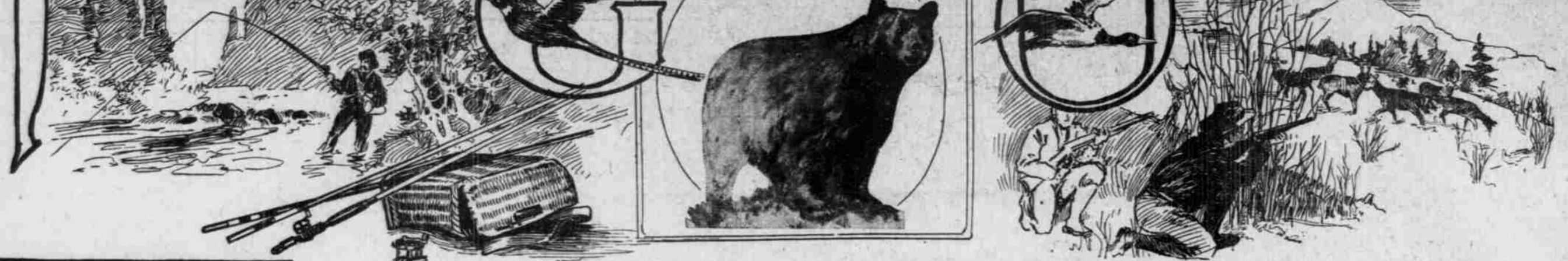


FISH AND GAME IN OREGON



the Dolly Varden trout, whose size, beauty and gamy qualities are well known; and in these and other streams in various portions of the state you will also find the Eastern brook trout, a few Loch Leven trout and many Rainbow trout, more than a million fry of which have, within the last four or five years, been planted by the Oregon Fish and Game Association.

This is an organization of sportsmen, with a membership of nearly 600, whose object is to assist in the protection and propagation of fish and game in the State of Oregon, to foster a true spirit of sportsmanship and to promote acquaintance and good-fellowship among its members.

The Best Angling Streams.

Experienced anglers, some of whom have fished in the best streams of Europe and America, and who have visited the Klamath Lake region, in Southern Oregon, are loud in their praise of its excellency. Indeed, it would be difficult to find better fishing grounds anywhere for trout or other game fish than Pelican Bay, on Klamath Lake, and the streams which flow into it, or along the Rogue, Umpqua and McKenzie Rivers. In this respect the picturesque Willowa Lake, in the north-eastern part of the state, and the numerous trout streams in the Blue Mountain region, such as the Umatilla, Mosham,

Birch and Muckay Creeks, are a close second. The Trask, Siletz, Tillamook, Necanicum, Nestucca and Yaquina, all of them coast streams, afford most excellent trout and salmon fishing; and at Yaquina Bay, one of the most beautiful sheets of water on the entire coast, you can, in season, have royal sport in fishing for that finest of large game fishes, the salmon. There you will also find a variety of salt water fishes, such as the kelp-fish, flounder and rock cod.

There are also places along the Columbia and Willamette Rivers which afford excellent sport in fishing for the steelhead and other salmon and salmon trout with hook and line. Your achievements as an angler are far from complete, and you have still a great joy to anticipate, if you have never caught a good-sized salmon in that manner. Your open hook is whirling in the swift current, and suddenly you feel a tremendous jerk; the next instant a steel-gray object leaps high out of the water and dashes it into foam. You have hooked a salmon; but hooking a salmon and landing one are very different feats, as you will fully realize after you have had a little experience. Many times before you land him, if indeed you are fortunate enough to do so at all, you will be wondering whether you will pull him out of the water or whether he will pull you into it.

gone since Oregon first became a state much has been done in the matter of fish and game protection, and the good work is still going on. A careful examination of our fish and game laws will show that they will compare very favorably with those of any other state. The trout laws are particularly excellent, as an examination of the following abstract of some of their provisions will show:

New Law Protects Game.

It is unlawful to fish for trout except with hook and line; to take trout, char or salmon less than five inches long; to take more than 125 trout in one day; to take trout from November 1 to April 1; to fish for salmon trout in any except tidal waters at that season; to fish for trout at night; to sell trout at any time; to discharge explosives or put deleterious substances in the waters. Dynamiting game fish is punishable by fine of not less than \$1000 and imprisonment.

Strenuous efforts are now being made to prevent absolutely the sale of any species of game or game fish and if this is accomplished, Oregon will stand a fair show of preserving its one-time excellence as a sportsman's paradise. To the lover of Nature, and to the healthful, invigorating sport, Oregon and its people bid a hearty welcome.

A. E. GEBHARDT, Secretary Oregon Fish and Game Association.

WEALTH FROM THE WATERS

Fisheries of the Columbia and Oregon Coast Streams Yield Millions.

DURING the 28 years that packing operations have been carried on, the salmon fisheries of the Columbia River and the Oregon coast streams have yielded an output valued at fully \$125,000,000. By far the greater portion of this product is put up in cans, although during the past few years sweet pickling and sharp freezing have come into vogue to a considerable extent. While the canning of salmon is carried on at many points on the Pacific Coast and in Alaska, the Columbia River can be rightfully termed the headquarters of the industry, as it is only here the true royal chinook, the acknowledged king of salmon, is found, and it has a ready sale in all the leading markets of the world.

The canning of salmon was first undertaken on the Columbia River in 1866, when 4000 cases were put up, reached its highest point in 1874, when over 600,000 cases, fell off as the effect of over-fishing, until the returns from artificial propagation, which was commenced in 1856, began to be felt. Since then the pack has been gradually increasing each year.

Pack Late but Large.

The season of 1904 on the Columbia River was most peculiar as well as very successful, so far as the size of the pack is concerned. During the Spring season the canneries were operated on the lower and four on the Upper Columbia, four of the former being new plants erected on the Washington side. The pack put up by these plants, and the bulk of it is royal chinook, is estimated at 273,700 cases of four dozen one-pound cans to the case, 230,400 cases being packed on the Oregon side and 43,300 along the Washington shore, whereas the Spring pack in 1903 was 24,975 cases on the Oregon side and 7,750 cases in Washington, a total of 32,725 cases. Again, five canneries, all located on the north side of the river, opened during the Fall season and put up about 28,000 cases, making the total pack on the river for the year 402,700 cases. Last year Fall packing was not engaged in to so great an extent, and only about 15,000 cases were put up.

At 60 pounds of raw fish for each case, the Spring pack on the Columbia River represents 24,342,000 pounds, which, at 5 cents per pound, the ruling price, gives a total of \$1,217,100 that was paid to the fishermen. The greater portion of the Spring pack was sold in advance at \$5.50 per case, an aggregate of over \$2,500,000. Engaged in catching the fish were 500 traps, with 1000 men; 1500 gillnets, with 3000 men; 40 seines, with 800 men; 70 fish-wheels, with 500 men, a total of 5300 men who were employed in fishing.

Close Season Was Ignored.

The runs were so small and fitful that, when the legal season closed, on August 15, but few fish had been packed, and it was not until the latter part of August that the fish, which usually enter the river during June and July, came in. With the tacit consent of the authorities in both Oregon and Washington, fishing was continued uninterrupted all through the "closed" season, with the result of a great increase in the total. The greater portion of the fish was caught by gill-nets, the trappers and seiners doing little until near the end of the season, and, although heretofore 12 or 15 tons have been considered a good season's haul for a boat, the "big boat" this year had 24 tons, and catches of 20 tons and over were not unusual.

The canneries on the Oregon coast also did well this year, putting up a total of about 25,000 cases.

With the exception of a small amount of the Fall and coast packs, all the canned product has been disposed of, and as the market is practically bare, with a strong demand at high figures, the prospects for the future have not been so bright in years.

SALMON PUT ON ICE.

Increase of Cold-Storage Pack on the Columbia River.

	1903.	1904.
Cold storage pack.....	3903.	4962.
Sharp frozen (steelheads).....	450.	500.
Sharp frozen (salmon).....	280.	280.
Totals.....	4633.	4962.

HANDLING of salmon in cold storage, or, more properly speaking, the process of sweet pickling, although of comparatively recent origin on the Columbia River, is already one of the most important branches of the fishing industry, and, judging from the rapidly increasing market for fish thus cured, it bids fair to grow for many years to come. The first attempt on the Columbia River was made in 1883, but it was not until 1897 that the industry was started on a firm footing. That year two firms were engaged in the business, and put up about 200 tons. Since then the growth has been steady, and has included the sharp freeze-

ing and shipping of large quantities of steelheads and silversides.

While the greater portion of the pack is sent to Europe, the principal market being in Germany, there is a growing demand in the East that bids fair to assume enormous proportions. When the industry was in its infancy there was much experimenting with different preparations, including salicylic and boracic acids, with the result that the pack was subjected to rigid inspection in the markets, and some of it was rejected. This experimenting has been wholly discontinued, and the cold-storage fish are now clean and wholesome, only the best grades of salt and sugar being used in the curing.

Benefit to Fishermen.

One direct benefit locally from the establishment of the cold-storage business is an increase in the price paid for the raw fish. For this process only the larger chinook salmon are used, those weighing 25 pounds or over, and usually 1 cent, and sometimes 2 cents, per pound more is paid for them than at the canneries. These plants employ white labor exclusively, and the amounts they expend each year in wages cuts a material figure in the payrolls of the district. Roughly estimated, the output of the

30 tons of raw fish to 1000 cases of the canned product, this equals 195,000 cases. As the cured fish are said to cost the packer 19 cents per pound, the cold-storage pack of the Columbia River this year represents a cash value of \$292,500 before any margin for profit is figured.

Notwithstanding the large pack, the market is practically clear. The entire output, with the exception of a few sharp frozen fish, is said to have been sold, and the demand is excellent at high figures, making the outlook for the coming season most promising.

SMALL TAKE OF EGGS.

Output of Fry at Hatcheries a Failure, Due to Several Causes.

	1903.	1904.
Chinooks.....	70,621,561	14,028,796
Silversides.....	6,234,805	.....
Steelheads.....	306,850	145,349
Totals.....	77,163,216	14,174,145

W HILE not an entire failure, the result attained at the several state and Federal salmon hatcheries in the Columbia River district during the present season has been a sore disappointment.

OUTPUT OF SALMON FRY AT HATCHERIES.

Number of salmon fry planted in Columbia River and tributaries each year since 1895:

Year	CHINOOKS.		SILVERSIDES.		STEELHEADS.
	Government	Washington	Washington	Oregon	Oregon
1895-6	3,587,000	4,900,000	.....	.....	.....
1896	3,842,000	2,300,000	.....	.....	.....
1897	12,410,000	5,500,000	.....	.....	.....
1898	12,850,000	8,800,000	.....	.....	.....
1899	11,000,000	10,017,000	2,500,000	23,317,000	7,310,000
1900	24,000,000	10,510,000	2,670,000	20,200,000	4,725,000
1901	24,000,000	10,500,000	2,550,000	42,725,741	7,100,000
1902	23,000,100	10,555,700	20,948,625	55,010,425	5,788,500
1903	23,273,281	5,472,229	23,418,110	3,546,000	2,988,250
1904	5,521,028	2,825,000	4,594,759	16,525,000	143,540

The take of Chinook eggs at each of the Columbia River hatcheries this season as compared with that of 1903 is as follows:

HATCHERIES.	1904.	1903.
Oregon State Hatcheries—		
Salmon River.....	1,745,000	3,531,000
Clackamas River.....	.....	2,224,000
Grande Ronde River.....	.....	122,400
Willowa.....	5,207,000	5,207,000
Ontario.....	4,227,000	25,655,000
Totals.....	6,977,000	35,769,400
United States Hatcheries—		
Little White Salmon (Washington).....	2,125,000	19,108,000
Big Salmon River (Washington).....	2,181,400	10,600,000
Eagle and Tanner Creeks (Oregon).....	1,114,100	1,214,000
Lower Clackamas River (Oregon).....	3,281,000	20,150,000
Upper Clackamas River (Oregon).....	1,227,000	.....
Totals.....	9,929,500	49,992,000
Washington State Hatcheries—		
Kamiah River.....	2,500,000	6,100,000
Chinook River.....	100,000	1,700,000
Wind River.....	270,000	2,600,000
Wenatchee River.....	.....	240,000
Totals.....	2,870,000	10,640,000

Columbia River cold-storage plants amount to \$1,000,000 annually, without counting the profits of the packers. The season of 1903 was considered the banner year, but that record was equaled, if not eclipsed, during the season just passed, although the amount of sweet-pickled fish was slightly less.

During the season of 1904, ten cold-storage plants were in operation on the Columbia River, more than ever before, and all but two of them were located on the Oregon shore, where the shipping facilities

especially as this was expected to be a banner year, when new records would be established at some of the plants, at least. The artificial propagation of salmon has long passed the experimental stage, and the experience of the past few years has shown it to be a most effective means of increasing the runs of salmon, and of building up that valuable industry, the fisheries, which until a few short years ago were fast falling into decay. Accordingly hatchery plants were established by the States of Oregon and Washington, and by the Government on the various tributaries to the Columbia River as early as 1866, and the work has since been prosecuted with vigor and with an increased output each succeeding year until the present season.

The cause of the partial failure this year lies not so much in a lack of preparations for handling the eggs as in the inability to secure a sufficient number of large salmon for hatchery purposes. Oregon operated two plants, instead of five; Washington three, in place of four, but the Government had five plants running, instead of four.

When compared with 1903, the showing made by the hatcheries this season is especially poor. Last year the chinook eggs taken amounted to 56,311,000, and of these 70,621,561 small fry were turned out. This year the total number of chinook eggs taken was 13,675,540, and only 14,028,796 fry will be turned out.

At the hatcheries along the coast streams much better results are being attained, and the output will equal, if not exceed, that of 1903. At Yaquina 2,500,000 eggs have been taken, the Coos River plant has secured about 8,000,000, and at the Umpqua station the take exceeds 1,000,000.

PACK OF CANNED SALMON

On Columbia River and Oregon Coast.	Cases.
1903.....	244,975
Columbia River (Oregon side).....	230,400
Columbia River (Wash. side).....	7,500
Columbia River (Fall pack).....	15,400
Oregon coast.....	48,000
Total.....	387,725
1904.....	402,700
Columbia River (Oregon side).....	230,400
Columbia River (Wash. side).....	140,300
Columbia River (Fall pack).....	28,000
Oregon coast.....	55,000
Total.....	462,700

ties are better. In the early part of the season the fish were small, as well as scarce, and nearly all were taken by the canneries. Later, however, the larger fish came in, and the plants were rushed to their capacity.

While to obtain official figures is impossible, reliable estimates place this year's pack at 495 tons. On the basis of

THE journals of Lewis and Clark show that when they made their memorable journey to this far western shore 180 years ago the great natural beauty of the scenery and the number and variety of wild animals abounding in the forests and the excellence of the fishes in the streams of this region filled them with wonder and admiration. So interested were they in the fauna and flora of the country that we find their journals filled with admirable and detailed descriptions of the bird and animal and fish life which they saw. And, although a hundred years have now passed since those hardy explorers first visited these shores, and Oregon and the Northwest have made great strides in civilization and material advancement, there are today still to be found hundreds of square miles of almost primeval wilderness within the boundaries of the state, and to the lover of outdoor sports Ore-

gon and the Pacific Northwest still present many and varied attractions. To the hunter who delights in the search for large game the Blue Mountain region of Eastern Oregon, or the beautiful valleys of the Rogue and Umpqua Rivers in the southwestern portion of the state will prove peculiarly attractive. There, in forests as dense and wild as any in America, he will find the bear, the deer and the elk in numbers; and he may have an opportunity to try his aim, and perhaps to test his courage, on some prowling cougar, himself in quest of game. If he prefers upland birds, he can have sport to his heart's content in pursuit of the latest addition to the long list of Oregon game birds, the Chinese pheasant, which is found in abundance in the great valley of the Willamette. No bird can try the hunter's patience more or deceive him oftener than this Oriental pheasant; and when you have bagged him you have not

only a bird of graceful outlines and most gorgeous plumage, but one whose flesh will satisfy the most epicurean taste. In this valley of the Willamette, and in nearly all the valleys and foothills of the state, the native pheasant or grouse, the partridge and the quail also abound. And in the Blue Mountain region of Eastern Oregon may be found, in addition, the prairie chicken and the sagehen.

Water Fowl in Millions.

As for water fowl, they can be found on every bay, lake and stream in the state; but if you want to see them in such numbers as have never gladdened your eyes before, a trip to their breeding-grounds in the Klamath Lake region in Southern Oregon will be a revelation to you. There you will find great areas of water, thousands of acres, perhaps, literally covered with ducks, geese, snipe, plovers, pelicans and other aquatic fowl. There hundreds of thousands of these water fowl nest and rear their young

every year. It is unquestionably one of the most wonderful breeding grounds for aquatic birds in America, and is well worthy of your visit.

Game Fish in All Streams.

If you are a disciple of good old Isaac Walton, you will find Oregon and the Pacific Northwest a paradise indeed; for its numerous mountain streams, wild torrents hurrying down from their elevated sources and now and then resting in still pools, with waters cold and clear, are the haunts of the hasty trout, the grayling, the salmon and other game fishes, while the great rivers at certain seasons of the year literally teem with salmon, smelt, shad, bass, and other varieties of fish. The cut-throat trout is our native trout, and may be found in nearly all of our streams; but if you are particular as to the species you want, Nature has here lavishly provided a great variety for you. In the Williamson, McKenzie, Deschutes and Upper Clackamas Rivers you will find