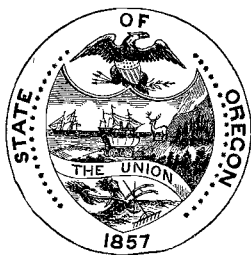


FIRST  
REPORT  
OF THE  
STATE BOARD OF FISH COMMISSIONERS  
TO THE  
GOVERNOR OF OREGON.

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1887.

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SALEM, OREGON:  
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1888.

FIRST ANNUAL REPORT  
OF THE  
OREGON FISH COMMISSIONERS

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*To Sylvester Pennoyer, Governor of Oregon:*

Herewith we hand you our first annual report.

The commission organized and filed their bonds with the Secretary of State on the 29th day of March, and early in April examined the property of the Oregon and Washington Fish Propagation Co., situated on the Clackamas at the mouth of Clear creek. This site is considered better than any other on the Columbia or its tributaries, and was selected by Prof. Livingston Stone after a careful examination of all other places deemed suitable. We found that with some repairs on the hatchery and dwellings they could again be rendered suitable for occupation. We leased this property from the company for the term of two years, with the privilege of two years more for the nominal sum of one dollar, the State to pay all taxes now due or delinquent, and all accruing taxes during the term of the lease. ✓

After the lease was made we commenced repairs of the buildings and made preparations to build a rack across the Clackamas river, a short distance above the hatchery, and a dam across Clear creek, about 1,800 feet from the above named building; also a flume to bring the water from the dam to the hatchery.

Mr. P. Paquet being highly recommended as a successful builder of dams, etc., we let the contract to him to construct the dam and rack for the sum of \$1,600.

The rack was to be completed by June 15, or as soon thereafter as the water, weather, and other existing circumstances would permit; but owing to the very late and exceeding wet spring the river kept

up later than usual, and it was impossible to complete the rack until the first of July, consequently some of the early salmon upon which we depended for a part of the supply of eggs for the hatchery passed on up the river.

The dam across Clear creek was completed in a way on the 20th of September, but owing to the sandy and treacherous nature of the right bank of the creek it did not stand twenty-four hours, but undermined and broke a section of the wood-work. We then found that it would be necessary to remove that bank, which we did by repairing the dam and confining the water so that it would undermine and sluice out the sand, then filling in with gravel and brush, until now the dam is completed and on a good foundation, so we hope it will stand for years, giving us a large and excellent supply of water. The extra cost on the dam is \$500, making the total cost \$1,500. During the time that we were delayed in getting water from the dam, a scant supply was obtained from a small brook not far from the hatchery, which enabled us to take salmon eggs all this time when they could be obtained.

We were very fortunate in securing the services of Prof. W. F. Hubbard, who has had large experience in hatching salmon, having been employed with Prof. Livingston Stone for five years.

#### OPERATIONS AND RESULTS OF THE LAW.

We have labored under serious difficulties in enforcing the law, some of which we will mention, and you will readily see that it was impossible to enforce the literal law.

First. The law was enacted in 1878, and was very well observed for one year; the second year there were many violations, and the past six years the law has been a dead letter on the statutes, and the only notice taken of any law governing the taking of salmon from the waters of the Columbia river, was by the Washington Territory legislature in 1881, when they repealed that part of the law making September a close month, which is another obstacle in enforcing the close law.

A great deal of fishing gear has been constructed during the past six years, or since the law was allowed to become inoperative, and had the literal law been enforced this year, private property to the amount of \$200,000 would have been rendered worthless, and while owing to the wealth of the packers they could have borne the loss without serious hardship, but it is not so with the fishermen who have their all in their fishing gear, and that being the only means of the support for their families.

Second. The greatest difficulty in enforcing the law is the want of funds. As fishing is carried on from the mouth of the Columbia to Celilo, a distance of over 200 miles, from the mouth of the Willamette to its falls, a distance of 25 miles, and up the Clackamas for 20 miles, and most of the fishing being done during the night, you will plainly see that it is impossible for one man or even three to see that the law is enforced at all points at the same time. In order that the literal law may be enforced it would be necessary to station a river police at the principal fishing centres.

While the commission are not required by law to act as policemen, or empowered to make arrests, they have done all they could to have the law enforced, and accomplished it in a quiet way and with better success than if arrests had been made in all cases of violation.

In regard to the weekly close time, we will say that this part of the law had it been enforced would have fallen entirely on the fishermen, and owing to the heavy fine of \$500, or one year's imprisonment, we were advised by good authority not to enforce this part of the law.

Again, in regard to the close time of August and September, the commission did all they could to have this part of the law enforced and met with much better success than we anticipated from the fact that there was only one of them that could attend strictly to the enforcement of the law. The President being constantly employed at the hatchery to see that the work going on there was done economically and well, and Mr. Campbell having business which called him away for several weeks, left this work almost wholly with Mr. Thompson, who performed effective work when we take into consideration the fact that his field of operation was large, and that it took several days to visit all points. But by going about it quietly, avoiding as much as possible the fact that the lash was in our hands, we saved much expense to the different counties, as well as the State, and succeeded in having all the canneries closed down in a few days.

A few fishermen may have taken fish after the canneries closed, but the amount so taken was small, and as in case of weekly close time we were advised not to look so much after the fishermen, but to stop the packers.

Complaint was made to the commission early in August that a certain fish dealer in Portland was violating the law by buying and selling chinook salmon during the close months. We had the party arrested and the case brought before the grand jury, but the

evidence against him was not sufficient for them to find an indictment, so he was released.

Complaint was also made on August 15th, that a fish wheel was running on the upper Columbia in violation of the law. The commission immediately visited said wheel and found that it had not taken any fish after the 8th, when the owner was notified by the commission to shut down or the law would be applied. So we think that the intent of the law was carried out, there being but few salmon taken in the aggregate after the first of August.

We will add under this head that the wording of the present law is insufficient to make it operative in all its parts, and at the proper time we will recommend a few changes.

#### METHODS OF FISHING.

There are the dip-net, seine, gill-net, trap, pound-net, and the wheel. Each of these methods is used where the conditions make most suitable. The gill-net, which is the most extensive mode, is used all along the Columbia where fishing is carried on, and on all or most all of the streams of the State. The seine is used on all the waters of the State, but much more extensively on the streams south of the Columbia. The traps are used in the Columbia from Astoria to St. Helens, but are not very numerous. The pound-net is mostly confined to Baker's bay. The wheels are used near the cascades and the dalles in swift water.

#### HATCHERY.

We will be unable to give a full report of this year's work under this head as the spawning season does not commence until September, and continues until the early freshets.

After the eggs are taken to the hatchery it takes from forty to sixty days to hatch them out, according to the temperature of the water.

Owing to the late run of salmon this season, we did not take any spawn until the latter part of September, and on account of a freshet in the Clackamas about the 10th of November, we took but few eggs after that date. We have taken 1,500,000 eggs and are having very good success, being able to hatch out 90 per cent. of them.

There are at this time about 100,000 young fry in the hatching house. They are not ready to turn out yet nor will they be until

they are clear of the egg which remains from five to seven weeks after they are hatched.

At the present it is our intention to turn the greater part of the young fry into the Clackamas at or near the hatchery, as we have not sufficient funds this year to meet the additional expense of providing the necessary means for distributing them in different parts of the State. We shall try, however, to put a small part of them into the upper Columbia, and some into other streams where we think they will do well, and we hope another year to be able to put some young fish into all the good salmon streams of the State which are tributary to the Columbia or Willamette rivers.

## EXPENSES INCURRED.

FOR WHAT.	AMOUNT.
Building account, including repairs on buildings, construction of rack, dam and flume.....	\$ 2,364 26
Hatchery expenses.....	3,406 69
Total.....	\$ 5,770 95

## STATISTICS OF THE FISHING INDUSTRY OF THE STATE.

As near as we can ascertain the pack of salmon on the Columbia river for this year is 354,000 cases, spring pack, and 25,000 cases, full pack, making a total of 379,000 cases. The spring pack fell short 94,000 cases as compared with that of 1886, notwithstanding the fact that the season was fished throughout, that the summer freshet was unusually high and long, and that there was an increase of fishing gear over the preceding year. The pack of the streams of Oregon south of the Columbia is about 100,000 cases, the largest and we think the best pack ever made on those streams, which shows the growing importance of this industry.

The total value of the Columbia river and the Oregon pack is about \$2,500,000. The amount disbursed at home by the canners of the salmon industry is near \$1,700,000, and the direct revenue to the State from this great industry must be at least \$30,000 annually.

The amount of fresh salmon consumed and shipped east will certainly reach 2,000,000 pounds, and we can expect a large increase in the eastern trade from year to year, as the Pacific coast salmon are rapidly growing in favor.

We estimate the number of salmon taken from the Columbia dur-

ing this year to be 1,200,000, and from streams wholly within the State to be 500,000.

The total pack of the Pacific coast will reach 787,000 cases, a large pack, but still hardly enough to meet the demands of the market.

We estimate the value of the canning property in the State at not less than \$500,000, and the fishing gear at \$700,000.

In conclusion, we would say that the salmon industry is very great and its preservation should be uppermost in the minds of the people of this State, and all just measures for its preservation should be observed; still we think that a too hasty resort to the courts under the existing law is not to be recommended. But now, as there is a general desire amongst canners and fishermen to obey the law, we think there will be no great difficulty in enforcing the close months during the coming year.

It is our opinion that a liberal supply of salmon can be maintained in any stream by artificial propagation, and we think that there should be one or two more such institutions on the Columbia river or its tributaries.

For propagating purposes we think a longer close time in the spring would be better for this reason, the salmon that come early have a better chance of reaching the head waters where they can be taken for artificial hatching, or can hatch naturally, while the late salmon often ripen before reaching the spawning grounds, and consequently are an entire loss so far as increasing the supply.

Our funds being inadequate for repairs and constructions necessary to put the hatchery in operation and maintain it for two years, we circulated a subscription list for one cent a case among the canners on the Columbia river, and obtained twenty-two signatures, representing about 209,000 cases of salmon.

We would recommend that no foreign fish be put into the Columbia or any of its tributaries for the reason that a great many varieties of fish are an enemy to salmon, such as catfish, and as we now have the best fish in the world it is a dangerous experiment to plant other fish indiscriminately.

In connection with our report we will say that we received a communication from Prof. Livingston Stone, superintendent of Pacific coast division of fish and fisheries, a copy of which is hereto attached. We immediately accepted the proposition of Prof. Stone by telegraph and letter. Several days later we received a communication from Hon. J. N. Dolph, enclosing a letter from Prof. Goode to Senator Dolph, also a copy of a letter from Senator Dolph to your

excellency, copies of which are hereto attached. We think the proposition of Prof. Stone, if carried out, will be of much greater benefit to the State than the one suggested by Prof. Goode and sanctioned by Senator Dolph; as in the former the eggs will be taken from the genuine chinook salmon of the Columbia river or its tributaries, which are superior to any on the Pacific coast, while in the latter case they propose to operate the hatchery on the McCloud river, in California, for the purpose of furnishing eggs to the Oregon hatcheries, in which case we would introduce into our waters an inferior quality of salmon to those we now have. These terms would be very good had our supply of chinook salmon become so small that we could not get enough mature fish from which to obtain a supply of eggs for artificial propagation.

We think with a small annual appropriation from the State, in connection with the proposition offered by Prof. Stone, enough mature salmon can yet be taken in our streams to obtain a supply of eggs to restock our rivers with a generous supply of good salmon.

Respectfully submitted,

F. C. REED,  
E. P. THOMPSON,  
R. C. CAMPBELL,  
Commissioners.

U. S. COMMISSIONER OF FISH AND FISHERIES, }  
WASHINGTON, D. C., October 13, 1887. }

[J. BROWN GOODE, COMMISSIONER.]

*F. C. Reed, Chairman Oregon Fish Commission:*

DEAR SIR:—The U. S. fish commission is considering the question of erecting in the Columbia river basin a salmon breeding station for the sole benefit of the Columbia river. It is quite possible that the funds of the commission will only enable it to collect the eggs and bring them forward to a partial state of development, probably to an age of from ten to thirty days.

In view of these facts the commissioner requests me to enquire whether the Oregon fish commission, possibly with the co-operation of the Washington Territory commission, would, provided the U. S. fish commission brought the eggs to the point of development just mentioned, receive the eggs at that stage and assume the responsibility of hatching them and distributing the young fry in the Col-



umbia or its tributaries without further expense to the United States.

Allow me to add that the gratuitous use of the station in which the eggs were first developed would undoubtedly be given to the Oregon fish commission, if desired, for the purpose of hatching and distributing the fish.

If the above proposition should be favorably received, the U. S. fish commission would probably collect and present to the Oregon fish commission, without charge, from four to eight million eggs annually.

Very respectfully,

LIVINGSTONE STONE,  
General Supt. Pacific Coast Division.

UNITED STATES SENATE,  
WASHINGTON, D. C., October 31, 1887. }

*Hon. F. C. Reed, President of the Oregon Fish Commission, Astoria, Oregon:*

MY DEAR SIR:—Enclosed please find copies of a letter this day received from Hon. G. Brown Goode, U. S. fish commissioner, and of a letter from myself to Governor Pennoyer. They are self explanatory.

Sincerely yours,

J. N. DOLPH.

U. S. COMMISSION OF FISH AND FISHERIES,  
WASHINGTON, D. C., October 29, 1887. }

[G. BROWN GOODE, COMMISSIONER.]

*Senator Dolph, No. 8 Lexington Place, Washington, D. C.:*

DEAR SIR:—Having given careful consideration to the existing laws of Oregon and Washington Territory relating to the protection of salmon in the Columbia river and its tributaries, I have concluded that the limitations imposed in the Act of Congress of March 3, 1887, making an appropriation of ten thousand dollars for the erection of a salmon hatchery on the Columbia river or its tributaries have been complied with, and I desire to inaugurate meas-

ures looking to the building and equipping of the hatchery in full time for work next season.

The site provisionally selected as most convenient and desirable for our work is near the mouth of the Clackamas, the only alternate location so far as our information goes being at or near the mouth of the Spokane river, in Washington Territory.

The preferable location is that on the Clackamas, but this being already occupied by the Oregon State commission, we will necessarily be constrained to select the Spokane unless some arrangements mutually advantageous can be made between the United States and the Oregon commission, by which the location on the Clackamas can be transferred to the United States.

As it is greatly desirable that a definite decision should be arrived at with as little delay as possible, I avail myself of your active interest in all matters relating to the interest of the Pacific coast States to request your intervention to secure such concessions from your State commissioners as will give us possession and control of the location on the Clackamas.

In connection with the work on the Columbia, it is contemplated to reopen and operate the station on the McCloud river, California, and from this station to draw such supply of eggs as may be needed to supply the Columbia river stations, State as well as United States, with as many eggs as they can handle.

Very truly yours,

G. BROWN GOODE,  
Commissioner.

*Governor Sylvester Pennoyer, Portland, Oregon:*

DEAR SIR:—You will recollect that at the last session of congress, after several previous unsuccessful efforts to secure an appropriation, an amendment offered by me was secured to the sundry civil appropriation bill by which there was appropriated "For the establishment of a salmon hatchery upon the Columbia river, its tributaries or their branches, ten thousand dollars," but with the following provision: *Provided*, "That if, in the opinion of the United States fish commissioners, the existing laws of Oregon and Washington are not sufficient for the protection of salmon in the Columbia river and its tributaries, this appropriation shall not be available until the legislature of Oregon and Washington Territory shall have enacted such additional legislation as, in the opinion of

the fish commissioner, shall be necessary to protect the salmon from improper capture and destruction."

You will see from an enclosed letter, this day received from Hon. G. Brown Goode, U. S. commissioner of fish and fisheries, that he has decided that the laws of Oregon and Washington are such as to render the appropriation available; that the site for the hatchery near the mouth of the Clackamas river is preferred, and if the hatchery is not located there, it is likely to go to the proposed site on the Spokane river. As you are probably aware, I have given the matter of a suitable location for a hatchery considerable attention, corresponding with different persons having information, examining the reports heretofore made on the subject, and personally visiting and inspecting the site of the old hatchery near the mouth of the Clackamas.

For many reasons, the principal one being that I believe it to be the best location yet found, I prefer the Clackamas river as the site for the hatchery. After careful inquiry I became fully satisfied, sometime since, that a sufficient supply of Chinook salmon could be obtained there, but as it is proposed by the commissioners to reopen and operate the station on the McCloud river, California, and to draw from that station such quantities of eggs as may be needed to supply the Columbia river stations, State as well as United States, this question becomes comparatively unimportant.

I have said to the officers of the commission that I feared the selection of the Clackamas by the State Commissioners would prove an obstacle to the recovery of that site by the United States.

I need hardly mention the benefits which would accrue to the people of Oregon and Washington by the establishment of the proposed hatchery under the control and direction of the U. S. fish commissioner and the expenditure of the appropriation already made.

The U. S. fish commission is now firmly established, and it is as much a matter of course for congress to make appropriations for its maintenance as for any of the departments of the government. It is the present intention of the commission to concentrate the efforts of the commission to propagate salmon to the Pacific coast, and the establishment of a hatchery by the United States on the Columbia river or its tributaries without doubt means annual appropriations to maintain the hatchery, and the solution of the question of the salmon supply of the Columbia river, while the action of the Oregon legislature at the last session is commendable and worthy of praise, the appropriations made for the support of a hatchery it will be admitted, I think, is inadequate, and future appropriations are uncertain.

If the State should change the location of its hatchery—I understand the commissioner proposes to furnish the State hatchery not only with salmon eggs but with eggs of other varieties—so that the operations of the State hatchery may be confined to hatching only. I well know the interest you will take in this subject and venture to express the hope that some satisfactory arrangement can be made by which the Clackamas will be selected at once as the site for the United States hatchery and the work immediately commenced.

You will observe that the appropriation will lapse if not expended before the expiration of the fiscal year, which is June 20th next.

Very truly yours,

J. N. DOLPH.

P. S.—I have sent a copy of this letter to Hon. F. C. Reed, President of the Oregon fish commission, and a copy to Donald Macleay, Esq., President of the Portland board of trade. I understand Professor Stone will be sent to Oregon to make arrangements for the location of the hatchery.

J. N. D.

EXECUTIVE OFFICE, Salem, Or.  
Received and filed Nov. 27, 1887.

SYLVESTER PENNOYER,  
Governor.