

MAINE STATE LEGISLATURE

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OF THE VARIOUS

DEPARTMENTS  INSTITUTIONS

FOR THE YEAR

1901

VOLUME II.

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1901

REPORT
OF THE
COMMISSIONER
OF
SEA AND SHORE FISHERIES
OF THE
STATE OF MAINE
1900.

AUGUSTA
KENNEBEC JOURNAL, PRINT
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STATE OF MAINE.

DEPARTMENT OF SEA AND SHORE FISHERIES,
BOOTHBAY HARBOR, ME., December 31, 1900.

To His Excellency, Llewellyn Powers, Governor of Maine:

SIR:—I have the honor to present herewith the biennial report of this department for the two years ending November 30, 1900, as required by law.

Respectfully,

ALONZO R. NICKERSON,
Commissioner.

REPORT.

In this, my second biennial report as commissioner of sea and shore fisheries, it gives me pleasure to say that the fisheries of the State of Maine are in a generally prosperous condition. While perhaps one or two branches of the fisheries are not flourishing, the business in general for the past two years has been successful.

The figures will show in the following pages as compared with former years more men engaged in the business, more money invested in the fisheries, more value of product, and, what tells the story, *larger money returns to the individual fisherman.*

In the fisheries and the several allied industries, the information and statistics in the possession of this department, gathered by the wardens for the several sections of the State, are tabulated, as is customary for easy and convenient reference and comparison, by species, fisheries and counties. The catch, apparatus, gear, appliances, disposition of production, values and other information, are thus shown as a permanent record of statistical value in the several fisheries, as well as in the many dependent and connected industries so closely identified with the fisheries as to be equally interesting, important and valuable both to the scientific and the commercial investigator.

In fixing upon the values of the catches in the several tables, I have made them what the fish were worth as landed by the fishermen, such adding to and enhancing of the values as may be done by processes of packing, preserving and refining the product, being very properly excluded as belonging rather to manufacturing than fishing. The catch or yield has not been duplicated in making up the tables. In some instances apparatus, gear or appliances for the capture of the fish, and persons engaged, have been utilized and employed in more than one

fishery and have been so reported in the tables of statistics. In each case the necessary explanatory notes have been added to the tables.

In the general tables Nos. 18 and 19, in order to facilitate quick reference and comparison, the yield of the fisheries has been reduced to pounds in each case, both as to fish and also product. The following will make this plain.

Barrels of fish of all kinds are reckoned two hundred (200) pounds. Box-herring are five (5) pounds per box. Box-herring bloaters are forty (40) pounds per box. Oil at seven and one-half ($7\frac{1}{2}$) pounds per gallon. Scallops twelve pounds to the gallon. Clams twelve pounds to the gallon. Clams ten pounds to the bushel in shell. Clams canned reckoned 50 pounds per case. Alewives one-half ($\frac{1}{2}$) pound each. Lobsters one and three-quarters ($1\frac{3}{4}$) pounds each.

In the several branches of the fisheries in the year 1899 were engaged three hundred and seventy-five (375) vessels, aggregating five thousand nine hundred and eighty (5,980) tons, and in the year following there were four hundred and twenty-two (422) vessels of eight thousand two hundred and thirteen (8,213) tons. The values of these vessels are not included in the tabulation under any fishery.

Grand summary tables Nos. 18 and 19 exhibit for the two years the pounds and value of catch in all the fisheries by counties, species, and fisheries. The totals show the quantity and value of each fishery or species, the catch and value by counties, and the grand total catch and value of all species in the entire State.

For the year just closed the total yield of all the fisheries in the State is, one hundred and fifty-two millions, seven thousand nine hundred and twenty-one, (152,007,921), pounds, and the value of this production is two million, seven hundred and eighty-four thousand, four hundred and thirty-five dollars, (\$2,784,435.00).

Again as in my last report, the lobster fishery is credited with the largest value of any single fishery in the State—\$1,037,556.

In 1899 Washington county leads the State by reporting very much the largest quantity of fish of all kinds taken, eighty-two millions, five hundred and seventy-eight thousand, six hundred

and fifty-one pounds, (82,578,651), and also the largest value of production, \$671,191.00.

In 1900 Hancock leads with the return of \$593,424.00 in the value of fish caught, the largest of any county in the State. In the year 1899 considering the whole State the quantity of herring taken was very much more than that of any other species, being no less than ninety-four millions, nine hundred and forty-three thousand, one hundred (94,943,100) pounds.

Sixteen thousand, nine hundred and thirty-five, (16,935), persons were engaged in the fisheries in the State during the year 1900, as appears by table No. 22.

Tables Nos. 20 and 21 show the number of vessels in the general fishery, the value of gear and apparatus used in each fishery, and the total value of all the investment in the several fisheries for the years 1899 and 1900 under their titles.

HERRING FISHERY.

This continues to be one of the most important fisheries in the State, which has grown in comparatively recent years to great proportions as will be seen by an inspection of the special tables number one and two covering the years 1899 and 1900. The tables include the interesting facts as to production, etc., in connection with this great business which benefits, directly and indirectly, a great many people who are more or less dependent upon this special fishery and connected industries for a livelihood.

In the year 1899 seventeen hundred and ninety-six persons (1,796) persons were employed in this fishery. These men produced from the sea by their efforts, herring to the value of five hundred and thirty-two thousand and eighty-six dollars (\$532,086.00), at the same time the invested capital in the business in boats, steamers, gear, and apparatus was three hundred and forty-eight thousand, five hundred and ninety-seven dollars (\$348,597.00), thus upon the invested capital there was a gross return of 152 per cent. The results were obtained by these men and this amount of capital through the catching and delivering to market and factory of four hundred and thirteen thousand, four hundred and twenty barrels (413,420) which were sold fresh, thirty-five thousand one hundred and thirty-three (35,133) barrels sold salted, and one million six hundred and forty-six thousand five hundred (1,646,500) boxes smoked.

While the catch of this fish has been in some counties on the coast larger for the year 1900 than for the previous year, taking the State as a whole there has been a considerable decrease in catch and return, while the number of men engaged has very materially diminished, the number being fourteen hundred and seventy people for the year 1900 employed in this fishery.

Referring to the table for 1900 it will be seen that Lincoln county has gained largely in catch, production, appliances, and value of same, and also in number of men engaged, notwithstanding the general decrease in the business in the State as a whole. This is owing not wholly to the schools of herring being more numerous and permanent in that section of the State—

which is true—but in a large degree, perhaps, to the increased number of appliances and apparatus engaged in the business, stimulated by the large demand and profitable return for the fish made by the increased number and enlarged capacity of the sardine canneries at Boothbay Harbor.

For the increase in the number and value of the steamers, boats, and other apparatus used so successfully in Lincoln county in this fishery the current year, can be ascribed the very large increase in capital invested, being one hundred and fourteen thousand six hundred and thirty-three dollars (\$114,633) larger in 1900 than in 1899. The investment in this fishery to men engaged in 1899 was one hundred and ninety-four dollars (\$194.00) per man, and in 1900 three hundred and fifteen dollars (\$315.00) per man. As a natural corollary of the large catch of herring in Lincoln county large numbers of vessels in search of fresh bait make Boothbay Harbor the point for securing the same. These vessels come from Portland and other Maine ports and also from Gloucester and Boston and while visiting Boothbay Harbor for bait, at the same time take their supply of ice for the preserving of their bait and the catch, which is brought to market fresh. Through the abundance of both bait and ice therefore a very large business has been built up which brings many hundred vessels annually to that port for their supplies of all kinds, including bait and ice. I speak of these bait sales as a very important part of the herring business in certain sections of the State, where ice is always found at reasonable prices and bait with reasonable certainty. In connection with the herring fishery mention should be made of the refrigerating plant at Boothbay Harbor owned by the Cold Storage Company. This is conducted on the comparatively new ammonia process and is used for the preservation of all kinds of fish—up to this time more especially the herring. It has a capacity of 4,000 barrels and is valued at six thousand dollars (\$6,000.00), with a working capital of four thousand dollars (\$4,000.00).

I have already said that the herring is one of the most important in our State. What I have already said under this title relates directly to the fishery and the conclusions and the tabulations upon which the same are based and drawn have reference wholly to the fishery.

I will now review the sardine canning business as the chief industry dependent wholly upon the catch of herring for its supply for packing. The herring fishery direct is a large and valuable interest and furnishes employment to a great many people, but the canning of the catch by the factories is still more important and valuable as adding much to the value of the product as taken from the hands of the fishermen, where as to value, the herring tables referred to heretofore take and leave the catch in the conclusions there arrived at, the increased value in packing not showing in tables of yield. Six thousand and seventy-six (6,076) persons in the year 1899 were employed in sardine canning factories in three counties in our State—Washington, Lincoln, and Hancock. There were earned that year nine hundred and fifty-three thousand and ninety-six dollars (\$953,096.00), or to each person one hundred and fifty-seven dollars (\$157.00). I say person because the term man would not apply; all are not men who gain a livelihood through the sardine business, neither are all the employees men and women, for both boys and girls are profitably engaged in the work. In fact, the large proportion of the help is women, boys, and girls, therefore when five persons in one family are employed in this work (as has been the case) the aggregate sum of their wages does not appear small. The work is mostly piece or case work and while some children get fifty cents per day, others, both men and women, skilled in the performance of some particular part of the work, make three dollars, four dollars, or more in a day.

In 1899 the cases packed were one million one hundred and seventy thousand five hundred and sixty-eight (1,170,568) each case (except one size) 100 cans to the case. The value of the product was three million two hundred and fifty-three thousand and seventy-six dollars (\$3,253,076.00). In sixty-eight factories (in three counties) of the value of five hundred and eighty-one thousand dollars (\$581,000.00) was produced this immense amount and value of sardines. Since 1897 the increase has been in cases packed three hundred and ninety-three thousand one hundred and sixty-nine, in value of the packed product, one million three hundred ninety-seven thousand seventy-nine dollars (\$1,397,079.00). Dependent wholly upon the catch of the small herring for supply, the scarcity of fish in the eastern

section of the State during the year 1900 has reduced the pack of sardines in the State as a whole, but while Washington county has thus suffered in scarcity of fish and consequent reduced production of pack, Hancock county and especially Lincoln county have profited by the almost continuous schools of herring remaining in these localities, and as a consequence large gains have been made in these counties the current year. Hancock county pack sixty-one thousand five hundred and seventy-one cases (61,571) more than in 1899 and gains two hundred forty-eight thousand eight hundred and fourteen dollars (\$248,814.00) in valued product. One new factory is built and the payments to employees is sixty-one thousand six hundred and ninety dollars (\$61,690.00) more than the previous year. Lincoln gains 59,371 cases and increases value by two hundred thirty thousand eight hundred and twenty-six dollars (\$230,826.00), two hundred and four (204) more people are profitably employed, and eighty thousand nine hundred and seventy-seven dollars (\$80,977.00) were added to the pay-rolls. Thus it will be seen that the business is largely increasing in Lincoln and Hancock counties by increased number of plants and more numerous supply of fish. For these counties the business has been very large, successful, and profitable, and there is much encouragement that more factories will be put up in this section to take advantage of the great opportunities where the fish is numerous. The price of the product this season has been satisfactory to the producer and the market is being every season extended, while the quality of the goods packed is being improved every year.

What has been said of the sardine industry of course relates to it as a manufacturing business, and the sardines as packed are not shown (as I have heretofore mentioned) in any table other than in the herring tables where the fishermen are credited with the catch and value as landed. However, the industry is so important and so wholly dependent upon the herring catch as to be very properly shown, considered, and discussed in this report of the fisheries of the State.

The sections of the State in which these factories are running are being rapidly built up and are fast growing in valuation, population, and importance, while the tin-plate manufactories, the can-making factories, the box and case manufacturers and

the dealers in all supplies are doing naturally a prosperous business, and we should not forget the many transportation companies which are getting a large and profitable business in bringing in supplies and taking to market the manufactured product. Steamboat lines have been established and railroads will be built as the necessary modern mode of communication so necessary to the business of the day in these sections not already thus favored and inconvenienced. The factory employment is considered honorable in character and satisfactory in rewards.

Some legislation is required to enable both weir and seine men to prosecute their business without danger of violating the law. Those interested should see that such is accomplished.

The packers of sardines, in my opinion, have not the protection which the present law was intended to give by its sponsors. I recommend such changes as may put it in shape to be enforced without hampering the business of the packers.

There is some difference of opinion as to the close time which now extends from December 1st to May 10th. Some favor a change so that the packing can be carried on only from April 10th to November 1st. My opinion is, if there is to be a close time at all in this business, that the present law as to that point, is as near right for all concerned as any amendment or change would make it.

The legislature should foster this business by casting about it not every restriction and regulation suggested, but every protection and encouragement that may be required to maintain it in the State, and to this end every unnecessary regulation and statute should be promptly repealed and only such laws remain as will be absolutely necessary to protect the interests of the laborers and the public.

Herring tables for both years follow numbers 1 and 2.

The sardine packing industry is also exhibited in tabulated form in Nos. 3 and 4, not as a fishery but as a very important business entirely and wholly dependent upon the herring fishery for its maintenance.

TABLE NO. 1.
SHOWING IN DETAIL AND BY COUNTIES, STATISTICS OF THE HERRING FISHERY IN THE STATE OF MAINE FOR THE YEAR 1900.

County.	FRESH.		SALTED.		SMOKED.		BLOATERS.		SMOKEHOUSES.		BOATS AND STEAMERS.		Weirs, traps, nets and seines used — value. †	Persons engaged. *
	Barrels.	Value.	Barrels.	Value.	Boxes.	Value.	Boxes.	Value.	No.	Value.	No.	Value.		
Washington	186,666	\$126,000	8,405	\$25,739	930,000	\$93,000	12,989	\$7,353	172	\$79,600	337	\$91,800	\$57,480	865
Hancock	40,000	36,000	120	480	.....	.....	.....	.....	.....	.....	113	33,700	12,450	90
Knox	23,863	23,786	46	230	.....	.....	1,733	1,733	3	300	91	4,290	21,320	74
Lincoln	91,621	53,825	700	2,000	48,700	4,700	8,200	7,380	32	7,750	133	28,075	38,700	307
Sagadahoc	6,642	6,642	.....	.....	.....	.....	.....	.....	4	150	20	755	2,450	19
Cumberland	5,924	6,900	2,368	7,887	.....	.....	.....	.....	.....	.....	41	3,770	3,580	75
York.....	5,800	6,200	.....	.....	.....	.....	.....	.....	.....	.....	32	6,500	2,750	40
Total	360,516	\$259,353	12,139	\$36,336	978,700	\$97,700	22,922	\$16,466	211	\$87,500	817	\$168,890	\$138,730	1,470

* Includes smoke house employes.

† 265 weirs, 236 seines, 1,223 nets and seven traps make up these values.

Herring smokehouses are used in curing alewives.

In Washington county 2 fertilizer plants valued at \$60,000 produced 25,600 gallons oil valued at \$5,631 and 700 tons pomace valued at \$11,400.

In Lincoln county 1 fertilizer plant valued at \$2,000 produced 10,800 gallons oil valued at \$2,160 and 650 tons pomace valued at \$3,900.

The Cold Storage Company at Boothbay Harbor owns a refrigerating plant valued at \$6,000, used for preserving herring.

Bloaters are usually put up one hundred large fish per box.

In this fishery in 1900 in Washington county were used 17 steamers, value \$64,000; Hancock, 7 steamers, value \$28,000; Lincoln, 10 steamers, value \$25,000; York, 2 steamers, value \$2,000.

TABLE No. 2.
SHOWING IN DETAIL, AND BY COUNTIES, STATISTICS OF THE HERRING FISHERY IN THE STATE OF MAINE FOR THE YEAR 1899.

County.	FRESH.		SALTED.		SMOKED.		SMOKE-HOUSES.		BOATS AND STEAMERS.		Wells, traps, nets and seines—value.	Persons engaged. *
	Barrels.	Value.	Barrels.	Value.	Boxes.	Value.	Number.	Value.	Number.	Value.		
Washington	316,666	\$190,000	29,933	\$91,033	1,583,500	\$126,680	168	\$76,700	305	\$81,500	\$53,150	1,175
Hancock	18,203	17,883	1,500	5,102	.....	.....	.....	.....	62	7,030	11,150	146
Knox	13,149	15,197	.....	.....	.....	.....	.....	.....	80	3,631	20,750	88
Lincoln	51,558	51,983	3,700	10,100	60,000	6,500	8	5,850	109	25,541	29,295	216
Sagadahoc	2,420	3,025	.....	.....	.....	.....	.....	.....	13	650	1,850	11
Cumberland	8,440	9,380	.....	.....	3,000	330	1	100	44	2,300	9,500	60
York	2,984	4,873	.....	.....	.....	.....	.....	.....	20	2,000	1,300	100
Totals	413,420	\$292,341	35,133	\$106,235	1,646,500	\$133,510	177	\$82,650	633	\$122,652	\$126,995	1,796

* Including smoke-house employes.

In Washington county one fertilizer plant valued at \$8,000, produced 20,000 gallons oil valued at \$4,150, and 720 tons pomace valued at \$5,250.

In Lincoln county one fertilizer plant valued at \$2,500, produced 4,250 gallons oil valued at \$850, and 210 tons pomace valued at \$2,100.

Herring smoke-houses are frequently used in curing alewives.

The Cold Storage Company at Boothbay Harbor owns a refrigerating plant valued at \$6,000 used for preserving herring.

TABLE NO. 3.

THE SARDINE CANNING BUSINESS IN THE STATE OF MAINE FOR THE YEAR 1900,
BY COUNTIES.

County.	PRODUCTION.		FACTORIES.		EMPLOYEES.	
	Cases.	Value.	No.	Value.	No.	Wages.
Washington	554,525	\$2,026,639	63	*\$475,000	6,178	\$499,073
Hancock	116,365	408,427	7	52,000	690	105,527
Lincoln	144,170	497,368	9	71,200	667	165,456
Totals	\$15,060	\$2,932,434	79	\$598,200	7,535	\$770,056

* One can making plant, value \$20,000, included.

The product was put up in the following manner:

547,876 cases	½ size in oil
10,502 cases	½ size in oil
224,220 cases	¾ size in mustard
27,706 cases	½ size in mustard
1,191 cases	½ size spiced
284 cases	¾ size spiced
1,589 cases	½ size tomato
1,692 cases	"Round cans"

\$15,060

Three-fourths mustards are packed 50 cans to a case; "Round cans" 24 cans to a case; all other sizes 100 cans to a case.

The pack comprised following sizes: Washington county put up 362,305 cases ½ oil, 8,715 ½ oil, 160,216 ¾ mustard, 284 ¾ spiced, 18,627 ¼ mustard, 1,191 ½ spiced, 1,495, ½ tomato and 1,692 "Round" cans (24 cans to a case).

Lincoln county put up 101,384 cases ½ oil, 1,678 ½ oil, 34,867 ¾ mustard, 6,147 ½ mustard, and 94 ½ tomato.

Hancock county put up 84,187 cases ½ oil, 109 ½ oil, 29,137 ¾ mustard, and 2,932 ½ mustard.

Washington county sardine factories packed 273 cases mackerel valued at \$1,092, and Hancock county factories 881 cases mackerel valued at \$3,548 in 1900.

Five hundred and sixty-six barrels Russian sardines valued at \$1,698, were also put up in 1900 in Washington county.

TABLE NO. 4.

THE SARDINE CANNING BUSINESS IN THE STATE OF MAINE FOR THE YEAR 1899
BY COUNTIES.

County.	PRODUCTION.		FACTORIES.		EMPLOYEES.	
	Cases.	Value.	Number.	Value.	Number.	Wages.
Washington.....	1,030,975	\$2,826,921	54	*\$503,000	5,103	\$824,780
Hancock.....	54,794	159,613	6	44,000	510	43,837
Lincoln.....	84,799	266,542	8	34,000	463	84,479
Totals.....	1,170,568	\$3,253,076	68	\$581,000	6,076	\$953,096

* Can making plant, value 20,000, included.

The product was put up in the following manner:

739,842 cases	$\frac{1}{4}$ size in oil.
3,034 cases	$\frac{1}{2}$ size in oil.
405,260 cases	$\frac{3}{4}$ size in mustard.
16,807 cases	$\frac{1}{4}$ size in mustard.
625 cases	$\frac{1}{4}$ size tomato.
5,000 cases	$\frac{1}{4}$ size spiced.

Three-fourths mustards are packed 50 cans to a case, all other sizes 100 cans to a case.

Washington county put up 681,762 cases $\frac{1}{4}$ oil, 332,475 $\frac{3}{4}$ mustard, 2,278 $\frac{1}{2}$ oil, 9,224 $\frac{1}{4}$ mustard, 236 $\frac{1}{4}$ tomato and 5,000 $\frac{1}{4}$ spiced.

Lincoln county put up 35,502 cases $\frac{1}{4}$ oil, 43,135 $\frac{3}{4}$ mustard, 670 $\frac{1}{2}$ oil, 5,103 $\frac{1}{4}$ mustard, 389 $\frac{1}{4}$ tomato.

Hancock county put up 22,578 cases $\frac{1}{4}$ oil, 29,650 $\frac{3}{4}$ mustard, 86 $\frac{1}{2}$ oil, 2,480 $\frac{1}{4}$ mustard

THE LOBSTER FISHERY.

There is much satisfaction expressed among fishermen as to the present condition of the lobster fishery. With about the same number of persons engaged in the fishery as in 1899, and with something of a reduction in the number of boats, and traps used, the catch for the year 1900 has increased over 1899, $11\frac{1}{3}$ per cent, the fishermen having caught nine hundred and sixty-four thousand six hundred and nine (964,609) more lobsters in 1900 than in 1899. At the same time the return to the fishermen for the current year has increased from nine hundred and seventy-one thousand four hundred and ninety-seven dollars (\$971,497.00) in 1899 to one million thirty-seven thousand five hundred and fifty-six dollars (\$1,037,556.00) in 1900, a solid gain to our fishermen of sixty-six thousand and fifty-nine dollars (\$66,059.00) or 6.8 per cent.

Recurring to the year 1898 and comparing the money return in that year with the year 1899, there was a gain of thirty-four thousand two hundred and fifty-eight dollars (\$34,258.00) in favor of the latter year, while there was still an increase of one hundred and eight thousand eight hundred and three dollars (\$108,803.00) in the revenue of 1898 over that of the year 1897; thus while it will be seen that the catch in some instances has varied considerably in recent years, and the personnel and apparatus has changed from year to year in number and value, the return to the men has gradually increased to the sum mentioned, considerably more than one million dollars. I believe that the catch of lobsters has not been so large since the year 1899, and on that year the cash received for the catch was very little more than half what was received the present year, or about five hundred seventy-five thousand dollars (\$575,000.00).

While the number of lobsters marketed for some years following the year 1889 gradually decreased, for the same period the value of the lobster as received by our fishermen was gradually increasing, and the money return has since continued to increase to the present year. The average return for each man in this fishery has been three hundred and thirty-five dollars (\$335.00) an increase of \$24.00 per man over 1899. This is

undoubtedly the largest average to the men in the business ever yielded by the lobster fishery in the history of the State. The men averaged two thousand six hundred and fifty-one (2,651) lobsters each, and each man operated an average of sixty traps to make this catch and earn the above sum.

It is interesting to know that the catch for each trap engaged in the business was forty-four lobsters, and the average income in return from each trap operated, was five dollars and twenty-five cents (\$5.25) to the owner. The average investment of the men was one hundred and sixty-six dollars (\$166.00) in boats and apparatus, the total investment in the fishery being five hundred and sixteen thousand one hundred eighteen dollars (\$516,118.00). The very high price reached for but one day in the year 1899 (twenty-seven dollars (\$27.00) per hundred for lobsters) has not the present year been quite equalled. The average price for the year has been twelve and six-tenths cents each.

I believe that the fishermen are appreciating the opportunities of the lobster fishery more and more each year, and that with the increased returns and the evidences of its permanency, the fostering care and protection by the State, no more satisfactory employment can be found for such part of the year as they may decide to operate it.

In my last report I said, "The law as to the legal length of lobsters—ten and one-half inches—should remain as it is. I do not believe that making the limit less than ten and one-half inches would be any advantage. I think the law is *generally* working well and when strictly observed is the best for the fishermen and the State that can be at present devised." I see no reason at this time to change my opinion as expressed in the above quotation from my last report. The maximum length of ten and one-half inches has been adopted by the states of New Hampshire and Massachusetts, and in those states the results have been as satisfactory as in Maine which these states followed in this respect in fixing the ten and one-half limit.

At the coming session of the legislature I shall probably have some recommendations to offer as to the appointment of wardens which will benefit the fisheries generally, and shall also suggest some legislation to prevent, if possible, the dealing in the "picked

out meats of lobsters" which is at present operated and carried on by those handling, selling, and using small lobsters which absolutely nullifies the law. The wardens are unable to bring notorious violators of the law to punishment because the protected lobsters are, as soon as caught, at once boiled and picked out of the shell and the solid meat sold by the pound or quart with impunity by those persons, while the fish before mutilation would be palpably illegal size and subject to seizure and forfeiture. The question of "broken and picked out" lobster meats was considered of sufficient importance to require a special consideration by the Dominion government at the hands of the "special Canadian lobster commission of 1898." In their report, which is referred to elsewhere in this report, this commission recommends legislation prohibiting this practice of fishermen in the following language:

"The commissioners see not only considerable danger of the deterioration in the meat itself as a lowering of the quality, but they also realize that such a system increases the difficulty of carrying out the protective regulations. The prohibition of spawn-lobsters and the enforcing of the size-limit would be utterly impossible if such a practice prevailed generally."

ARTIFICIAL HATCHING OF LOBSTERS.

The artificial scientific propagation of the lobster as well as other economic fishes is being carried on with increased vigor and success at the United States Fish Commission stations at Woods Hole and Gloucester, Massachusetts.

During the last session of Congress a petition has been presented by Congressman Littlefield asking for an appropriation of ten thousand dollars for the establishment of a fish hatchery on the Maine coast. This petition received the endorsement of our entire representation in Congress. I have every reason to believe that an appropriation will be secured in the near future, and that a modern plant for the scientific propagation of the commercial species of fish will be established on our coast.

In my last report I expressed some doubt in regard to the practicability of artificial propagation of lobsters as at present carried on by the United States Fish Commission, and also by many of the states of the Union, and the demonstrated successes

of the same as claimed, but, as I then said I would do, I have looked into the question in a measure and have become satisfied that the great number of small fry that has been distributed along the coast for the past four years, a considerable percentage more than under natural conditions must have come to maturity, and that by this method of artificial propagation pursued by the U. S. Fish Commission, the lobster has been made more numerous on the Maine coast, the business more stable and profitable, and the fishermen who are dependent upon the same for a livelihood, with more permanent and largely increasing returns, are better satisfied with their condition.

As has been the custom in recent years the United States Fish Commission has taken, under permit from this department, from the coast of the State during the two years last passed, egg-bearing lobsters for the purpose of scientific observation and investigation, and in order to secure the eggs for the purpose of scientific artificial propagation.

By the reports following it will be seen that in 1899, 3,633 mature, egg-carrying lobsters were secured from the fishermen along the coast and taken to the Gloucester, Mass. Station of the U. S. Fish Commission where the eggs were artificially hatched producing thirty-six million nine hundred and twenty-five thousand (36,925,000) young lobsters for distribution. During the current season of 1900, in the same way and for the same purpose, thirty-one million seven hundred thousand (31,700,000) young lobsters were hatched from eggs taken from 1,944 egg-bearing lobsters which had been secured along our coast from the fishermen and returned again to our waters. Thus it will be seen that in both years no less than sixty-eight million six hundred and twenty-five thousand (68,625,000) young lobsters were freed in the waters of the State of Maine.

Detailed statements from the honorable commissioner in charge of the U. S. Fish Commission are printed in this report and show for each of the years 1899 and 1900 the number of young deposited in our waters and also the particular point where each lot or plant was freed.

RECORD OF LOBSTER FRY PLANTED IN MAINE WATERS FROM
GLOUCESTER, MASS.—1900.

Date of shipment—1900.	Number of fry in shipment.	Date fry were planted—1900.	Number fry in each plant.	Point of deposit.
June 6	3,000,000	June 7	500,000	Gulf of Maine, west shore of Heron Island off Boothbay, Me.
		June 7	500,000	Gulf of Maine, near east shore of Allen's Island, off Port Clyde, Me.
		June 7	500,000	Seal Harbor, off west shore of Spruce Head, near White Head, Me.
		June 7	500,000	Owl's Head Bay, near west shore of Owl's Head, Me.
		June 8	1,000,000	Rockland Harbor, Me., S. W. side of Rockland Harbor, near shore.
June 8	1,200,000	June 8	1,200,000	Casco bay, Me., near south side of Diamond Island, Me.
June 9	1,500,000	June 9	1,500,000	Casco Bay, Me., Hussey's sound, near N. W. shore of Long Island.
June 12	6,000,000	June 12	1,000,000	Gulf of Maine, 1 mile east of Cape Neddick, Me.
		June 12	1,000,000	Gulf of Maine, 1 mile east of Kennebunkp't, Me.
		June 12	2,000,000	Gulf of Maine, 1 mile east of Cape Porpoise, Me.
		June 13	1,000,000	Gulf of Maine, $\frac{1}{2}$ mile east of Wood Island, Me.
June 13	1,500,000	June 13	1,500,000	Gulf of Maine, 1 mile S. E. of Richmond's Island, Me.
June 13	1,500,000	June 13	1,500,000	Kittery Point, Me., harbor, well out from shore.
June 14	1,500,000	June 14	1,500,000	York Harbor, Me., $\frac{3}{4}$ mile from shore.
June 15	1,500,000	June 16	500,000	$\frac{1}{2}$ mile north from Martinicus Island, Me.
		June 16	500,000	Near N. E. point of Isle au Haut, Me.
		June 16	200,000	Indian Harbor, Me.
June 16	1,500,000	June 17	300,000	Entrance of Moose River, Me.
		June 16	500,000	Casco Bay, Me., near western shore of Small Point, Me.
		June 16	1,000,000	Boothbay Harbor, Me., near eastern shore of Cuckolds, entrance Boothbay harbor.
June 18	1,625,000	June 18	1,625,000	Off Kittery Point, Me., near New Castle side.
June 19	1,625,000	June 19	1,625,000	Off York Harbor, Me.
June 20	1,625,000	June 20	1,625,000	Off Kittery Point, Me., near Whale's Back Light.
June 21	1,625,000	June 21	1,625,000	Off York Harbor, Me., near Stone's Rock, South York Harbor.
June 24	6,000,000	June 25	3,000,000	Gulf of Maine, 1 mile south from Half Way Rock, Maine.
		June 25	2,500,000	Harpwell's Sound, Me., Harpwell Harbor, western side.
June 25	1,500,000	June 25	500,000	Orr's Island Harbor, Me.
		June 29	1,500,000	Casco Bay, south side of Cow Island, Me.
	31,700,000		31,700,000	

RECORD OF SHIPMENTS OF LOBSTER FRY TO MAINE COAST WATERS
FROM GLOUCESTER, MASS., STATION, 1899.

Date of shipments.	Number of fry shipped.	Point of Deposit, etc.
June 3....	1,000,000	Planted 3 miles east from Wood Island on Maine coast.
June 7....	1,200,000	Planted in Hussey's Sound, near northeast side of Pumpkin Knob.
June 9....	1,200,000	Planted in Casco Bay, near western end of Long Island.
June 12....	1,200,000	Planted 200,000 in East Penobscot Bay, near Green's Landing in Deer Isle thoroughfare; 200,000 in Blue Hill Bay, entrance to Swan's Island Harbor; 200,000 in Blue Hill Bay near north point of Long Island; 200,000 in Frenchman's Bay near southeast point of Baker's Island; 200,000 in Frenchman's Bay near north point of Schoodic Island; and 200,000 in Prospect Harbor, near lighthouse in outer Prospect Harbor.
June 12....	2,000,000	Planted 1,500,000 in Pemaquid Bay, $\frac{1}{2}$ mile north of Burnt Island, Me.; 500,000 in Boothbay Harbor, near north end of Mouse Island.
June 13....	1,200,000	Planted in Casco Bay, near South Shore of Little Diamond Island.
June 14....	1,200,000	Planted in Casco Bay, near west shore of Great Diamond Island.
June 15....	1,200,000	Planted in Casco Bay, near west shore of Peak's Island.
June 16....	1,200,000	Planted in Casco Bay, near northeast end of Long Island.
June 17....	1,200,000	Planted 600,000 in Casco Bay, near Prince's Point, Harpswell Sound, Orr's Island; 600,000 in Casco Bay, in Willis Strait, between Orr's and Bailey's Islands.
June 19....	1,200,000	Planted 600,000 in Gulf of Maine, near western shore of Damascove Island; 600,000 in Linnekin's Bay, in eastern part of Linnekin's Bay.
June 20....	1,200,000	Planted off Kittery Point, Me., south of Wood Island.
June 21....	1,200,000	Planted off York Harbor, Me., east of Fort Head.
June 22....	1,200,000	Planted 200,000 northeast side of Petit Manan Island; 200,000 in western entrance of Moosabec Reach; 200,000 near southwest point of Beal's Island; 200,000 Great Wass Island; 200,000 northwest side of Libby Island; 200,000 in Bay of Funday, south end of Eastport near wharf.
June 23....	1,200,000	Planted off York Harbor, near Western Point.
June 24....	5,000,000	Planted 400,000 in Wheeler's Bay, east side of High Island; 800,000 Seal Harbor, southwest shore of Spruce Head Island; 500,000 Muscle Ridge Channel, southwest side of Ash Island; 1,500,000 Penobscot Bay, Long Island, entrance of Milkey's Harbor; 900,000 Penobscot Bay, east shore Metinic Island; 900,000 Muscongus Sound, south end of Harbor Island.
June 26 ...	1,200,000	Planted in York Harbor, Me., Lowe's Eddy.
June 27 ...	1,200,000	Planted in York Harbor, Me., east of Sunken Rock.
June 28....	1,200,000	Planted off Kittery Point, Me., $\frac{1}{2}$ mile from East Jurys.
June 29....	1,200,000	Planted off Kittery Point, Me., $\frac{1}{2}$ mile from East Jurys.
July 1....	1,200,000	Planted off Kittery Point, Me., $\frac{1}{2}$ mile southeast from Fort Point light.
July 3....	1,200,000	Planted in Casco Bay, near south end of Ram Island.
July 4....	1,200,000	Planted 600,000 in Casco Bay, western shore of Cousins Island; 600,000 northwest shore of Cousins Island.
July 5....	1,200,000	Planted in Casco Bay, south side of Little Johns Island.
July 6....	1,200,000	Planted in Casco Bay, northwest side of Chebeaque Isl'd
July 19... .	2,525,000	Planted 1 mile south southeast from Portland Head Lighthouse.
	36,925,000	Total planted in Maine waters.

ILLEGAL FISHING.

During the twenty-four months covered by this report the officers seized and liberated ninety-six thousand six hundred and thirty-two (96,632) lobsters which were not legal length. In order to accomplish this result a great amount of labor has been performed by the wardens, and while the above number of short lobsters seized does not by any means represent all the illegal fishing done in our State, I believe that the energy and success of the wardens for the past year has had the effect to discourage the practice to a large degree, while the success of the honestly and legally conducted fishing, financially, has satisfied many heretofore more or less engaged in the illegal business, that it pays best in the end to respect a law which was secured by them and was enacted by the legislature for their benefit alone and that the successful lobster fishermen are to-day strictly observing its provisions.

SMACK TRANSPORTATION.

During the year 1900 lobster smacks collected and delivered to Portland dealers two million four hundred and sixty-six thousand nine hundred and sixteen (2,466,916) lobsters, and Rockland, for the same period, received from smacks nine hundred and twenty-eight thousand one hundred and forty-seven (928,147), a total of lobsters collected and transported as above, of three million three hundred and ninety-five thousand and sixty-three (3,395,063) for 1900.

In the year 1899 the collecting by smacks amounted in the aggregate for Portland and Rockland to two million nine hundred and eighty-eight thousand five hundred and sixty-eight (2,988,568) lobsters. In the collecting, transporting, and delivering these lobsters there was engaged in the business in the year 1900 fifteen steam smacks valued at seventy thousand seven hundred dollars (\$70,700.00), and thirty-nine sailing smacks valued at forty-six thousand three hundred and twenty-five dollars (\$46,325.00), a total value of craft used exclusively in this branch of business of one hundred and seventeen thousand and twenty-five dollars (\$117,025.00). These vessels and their value are not considered in the tabulation in any fishery.

THE DOMINION LOBSTER FISHERY.

That the Dominion government considers the lobster question an important one and the protection of the lobster of moment is evidenced by the fact that a commission of seven prominent gentlemen of the Dominion was appointed by order of council of 27th September, 1898; added to the membership was Hon. Edward E. Prince, Dominion Commissioner of Fisheries, who was chairman *ex-officio*.

After laborious research, investigation, and the hearing of evidence from the fishermen and others interested in all sections of the coast,—which were visited by the commissioners—a lengthy report was made with many recommendations, including the dividing of the maritime provinces into three districts for the better protection of the fishermen and the fishery of the Dominion, in which districts will be three minimum sizes under which it will be illegal to take lobsters. The regulations recommended also include a different close time for each district.

I have already referred at length to the report and quoted from the same in regard to “broken or picked out meat of lobsters.” The commission makes no recommendation as to restricting the exportation of lobsters, but holds “that there should be no limit (as to export length) but that those engaged in the industry should be allowed by law to dispose of their catch, whether by export or otherwise, to the best advantage.”

I presume it is too early to form any opinion of the success of the several recommendations of this honorable commission, but in many respects the report can be safely referred to as an authority and a valuable addition to the literature upon a subject, the knowledge of which little is possessed by the public generally.

The following tables show the catch and value and the several items of apparatus and value, and the number of persons engaged in the fishery, both by counties and by totals for the term of this report.

TABLE No. 5.
EXHIBITING BY COUNTIES, DETAILED INFORMATION AS TO THE LOBSTER FISHERY FOR THE STATE OF MAINE, FOR THE YEAR 1900.

County.	LOBSTERS TAKEN.		BOATS USED.		CARS.		POUNDS.		POTS.		Men engaged.
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	
Washington	1,502,710	\$180,325	474	\$39,000	356	\$3,560	3	\$8,400	29,389	\$29,389	474
Hancock	2,122,110	256,457	476	59,000	375	3,750	.....	.....	32,550	32,550	465
Waldo	2,568	352	10	175	8	80	.....	.....	160	130	11
Knox	2,104,828	259,504	1,029	67,288	408	6,623	2	13,000	48,677	59,846	609
Lincoln	1,626,230	222,055	494	40,203	537	3,115	6	* 12,000	43,905	50,850	537
Sagadahoc	98,375	12,843	71	1,756	63	158	.....	.....	2,265	2,265	78
Cumberland	501,354	67,758	559	23,075	635	8,495	2	3,500	22,820	22,820	823
York	273,740	38,262	364	16,900	111	690	.....	.....	6,000	7,500	108
Total	8,232,115	\$1,087,556	3,477	\$247,397	2,493	\$26,471	13	\$36,900	185,766	\$205,350	3,105

SEA AND SHORE FISHERIES.

* Including in valuation naphtha launch used by A. P. Greenleaf transporting lobsters.

In the valuation of "pounds" the nets and gear in use is included.

Under "cars" in Knox and Cumberland counties the number and value of wholesale receiving cars is included.

Two steam fish boats valued at \$1,500 were engaged in lobster fishery in Knox county in 1900 and included in table.

Lobsters collected by smacks were marketed by wholesalers at Portland to the number of 2,466,916, and at Rockland to the number of 928,147 in the year 1900.

Fifty-four steam and sailing smacks, valued at \$117,125, engaged exclusively in transporting lobsters, will be found in Table 20.

TABLE No. 6.

EXHIBITING, BY COUNTIES, DETAILED INFORMATION AS TO THE LOBSTER FISHERY FOR THE STATE OF MAINE FOR THE YEAR 1899.

County.	LOBSTERS TAKEN.		BOATS USED.		CARS.		POUNDS.		POTS.		Men engaged.
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	
Washington.....	1,308,430	\$178,457	410	\$36,400	320	\$3,200	1	\$2,500	24,600	\$24,600	410
Hancock.....	1,764,382	229,068	503	65,390	377	3,770			35,210	35,210	503
Waldo.....	2,473	331	15	270	14	112			300	225	16
Knox.....	1,832,804	230,237	1,559	74,484	772	7,215	2	3,000	54,774	68,480	649
Lincoln.....	1,565,131	223,711	464	34,400	442	3,600	6	* 12,000	39,570	43,225	500
Sagadahoc.....	74,066	10,198	74	1,480	73	182			2,210	2,210	77
Cumberland.....	496,650	67,530	574	23,750	578	6,830	1	3,000	25,180	25,180	849
York.....	223,570	31,965	95	3,540	51	430			4,880	6,100	112
Total.....	7,267,506	\$971,497	3,694	\$239,714	2,627	\$25,339	10	\$20,500	186,724	\$205,230	3,116

SEA AND SHORE FISHERIES.

* Included in valuation, naphtha launch used by A. P. Greenleaf transporting lobsters.

In the valuation of "pounds" the nets and gear in use are included.

Under "cars" in Knox and Cumberland counties the number and value of wholesale receiving cars are included.

Lobsters collected by smacks were marketed by wholesalers at Portland to the number of 2,080,786, and at Rockland to the number of 907,782, in the year 1899.

45 steam and sailing lobster smacks, valued at \$90,450, engaged exclusively in transporting lobsters, will be found in Table 21.

THE MENHADEN INDUSTRY.

I cannot too strongly express my regrets that I am unable with this my second report to show a return of a large and profitable business in this industry. There has been no business done for the two years past.

In 1898 there was a profitable business conducted and there was an expectation reasonable or otherwise that the fish would appear on our coast again the following year with as good or better profits than before, but the hopes were not realized. The fish have apparently taken up new grounds in which to feed and have avoided our coast for a number of years, with one or two years excepted, in which business was done. The spring of 1899 found the factories and works in order for business, a gang of men at work for about two months putting things in order for the fishing season, being all the employment given, and all the business done for two years, the factories being closed. On the coast of New York and of some of the southern states the fish were very abundant and the factories in these sections (owned by the same company which operates them on our coast) were kept running to their fullest capacity all the season. Especially was this the case in Texas where one factory was erected during the season of 1899. While the business is carried on to a greater or less extent in the southern waters it is not as profitable to the owners as in northern waters for the reason fully explained in my last report, from which I quote as follows: "The menhaden is a migratory fish and as the great schools come north in the summer the first increase very much in value, as when in the vicinity of Rhode Island, for instance, they are very lean and produce a very small proportion of oil. A little later in the season when on the Maine coast—their richest feeding ground—the fish become very fat and yield double the amount of oil they would if taken south of Cape Cod.

Thus we see the reason that these factories are located on the Maine coast,—the fish are twice as valuable here as elsewhere." For the year 1899 the American Fisheries Company which owns the factories, gave employment in connection with their southern factories to 768 men on boats and steamers and 710 men on shore.

The several factories caught eight hundred ninety-three thousand nine hundred and thirty-eight barrels of fish, producing twenty-seven thousand nine hundred and forty-one (27,941) barrels of oil, six thousand three hundred and seventy-seven (6,377) tons dried scrap, nineteen thousand eight hundred and eighty (19,880) tons of acid scrap. The value of the product is: Oil, \$279,130.59; acid scrap, \$182,896; dried scrap, \$116,061.40; making \$578,087.90 as the total value of production for 1899. I wish this business, or a part of it, could have been done on our coast.

THE CLAM AND SCALLOP INDUSTRY.

Sixteen hundred and seventy-seven (1,677) persons were engaged in the digging of clams and the dredging of scallops in this State during the year 1900. In most sections this is done in connection with some other fishery or employment and few if any of the above enumerated persons are in the business the entire year. Still the three items of catch shown in the table for this year, amount to the total equivalent of eight hundred and seventy-four thousand four hundred and ninety (874,490) bushels, and while the factories in five counties utilize a large amount of the total yield it is a fact that a great quantity was shipped out of the State to the Boston and New York markets in barrels both shucked and in the shell. That this part of the business has grown greatly within a few years is a fact, both the canning and the shipping, while of course the consumption in the State—which somewhat increases necessarily—figures as a very small part of the total yield. As to shipping I will give an illustration of the increase, that in my opinion, as compared with twenty years ago, five hundred barrels are now shipped out of the State where one barrel was shipped then, and I think that this year the markets in the state of Massachusetts, Rhode Island, and New York are largely supplied from our shipments. The returns for clams and scallops for the year have been a considerable sum, amounting to three hundred sixty-one thousand one hundred and forty-seven dollars (\$361,147.00) and brings a considerable amount individually to those prosecuting it as they do for but a portion of the year, but the opinion generally prevails that the fields of clams are being gradually exhausted and at the present rate of utilization in a few years will result in extermination. While this statement may be overdrawn I am satisfied that clams are not nearly so numerous or easily procured as in former years, and that some of the best fields of clams are undoubtedly being too heavily drawn upon for factory packing and shipping purposes, and that in many places where they were abundant a few years ago, now there are few or none. Reasons are given by the fishermen for the depletion of some of the more prolific sections of a few years ago. One class of

men are of the opinion that when the flats are dug over in the cold winter weather the growing clams and those too small for use are thrown out on top of the grounds in digging, and are thus exposed to freezing before the tide returns to cover them with water and they are thus killed. On the other hand the opinion is expressed by many, that when the flats are dug over in the hot summer days the young clams are thrown out in the same way, and before the water returns to protect them the direct rays of old Sol beating upon the exposed young and tender clams, kill them. Both classes demand a close time, one in summer, and one in winter. The above refers to large and prominent fields which are dug over thoroughly and systematically and all "turned up" as a potato field would be dug over. Section 1 of chapter 32 of the laws of 1899 was enacted to protect the more important fields of clams from entire exhaustion, and appears to do so by a close time for the months of June, July, August, and a part of September, but it does not in my opinion benefit the State. In certain sections the clams are thus allowed to grow for these months and become more plentiful when at the end of the protective period a large gang of men are ready to commence digging and shipping, and at the end of three months the result which would have been arrived at without a close time, has been accomplished, simply by the employment of more men during a shorter period, and the flats have been as thoroughly dug and if possible more thoroughly "dug" and drained than they would without a close time. If one examines carefully most laws that are called for in relation to the salt water fishing, and notices who calls for them they will, if familiar with the subject, decide that it is usually one class of fishermen against another, and if the legislation asked, is granted, it is taking from one class and giving to the other. Very seldom do fishermen ask for a law for the purpose of benefiting the State.

I have at this time no suggestions to offer as to restrictive legislation. To limit the size of the clam marketed as proposed by some, would be impossible of enforcement. The demand for the State of Maine clams is certainly rapidly increasing and as certainly the store is being depleted, the demand being more than the supply, therefore the price should naturally be enhanced—the supply gradually decreasing, the price as grad-

ually increasing—then by the law of compensation where the price gets beyond a certain limit the pendulum will swing back, the demand will be less, the price will go down, and perhaps upon that theory of economics the clams will protect themselves and the State be as well off without a change in the present law.

The yield of scallops for the year has been, as will be seen, fourteen thousand five hundred and ten (14,510) gallons, worth eight thousand five hundred and eighty-eight dollars (\$8,588). But three counties contributed to this fishery—Washington, Hancock, and Cumberland. I believe this branch of the fishery is not prosecuted with much vigor or the yield would be much larger, but I presume that those skilled in the fisheries put their time to more remunerative and possibly more agreeable branches which are open to them.

The total apparatus and investment by the fishermen in the carrying on of this business is one thousand and sixty-two (1,062) boats, worth eleven thousand two hundred and sixty-five dollars (\$11,265) less than seven dollars per man, and this includes such digging apparatus as is used. This does not take into consideration the factories and their output. Clams were put up to the number of sixty thousand nine hundred and twenty-eight (60,928) cases, of a market value of one hundred seventy-four thousand eight hundred and ninety-three dollars (\$174,893.00), and clam juice worth seven thousand six hundred and eighty-five dollars (\$7,685.00) was put on the market. Factory help was paid during the year 1900 thirty-two thousand six hundred and ten dollars (\$32,610.00) and in Washington county the clams put up were canned in sardine factories.

Taken as a whole the clam fishery is very important indeed as not only supplying a considerable canning industry and a large shipping business, but at times and seasons furnishing employment and quick returns and sustenance also to the indigent and that other class which the Master says are always with us, and as a business, coming the nearest to the class of which he who lives "by the sweat of his brow," or perhaps rather from "hand to mouth" is an example.

My references and any conclusions here drawn have reference to the year 1900. Tables, however, for both 1899 and 1900 are included in this report and all investigators are referred to these tables for information.

TABLE NO. 7.

THE CLAM AND SCALLOP FISHERY: DETAILED INFORMATION, INCLUDING DISPOSITION OF PRODUCT OF THAT FISHERY, FOR THE STATE OF MAINE FOR THE YEAR 1900, BY COUNTIES.

County.	CLAMS SOLD IN SHELL.		*CLAMS SOLD FOR BAIT.		CLAMS SOLD FRESH.		SCALLOPS.		CLAMS CANNED.		CLAM JUICE.		†CLAM CANNING FACTORIES.		BOATS.		Number of persons engaged.
	Bushels.	Value.	Barrels.	Value.	Gallons.	Value.	Gallons.	Value.	Cases.	Value.	Cases.	Value.	Number.	Value.	Number.	Value.	
Washington	3,285	\$923	2,529	\$9,733	.....	.....	945	\$756	10,709	\$32,197	696	\$1,392	.....	.....	140	\$1,400	286
Hancock	32,408	9,712	6,716	25,626	.....	.....	13,293	7,560	21,250	63,750	6,816	3,408	2	3,000	345	3,450	465
Waldo	2,349	1,176	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29	520	23
Knox	53,186	17,677	533	2,132	.....	.....	.....	.....	17,840	46,532	1,923	2,885	3	5,000	115	970	185
Lincoln	62,666	26,376	462	1,444	.....	.....	.....	.....	3,590	8,390	.....	.....	3	3,000	120	1,680	136
Sagadahoc	5,046	2,506	218	847	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33	315	32
Cumberland	114,636	55,509	1,033	5,165	566	2,830	272	272	7,539	24,024	.....	.....	10	7,900	245	2,450	454
York	14,000	7,000	50	125	3,000	1,200	.....	.....	.....	.....	.....	.....	.....	.....	35	480	96
Total	287,576	\$120,879	11,541	\$45,072	3,566	\$4,030	14,510	\$8,588	60,928	\$174,893	9,435	\$7,685	18	\$18,900	1,062	\$11,265	1,677

* Bait clams, both fresh and salt, included.

† Including factory employees.

‡ Three can making plants, valued at \$900, are included.

No factory is shown in Washington county because clams were packed in sardine factories.

In some counties the clam factories are used a part of the season canning herring.

Wages were paid clam factory employes as follows: Hancock county, \$12,750; Knox county, \$7,260; Lincoln county, \$3,600; Cumberland county, \$9,000—total, \$32,611.

TABLE No. 8.

THE CLAM AND SCALLOP FISHERY; DETAILED INFORMATION, INCLUDING DISPOSITION OF PRODUCT OF THAT FISHERY FOR THE STATE OF MAINE FOR THE YEAR 1899, BY COUNTIES.

County.	CLAMS SOLD IN SHELL.		*CLAMS SOLD FOR BAIT.		CLAMS SOLD FRESH.		SCALLOPS.		CLAMS CANNED.		CLAM JUICE.		CLAM CANNING FACTORIES.		BOATS.		†Number of persons engaged.
	Busbels.	Value.	Barrels.	Value.	Gallons.	Value.	Gallons.	Value.	Cases.	Value.	Cases.	Value.	Number.	Value.	Number.	Value.	
Washington	3,997	\$1,499	1,291	\$6,367	.....	.....	130	\$130	3,943	\$13,037	2,339	\$5,430	.....	.....	95	\$1,460	168
Hancock	34,200	10,310	6,925	29,700	2,738	\$1,365	2,953	1,772	27,819	83,457	.....	.....	2	\$3,500	192	1,920	390
Waldo	1,920	2,783	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30	540	41
Knox	54,855	18,079	159	667	.....	.....	410	246	12,843	38,480	1,540	2,564	4	3,400	115	970	182
Lincoln	50,631	18,175	46	244	.....	.....	.....	.....	3,470	9,604	.....	.....	2	2,000	138	1,960	102
Sagadahoc	4,975	2,069	79	270	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28	274	40
Cumberland	86,997	38,889	3,298	17,885	.....	.....	911	911	11,094	34,835	.....	.....	6	5,000	179	1,790	364
York	20,463	10,646	38	162	2,300	850	.....	.....	.....	.....	.....	.....	.....	.....	35	750	80
Total	258,038	\$102,450	11,836	\$55,295	5,038	\$2,215	4,404	\$3,059	59,169	\$179,413	3,879	\$7,994	14	\$13,900	812	\$9,664	1,367

* Bait clams both fresh and salt included.

† Including factory employes.

10,668 cases fresh codfish and 101 cases fresh mackerel (each case 24 cans) were put up in these factories and the same is scheduled in the proper tables and not above.

No factory for canning clams is shown in Washington county because the clams reported above as canned were put up in sardine factories.

SFA AND SHORE FISHERIES.

THE SMELT FISHERY.

From this business (considered small and practically of no account by those who do not know about it) in the year 1900 our State derived a revenue to its fishermen of seventy-seven thousand and seventy-four dollars (\$77,074.00), the yield being one million seventeen thousand four hundred and thirty-four pounds (1,017,434). The total investment in boats and gear, weirs and camps used in this business in 1900 was twenty-five thousand three hundred and ninety-eight dollars (\$25,398.00) or about twenty-six dollars (\$26.00) to each person engaged in the fishery, which numbered nine hundred and seventy-seven persons (977), men and boys. All the counties on our coast excepting Knox, Cumberland and York prosecuted the fishing largely through the ice from camps, while Waldo county catch was taken without the use of either weirs or camps, and York county entirely with hook and line. Most of the fishermen carry on the fishing but a few weeks and in some sections but a few days, still the men engaged average about eighty dollars (\$80.00) each. As compared with the previous year 1899, the catch and money return increased somewhat over the latter year, and the men fishing increased from eight hundred and thirty (830) to nine hundred and seventy-seven (977). Large shipments continued to be made to Boston and New York markets.

There is no suggested legislation that I can recommend in this report, but undoubtedly the legislative committee will have numerous propositions for legislative action and possible restrictions.

Tables for both years covered by this report will be found following, to which reference is made for detailed information.

TABLE NO. 9.

THE SMELT FISHERY, IN THE STATE OF MAINE FOR 1900, BY COUNTIES.

County.	SMELTS CAUGHT.		BOATS USED.*		WEIRS.		CAMPS.		Number of persons fishing.
	Pounds.	Value.	No.	Value.	No.	Value.	No.	Value.	
Washington..	199,960	\$14,730	50	\$2,500	45	\$1,150	20	\$600	123
Hancock	219,658	16,279	50	1,550	38	1,520	200	2,000	331
Waldo	70,850	7,223	.....	.....	.....	.....	26	260	38
Knox	37,700	3,770	8	345	.....	.....	.....	.....	20
Lincoln.....	193,731	15,684	43	2,600	3	100	165	1,573	223
Sagadahoc ...	78,935	4,418	7	792	16	1,920	124	248	126
Cumberland .	212,600	14,570	48	8,000	6	240	.....	.....	96
York	4,000	400	.....	.....	.....	.....	.....	.....	20
Total... .	1,017,434	\$77,074	206	\$15,787	108	\$4,930	535	\$4,681	977

*n the valuation of boats the seines and nets used are included.

TABLE NO. 10.

THE SMELT FISHERY IN THE STATE OF MAINE FOR 1899, BY COUNTIES.

County.	SMELTS CAUGHT.		BOATS USED.*		WEIRS.		CAMPS.		Number of persons fishing.
	Pounds.	Value.	No.	Value.	No.	Value.	No.	Value.	
Washington..	115,110	\$12,045	30	\$1,320	40	\$1,650	12	\$ 120	123
Hancock	193,134	15,492	39	2,040	24	1,200	183	1,464	243
Waldo.....	81,860	7,772	40	2,875	.....	.....	25	250	68
Knox	24,078	1,539	4	191	8	400	.....	.....	18
Lincoln	272,335	14,584	60	2,690	2	75	179	1,062	228
Sagadahoc ...	4,206	276	.....	.....	.....	.....	100	200	50
Cumberland ..	187,236	14,739	51	6,185	.....	.....	.....	.....	90
York.....	2,147	235	6	125	.....	.....	.....	.....	10
Total.....	880,106	\$66,682	230	\$15,426	74	\$3,325	499	\$3,096	830

*In the valuation of boats the seines and nets used are included.

THE ALEWIVE FISHERY.

The catch of this very important and valuable fish since my last report has been total number of fish taken six million four hundred and ninety-nine thousand seven hundred and thirty (6,499,730). The value of the same is twenty-seven thousand three hundred and twenty-six dollars (\$27,326.00).

The catch for 1900 has not been equal to that for 1899, a reduction in number of one million six hundred and fifty-eight thousand six hundred and seventy (1,658,670) of this falling off in the yield Lincoln county shows a loss of one million three hundred and twenty-eight thousand four hundred, (1,328,400) yet for both years Lincoln county leads all the other counties in production.

There are many alewive fisheries in the State that could be made valuable which are now producing little or nothing as compared with other fisheries that are properly established with fish-ways and maintained as they should be. The towns of Newcastle and Nobleboro are both greatly benefited through the revenue derived from the alewive fishery located there and owned by these two towns. Those fish-ways that can be made valuable should receive attention, and in my last report I made the same appeal on behalf of this fishery. The fish-ways are in many sections under the supervision of the towns to look after and see that the fish are allowed by the construction of proper fish-ways to reach their spawning beds, but this is neglected and the "run of fish" is gradually falling off and it is only a question of time when they will disappear entirely from these places. Unless the fish have an opportunity to spawn in their accustomed places we cannot expect an increase, but shall meet a decrease and ultimate extinction of this fish. All fish-ways in our State are under the supervision of the Inland Fish and Game Commission who stand ready to examine with care any of these places when properly called upon to do so.

The table following will explain the details of the alewive fishery as prosecuted in the year 1899 and 1900.

TABLE No. 14.
SHOWING BY COUNTIES STATISTICS OF THE ALEWIVE FISHERY IN THE STATE OF MAINE FOR THE YEAR 1900.

County.	ALEWIVES TAKEN.		FISHERIES.		SMOKE-HOUSES.		WEIRS AND TRAPS.		BOATS.		Men.*
	Count.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	
Washington.....	180,000	\$1,000	.....	.....	.....	.....	.....	.....	10	\$75	25
Hancock.....	470,000	3,050	.....	.....	.....	.....	45	\$450	45	1,600	60
Waldo.....	27,600	276	.....	.....	.....	.....	.....	.....	.....	.....	20
Knox.....	486,930	1,454	.....	.....	5	\$250	5	500	7	125	22
Lincoln.....	936,000	5,720	2	\$3,500	.....	.....	105	5,140	33	375	58
Sagadahoc.....	320,000	1,875	1	1,000	4	150	4	300	6	60	40
Total.....	2,420,530	\$13,375	3	\$4,500	9	\$400	159	\$6,390	101	\$2,235	225

* Includes shore employes.

In counties where salmon or shad are taken alewive apparatus is frequently used in their capture. Herring smoke-houses are also used in curing alewives, and where no weirs or traps are reported, such portion of the fish that were not taken with dip-nets were captured in salmon weirs.

SEA AND SHORE FISHERIES.

TABLE No. 15.
 GIVING BY COUNTIES, STATISTICS OF THE ALEWIVE FISHERY IN THE STATE OF MAINE FOR THE YEAR 1899.

County.	ALEWIVES TAKEN.		FISHERIES.		SMOKE-HOUSES.		WEIRS AND TRAPS.		BOATS.		Men.*
	Count.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	
Washington.....	350,000	\$1,093	.....	.....	.....	.....	.....	.....	10	\$ 80	20
Hancock.....	810,000	2,835	.....	.....	30	\$900	.....	.....	40	1,400	42
Waldo.....	38,100	348	.....	.....	10	215	.....	.....	.....	.....	25
Knox.....	516,700	1,697	1	\$1,000	6	910	5	\$500	5	75	30
Lincoln.....	2,264,400	7,478	2	3,500	12	1,200	72	6,000	21	200	66
Sagadahoc.....	100,000	500	1	1,000	4	150	4	300	6	60	46
Total.....	4,079,200	\$13,951	4	\$5,500	62	\$3,475	81	\$6,800	82	\$1,815	229

* Includes shore employes.

In counties where no weirs or traps are reported, such portion of the fish as were not taken in salmon weirs were taken with dip-nets. Alewive apparatus is also frequently used in the capture of shad and salmon—and herring smoke-houses in the curing of alewives.

THE GROUND FISHERY.

The yield of this great fishery for the two years of this report is seventy-four million five hundred and forty-nine thousand nine hundred and nine (74,549,909) pounds. For this same period Knox county returns very much the largest production of any county in the State, showing twenty million six hundred and two thousand eight hundred forty (20,602,840) pounds. With this great yield to the credit of Knox county in pounds, two other counties showing less catch return greater value. Cumberland county with a production of seventeen million ninety thousand two hundred thirty-eight pounds (17,090,238) shows a money return of three hundred eight thousand six hundred ninety-six dollars (\$308,696.00) to two hundred thirteen thousand three hundred fourteen dollars (\$213,314.00) for Knox, and Hancock county reports a catch of twelve million eight hundred forty-four thousand nine hundred twenty (12,844,920) pounds with a valuation of two hundred sixty-one thousand nine hundred thirteen dollars (\$261,913.00).

The small table immediately following will exhibit at a glance the production or catch of fish and the value of the same in all the counties in the order of their importance in production for the term covered by this report.

County.	Yield in pounds.	Value of the same.
Knox	20,602,840	\$213,314 00
Cumberland	17,090,238	308,696 00
Hancock	12,844,920	261,913 00
Lincoln	10,449,950	173,655 00
York.....	6,803,073	136,510 00
Washington.....	5,682,430	105,433 00
Sagadahoc.....	1,027,163	16,931 00
Waldo.....	49,295	1,377 00
Total	74,549,909	\$1,217,829 00

This fishery is carried on as the bank fishery which brings in salted fares making very long and expensive voyages to the several banks and fishing grounds, and the fresh fish branch which is pursued by quite a fleet and takes out ice for the preservation of the fish and returns the fares to market fresh. Both these branches of the ground fishery are apparently in better condition than in some years as will be evidenced by the enormous amount of fish caught, and with the increase in catch, the business also much more profitable in return.

The prices for fresh fish have ranged higher than for many years past. In fact, at times, almost "civil war prices" have obtained. Very large cod-fish continue at intervals to be taken in the shoal inshore grounds and rivers, and very profitable catches of these fish have been made in Lincoln county waters, especially within the last two years. I still advocate a bounty to the fishing vessels in some form in order that it may be maintained.

Statistical tables of this fishery for the years 1899 and 1900 giving full information in detail as to catch by products, apparatus, and also values, immediately follow.

TABLE No. 11.
STATISTICS OF THE GROUND FISHERY, BY COUNTIES, IN THE STATE OF MAINE FOR THE YEAR 1900.

County.	FISH TAKEN.		TONGUES AND SOUNDS.		HAKE SOUNDS.		OIL.		FISH STANDS.		BOATS.†		Men.
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Gallons.	Value.	Number.	Value.	Number.	Value.	
Washington	3,686,155	\$66,458	...	...	...	...	5,500	\$1,650	18	\$31,000	174	\$4,470	200
Hancock	7,367,637	141,443	96,000	\$2,880	55,100	\$3,012	36,000	10,800	12	25,500	118	13,800	490
Waldo	38,815	1,147	...	...	...	...	...	...	...	...	10	150	34
Knox	*11,019,591	122,932	2,900	116	21,735	1,087	9,955	2,489	12	19,500	12	1,200	61
Lincoln	5,746,600	89,920	5,600	224	10,000	500	15,673	4,382	7	25,950	75	15,845	176
Sagadahoc	759,291	13,180	...	...	...	...	...	...	...	...	33	1,585	52
Cumberland	8,217,539	145,200	...	...	11,130	3,337	19,600	5,222	15	10,200	118	12,830	282
York	4,316,000	86,154	...	...	...	...	...	...	2	13,600	112	8,000	118
Total	41,151,628	\$666,434	104,500	\$3,220	97,965	\$7,936	86,728	\$24,543	66	\$125,750	612	\$57,880	1,413

SEA AND SHORE FISHERIES.

* Includes 2,383 cases canned fresh fish, 24 cans to each case.

† Value here includes gear used with boats.

Includes cod, hake, haddock, pollock, cusk, halibut, horse mackerel, tomcod.

Documented vessels engaged in above fishery will be found in summary, Table 20.

Lincoln County returns show 115 buildings, storehouses and wharves used in the several branches of the fisheries.

The catch of flounders, eels, cunners, swordfish and bass will be found in the summary table properly classified.

TABLE No. 12.
STATISTICS OF THE GROUND FISHERY, BY COUNTIES, IN THE STATE OF MAINE FOR THE YEAR 1899.

County.	FISH TAKEN.		TONGUES AND SOUNDS.		HAKE SOUNDS.		OIL.		FISH STANDS.		BOATS.*		Men.
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Gallons.	Value.	Number.	Value.	Number.	Value.	
Washington.....	1,996,275	\$38,975	.....	.....	.....	.....	10,286	\$3,085	7	\$17,400	289	\$3,090	110
Hancock.....	5,477,283	120,470	.....	.....	29,300	\$2,895	22,360	6,037	12	26,500	169	3,490	398
Waldo.....	10,480	230	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Knox.....	9,583,249	90,382	.....	.....	21,000	2,100	8,324	2,081	8	17,000	40	760	116
Lincoln.....	4,703,350	83,735	49,200	\$1,968	22,000	2,250	9,750	2,478	7	27,200	55	5,000	174
Sagadahoc.....	267,872	3,751	3,150	125	.....	.....	.....	.....	.....	.....	39	1,275	65
Cumberland.....	8,872,699	163,496	.....	.....	.....	.....	.....	.....	15	11,000	87	8,700	196
York.....	2,487,073	50,356	.....	.....	.....	.....	.....	.....	2	14,000	80	4,000	139
Total.....	33,398,281	\$51,395	52,350	\$2,093	72,300	\$7,245	50,720	\$13,671	51	\$113,100	759	\$26,255	1,198

* Value here includes gear used with boats.

Includes cod, hake, haddock, pollock, cusk, halibut, swordfish, horse mackerel, flounders, eels, cunners, tomcod.

Documented vessels engaged in above fishery will be found in summary Table 21.

10,668 cases of fresh codfish, each case 24 cans, included in above catch in Knox county, were put up in clam factory.

10,100 pounds striped bass taken in Lincoln county through the ice included in above table.

10,480 pounds tomcod taken in Waldo county appear in above table.

The catch of flounders, eels, cunners, swordfish and bass will be found in the general summary table properly classified.

THE MACKEREL FISHERY.

The season of 1899 inaugurated a decided improvement in this business and the season of 1900 continued the improvement. The mackerel fishery the latter season has been a reminder of those times in years past when the mackerel were abundant on our coast. The New England fleet which went south early in the spring brought large catches and returned the owners good profits. The large schools in the southern waters indicated that the fish might come north and the prophecies of the fishermen in this respect were fulfilled when large "hauls" were made on our coast and on the George's bank. Several trips landed by vessels absent but a few days were sold for three thousand dollars (\$3,000.00) and a few as high as five thousand dollars (\$5,000.00). Everyone connected with the business seemed to take on new life with the prospect of the old-time fishing. Some of the largest stocks were made by vessels this season that were ever made in this fishery. Several vessels stocked more than twenty-four thousand dollars (\$24,000.00). Maine at present has but a few vessels engaged. With the present encouraging outlook I hope to see many more next season. Maine skippers are sailing vessels from other states and are among the most successful in the business and I hope in the near future to see them masters of vessels hailing from Maine ports. Captain Solomon Jacobs the acknowledged king of the mackerel fleet from Massachusetts, and Captain Eben Lewis, the recognized Maine king have the credit of being "high-liners" in their respective states the present season. Captain Jacobs tried the experiment of placing auxillary power in his new vessel built in 1900 and his large stock during the season proves his good judgment and foresight and the success of his advanced ideas. A vessel is already in construction at Boothbay which will be commanded by Captain Lewis. The vessel will have every modern improvement known to the business, including auxillary power, and probably next season we shall have more of this class of vessels in the Maine fleet.

The increase in this business from '99 to 1900 has been large considering the condition of the fishery for the past few years. The catch has increased from eight hundred and sixty-two thou-

sand five hundred and twenty-four (862,524) pounds fresh and thirteen hundred and sixty-eight barrels salted in '99 to one million six hundred seven thousand six hundred and ninety-two (1,607,692) pounds fresh and four thousand two hundred and sixty-nine barrels salted in 1900. This is a gain of over 86 *per cent* in fresh catch and more than 312 *per cent* gain in the salted fish. With anything like this rate of increase for a few years we shall have the old fishing prosperity when hundreds of vessels were engaged exclusively in the business.

In presenting the statistics of this fishery the full business done cannot be made to appear, as the few vessels now engaged in the business have landed a great portion of their catch in Massachusetts and New York and while the money for the product belonged in our State and ultimately comes here I have been unable to show in full either catch or value.

Combined in one table the statistical information in connection with this fishery for both 1899 and 1900 are shown below.

TABLE No. 13.

The Mackerel Fishery.	For the year 1899.	For the year 1900.
Fresh mackerel landed, pounds... ..	862,524	1,607,692
Value of fresh mackerel.....	\$49,122	\$72,308
Salt mackerel landed, barrels	1,368	4,269
Value of salt mackerel.	14,499	52,297
Number of seines	15	17
Value of seines used	5,800	5,600
Number nets used.....	1,274	400
Value of nets.. ..	11,400	4,000
Number of pounds and traps used.....	29	26
Value of pounds and traps.....	11,200	12,050
Number of boats used.....	101	69
Value of boats.....	4,157	7,080
Number of persons engaged in fishery	208	233
Total value of catch and apparatus used....	\$96,178	\$153,335

273 cases mackerel, value \$1,092, were put up in sardine factories in Washington county. 881 cases mackerel, value \$3,548, were put up in sardine factories in Hancock county. These mackerel were taken in herring weirs. Mackerel valued at \$1,488 were also taken in herring weirs and reported from Knox county. All are accounted for in above table.

Documented vessels engaged in this fishery are included in summary tables numbers 20 and 21.

THE SHAD FISHERY.

The catch of shad for the period covered by this report amounts to one million, four hundred and thirty-four thousand three hundred and seventy-five (1,434,375) pounds. During the year 1899 the returns came from only Washington, Waldo and Sagadahoc counties, the latter county taking six hundred and fifty thousand two hundred (650,200) pounds, and in 1900 Cumberland, Lincoln, Sagadahoc and Washington made the entire catch. The fishermen received for the fish forty-two thousand two hundred and ninety-one dollars (\$42,291.00). The total value of the apparatus in use in 1900 was thirteen thousand two hundred and seventy-five dollars (\$13,275.00) or about seventy-nine dollars (\$79.00) to each of the one hundred and sixty-eight men engaged. The average catch to each man was four thousand two hundred and eighty-eight (4,288) pounds, yielding him one hundred and thirty-five dollars (\$135.00).

This fishing is pursued but a portion of the year and is carried on largely by those engaged in other branches of the fisheries. The fish are shipped principally to the Boston and New York markets.

Table containing information as to this fishery for both 1899 and 1900 follow.

TABLE No. 16.

The Shad Fishery.	For year 1899.	For year 1900.
Shad taken, pounds	713,975	720,400
Value of shad.....	\$19,587	\$22,704
Number of boats shad fishing.....	220	246
Value of boats.....	4,106	3,500
Number of nets used	75	166
Value of nets.....	750	3,440
Number of weirs used.....	88	130
Value of weirs.....	4,160	5,335
Number of persons fishing	228	168
Total value of catch and apparatus.....	\$28,647	\$52,619

THE SALMON FISHERY.

Ninety-nine thousand two hundred and twenty-seven (99,227) pounds of salmon were taken within the State since the date of my last report. The value of this catch for the same period was nineteen thousand six hundred and three dollars (\$19,603.00); thus it will be seen that the average price per pound for Maine salmon was nineteen cents. One hundred and thirty-two men were engaged in the fishery during the year 1900. Hancock county returns the largest year's catch, twenty-one thousand seven hundred and thirty-six pounds (21,736) in 1899. In the Penobscot and St. Croix rivers quite a number of people fish for salmon with fly and rod, and catch small quantities of fish in this way. Where possible to obtain the amount of this catch the wardens have returned the same and it is included in this report, but of course the men thus pursuing the fishery for pleasure are not considered as fishermen and are not included.

One table containing the statistics for both 1899 and 1900 will be found below.

TABLE No. 17.

The Salmon Fishery.	For year 1899.	For year 1900.
Salmon taken, pounds.....	55,014	44,213
Value of salmon.....	\$9,257	\$10,346
Number of boats engaged ..	153	88
Value of boats.....	4,099	2,350
Number of weirs and traps used.....	147	106
Value of weirs and traps.....	7,600	5,370
Number of nets and seines used	103	58
Value of nets and seines.....	2,280	770
Number of persons fishing.....	150	132
Total value of catch and apparatus.....	\$23,236	\$18,836

Alewife apparatus is frequently used in the capture of salmon, and in 1899 a considerable portion of the alewives taken in Washington, Hancock and Waldo counties were caught in salmon weirs.

TABLE No. 18.

Grand Summary Showing by Species, Fisheries and Products, and by Counties the Yield of the Fisheries of Maine for the Year 1900.

Fishery and Species.	WASHINGTON COUNTY.		HANCOCK COUNTY.		PENOBSCOT COUNTY.		WALDO COUNTY.		KNOX COUNTY.		LINCOLN COUNTY.		SAGADAHOE COUNTY.		CUMBERLAND COUNTY.		YORK COUNTY.		TOTALS BY SPECIES.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives	90,000	\$1,000	235,000	\$3,050			13,800	\$276	243,465	\$1,454	468,000	\$5,720	160,000	\$1,875					1,210,265	\$13,375
Bass																				
Clams	1,108,900	44,245	3,070,580	102,496			23,490	1,176	1,626,610	69,226	898,560	36,210	94,600	3,353	1,736,702	\$87,528	186,000	\$8,325	8,745,444	352,559
Cunners															28,950	559			28,950	559
Eels			23,680	1,421							13,100	786			96,083	2,640			132,563	4,847
Flounders			261,000	4,356					44,800	448					52,000	1,064			357,800	5,868
Ground fish	3,686,155	66,458	7,367,637	141,443			38,815	1,147	11,019,591	122,932	5,746,600	89,920	759,291	13,180	8,217,539	145,200	4,316,000	86,154	41,151,628	666,434
Herring, fresh	37,333,200	126,000	8,000,000	36,000					4,772,600	23,786	18,324,200	53,825	1,328,400	6,642	1,184,800	6,900	1,160,000	6,200	72,103,200	259,353
Herring, salt	1,681,000	25,739	24,000	480					9,200	230	140,000	2,000			573,600	7,987			2,427,800	36,336
Herring, smoked	5,169,560	100,353							69,320	1,733	571,500	12,080							5,810,380	114,166
Lobster	2,629,742	180,325	3,713,693	256,457			4,494	352	3,683,449	259,504	2,845,903	222,055	172,506	12,843	877,369	67,758	479,045	38,262	14,406,201	1,087,556
Mackerel, fresh	10,000	3,100	44,050	3,548					35,000	1,238	312,442	15,888	188,000	7,135	866,000	33,789	152,200	7,610	1,602,692	72,308
Mackerel, salt									5,000	250	265,000	14,100			583,800	37,947			858,800	52,297
Oil, cod	41,250	1,650	270,000	10,800					74,663	2,489	117,548	4,382			147,000	5,222			650,461	24,543
Salmon	11,910	2,450	16,356	3,642	2,212	\$664	13,127	3,493	608	97									44,213	10,346
Scallops	11,340	756	159,516	7,560											3,264	272			174,120	8,588
Shad	32,000	1,240									117,400	4,324	642,200	16,199	28,800	941			820,400	22,704
Smelts	199,960	14,730	219,658	16,279			70,850	7,223	37,700	3,770	193,731	15,684	78,935	4,418	212,600	14,570	4,000	400	1,017,434	77,074
Sounds, hake			55,100	3,012					21,735	1,057	10,000	500			11,130	3,937			97,965	7,936
Sword fish									1,007	60	28,000	1,540			53,800	3,766	180,000	9,000	262,807	14,306
Tongues and sounds			96,000	2,880					2,900	116	5,600	224							104,500	3,220
Total	52,005,917	\$568,046	23,556,270	\$593,424	2,212	\$664	164,576	\$13,667	21,647,648	\$488,420	30,057,584	\$479,238	3,423,932	\$65,645	14,619,637	\$415,614	6,477,245	\$155,951	152,007,921	\$2,784,435



WARDENS AND THEIR WORK.

The wardens—with a few exceptions—have attended to their duties in a very satisfactory manner, being ready to act at any and all times. During the past twenty-four months they have liberated ninety-six thousand six hundred and thirty-two (96,632) lobsters less than ten and one-half inches in length, and seized many hundreds which were not in condition to be liberated. They have also caused fines to the amount of two thousand five hundred and thirty-eight and 61-100 dollars (\$2,538.61) to be paid our State treasurer, besides many fines which have been paid in cases where the law requires one-half to be paid to the complainant and one-half to the county in which the offence is committed. They have also caused seven men to be imprisoned, and at the present time have twelve cases pending action in the courts.

If the people in general would work one-half as hard to assist the wardens in bringing the violators to justice as they do to assist them to escape, much more efficient work might be done.

There are several wardens of whom I would like to make personal mention for their very efficient work during their service in this department, but for fear it might discourage others I will forbear, hoping that those who have performed a great part of their labor in making bills and drawing their pay from the State may take warning, and from this time forward give to the State value received for the amount for which their bills are rendered. Too many men who are employed by the State, labor under an impression that State officers are only appointed to benefit themselves, and so long as they appear regularly when "pay day" comes and collect salary, they have done what is required of them, and fail to see that they have given the State nothing in return. What I have said is intended for no one in this department who has done his duty.

LIST OF WARDENS.**YORK.**

J. F. Goldthwaite.....Biddeford.

CUMBERLAND.

George A. Dow.....316 Congress Street, Portland.
 Wm. J. Gardner.....Peak Island.
 Richard Orr.....Orr's Island.

SAGADAHOC.

Abner C. Johnson.....Ashdale.

LINCOLN.

N. J. Hanna.....New Harbor.
 R. T. York.....Damariscotta Mills.
 C. E. Sherman.....Boothbay Harbor.

KNOX.

W. L. Blackington.....Rockland.
 Benjamin Libby.....Warren.

WALDO.

George W. Frisbee.....Belfast.

PENOBSCOT.

Wm. Hale.....44 Boyd Street, Bangor.

HANCOCK.

S. P. Cousins.....East Lamoine.
 John F. Gray.....Sargentville.
 F. M. Trundy.....Oceanville.
 John U. Hill.....Sullivan.
 Benjamin Howard.....Deer Isle.

WASHINGTON.

W. A. Henderson.....Cutler.
 Wm. W. Blood.....Milbridge.
 Peter M. Kane.....Eastport.
 D. O. French.....Jonesport.
 Albert French.....Calais.

Sardine Wardens.

Alfred Small.....Lubec.
 W. A. Henderson.....Cutler.
 F. M. Trundy.....Oceanville.
 W. J. Fisher.....Eastport.
 H. D. Avery.....North Lubec.
 Joseph Hamilton.....Pembroke.
 C. E. Sherman.....Boothbay Harbor.
 James McDiarmid.....Eastport.
 William W. Blood.....Milbridge.

TABLE No. 19.

Grand Summary Showing by Species, Fisheries and Products, and by Counties the Yield of the Fisheries of Maine for the Year 1899.

Fishery and Species.	WASHINGTON COUNTY.		HANCOCK COUNTY.		PENOBSCOT COUNTY.		WALDO COUNTY.		KNOX COUNTY.		LINCOLN COUNTY.		SAGadahoc COUNTY.		CUMBERLAND COUNTY.		YORK COUNTY.		TOTALS BY SPECIES.		
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	
Alewives	175,000	\$1,093	405,000	\$2,835			19,050	\$348	258,350	\$1,697	1,132,200	\$7,478	50,000	\$500					2,039,600	\$13,951	
Bass											10,100	1,960							10,100	1,960	
Clams	612,270	26,333	3,150,366	124,832			19,200	2,783	1,299,500	59,790	689,610	28,023	65,550	2,339	2,084,270	\$91,609	239,830	\$11,658	8,160,436	347,367	
Cunners															38,097	761			38,097	761	
Eels			37,000	2,220							18,125	1,306			10,365	468			65,490	3,994	
Flounders			272,200	4,763					2,021	40	7,400	230			11,205	349	20,000	200	312,826	5,582	
Ground fish	1,996,275	38,975	5,477,283	120,470			10,480	230	9,583,249	90,382	4,703,350	83,735	267,872	3,751	8,872,699	163,496	2,487,073	50,356	33,398,281	551,395	
Herring, fresh	63,333,200	190,000	3,640,600	17,883					2,629,800	15,197	10,311,600	51,983	484,000	3,025	1,888,000	9,380	596,800	4,873	82,684,000	292,341	
Herring, salt	5,986,600	91,033	300,000	5,102							740,000	10,100							7,026,600	106,235	
Herring, smoked	7,917,500	126,680									300,000	6,500			15,000	330			8,232,500	133,510	
Lobster	2,289,753	178,457	3,087,668	229,068			4,327	331	3,207,407	230,237	2,738,979	223,711	129,615	10,198	869,137	67,530	391,250	31,965	12,718,136	971,497	
Mackerel, fresh	4,000	240	7,000	426						21,000	5,306	75,262	4,215	75,622	1,665	631,600	33,507	48,000	3,763	862,524	49,122
Mackerel, salt										12,406	620	257,400	15,594	3,800	285					273,600	16,499
Oil, cod	77,145	3,085	167,700	6,037						62,430	2,081	73,125	2,478							380,400	13,681
Salmon	14,238	2,410	21,736	3,695	1,386	\$347	17,506	2,761	148	44										55,014	9,257
Scallops	1,560	130	35,436	1,772					4,920	246					10,932	911				52,848	3,059
Shad	56,000	1,710					775	73					650,200	17,804						706,975	19,587
Smelts	115,110	12,045	193,134	15,492			81,860	7,772	24,078	1,539	272,335	14,584	4,206	276	187,236	14,739	2,147	235	880,106	66,682	
Sounds, bake			29,300	2,895					21,000	2,100	22,000	2,250								72,300	7,245
Sword fish											20,000	1,200			85,600	5,136	150,000	9,750	255,600	16,086	
Tongues and sounds											49,200	1,968	3,150	125						52,350	2,093
Total	82,578,651	\$672,191	16,824,863	\$537,490	1,386	\$347	153,198	\$14,298	17,126,303	\$409,279	21,420,086	\$457,315	1,734,055	\$39,968	14,504,141	\$388,216	3,935,100	\$112,800	158,277,783	\$2,631,904	



LIST OF INSPECTORS OF PICKLED FISH.

Name.	Residence.	Date of Commission.
D. L. Fernald	Portland	July 6, 1896
Joseph L. Fernald	Portland	May 14, 1897
Joseph W. Sheppherd	Portland	October 25, 1898
Joseph W. Lord	Portland	August 23, 1899
Charles A. Dyer	Portland	June 15, 1900
John A. Beal	Jonesport	June 28, 1897
Palmer Lakeman	Jonesport	July 13, 1899
Wm. B. Holmes	Eastport.....	August 23, 1899
Joseph Farris.....	Eastport.....	August 23, 1899
E. W. Holmes.....	Eastport	September 25, 1899
Robert Spear	Eastport.....	September 25, 1899
Abner Leonard	Eastport	September 25, 1899
Hiram Blanchard	Eastport	September 25, 1899
S. W. Leonard	Eastport	September 25, 1899
Eben A. Holmes	Eastport	October 18, 1899
B. M. Pike	Lubec.....	September 25, 1899
Jacob Pike.....	Lubec.....	September 25, 1899
George A. Mowry	Lubec.....	September 25, 1899
James J. McCurdy	Lubec.....	September 25, 1899
Everett Reynolds	Lubec	September 25, 1899
Elias P. Lawrence	Lubec	October 23, 1900
Nathan B. Dyer	Milbridge.....	October 23, 1900
F. J. Dugo.....	Steuben	September 20, 1898
Leslie H. Nash.....	Cutler	August 23, 1899
Gilman N. Williams	Cutler	September 7, 1900
A. M. Powers	Boothbay Harbor.....	October 18, 1899
Stephen Nickerson.....	Boothbay Harbor.....	July 27, 1897
Charles B. Meserve	Bristol.....	September 20, 1898
John E. Crie	Criehaven (Plantation).....	November 13, 1899
Charles E. Mills	North Haven	December 13, 1899
C. E. Weeks	Rockland	February 28, 1900
Thomas M. Nicholson	Bucksport	July 20, 1900
Wm. Brennan	St. George	August 8, 1900

The above are commissioned for five years.

TABLE No. 20.

SUMMARY OF THE VESSELS, BOATS AND APPARATUS USED AND VALUE, SHOWING
TOTAL INVESTMENT IN THE FISHERIES IN THE STATE OF MAINE, NOV. 30, 1900.

Fishery.	Items.	Value.	Fishery totals.
General fishery..	422 vessels, 8,213 tons.	\$369,585	\$486,710
	54 steamers and sailing smacks	117,125	
Ground fish	612 boats and gear	\$57,880	183,630
	66 fish stands	125,750	
Alewife	101 boats	\$2,235	13,525
	3 fisheries.	4,500	
	159 weirs and traps.	6,390	
	9 smoke-houses.	400	
Mackerel.....	69 boats.	\$7,080	28,730
	26 pounds and straps	12,050	
	417 nets and seines	9,600	
Salmon.	88 boats.	\$2,350	8,490
	100 weirs and traps.	5,370	
	58 nets and seines.	770	
Shad.	246 boats.	\$3,500	12,275
	166 nets	3,440	
	130 weirs	5,335	
Bass	60 nets	\$300	300
Menhaden....	4 factories.	150,000	150,000
Smelts	206 boats and gear.	15,787	25,398
	108 weirs.	4,930	
	530 camps.	4,681	
Sardine.	79 factories.	\$598,200	598,200
Clam.....	1,062 boats	11,265	30,165
	18 factories.	18,900	
Lobster.....	3,477 boats	\$247,397	516,118
	2,483 cars	26,471	
	185,766 pots	205,350	
	13 pounds.	36,900	
Herring	817 steamers and boats	\$168,890	463,420
	211 smoke-houses.	87,800	
	Weirs, traps, nets and seines.	198,730	
	Boothbay Harbor cold storage plants.	6,000	
	3 fertilizer plants.	62,000	
Total value of investment in 1900.....			\$2,516,961

TABLE No. 21.

SUMMARY OF THE VESSELS, BOATS AND APPARATUS USED AND VALUE SHOWING
TOTAL INVESTMENT IN THE FISHERIES IN THE STATE OF MAINE NOV. 30, 1899.

Fishery.	Items.	Value.	Fishery totals.
General fishery..	375 vessels, 5,980 tons.....	\$251,160	\$341,610
	45 steam and sailing smacks.....	90,450	
Ground fish.....	759 boats and gear.....	\$26,255	139,355
	51 fish stands..	113,100	
Alewife.....	82 boats.....	\$1,815	17,590
	4 fisheries.....	5,500	
	81 weirs and traps.....	6,800	
	62 smoke-houses.....	3,475	
Mackerel.....	101 boats.....	\$4,157	32,557
	29 pounds and traps.....	11,200	
	1,289 nets and seines.....	17,200	
Salmon.....	153 boats.....	\$4,099	13,979
	147 weirs and traps.....	7,600	
	163 nets and seines.....	2,280	
Shad.....	220 boats.....	\$4,106	9,016
	75 nets.....	750	
	88 weirs.....	4,160	
Bass.....	Nets.....	\$100	100
Menhaden.....	4 factories.....	150,000	150,000
Smelt.....	230 boats and gear.....	15,426	21,847
	74 weirs.....	3,325	
	499 camps.....	3,096	
Sardines.....	68 factories.....	\$581,000	581,000
Clam....	812 boats.....	9,664	23,564
	14 factories.....	13,900	
Lobster.....	3,694 boats.....	\$239,714	490,783
	2,627 cars.....	25,339	
	186,724 pots.....	205,230	
	10 pounds.....	20,500	
Herring.....	633 steamers and boats.....	\$122,652	348,797
	177 smoke-houses.....	82,650	
	Weirs, traps, nets and seines.....	126,995	
	Boothbay Harbor cold storage plant.....	6,000	
	2 fertilizer plants.....	10,500	
Total value of investment in 1899.....			\$2,170,198

TABLE No. 22.

SHOWING FOR THE YEAR 1900 NUMBER OF PERSONS EMPLOYED IN THE SEVERAL BRANCHES OF THE FISHERIES IN THE STATE OF MAINE, BY FISHERIES AND COUNTIES

Fishery.	Washington county.	Hancock county.	Penobscot county.	Waldo county.	Knox county.	Lincoln county.	Sagadahoc county.	Cumberland county.	York county.	Totals by fishery.
Alewife.	25	60	.....	20	22	58	40	.....	.....	225
Bass. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clam and scallop	286	465	.....	23	185	136	32	454	96	1,677
Ground fish	200	490	.....	34	61	176	52	282	118	1,413
Herring	865	90	.....	.....	74	307	19	75	40	1,470
Lobster.	474	465	.....	11	609	537	78	823	108	3,105
Mackerel ....	.....	.....	.....	.....	.....	91	20	74	48	233
Salmon	28	45	25	34	.....	.....	.....	.....	.....	132
Sardine	6,178	690	.....	.....	.....	667	.....	.....	.....	7,535
Shad.	15	.....	.....	.....	.....	38	103	12	.....	168
Smelt	123	331	.....	38	20	223	126	96	20	977
County totals	8,194	2,636	25	160	971	2,233	470	1,816	430	
Grand total*.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16,935

* Number of persons engaged in the fisheries in the whole State.

TABLE No. 23.

SHOWING FOR THE YEAR 1899 NUMBER OF PERSONS EMPLOYED IN THE SEVERAL BRANCHES OF THE FISHERIES IN THE STATE OF MAINE BY FISHERIES AND COUNTIES.

Fishery.	Washington county.	Hancock county.	Penobscot county.	Waldo county.	Knox county.	Lincoln county.	Sagadahoc county.	Cumberland county.	York county.	Totals by fishery.
Alewive,.....	20	42	.....	25	30	66	46	.....	.....	229
Bass.....	.....	.....	.....	.....	.....	10	.....	.....	.....	10
Clam and scallop	168	390	.....	41	182	102	40	364	80	1,367
Ground fish.....	110	398	.....	.....	116	174	65	196	139	1,198
Herring.....	1,175	146	.....	.....	88	216	11	60	100	1,796
Lobster.	410	503	.....	16	649	500	77	849	112	3,116
Mackerel.....	.....	.....	.....	.....	.....	80	12	77	39	208
Salmon.....	28	85	7	30	.....	.....	.....	.....	.....	150
Sardine.....	5,103	510	.....	.....	.....	463	.....	.....	.....	6,076
Shad.	18	.....	.....	35	.....	.....	175	.....	.....	228
Smelt.....	123	243	.....	68	18	228	50	90	10	830
County totals.....	7,155	2,317	7	215	1,083	1,839	476	1,636	480	
Grand totals* . . . . .	.....	.....	.....	.....	.....	.....	.....	.....	.....	15,208

* Number of persons engaged in the fisheries in the whole State.