.....	Hoquiam.....	263			202	2,865	1,003
Kurtz, W. W.....	Moelips.....						492
Moelips Canning Co. ¹	do.....						
Morse Canning Co.....	Quillayute.....	125	81				
Pacific Fisheries & Pkg. Co.....	Aberdeen.....	673	124	193	13,256	2,913	1,666
Do. ¹	Moelips.....						
Superior Trading Co.....	Queets.....	932	150				220
Willapa Harbor Fish Co.....	Willapa Harbor.....						
Total.....		2,052	355	193	13,458	5,778	3,881

Name.	Silversides.			Pinks.			Chums.		Steel heads, 1-pound talls.	Total (full cases).
	1-pound talls.	1-pound flats.	½-pound flats, 8 dozen.	1-pound talls.	1-pound flats.	½-pound flats, 8 dozen.	1-pound talls.	1-pound flats.		
F. C. Barnes & Co....	180		283				3,900			4,422
Elmore Packing Co.	730	390	521					1,133		2,774
Fisherman's Co-op. Pkg. Co. ¹										
Grays Harbor Pack- ing Co. ²										
Hoquiam Packing Co.....	1,054	315		530						6,232
Kurtz, W. W.....	5,818	997	291							7,598
Moelips Canning Co.										
Morse Canning Co.	690	350					20	8		1,274
Pacific Fisheries & Pkg. Co. ¹	698	988	1,025	3,611	159	177	7,081	228		32,792
Do. ¹										
Superior Trading Co.	1,680						670		600	4,252
Willapa Harbor Fish Co. ¹	300		400				3,300			4,000
Total.....	11,150	3,040	2,520	4,141	159	177	14,971	1,369	600	63,344

¹ Not operated in 1913.

² Included in Elmore Packing Co.

Salmon fleet, 1913.

Vessel.	Rig.	Net tonnage.	Company.	Sails from—	To—
Abner Coburn.....	Ship.....	1,878	Libby, McNeill & Libby.....	Seattle.....	Kenai.
Acmé.....	do.....	2,987	Alaska Packers' Association.....	Bellingham.....	Bristol Bay.
Afognak.....	Steamer.....	37	do.....	San Francisco.....	Wrangell.
Alitak.....	do.....	73	do.....	do.....	Chignik.
Annie Larsen.....	Schooner.....	324	Olson Bros.....	do.....	Bristol Bay.
A. J. Fuller.....	Ship.....	1,673	N. W. Fisheries Co.....	Seattle.....	Uyak.
Benj. F. Packard.....	do.....	2,013	Alaska Packers' Association.....	San Francisco.....	Chignik.
Berlin.....	do.....	1,416	Alaska-Portland Packers' Association.....	Portland.....	Nushagak.
Bohemia.....	do.....	1,528	Alaska Packers' Association.....	San Francisco.....	Bristol Bay.
Bonita.....	Gas str.....	45	N. Alaska Salmon Co.....	do.....	Kvichak.
C. A. Thayer.....	Schooner.....	390	P. M. Nelson.....	do.....	Bristol Bay.
Chas. E. Moody.....	Ship.....	1,731	Alaska Packers' Association.....	Seattle.....	Kenai.
Centennial.....	Barkentine.....	1,138	do.....	San Francisco.....	Bristol Bay.
Chilkat.....	Steamer.....	98	do.....	do.....	Wrangell.
Dashing Wave.....	Barge.....	941	Taku C. & C. S. Co.....	Seattle.....	Taku.
Equator.....	Tug.....	42	N. W. Fisheries Co.....	do.....	Chignik.
Expansion.....	Gas str.....	113	N. Alaska Salmon Co.....	San Francisco.....	Bristol Bay.
Geo. Curtiss.....	Bark.....	1,680	do.....	do.....	Do.
Emily F. Whitney.....	do.....	2,107	Alaska Salmon Co.....	do.....	Nushagak.
Guy C. Goss.....	do.....	1,430	N. W. Fisheries Co.....	Seattle.....	Do.
Geo. F. Haller.....	Steamer.....	107	N. Alaska Salmon Co.....	San Francisco.....	Bristol Bay.
Glorv of the Seas.....	Barge.....	1,939	Glacier Fisheries Co.....	Seattle.....	S. E. Alaska.
Harriett G.....	Brig.....	188	Port Heiden Packing Co.....	do.....	Port Heiden.
Harvester.....	Bark.....	716	N. W. Fisheries Co.....	do.....	Dundas.
Henry Wilson.....	Schooner.....	430	N. Alaska Salmon Co.....	San Francisco.....	Bristol Bay.
Indiana.....	Ship.....	1,413	Alaska Packers' Association.....	Seattle.....	Do.
J. D. Peters.....	do.....	1,030	N. W. Fisheries Co.....	do.....	Hunters Bay.
Kadiak.....	Steamer.....	8	Alaska Packers' Association.....	San Francisco.....	Bristol Bay.
Karluk.....	do.....	58	do.....	do.....	Cooks Inlet.
Kvichak.....	do.....	610	do.....	do.....	Nushagak.
Levi G. Burgess.....	Bark.....	1,475	Alaska-Portland Packers' Association.....	Portland.....	Do.
Lewellyn J. Morse.....	Ship.....	1,271	Alaska Packers' Association.....	San Francisco.....	Bristol Bay.
Lehua.....	Steamer.....	119	Red Salmon C. Co.....	do.....	Naknek.
McLaurin.....	Ship.....	1,312	L. A. Pedersen.....	do.....	Bristol Bay.
North King.....	Steamer.....	40	Alaska-Portland Packers' Association.....	Portland.....	Nushagak.
North Star.....	do.....	89	Libby, McNeill & Libby.....	Seattle.....	Do.
Nushagak.....	do.....	478	Alaska Packers' Association.....	San Francisco.....	Do.
Oriental.....	Bark.....	1,550	N. Alaska Salmon Co.....	do.....	Bristol Bay.
Olympic.....	do.....	1,353	do.....	do.....	Do.
Pactolus.....	do.....	1,564	Naknek Packing Co.....	do.....	Do.
Philip F. Kelley.....	Steamer.....	93	Geo. T. Myers & Co.....	Seattle.....	Chatham.
Premier.....	Schooner.....	202	Alaska Packers' Association.....	Port Townsend.....	Bristol Bay.
Prosper.....	do.....	229	do.....	San Francisco.....	Do.
Paramita.....	Bark.....	1,444	L. A. Pedersen.....	do.....	Do.
Reuce.....	Ship.....	1,601	Colo. River Packers' Ass'n.....	Astoria.....	Chignik.
Sannak.....	Steamer.....	29	Alaska Packers' Association.....	San Francisco.....	Naknek.
Santa Clara.....	Ship.....	1,453	do.....	do.....	Kvichak.
Shelikof.....	Steamer.....	101	N. W. Fisheries Co.....	Seattle.....	Uyak.
Sintram.....	Ship.....	1,495	Naknek Packing Co.....	San Francisco.....	Naknek.
Standard.....	do.....	1,461	N. Alaska Salmon Co.....	Semiahmoo.....	Bristol Bay.
Star of Alaska.....	do.....	1,554	Alaska Packers' Association.....	San Francisco.....	Chignik.
Star of Chile.....	Bark.....	874	do.....	do.....	Egegak.
Star of England.....	do.....	1,705	do.....	do.....	Kvichak.
Star of Finland.....	do.....	1,430	do.....	do.....	Alitak.
Star of France.....	Ship.....	1,514	do.....	do.....	Naknek.
Star of Greenland.....	Bark.....	1,974	do.....	do.....	Wrangell.
Star of Holland.....	do.....	1,987	do.....	do.....	Karluk.
Star of Iceland.....	do.....	1,856	do.....	do.....	Nushagak.
Star of India.....	do.....	1,247	do.....	do.....	Ugashik.
Star of Italy.....	Ship.....	1,174	do.....	do.....	Naknek.
Star of Lapland.....	do.....	3,006	do.....	do.....	Loring.
Star of Peru.....	Bark.....	976	do.....	do.....	Kvichak.
Star of Russia.....	Ship.....	1,981	do.....	do.....	Cooks Inlet.
Star of Scotland.....	do.....	2,146	do.....	do.....	Karluk.
Star of Zealand.....	do.....	2,987	do.....	do.....	Naknek.
St. Frances.....	do.....	1,757	Libby, McNeill & Libby.....	Seattle.....	Nushagak.
St. Katherine.....	Bark.....	1,090	Red Salmon C. Co.....	San Francisco.....	Do.
St. Nicholas.....	Ship.....	1,687	Col. River Packers' Ass'n.....	Astoria.....	Do.
St. Paul.....	do.....	1,824	N. W. Fisheries Co.....	Seattle.....	Nelsons Lagoon.
Salvator.....	Schooner.....	385	Libby, McNeill & Libby.....	San Francisco.....	Nushagak.
Tacoma.....	Ship.....	1,671	Alaska Packers' Association.....	do.....	Orea.
Thistle.....	Steamer.....	56	Alaska Salmon Co.....	do.....	Wood River.
Unimak.....	do.....	158	Alaska Packers' Association.....	do.....	Karluk.
W. B. Flint.....	Bark.....	746	Libby, McNeill & Libby.....	Seattle.....	Port Moller.
Windber.....	Steamer.....	1,820	Am. Pac. Fisheries.....	Bellingham.....	Bristol Bay.

Pack of British Columbia salmon, season 1913.

		Sockeyes.					
Names.	1-pound talls.	1-pound flats.	1-pound flats.	1-pound ovals.	1-pound ovals.	1-pound squats.	Total.
Fraser River District:							
B. C. Packers' Association.....	122,230	75,283	72,866		1,507		271,886
A. B. C. Packing Co. (Ltd.).....	22,896	32,803	28,517		3,482	904	88,602
J. H. Todd & Sons.....	7,100	9,300	10,600				27,000
Canadian Canning Co. (Ltd.).....	11,008	10,118	32,709				53,835
B. C. Canning Co. (Ltd.).....	5,000	15,920	14,811				35,731
St. Mungo Canning Co. (Ltd.).....	4,033	9,875	11,748				25,656
The Glen Rose Canning Co. (Ltd.).....	3,098	5,553	4,769		581		14,001
Great West Packing Co. (Ltd.).....	3,158	5,108	7,444				15,710
M. DesBrisay & Co.....	3,365	7,459	11,312				22,136
Scottish Can. Canning Co. (Ltd.).....	5,597	8,750	10,790				25,137
Jervis Inlet Can. Co. (Ltd.).....	1,672	15,420	7,546				24,638
Kildala Packing Co. (Ltd.).....		22,815	5,198				28,013
Gosse-Millard Can. Co. (Ltd.).....	3,193	1,929	12,398				17,520
Steveston Canning Co.....			11,415				11,415
English Fisheries (Ltd.).....	10,143	4,008	9,165				23,316
Total.....	202,493	224,341 ⁹	251,288		5,570	904	684,596
Skeena River District:							
B. C. Packers' Association.....	472	1,755	9,566	962	1,499		14,254
A. B. C. Packing Co. (Ltd.).....		2,083	5,114				7,197
J. H. Todd & Sons.....	890		3,725				4,615
Kildala Packing Co. (Ltd.).....			6,309				6,309
B. C. Canning Co. (Ltd.).....			4,023				4,023
Skeena River Com. Co. (Ltd.).....			2,968				2,968
Cassiar Packing Co. (Ltd.).....	14		4,254				4,268
Wallace Fisheries. (Ltd.).....		1,644	5,649				7,293
Canadian Fish & Cold Storage Co.(Ltd.)		2,000					2,000
Totals.....	1,376	7,482	41,608	962	1,499		52,927
Rivers Inlet district:							
B. C. Packers' Association.....		6,054	17,433				23,487
A. B. C. Packing Co. (Ltd.).....	456		6,603				7,059
J. H. Todd & Sons.....	1,500		6,200				7,700
B. C. Canning Co. (Ltd.).....			7,263				7,263
Kildala Packing Co. (Ltd.).....			9,151				9,151
Wallace Fisheries (Ltd.).....			7,085				7,085
Total.....	1,956	6,054	53,735				61,745
Naas River District:							
B. C. Packers' Association.....	774		5,072				5,846
A. B. C. Packing Co. (Ltd.).....	285	4,934	5,795				11,014
Khicolet Packing Co. (Ltd.).....	2,357		4,246		111		6,714
Total.....	3,416	4,934	15,113		111		23,574
Outlying districts:							
B. C. Packers' Association.....	19,105		2,758				21,863
A. B. C. Packing Co. (Ltd.).....			520				520
Kildala Packing Co. (Ltd.).....	732		3,288				4,020
B. C. Canning Co. (Ltd.) (Victoria)...	16,865						16,865
Clayoquot Sd. Can. Co. (Ltd.).....	3,330						3,330
Quathiaski Canning Co. (Ltd.).....	2,240		700				2,940
J. H. Todd & Sons (Esquimalt).....	2,000	16,000	7,200				35,200
Wallace Fisheries (Ltd.).....	8,463	9,691	20,253				38,407
John Wallace.....	1,546						1,546
Jervis Inlet Canning Co. (Ltd.).....	8,580		2,220				10,800
E. Bella Bella Packing Co. (Ltd.).....			1,310				1,310
B. C. Fisheries (Ltd.).....	59		24				83
M. DesBrisay & Co.....	2,302						2,302
Draney Fisheries (Ltd.).....	5,600		4,550				10,150
Total.....	80,822	25,691	42,823				149,336
Districts:							
Fraser River.....	202,493	224,341	251,288		5,570	904	684,596
Skeena River.....	1,376	7,482	41,608	962	1,499		52,927
Rivers Inlet.....	1,956	6,054	53,735				61,745
Naas River.....	3,416	4,934	15,113		111		23,574
Outlying.....	80,822	25,691	42,823				149,336
Grand total.....	290,063	268,502	404,567	962	7,180	904	972,178

Pack of British Columbia salmon, season 1913—Continued.

Names.	Red Springs.					White Springs.			Chums.		
	1-pound falls.	1-pound flats.	1-pound flats.	1-pound ovals.	Total.	1-pound falls.	1-pound flats.	Total.	1-pound falls.	1-pound flats.	Total.
Fraser River Dist.:											
B. C. Packers' Association.....	1,145	204	569		1,918		49	49			
A. B. C. Packing Co. (Ltd.).....	151	75	56		282						
J. H. Todd & Sons.....			50		50				2,000		2,000
Canadian Canning Co. (Ltd.).....	112		29		141				4,308		4,308
St. Mungo Canning Co. (Ltd.).....	602				602				5,370		5,370
The Glen Rose Can. Co. (Ltd.).....			178		178						
Great West Pack. Co. (Ltd.).....			46		46						
M. DesBrisay & Co.	306				306						
Scottish Can. Can. Co. (Ltd.).....	50				50						
Jervis Inlet Can. Co. (Ltd.).....									10,542		10,542
Total.....	2,366	279	928		3,573		49	49	22,220		22,220
Skeena River Dist.:											
B. C. Packers' Association.....	8,148		806	1,017	9,971	828		828			
A. B. C. Packing Co. (Ltd.).....	5,190	207	30		5,427	701	53	754			
J. H. Todd & Sons.....	1,400				1,400	200		200			
B. C. Canning Co. (Ltd.).....	866				866						
Skeena River Com. Co. (Ltd.).....	460				460	93		93			
Cassiar Packing Co. (Ltd.).....	284				284						
Wallace Fisheries (Ltd.).....	3,727	26	1,089		4,842	40	1,271	1,311			
Total.....	20,075	233	1,925	1,017	23,250	1,862	1,324	3,186			
Rivers Inlet Dist.:											
B. C. Packers' Association.....		50	275		325						
A. B. C. Packing Co. (Ltd.).....	106				106						
Kildala Packing Co. (Ltd.).....			66		66						
Wallace Fisheries (Ltd.).....			97		97						
Total.....	106	50	438		594						
Naas River Dist.:											
B. C. Packers' Association.....	915				915	17		17			
A. B. C. Packing Co. (Ltd.).....	1,406		359		1,765		38	38			
Kincoeth Packing Co. (Ltd.).....	319				319	97		97	2,987		2,987
Total.....	2,640		359		2,999	114	38	152	2,987		2,987
Outlying districts:											
B. C. Packers' Association.....	1,217		104		1,321						
A. B. C. Packing Co. (Ltd.).....									3,869	1,596	5,465
Kildala Packing Co. (Ltd.).....	465				465						
B. C. Canning Co. (Ltd.).....											
(Victoria).....						18		18			
Clayoquot Sound Canning Co. (Ltd.).....									1,327		1,327
Quathiaski Canning Co. (Ltd.).....	20				20				2,096		2,096
Wallace Fisheries (Ltd.).....	4,747		23		4,770				26,992		26,992
John Wallace.....	60				60	211		211			

Pack of British Columbia salmon, season of 1913—Continued.

Names.	Red Springs.					White Springs.			Chums.		
	1-pound talls.	1-pound flats.	½-pound flats.	1-pound ovals.	Total.	1-pound talls.	½-pound flats.	Total.	1-pound talls.	1-pound flats.	Total.
Outlying districts— Continued.											
Jervis Inlet Can- ning Co. (Ltd.)									2,541		2,541
E. Bella Bella Packing Co. (Ltd.)									2,524		2,524
M. DesBrisay & Co.	81				81				2,813		2,813
Draney Fisheries (Ltd.)	300				300				9,000		9,000
Total	6,890		127		7,017	229		229	51,162	1,596	52,758
Districts:											
Fraser River	2,366	279	928		3,573		49	49	22,220		22,220
Skeena River	20,075	233	1,925	1,017	23,250	1,862	1,324	3,186			
Rivers Inlet	106	50	438		594						
Naas River	2,640		359		2,999	114	38	152	2,987		2,987
Outlying	6,890		127		7,017	229		229	51,162	1,596	52,758
Grand total	32,077	562	3,777	1,017	37,433	2,205	1,411	3,616	76,369	1,596	77,965

Names.	Pinks.				Cohoës.					Grand total.
	1-pound talls.	1-pound flats.	½-pound flats.	Total.	1-pound talls.	1-pound flats.	½-pound flats.	Squats.	Total.	
Fraser River Dist.:										Cases.
B.C. Packers' As- sociation		2,986	1,174	4,160	1,364	1,095	99		2,558	280,571
A. B. C. Packing Co. (Ltd.)	254			254	582			658	1,263	90,401
J. H. Todd & Sons.					3,000	700			3,700	32,750
Canadian Can- ning Co. (Ltd.)	5,559			5,559	100				100	63,943
B. C. Canning Co. (Ltd.)							75		75	35,806
St. Mungo Can- ning Co. (Ltd.)					1,150				1,150	32,778
The Glen Rose Can. Co. (Ltd.)										14,179
Great West Pack- ing Co. (Ltd.)					300				300	16,056
M. DesBrisay & Co.					450				450	22,892
Scottish Can. Can- ning Co. (Ltd.)					790				790	25,977
Jervis Inlet Can. Co. (Ltd.)										35,180
Kildala Packing Co. (Ltd.)						122			122	28,135
Gosse-Millard Can. Co. (Ltd.)					221	540			761	18,281
Stevenson Can- ning Co.							379		379	11,794
English Fisheries (Ltd.)										23,316
Total	5,813	2,986	1,174	9,973	7,957	2,457	553	658	11,648	732,059
Skeena River Dist.:										
B.C. Packers' As- sociation	9,143		4,174	13,317	6,286	3,993	1,835		12,114	50,48
A. B. C. Packing Co. (Ltd.)	5,969	2,764		8,733	22		663		685	22,796
J. H. Todd & Sons	5,150		3,360	8,510	670				670	15,395
Kildala Packing Co. (Ltd.)	789		3,003	3,792	514				514	10,615
B. C. Canning Co. (Ltd.)	2,638		2,866	5,504	397				397	10,790
Skeena River Can. Co. (Ltd.)	2,471			2,471	397				397	6,389
Cassiar Packing Co. (Ltd.)	8,106		530	8,636	1,200				1,200	14,388

Pack of British Columbia salmon, season 1913—Continued.

Names.	Pinks.				Coho's.					Grand total.
	1-pound tails.	1-pound flats.	½-pound flats.	Total.	1-pound tails.	1-pound flats.	½-pound flats.	Squats.	Total.	
Skeena River Dist.—										
Continued.										
Wallace Fisheries (Ltd.).....	7,415	2,067	.....	9,482	970	.....	.....	.....	970	Cases.
Canadian Fish & Cold Storage Co. (Ltd.).....	5,600	.....	.....	5,600	1,700	.....	.....	.....	1,700	23,898
Total.....	47,281	4,831	13,933	66,045	12,156	3,993	2,498	.....	18,647	9,300
Rivers Inlet Dist.:										
B. C. Packers' Association.....	.....	.....	.....	.....	.....	22	53	.....	75	164,055
A. B. C. Packing Co. (Ltd.).....	1,000	.....	.....	1,000	.....	.....	.....	.....	.....	23,887
J. H. Todd & Sons B. C. Canning Co. (Ltd.).....	1,000	.....	.....	1,000	3,380	.....	.....	.....	3,380	8,165
Kildala Packing Co. (Ltd.).....	.....	.....	.....	.....	205	.....	.....	.....	205	12,080
Wallace Fisheries (Ltd.).....	.....	.....	97	97	.....	.....	.....	.....	.....	7,468
Total.....	2,000	.....	97	2,097	3,585	22	53	.....	3,660	9,217
Naas River Dist.:										
B. C. Packers, Association.....	3,957	.....	.....	3,957	968	.....	.....	.....	968	7,279
A. B. C. Packing Co. (Ltd.).....	6,115	.....	.....	6,115	.....	.....	431	.....	431	68,096
Kincoeth Packing Co. (Ltd.).....	10,467	.....	.....	10,467	1,773	.....	.....	.....	1,773	11,703
Total.....	20,539	.....	.....	20,539	2,741	.....	431	.....	3,172	19,363
Outlying districts:										
B. C. Packers' Association.....	3,200	.....	546	3,746	5,800	.....	92	.....	5,892	22,357
A. B. C. Packing Co. (Ltd.).....	10,941	1,311	5,198	17,450	2,860	403	1,699	.....	4,962	10,869
Kildala Packing Co. (Ltd.).....	6,233	.....	.....	6,233	151	.....	.....	.....	151	19,598
B. C. Canning Co. (Ltd.) (Victoria).....	2,022	.....	.....	2,022	693	.....	.....	.....	693	4,926
Clayoquot Sd. Can. Co. (Ltd.).....	.....	.....	.....	.....	269	.....	.....	.....	269	13,551
Quathiaski Canning Co. (Ltd.).....	5,239	.....	.....	5,239	3,256	.....	.....	.....	3,256	50,370
J. H. Todd & Sons (Esquimalt).....	3,300	3,800	3,700	10,800	3,500	.....	870	.....	4,370	78,331
Wallace Fisheries (Ltd.).....	4,362	.....	120	4,482	2,502	.....	1,178	.....	3,680	12,064
John Wallace.....	8,709	.....	439	9,148	686	413	.....	.....	1,099	18,463
Jervis Inlet Canning Co. (Ltd.).....	5,122	.....	.....	5,122	.....	.....	.....	.....	.....	17,103
E. Bella Bella Packing Co. (Ltd.).....	8,746	.....	1,752	10,498	2,329	.....	442	.....	2,771	1,784
B. C. Fisheries (Ltd.).....	.....	.....	1,701	1,701	.....	.....	.....	.....	.....	16,840
M. DesPrisay & Co.....	10,292	.....	.....	10,292	352	.....	.....	.....	352	32,150
Drumey Fisheries (Ltd.).....	5,000	.....	2,500	7,500	4,100	.....	1,100	.....	5,200	336,268
Total.....	73,166	5,111	15,956	94,233	26,498	816	5,381	.....	32,695	
DISTRICTS.										
Fraser River.....	5,813	2,986	1,174	9,973	7,957	2,457	553	658	11,648	732,059
Skeena River.....	47,281	4,831	13,933	66,045	12,156	3,993	2,498	.....	18,647	164,055
Rivers Inlet.....	2,000	.....	97	2,097	3,585	22	53	.....	3,660	68,096
Naas River.....	20,539	.....	.....	20,539	2,741	.....	431	.....	3,172	53,423
Outlying.....	73,166	5,111	15,956	94,233	26,498	816	5,381	.....	32,695	336,268
Grand total ...	148,799	12,928	31,160	192,887	52,937	7,288	8,916	658	69,822	1,353,901

British Columbia pack by districts, previous years.

	1912	1911	1910	1909	1908	1907	1906
Fraser River.....	173,921	301,344	223,148	567,203	89,184	163,116	240,486
Skeena River.....	254,258	254,410	222,035	140,739	209,177	159,255	162,420
Naas River.....	137,697	65,684	39,720	40,990	46,908	31,832	32,534
Rivers Inlet.....	71,162	101,066	129,398	91,014	75,080	94,064	122,878
Outlying.....	339,538	226,461	147,900	127,974	122,330	99,192	71,142
Total.....	996,576	948,965	762,201	967,920	542,689	547,459	629,460

	1905	1904	1903	1902	1901
Fraser River.....	877,136	128,903	237,125	327,095	990,252
Skeena River.....	114,085	154,869	98,669	154,875	126,092
Naas River.....	32,725	19,085	12,100	23,218	14,790
Rivers Inlet.....	83,122	94,295	69,390	70,298	66,840
Outlying.....	60,392	68,745	56,390	50,496	38,182
Total.....	1,167,160	465,894	473,674	625,982	1,236,156

	1900	1899	1898	1897	1896
Fraser River.....	316,522	510,383	256,101	860,459	356,984
Skeena River.....	128,529	108,026	81,214	65,905	100,140
Naas River.....	18,238	19,443	18,953	20,847	14,649
Rivers Inlet.....	75,413	71,079	104,711	40,207	107,468
Outlying.....	46,711	23,566	23,162	128,059	22,329
Total.....	585,413	732,437	484,161	1,015,477	601,570

Mr. FREEMAN. Probably because the number of sockeyes spawning in the off years is much smaller.

Mr. LINTHICUM. I want to suggest that the State of Washington and British Columbia are not the only localities that have not been able to come together. The State of Maryland and the State of Virginia, which the chairman of this committee represents, were for 100 years trying to get together on the fishing question of the Potomac River, and our experience has been, at least my experience has been, that the fishermen are so close to the legislature of the State that when it comes to the fishing question and doing away with these pound nets, or lessening their number, it is absolutely impossible to get the legislature to do anything. I presume in the Fraser River, like the Chesapeake Bay, those pound nets are innumerable along the shore, are they not?

Mr. FREEMAN. No, sir; gill nets.

Mr. LINTHICUM. That is worse, is it not, because you lose a lot of them?

Mr. FREEMAN. I would not care to express an opinion on that.

Mr. LINTHICUM. The great trouble is that a fish running into one of those gill nets or pound nets, extending out from the shore, is not able to get up to the spawning ground, and I notice in this regulation No. 64 here, it is the intention to limit the number of those nets so that some of them can get up to the spawning ground. Do you know anything about the catching of fish there, and how they have been depleted in the Fraser River?

Mr. FREEMAN. The claim is made on the part of the Americans that the fishing is carried on to extremes in the river at times. That is one of the arguments that, I presume, if you have up the question of the boundary line and fisheries in those States, there will always be more or less argument about.

Mr. FAIRCHILD. I would like to ask the witness if it is not a fact that the figures he presents there really do not mean anything?

Mr. FREEMAN. Oh, yes; they do. Before I answer that I would like to have you outline what you refer to.

Mr. FAIRCHILD. In respect to this: If you get a certain number of million pounds one year is it not quite probable that under the most improved conditions another year you may get a quarter of the catch; that is, the industry, in its development, is absolutely uncertain?

Mr. FREEMAN. It is a fluctuating industry, yes, sir; to some extent.

Mr. FAIRCHILD. I would say to the committee that I speak because I was formerly an officer of the Pacific Packing & Navigation Co. I was up there for some time. I was chairman of the reorganization committee of that company and I have had some very bitter experience in the development of the salmon industry up there. Therefore, I speak in a semiofficial way; that is, I have had experience.

Mr. FREEMAN. Well, it is true that the industry is a fluctuating one. It has ever been so since the industry began its first development.

The CHAIRMAN. You have not explained why there was so much fluctuation.

Mr. TOWNSEND. In answer to the chairman's question, I will say that these figures, which I have asked be incorporated in the record, will explain the situation to the committee. Mr. Freeman, in 1913 you consider that the fourth year—

Mr. FREEMAN. Of the sockeye run?

Mr. TOWNSEND. That the sockeye ran up the river?

Mr. FREEMAN. Yes, sir.

Mr. TOWNSEND. Now, in 1913 it appears here—reducing this to values rather than cases—that it is \$13,000,000 and over?

Mr. FREEMAN. Yes, sir.

Mr. TOWNSEND. Now, the year before—and I suppose this is what the chairman had in mind to inquire about—it is only \$2,000,000?

Mr. FREEMAN. Yes, sir.

Mr. TOWNSEND. That is largely due to the small run of what you call the sockeye?

Mr. FREEMAN. Yes, sir. Here is the sockeye [indicating].

Mr. TOWNSEND. I find here, Mr. Chairman that in 1913, when the value of the cases is put down in Mr. Freeman's figures at \$13,000,000, the sockeye cases were 1,673,099 cases. The year before, 1912, it was only 184,000 cases.

The CHAIRMAN. Do not the sockeye spawn but once in four years?

Mr. FREEMAN. No; or rather in some manner, we know not how, the runs have been developed on the fourth year.

The CHAIRMAN. Do they not spawn every year?

Mr. FREEMAN. Yes, sir.

The CHAIRMAN. Would not that spawn come within four years from that time?

Mr. FREEMAN. There does not seem to be an established run, or perhaps supply, in the alternate years on those streams. That question is a scientific one which I would like to have you put up to Dr. Smith.

Mr. CLINE. Mr. Chairman, this gentleman seems to be an expert in this line. I understand him to say that the run of certain species of salmon occurs once in every four years.

Mr. FREEMAN. On a large scale, yes, sir.

Mr. CLINE. Is there any difference in quantity between the four or five different species that you have in the runs?

Mr. FREEMAN. Yes, sir; that varies. You will find some very interesting features in this table. Yes, sir; it varies quite a little bit.

Mr. CLINE. What did you have of this same run four years before that, in 1909?

Mr. TOWNSEND. Do you mean cases or dollars?

Mr. CLINE. In 1913, in dollars?

Mr. TOWNSEND. In 1913, as I have read from these figures, the total cases—this is, of all varieties—was 2,583,463.

Mr. CLINE. What was it in 1909?

Mr. TOWNSEND. In 1909, 1,632,949, which is in excess in cases of anything between 1909 and 1913.

Mr. CLINE. What was it in 1905?

Mr. TOWNSEND. Again the same thing happens here. It is 1,018,641, and there are no million figures intervening. It runs down to 430,000.

Mr. CLINE. So the fourth year catch is gradually increasing?

Mr. TOWNSEND. It is not only larger in comparison with any other year, but increasing, as you say.

Mr. CLINE. I mean the regular fourth year period is gradually increasing?

Mr. FREEMAN. Yes, sir; that is, the product is increasing.

Mr. TOWNSEND. The cases, beginning with 1901, is 1,380,590. Then the following three years it runs down to 291,000.

Mr. FAIRCHILD. Mr. Freeman, the production is increasing because greater effort is making all the time to increase it?

Mr. FREEMAN. That also is a question that I would like to have you discuss with Dr. Smith.

Mr. CLINE. I would like to ask you this question, Mr. Freeman: You quote 1,186,000 cases in 1905?

Mr. FREEMAN. Whatever the record there shows.

Mr. CLINE. Well, if I have it correctly stated—1,186,000 cases in 1905.

Mr. FREEMAN. It is 1,018,641.

Mr. CLINE. Yes. Now, why could you not have taken just that many in 1906?

Mr. FREEMAN. The fish evidently were not there.

Mr. CLINE. I only want to ask you one more question. I would like to ask you for an explanation, or your opinion, about this matter: We limit the catch, for instance, of the seals on Pribilof Islands by international agreement, over which the Federal Government, of course, has supervision. We limit the catch of fish on the New-foundland shores and some other international boundaries. Why should the Government not exercise the same supervision in Puget Sound over the catch of salmon? Why should the people of the Pacific coast be exempted from the supervision of the Federal Government and have that preference as against the other sections of the country?

Mr. FREEMAN. That is a matter for determination after careful consideration for the Government to fix a definite policy. I am not here to advocate the passage of this treaty so much as to let it be known that at least we are disposed to be fair and reasonable, and to leave it not in a spirit of opposition on the part of the fishing interests generally of Puget Sound.

Mr. CLINE. Do you not think there ought to be some intervention when in four years you can double your catch by a million cans there? Would it not tend very rapidly to exterminate them?

Mr. LINTHICUM. Six hundred thousand cases?

Mr. CLINE. I mean merely cases instead of a million cans.

Mr. FAIRCHILD. My observation is that that does not have the slightest influence. My observation comes from a certain limited experience, but would you not sustain me in the observation that a catch of 13,000,000 one year would not necessarily imply that there would be a lack of fish the next year?

Mr. FREEMAN. Not at all——

Mr. FAIRCHILD. They die; they kill themselves anyway, and my observation is that it is a matter that even the expert of experts does not understand and can not explain.

The CHAIRMAN. The life of the salmon seems to be four years.

Mr. FREEMAN. The sockeye mature in four years, and if not caught and used for food they die anyway.

Mr. LINTHICUM. The object of this bill is this: The gentleman from New York, Mr. Fairchild, asked a few minutes ago whether the increase in the pack was due to extraordinary efforts in getting fish. That is absolutely correct. Each year there seems to be some new trap devised for catching the fish. The pound net was first invented in 1884 by somebody—I have forgotten whom. That is a long wing that runs out into the water and all the fish coming up strike that wing and fail to get through, or to get by it, and they finally land in the trap. They have those. Then they have what is called the floating gill net. That is a thing that is stuck in the river and the fish may get gilled in that or may not. If he does not he goes on up the stream. Then they have an anchor gill net. That is a net that is anchored from the shore to the outside and all the fish that go up against that are held. Every kind of machinery has been devised for the trapping of fish. The old seine hauling fellow has gone out of existence, except where the tide is so strong that they can not trap them at all. That accounts for the increase.

Now, the object that Dr. Smith has is this: If you keep on trapping fish by innumerable nets as they go up the Fraser River, you would have that many less to go to the spawning grounds, and you find that in 1913 the pack may amount to more; that by increased effort it is going to gradually decrease, and the object of this bill and of Dr. Smith is to at least let some of the fish go up to the spawning ground. He says if you can let 10 per cent of the fish go up to the spawning ground he can keep up the supply. If those people are allowed to increase the number of nets constantly, and the traps, and every manner of catching them, they can not go to the spawning ground and can not increase. The gentleman says they do not use them for fertilizer. I am informed that in these pound nets they have so many of

the fish crowded in there that many of them die. Those fish are used for fertilizer.

Mr. FREEMAN. That is not correct.

Mr. LINTHICUM. And I find a provision in the regulations providing that the capture of fish for oil or fertilizer is prohibited.

Mr. TOWNSEND. Mr. Chairman, I have a great respect for Brother Linthicum's ability and knowledge of fisheries, as I heard him yesterday and know he is a good fisherman. But these figures here do not bear out his contention that the increased facility or apparatus used in catching fish increases the catch each year.

Mr. LINTHICUM. I did not say each year. I said each four years.

Mr. TOWNSEND. These figures are interesting. If I carry them back correctly, in 1909—and I am now reading from page 40 of the publication already indicated in the record—there were cases caught and packed, 1,632,949. Now, the next year, in spite of whatever increase and improvement there was in the facility for catching, there was only 567,883—about one-third.

Mr. LINTHICUM. Right there—

Mr. TOWNSEND. Let me give these figures and conclude this summary. The following year, 1911, there are 1,557,029 cases caught and packed. Then in 1912, concerning which Mr. Cline asked, there were only 416,125—again something less than one-fourth, or about one-fourth. Then again in 1913 we come up to the enormous sum of cases caught and packed, 2,283,791, showing the error of your contention that the improved facilities or apparatus increases the catch every year.

Mr. LINTHICUM. I want to say to the gentleman from New Jersey that we are trying to demonstrate to him that these fish only come up this river at the spawning season and they only spawn every four years and when they spawn they die. They are due again in 1917—I do not know whether that is locust year—

Mr. FREEMAN. It is the year after the presidential election and there will be a big run of sockeye.

Mr. CLINE. Do you get any sockeye salmon at any other time than every four years?

Mr. FREEMAN. They are comparatively small runs.

Mr. CLINE. But you do get some?

Mr. FREEMAN. Yes, sir.

Mr. CLINE. Then your rule is not exactly good, is it?

Mr. FREEMAN. In what respect?

Mr. CLINE. In the respect that they only come once in four years and a great many die.

Mr. FREEMAN. I do not mean to say that they all come once in four years but it is supposition—and a great deal of our information, or some of our information, is obliged to be supposition because investigations have not altogether been completed, although I think you will find that scientists generally agree to this that in this territory, for some reason, we know not when, but a long time ago, there may have been an obstruction in the rivers or in the streams which might have prevented fish from going up and spawning that year. Now they do run in those cycles of four years. That we also know. This last summer, during the very height of the sockeye

run, when fish were proceeding up the Fraser, owing to railway construction on the bank of the river—blasting—a slide occurred in the Fraser, causing a portion of the stream to be choked up and causing a cataract, practically, or rapids so strong that the fish accumulated in great numbers below and were unable to get up until provision, by blasting out the channel and otherwise, was made by which this obstruction was taken out of the stream.

Mr. TOWNSEND. And my brother built that railroad.

Mr. FREEMAN. The Canadian Northern?

Mr. TOWNSEND. Yes. The Fraser River division.

Mr. FREEMAN. There you are. The brother of this gentleman is perhaps responsible for the obstruction in the Fraser.

Mr. CLINE. Let us have your opinion about this, as it may give the committee some information. As much as you know about salmon fisheries up there and the necessity for their preservation, don't you believe that the Government ought to take sufficient steps to keep your people from catching all the salmon before they could go up the river, so as to preserve a uniform stock year after year, and let the salmon go up the river and spawn?

Mr. FREEMAN. I say that some plan should be devised by which the industry be maintained—not that the industry shall be harassed by unreasonable regulations, or long-distance supervision, by beaurocracy pure and simple, because those fish, when mature, if not caught, go to waste. They are one of the most valuable food products. If, in its judgment, the administration decides to put into effect regulations which will provide a proper supply to go to the spawning grounds, and will follow it up by some proper hatcheries—and we believe they should be of sufficient magnitude on the Fraser—if there is any way in which the industry is going to be maintained, it is going to be by some such plan as that.

Mr. CLINE. What do you mean by "beaurocracy"? I do not understand that term.

Mr. FREEMAN. When I say that I mean—as I tried to imply awhile ago, and I intend that without prejudice—that we have a feeling that when matters are administered by the Federal Government out in our country, they are not always fully considerate of the fact that we are human folks.

Mr. CLINE. We do very well by you people. We gave you five or ten million dollars, something like that, to hold an exposition out there.

Mr. FREEMAN. In San Francisco. I do not think it paid 5 cents.

Mr. CLINE. Yes, it did.

Mr. FREEMAN. It is true that we see a ray of light in the construction of the Alaskan railroad.

Mr. TOWNSEND. I infer from what you said a moment ago that you want laws passed that will provide regulations that will permit enough salmon to go up. Is 10 per cent enough for that?

Mr. FREEMAN. I would not say. You had better ask Dr. Smith. He is the man to say.

The CHAIRMAN. After these salmon have spawned can any use be made of them? Are they utilized?

Mr. FREEMAN. No; they proceed in the natural course clear to the headwaters of the river, and they wear themselves out. They

are scarred and bruised and they turn a dirty red color. They go up for hundreds of miles and spawn there. Now, before it leaves my mind I would like to call your attention——

The CHAIRMAN. What I wanted to know was, do you ever catch them and can them, or make any use of them?

Mr. FREEMAN. No. They die. They go up to the headwaters.

The CHAIRMAN. As I understand it, you approve of this bill?

Mr. FREEMAN. I wish to be put on record, and I will endeavor to do it in exact language. Our people have been opposed to this measure. We do not wish under the circumstances to have the Government feel that the canning interests are opposing any meritorious measure for the preservation of the industry.

The CHAIRMAN. Under the circumstances, you do not oppose the passage of this bill?

Mr. FREEMAN. No, sir. I would like to conclude by making one remark in the record in reference to gear. Congressman Linthicum gave a description of the classes of gear used in these waters, including traps, gill nets, etc., but you remarked that the purse seining was no longer in use.

Mr. LINTHICUM. That is my impression.

Mr. FREEMAN. I would like to call your attention to the fact that the development of the modern motor vessel that we use in purse seining has increased very rapidly. Approximately 60 per cent of the salmon caught on Puget Sound this year were caught with the purse seine. I have some official figures here in reference to the classes of gear in Alaska. In southeast Alaska, during 1913, the purse seines caught 48 per cent—perhaps 50 per cent, and the gill nets, 2 per cent. Gill nets are used up there only in a very few sections.

Mr. TOWNSEND. How long are the wings of those purse seines?

Mr. FREEMAN. The standard purse seine used on Puget Sound is 260 fathoms (1,560 feet) in length and 24 fathoms (144 feet) in depth.

Mr. TOWNSEND. Do they allow those to continue, one after another offshore; and for how many feet?

Mr. FREEMAN. I will show you a few of the purse seines here in my publication, which illustrates a typical scene among the purse seiners. There they are [indicating] in operation on the salmon banks. There is the purse; you can see the size of it. That was put out, and they are getting ready to haul it in.

Mr. TOWNSEND. Do they use a pound net?

Mr. FREEMAN. Yes; here is an illustration.

Mr. TOWNSEND. They are absolutely smothered there.

Mr. FREEMAN. What do you mean by smothered?

Mr. TOWNSEND. They drown.

Mr. FREEMAN. That is not correct. They take them out and put them in a barge and immediately transport them to the cannery.

Mr. TOWNSEND. Have you an illustration of the pound itself?

Mr. FREEMAN. No. In six hours these fish will be canned.

Mr. TOWNSEND. They do not smother in that pound?

Mr. FREEMAN. No. As a matter of fact, they will keep alive in a pound net. I do not mean to be making an argument now as to the relative values of these; that is a matter really for investigation in the proper way. This gentleman [Mr. Cline] stated that I seemed to be something of an expert. I wish to disabuse his mind in that re-

spect. I am a newspaper man. I am a publisher of a technical journal devoted to fisheries, and there is a lot that I do not know. All I wish to say is to express in behalf of these people the fact that this matter is now before you for action, and we do not want to be put in the embarrassing position of seeming to be opposed unduly to any legislation for the benefit and maintenance of the industry.

Mr. LINTHICUM. I would like to say to Mr. Freeman that I do not want him to understand that I am endeavoring to injure the industry in any way. My sole idea is to try to regulate the catching of fish so that enough can go to the spawning ground, and thereby prevent injury to the industry.

Mr. Freeman was thereupon excused and the committee adjourned.

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