

# MAINE STATE LEGISLATURE

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PUBLIC DOCUMENTS OF MAINE

1909

BEING THE

ANNUAL REPORTS

OF THE VARIOUS

DEPARTMENTS AND INSTITUTIONS

For the Year 1908.

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VOLUME II.

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AUGUSTA  
KENNEBEC JOURNAL PRINT  
1909

THIRTIETH REPORT

Commissioner of Sea and  
Shore Fisheries

STATE OF MAINE

1907 and 1908.

JAMES DONAHUE, Commissioner.  
Rockland, Maine.

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WATERVILLE  
SENTINEL PUBLISHING COMPANY  
1909

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STATE OF MAINE.

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DEPARTMENT OF SEA AND SHORE FISHERIES.

ROCKLAND, MAINE, December 23, 1908.

*To His Excellency, William T. Cobb, Governor of Maine:*

I herewith submit, as required by law, the thirtieth report of Commissioner of Sea and Shore Fisheries, for the two years ending November 30, 1908.

Respectfully,

JAMES DONAHUE,

*Commissioner.*



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PRESENT AND COMPARATIVE VALUE TO THE  
STATE OF MAINE OF THE SEA AND SHORE  
FISHERIES.

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|            |             |
|------------|-------------|
| 1888 ..... | \$2,292,000 |
| 1896 ..... | 2,398,000   |
| 1900 ..... | 2,784,000   |
| 1904 ..... | 3,380,000   |
| 1908 ..... | 3,850,000   |

*Memo.* The above is the value of the catch, and does not include the value of sardine canning factories or their products, nor that of wharves, buildings, boats, gear, traps, etc. A very large sum is paid annually for labor in curing, packing, etc., which is not included. These figures are the value of the product as taken from the water by the fishermen. If all the above items were included, together with allied interests, the total value to the State of the fisheries and investments connected therewith would be approximately \$10,000,000.

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|   |             |
|---|-------------|
| Number of men employed, .....                                     | 11,662      |
| Number of persons dependent on this<br>industry, practically..... | 50,000      |
| Value of plants, boats, gear, etc., .....                         | \$3,801,253 |

## GENERAL REMARKS.

The summary given on the preceding page shows for itself the enormous increase in the value to this State of the sea and shore fisheries. The present magnitude and value of the fisheries are not generally known and understood. There are two reasons for this increase; viz., the larger number of persons engaged in, and making their entire livelihood from the fisheries; and the preservation by restrictive laws of certain of the species which otherwise would have been greatly depleted.

This year there has been held a Congress of the International Bureau of Fisheries at Washington, D. C., and every country on the globe, with the exception of Russia, was represented. This Congress was called for the purpose of interchanging views and plans for the universal development and preservation of fisheries.

Governor Curtis Guild, Jr., of Massachusetts also called a conference of the governors of the New England states and their invited guests to consider problems of vital importance to New England and of four subjects considered at an open meeting held in Tremont Theater, Boston, sea and shore fisheries was one. The Congress of the International Bureau and this meeting of governors show the present importance attached to the fisheries. Following the above Congress and conference there have been meetings of heads of fisheries departments of several states, with a view to bringing about uniform legislation as to the preservation, propagation and increase in production of sea and shell fish.

The State of Maine ranks second among New England states in the total value of its fisheries, and first in the production of shell fish. The table of comparison of production in the State of Maine is interesting and instructive, but the real proposition is that today the sea and shore fisheries of Maine are among its most important industries and should be not only preserved and protected but if possible increased in value by the enforcement of its present laws and, where necessary, the passing and enforcement of additional laws which will safeguard the natural increase in production and value through the proper protection of the female and young.

While there may be different scientific and practical views as to the best methods to be adopted in particular cases, the views of the best informed men in reference to the two largest

branches of this industry requiring protection,—viz., the lobster and clam, seem to be in harmony, and there is apparently no question but what our present lobster law is correct not only in principle but in practice. At a meeting of all the Commissioners of Sea and Shore Fisheries for the New England states, held in the State House at Boston December 14, 1908, it was unanimously voted that each other Commissioner should recommend to the legislature of his state and urge the adoption of the Maine law in reference to the legal size of a lobster and method of measurement. The clam laws are not working satisfactorily and should be changed. After conference and correspondence with the heads of fisheries departments in the other New England states and representatives of the various branches of the fisheries in this State, I make the following recommendations and suggestions as to important changes which seem necessary in the present laws governing the fisheries.

#### RECOMMENDATIONS.

*Alexwives.* Towns that have control of fish should be obliged to provide suitable fishways in dams.

*Clams.* Provision should be made, by leasing or otherwise, to prevent entire depletion of productive flats and provide for re-stocking and propagation of barren flats.

*Dynamiting.* The law against dynamiting should be made as strong and as far-reaching as possible.

*Herring.* There should be a uniform seining law in reference to weirs, adopting the present law west of White Head.

*Lobsters.* A law should be passed requiring all persons engaged in the lobster industry to be licensed.

*Salmon.* Owners of dams should be obliged to provide suitable fishways.

*Scallops.* A close time should be provided for Knox county.

*Towns.* It is now optional with, but should be made obligatory upon, towns to appoint fish committees, and penalty provided for failure of committee to properly perform its duties.

The need of and reasons for above changes in the law will be found under the separate heads which are taken up later in this report.

## THE DEPARTMENT.

The Department of Sea and Shore Fisheries as present constituted consists of a Commissioner appointed by the Governor, and Wardens who are recommended by the Commissioner, appointed by the Governor and confirmed by the Council; also in rare instances, Deputy Wardens responsible directly to the Commissioner. For many years, while the value of the industry to the State, as is shown by previous table, has enormously increased and the volume of business and detail to be cared for become larger in proportion, the appropriation for the entire expense of the Department has remained fixed at \$15,000. This sum is inadequate now and has been for some time to provide for the needs of the Department. Hon. A. R. Nickerson, my predecessor in office, very strongly urged an increase in appropriation, and refers to the same in the 29th Report of this Department, page 87. I wish to state that it is impossible to maintain a proper efficiency without an increase in appropriation. The Department has a system of annual, monthly and weekly reports, which give very thorough information as to every branch of the fisheries,—production, value, shipments, violations, etc.,—and as the weekly report is a daily report for every week, the Commissioner is in constant and close touch with the whole seacoast through the warden service. These weekly or daily reports are of the greatest value, not only in giving accurate information, but in locating a warden at a given time and therefore checking up any particular territory as being covered or not covered by the warden service. Lack of funds has been a very serious handicap in this direction.

One recommendation alone which I have made for new legislation; viz., the licensing of those engaged in any branch of the lobster industry, it is hoped will bring about a great change as to the violations of the law; so that fines, which have heretofore been added to the Department funds, but decreasing in amount each year, will be very largely reduced. There will be a large amount of additional work, both oversight, clerical and warden, in properly issuing, keeping a record and protecting the holders of approximately 3,000 licenses. I mention this proposition to bring out more clearly the fact that the Department will have a much reduced income from fines to be added

to its regular appropriation; and the net income from licenses will not make up this loss. I have attempted to demonstrate above that the warden service of itself requires more funds. With all bills of the Department paid, as approved and allowed by the Auditor up to November 1, 1908, with November and December yet to be paid, there was a balance in the Treasury to the credit of the general appropriation for the Department of \$19.53, the bills for November and December remaining to be paid out of money heretofore collected from fines. It therefore seems clear that for the next two years it would be impossible to carry on this Department at its present grade of efficiency without an increase in appropriation.

In accordance with requests issued to the head of every department in this State by the State Auditor, I have furnished to him an estimate of the appropriation necessary to properly conduct this Department for the years 1909 and '10. This statement shows the estimated requirements in detail.

It is the present policy of the Department to furnish all possible information to those interested in the fisheries, in such a manner that they may understand that the present laws are as a whole wise laws and it is for the best interests of all to observe them. I refer particularly to the lobster industry, and I believe that the fishermen today as a class look upon the laws as being beneficial to them; are beginning to appreciate the fact that scientific and methodical preservation and propagation will furnish them for years to come a good business; and that a failure to comply with the present laws would mean the practical destruction of an industry from which 15,000 persons now obtain a livelihood. Up to a comparatively recent date it was a general idea that the fisheries were absolutely inexhaustible, and laws regulating them were looked upon by fishermen as restrictive and burdensome. At the present time, however, it has been shown beyond the shadow of a doubt that the fisheries, like every other industry, require certain care and attention in order that they may be preserved. I believe that today all interested in the industries not only are willing to acknowledge but believe that this is the proper way to look at the situation.

January 26, 1907, the Lobster Fisherman's National Protective Association was organized with numerous branches throughout the State, and the underlying principle of the organ-

ization is the protection of the fishermen's interests. This organization has accepted, and now urges its members and even those not enrolled in its membership to live up to the present lobster laws, and this because they believe that the laws are for their best interests. These branches have been of great assistance to this Department in educating the people as to the real benefit of our laws and in bringing about the feeling that it is for the interest of the members to abide by them, not a feeling of fear of the law and the consequences of violation.

For the purposes of this report it is neither necessary nor practical to give detailed information or recommendations as to all the smaller branches of the fishing industry of this State, as many take care of themselves and others are of too minor importance; but on the other hand, some of the most important should be considered and recommendations made as to corrective and additional legislation, and these will be taken up in alphabetical order.

## ALEWIVES.

This variety of fish at one time was of great commercial value to the State, but at the present time is comparatively of very little value. One reason for this decrease seems to be that proper care has not been taken to provide suitable fishways, the only means by which this fish can go from salt water into fresh for the purpose of spawning. Another well-defined cause for the gradual failure of the industry is the pollution of our fresh waters through chemicals and water from mills, especially from sawmills, which gradually raises the bed of the stream and especially fills up pools below the dams, where the fish bunch-up before taking the fishways for fresh water. There are apparently no other reasons for the almost practical failure of this industry. In a great measure the fault rests not so much with the law which gives the control of this industry to certain towns bordering on spawning streams as with fish committees appointed by the towns who fail to see that proper channels in the form of fishways are provided and courses for the return of the young fish to salt water. Private interests in dams and water privileges are too often considered, where beyond a trifling expense, no harm could possibly be done if proper ways and courses are provided.

There are both general and special laws providing for the alewife catch, and many of the special laws are very old, so that towns should each year derive a substantial financial benefit from the catch. Some towns, through their fish committee properly appointed, attend to this matter; with others it is a dead letter. It does not seem practical by legislation to take away the towns rights in the fisheries, but all the present laws relating to this industry should be so modified and strengthened that it will be obligatory both upon the towns to perform their duty in selecting a fish committee and upon the fish committee when chosen to perform their duty also.

## BASS.

The catch of bass is of very slight commercial importance to the State and apparently an industry which it is not practical at the present time to attempt to develop.

## CLAMS.

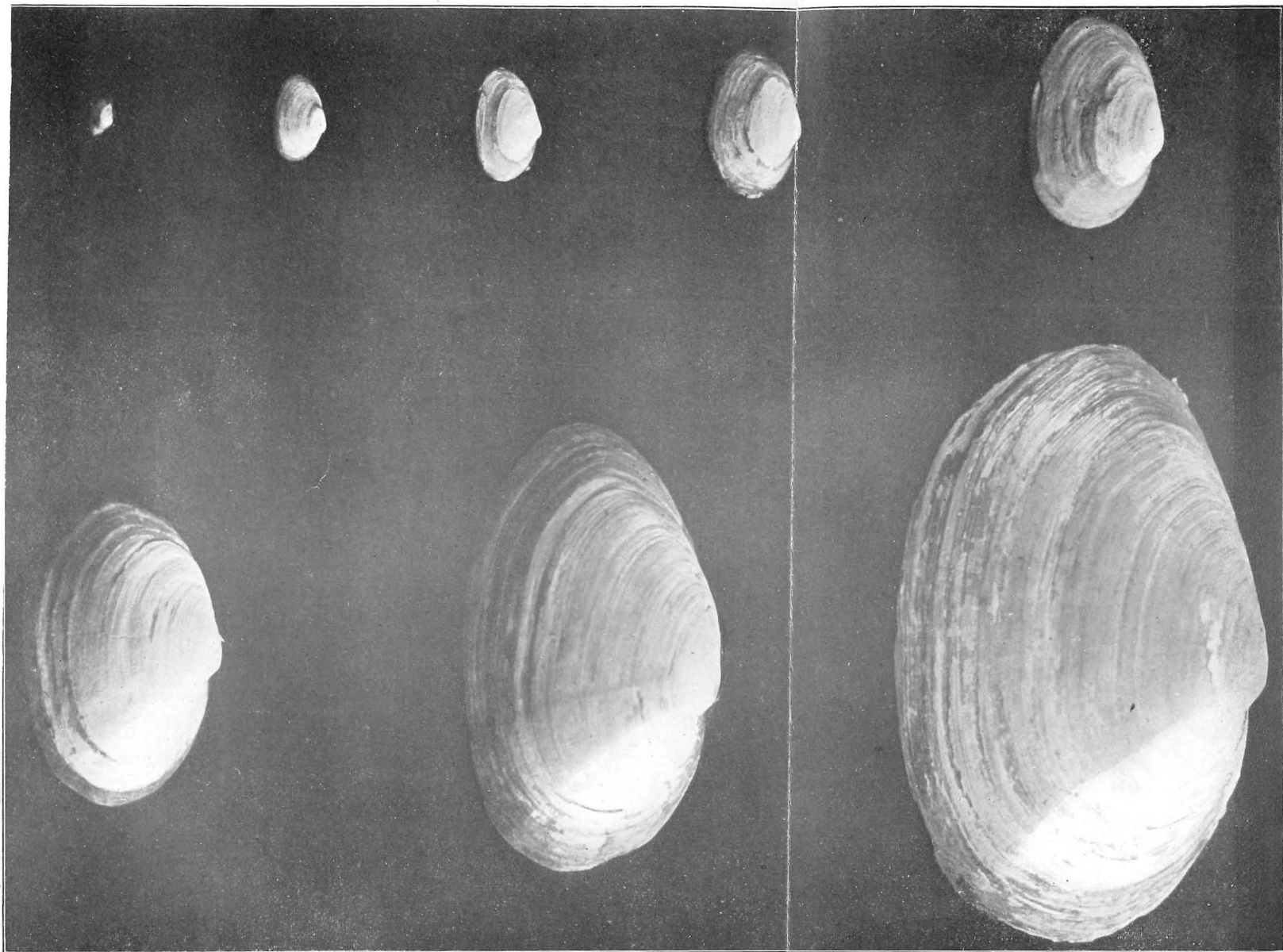
The success of the clam industry probably directly or indirectly affects more citizens of this State than that of any other of the fisheries. It is one of our most valuable food and commercial species. The supply has been decreasing constantly for a number of years, from over-digging the flats and the absence even of any attempt to re-stock or propagate. It has been demonstrated that clams at their best should not exceed a medium size, which they will under favorable conditions attain from the seed in two years. It has also been found that flats which have not been dug for a number of years produce a large, tough and unmerchantable article of food. This would seem to demonstrate that some provision should be made for re-stocking flats, and also, as a practical matter, all flats should be dug over every two or three years at the longest. There are but two general laws now which attempt to regulate the production of taking of clams. One is a law which gives towns the right to issue licenses to residents of that town, and the other which provides that small reservations may be set aside by the Commissioner of Sea and Shore Fisheries for experimental purposes. The town law is not generally taken advantage of, as it is necessary for the town at a town meeting to vote upon the question as to whether they will or will not issue licenses, and very few towns take any action whatever. If every town in the State which has clam flats within its limits took advantage of the law, I do not believe it would be a practical solution of the present trouble. Something more is needed.

In reference to the reservations which have heretofore been made, it can truthfully be said that they have accomplished in a measure the purpose for which they were intended; viz., it has been shown that clams can be propagated from seed; that flats should be completely dug over at intervals, not exceeding two years; that if they are not dug over the result is an unmerchantable product.

At a meeting of the commissioners of sea and shore fisheries of the New England states held in Boston December 7, 1908, one of the most important matters considered was the proper care of oyster, quahaug and clam beds. The states of Rhode Island, Connecticut and Massachusetts, especially Rhode Island,

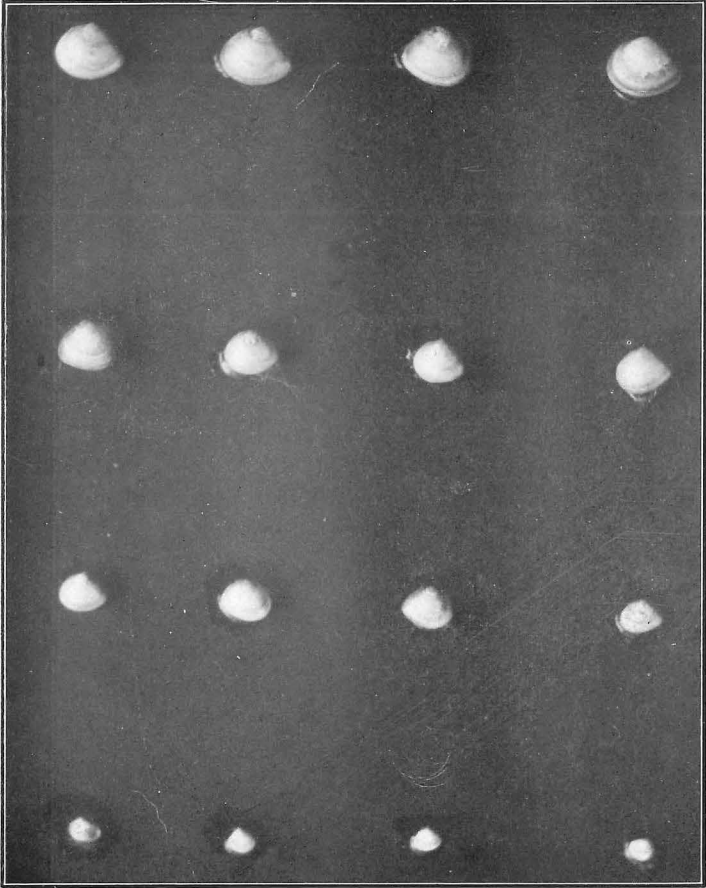


Growth in four months from five-sixteenths of an inch to one and  
one-half inches in length



Growth in sixteen months from two inches to four  
inches in length





Group of Clam Seeds



have long given particular scientific and practical attention to the proper development of shellfish. The system adopted by Rhode Island is to lease beds to citizens for a given term of years, and the result has demonstrated beyond a question that such a method is successful in the highest degree, both to the lessee from a financial standpoint and particularly in reference to the development of the product as to quality. The conditions in Maine were carefully taken up, and it was the unanimous opinion of those present that a similar method should be adopted as to clam beds in this State.

As far as is known there has been no change in the quality of the common Maine clam, the ordinary gray clam running from medium to very large size. These clams are not as valuable when shipped to markets outside the State as those from other sections where a smaller, thinner shell clam with whiter, tenderer meat is produced. There is no reason why,—if a system of leasing flats were adopted, putting in the hands of private individuals the cultivation of the flats, to whose interest it would be to improve the quality as well as to increase the quantity,—this State should not compete with or excel any other of the New England states in the quality, quantity and value of this industry. I recommend a law providing for the leasing of flats to individuals for a term of years, with proper provisions as to re-planting and digging over every year; and if a practical method could be devised of measuring clams a provision also made that clams under two inches in length should not be used for any purpose but left in the flats and considered as seed.

Suggestion has been made that a close time be arranged so that one-half the flats shall be open to be dug in alternate years. I do not think that this is necessary, providing a law as indicated above is passed.

(There are inserted in this report cuts of clams at various ages, which will be instructive as to showing size, etc.)

## EELS.

This is one of the minor varieties to which very little attention is paid and of which about the same amount are caught each year in the same localities. The industry takes care of itself, and no general legislation seems to be necessary.

## GROUNDFISH.

This is one of the largest fisheries of the State and one in which a large number of our people are employed. It has not been necessary for the State to pass any general protective laws in reference to these deep-sea fish. The industry has heretofore taken care of itself. There are a few special laws well framed for their intended use. We know little of their habits. The supply on this coast continues about the same from year to year, there is a comparatively slight variance, due largely to weather conditions and value of the fish in the market. The value of the industry to the fishermen in this State is approximately \$1,000,000 per year. This represents only the catch landed in the State and does not represent the catch taken by vessels from other states, especially Massachusetts, which in the aggregate would probably amount to about as much more.

There is at present a special law prohibiting netting for cod-fish at the mouth of the Sheepscot river. The purpose of the law is to prevent the destruction of female cod, who school in large numbers going up the Sheepscot river to the spawning beds. For some unknown reason this locality seems to be the only known point where a large number of cod are collected at one time for this purpose.

Since the law was passed prohibiting the use of nets, the fishermen have continued to use trawls, in a measure thus defeating the purpose of the protection intended; and I recommend an amendment to the present law which shall also prohibit the use of trawls within the same limits.

## HERRING.

This is one of our most valuable species of food fish. It is used in a great many different ways, more than any other fish found in Maine waters. Undoubtedly the largest number are

used by, and the greatest value produced from, the sardine factories, as they are not only ready but always searching for more even of a certain sized small herring than can usually be obtained during the canning season. The larger fish appear in the form of bloaters, pickled and smoked herring, and for the latter there is a very large demand. Also they are the principal bait which can be obtained for use by deep-sea and lobster fishermen, and as such are very important to the general fishing industry.

There are a large number of laws which attempt to regulate the catch of herring. Most of these laws were written and passed by the legislature through the influence and in the interest of certain localities. Many of them are drawn with great looseness, so that it is almost impossible to determine the meaning and intent of and territory covered by a given law. In some cases there are special laws which actually conflict with one another. If possible, these special laws should be wiped entirely out of our statutes. If this is not possible, they should be thoroughly revised by those now interested so that not only apparent but real conflicts in the same will be done away with. Many of them are at the present time a source of annoyance, trouble and expense to the localities and fisherman, and it is almost impossible for this Department to make an impartial enforcement of laws in such a chaotic state.

I wish to call special attention to the laws which divide the waters of this State at White Head and establish different regulations east and west of that point. West of White Head it is not legal to run a seine within one thousand feet of a weir. East of White Head the distance is extended to one-half mile.

I believe that the weirmen who have a large amount of money invested in their shore properties should have ample protection, and if there were no law at the present time protecting them I should favor one. It is, however, my opinion that if fishing is not allowed within one thousand feet of a weir it becomes a fair proposition to both seiners and weirmen. Careful inquiry has been made as to the working of the one thousand feet law west of White Head, and also practical, unprejudiced men in the eastern part of the State have expressed the opinion that one thousand feet is a fair limit. In view of the working of the

law to the westward and other information obtained by this Department, I recommend a uniformity in the law and a fixed limit of one thousand feet.

#### LOBSTERS.

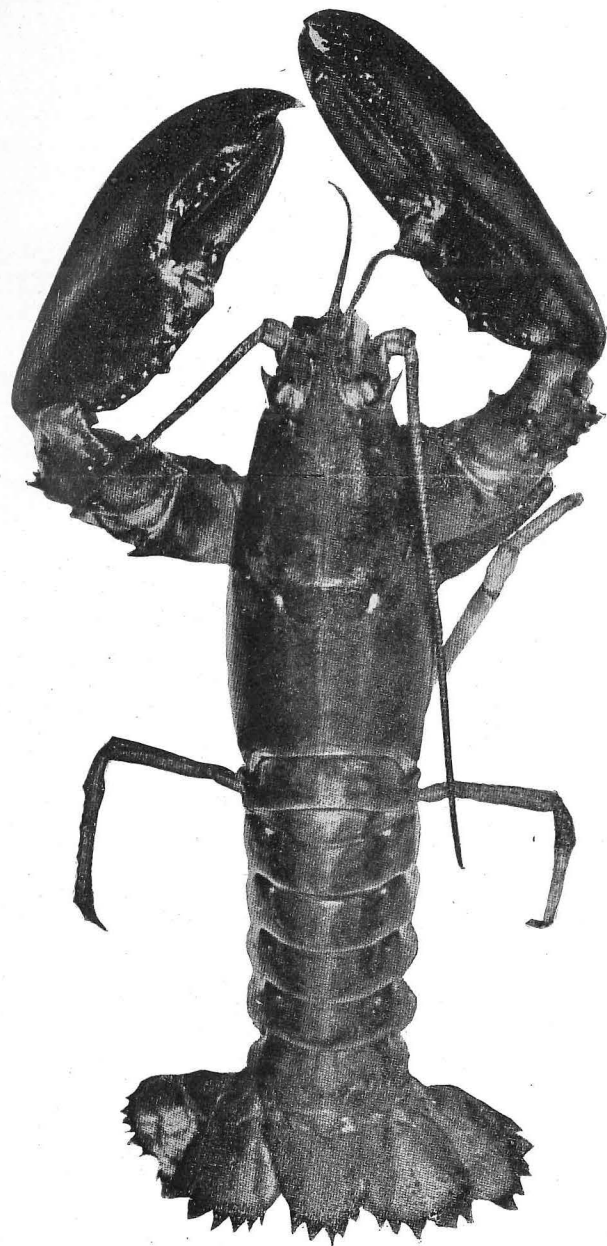
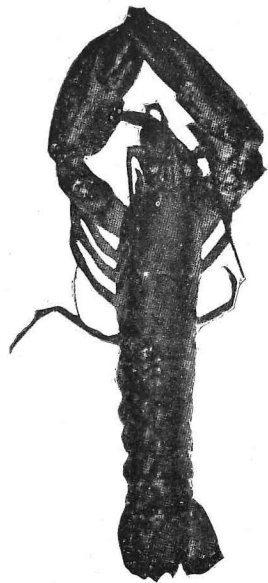
We now come to the variety of fish in which the general public seem to be more interested than any other; to which the New England states and the national government are giving a great deal of attention; and from which the fishermen of the State derive a larger revenue than from any other branch of the fisheries. The market demand for this fish is practically unlimited. The State of Maine produces more lobsters than all the other states combined, and this is primarily due to the fact that our entire stretch of seacoast furnishes a perfectly natural and normal breeding and living place for this species, the temperature of the water and character of the bottom being that best suited to the habits of a lobster. Secondly, the present production and any further increase is and will be due to the protection given the female and young of the species by wise enactments of the legislature. During the year 1908 approximately 18,000,000 pounds of lobsters were caught in Maine waters; and there can be no question but that with a continuance of the present policy of propagation and protection, with the aid of additional laws to be asked for this session of the legislature, this catch can be very largely increased. Many years ago one of the leading industries connected with the fisheries were the canning factories. These flourished at a time when lobsters were very plentiful, and the regular market price was one cent a pound to the factories and three cents apiece for large lobsters for private use. The fishing season then extended from March to rough weather in the fall, no fishing being done during the winter months. These factories preferred small lobsters, and it would be impossible to estimate the enormous number of young lobsters used by them even in a single season. These factories were the first cause of a large decrease in the annual catch. A law was finally passed making the legal length for canning the same as for ordinary use and it was hoped that the decrease would cease; but the closing of the factories did not stop the destruction of small lobsters, neither did it give the proper protection to the seed-bearing lobster. The fishermen still continue to



use the small lobster, even using them for cunner trap bait and hen-food. They also continued, after it became illegal to do so, to rub the seed from the spawn of female lobsters and sell them to the lobster buyers with the other market lobsters. These practices were not only common, but the usual methods of most fishermen. Is it any wonder that the catch became smaller and smaller each year until corrective measures were taken? Finally our legislature passed a law making it illegal to have in possession any lobster below a prescribed length; viz., ten and one-half inches, now three and three-fourths inches body measure; and made a general appropriation for the Department of Sea and Shore Fisheries, which provided funds for a warden service to enforce the law. Another law was also passed for the protection of the seed or egg-bearing lobster by which the Commissioner of this Department was authorized to buy the seed lobsters of the fishermen and have the eggs removed and hatched artificially, or the lobster released with eggs attached to breed naturally. These methods of protection have been used for several years, and I am pleased to say the results are beneficial, as the lobster supply of this State is on the increase. The warden service, small from lack of funds is inadequate to cope with the problem of protecting the small lobster. Within the last few years a majority of the lobster fishermen have been convinced that it is to their disadvantage as a business proposition to destroy the small lobster, and at the present time are co-operating with the Department, giving it very material assistance. In my opinion, if the present system is pursued it must necessarily show a very large increase in the lobster supply in the near future. The federal government, with a hatchery established at Boothbay Harbor, are doing wonders for this industry. If they adopt the plans now formulating: viz., to hold the fry or small lobster after hatching until they are of sufficient size to be self-protecting it will greatly increase the benefits derived from this source. Some other New England states have laws that make the minimum legal length of lobsters nine inches. Their experience from using lobsters of that size has been that they are practically exterminating the species. At a meeting recently held in Boston, which was attended by commissioners and representatives of the several states, it was unanimously

agreed that the Maine legal length, method of measurement, etc., are the best to adopt. Resolutions were adopted instructing the commissioners and representatives to so advise their several legislatures at their next session and to urge the adoption of the Maine method. This decision was arrived at after most careful consideration of the existing conditions and laws in each state. I wish to state that if the additional legislation asked for at the next session of our legislature is granted, in addition to the laws already on our statute books pertaining to this fishery, I believe the catch can be very largely increased, thus aiding the fishermen, and at the same time making lower prices to the consumer.

(Instructive cuts are inserted in this report showing sizes, etc., of lobsters at different ages.)



Three lobsters of the same age, illustrating the differences in the rate  
photographed alive October 23, 1902. Age about one

of growth. They were hatched in the summer of 1901, and  
year and four months. Life size



## MACKEREL.

This fish, once so abundant in our waters, has practically disappeared. While there are a few being caught each season on our coast, it is not pleasant to note the change from thirty years ago, when practically every harbor and bay on the coast of Maine was teeming with this, one of the best food fish. The reason for their disappearance is problematic, and up to the present time, there has been no satisfactory solution offered.

## MENHADEN.

Menhaden are one of the species that have practically abandoned our coast; but as they are a migratory fish appearing and disappearing on different sections of the coast, they may return any season. Very little is known of their habits.

## OYSTERS.

The experiment of propagating oysters in this State has been a failure, although there are some of the oysters still living on the beds. For unknown reasons they do not seem to thrive or multiply as they do in waters further south, and the general opinion is that our climate, and seacoast bottom is not adapted to their cultivation.

## SALMON FISHERY.

The salmon is considered by many the finest food fish which comes to Maine waters. It is a migratory fish and formerly came in large numbers to our rivers to spawn. Every river of importance in the State had its spawning bed and the fish were taken in large numbers. The catch has been decreasing from year to year until it yields but a very small portion of its former return. It seems a perfectly satisfactory explanation of the present practical failure of this industry to say that the fish are unable now, except in few localities, to reach the spawning beds in fresh water and that the pollution of our rivers by refuse from mills has practically driven them away. In this respect the same condition exists as in the alewife fishery; viz., a failure which seems almost criminal to provide suitable fishways whereby the salmon can reach the spawning beds and also to

provide a runway or other method so that the young may return to salt water. The present use of flash-boards on the top of dams results in keeping the young above the dam, or else they have to go down with the power under the mill. This most important fish is one of the species which seems to come under the jurisdiction at one time of the Sea and Shore Fisheries, and at another of the Inland Fish and Game Commissioners. Arrangements should be jointly made by these Departments for the better protection of the industry and the enforcement of laws which may bring back its former value.

#### SCALLOPS.

The scallop industry is comparatively a new one in this State, although they have been taken in the other New England states for a number of years. The Maine scallop is unlike that of Massachusetts and Rhode Island, in that it is very much larger and thrives in deeper water. Until the advent of the motor boat for dragging and the motor engine and drum for hoisting the dredge, the scallop fishery was not prosecuted in Maine on account of the great depth of water in which they are taken; but since the power boat came into such general use the fishery has largely increased, and the present year, 1908, shows the largest catch of scallops in the history of Maine. Scallops were first taken by dragging in Washington and Hancock counties. Some of the beds were dredged almost to the point of exhaustion. It was evident that something must be done in the way of protecting the industry, and a close time for certain localities, running from early spring to late in the fall, was enacted. The scallop fishery in Knox county has become an industry of considerable importance. In December, 1908, there were in use fifty-seven power boats, two men to a boat, taking an average of thirty gallons of scallops per boat, with an average market value of ninety cents a gallon. It is believed by those interested that a close time should be enacted for the waters of Penobscot Bay in Knox county, this close time to cover the summer months, say from April to November, which is the period when the fish has the least food value and the smallest market value. I am informed that scallop fishermen are preparing a petition to the legislature asking for a close time, and I recommend that such a law be enacted.

### SHAD FISHERY.

This is a variety of fish that at one time was very plentiful in practically every river of this State, but has been gradually diminishing in numbers until at the present time the catch is very small. I think it may be correctly assumed that the decrease in the shad fishery is in a large measure due to the same causes that have so injured the alewife and salmon fishery; viz., pollution of rivers and failure to provide proper fishways in dams. The Kennebec River in past years was noted for the quantity and especially the quality of the shad caught within its waters, but there remains of this fishery but a remnant of its former greatness. The United States government propose establishing a shad hatchery on the Kennebec, and it is believed that this industry will within a short time reach its former importance. This year large schools of shad have been found from ten to twenty miles off our coast, and many large catches have been made by seiners. This may indicate a return of the fish, which furnished another reason why suitable provision should be made to allow them to reach their natural spawning beds.

### SMELT FISHERY.

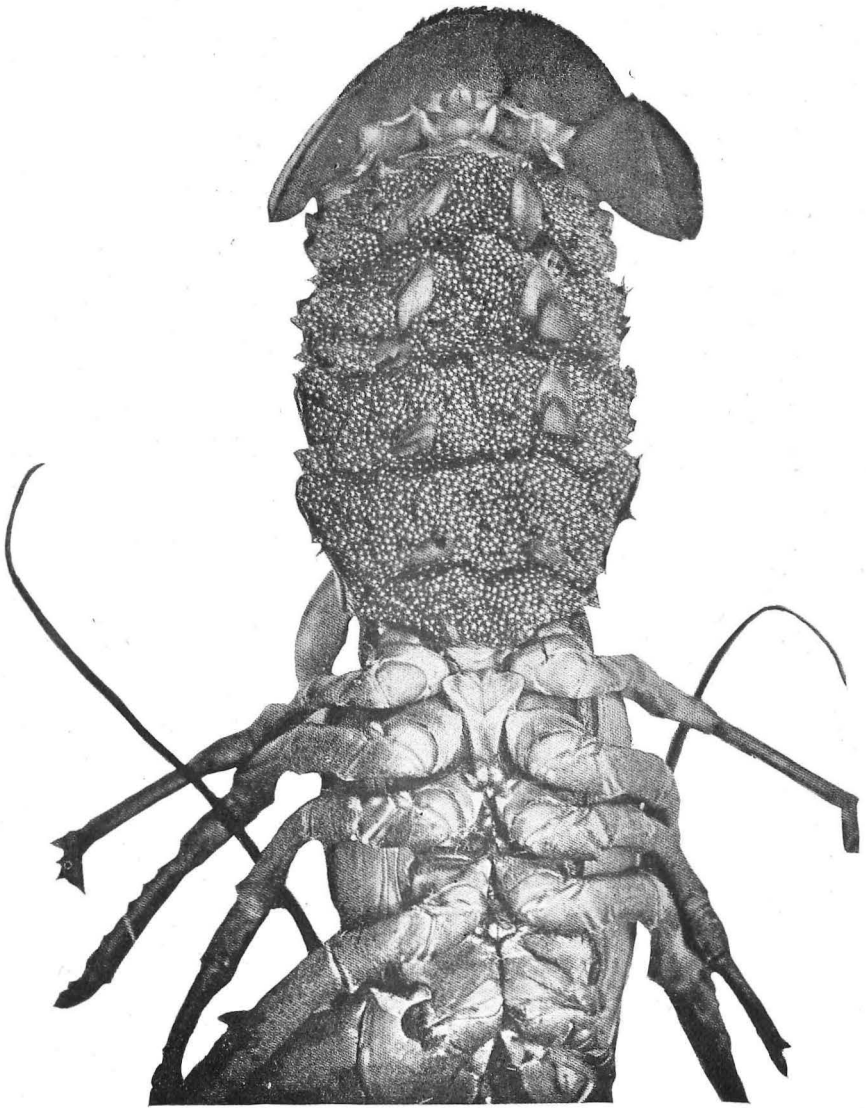
The smelt is one of our smallest but also one of the best food fishes, and while it is not of so much commercial value as some of the others it is one that furnishes employment for a large number of men in the winter time, when other employment is not obtainable. The laws regulating this industry come mostly under the head of special laws, which have been passed at the instance of residents of particular localities where the fish are abundant. In other section of the State, where this fish is not plentiful, little attention is paid to the industry. I assume that these localities where special laws apply are satisfied, and, therefore have no recommendation to make, otherwise than to repeat what I have said in connection with another industry; viz., that the laws are in a very chaotic condition, and for the interest of all concerned parties especially interested in the smelt fisheries should see to it that the present special laws are more accurately drawn and defined.

## DYNAMITING.

The practice of dynamiting is one of the most pernicious that this Department has to deal with. Hon. A. R. Nickerson called attention to this matter in the 29th report of the Department of Sea and Shore Fisheries, and said, "Important changes to make more effectual its enforcement should be made in the dynamite law." I desire to state most emphatically that I agree with this recommendation. Dynamiting is practiced more or less all along our coast, but principally in the waters of Passamaquoddy Bay in the vicinity of Lubec and Eastport. The Canadian government has for a number of years maintained a regular patrol on its side of the boundary line between the United States and Canada. Beginning with the summer of 1907 this Department has also had one of its wardens patrol the American side of the line with a motor boat. As a result there has been but very little dynamiting, compared to former years. It is almost impossible to estimate the destruction caused by a single stick of dynamite exploded in the water. It is estimated in the first place that not over five per cent of a school of pollock which is dynamited are obtained and are merchantable; but the destruction by no means ends here. The radius of such an explosion is very large, and it effects every fish within that radius, to the point even of killing the minute so-called shrimp, which are the food the pollock seek when schooling in "Quoddy" Bay.

The present law is strong as far as it goes, the principal difficulty having been to obtain evidence upon which to convict a dynamiter. Through co-operation with the Dominion Commissioner General of Fisheries, this Department was enabled to secure the conviction of six dynamiters, which had a very salutary effect on the so-called "dynamite gang" at Eastport. The present law should be made much more drastic, and a provision also passed making it a criminal offense to transport, have in possession, purchase or use for any purpose dynamited fish.

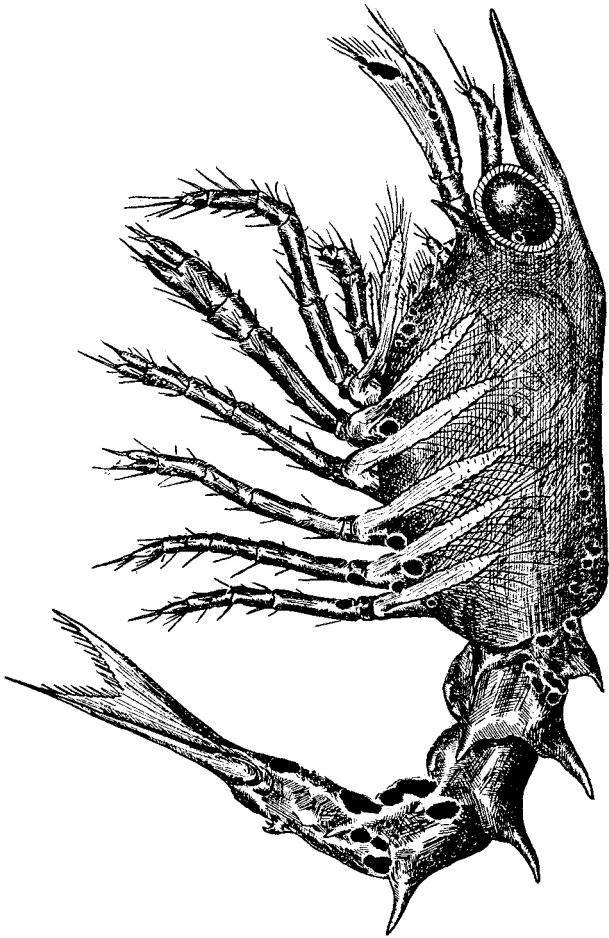




Mother Lobster

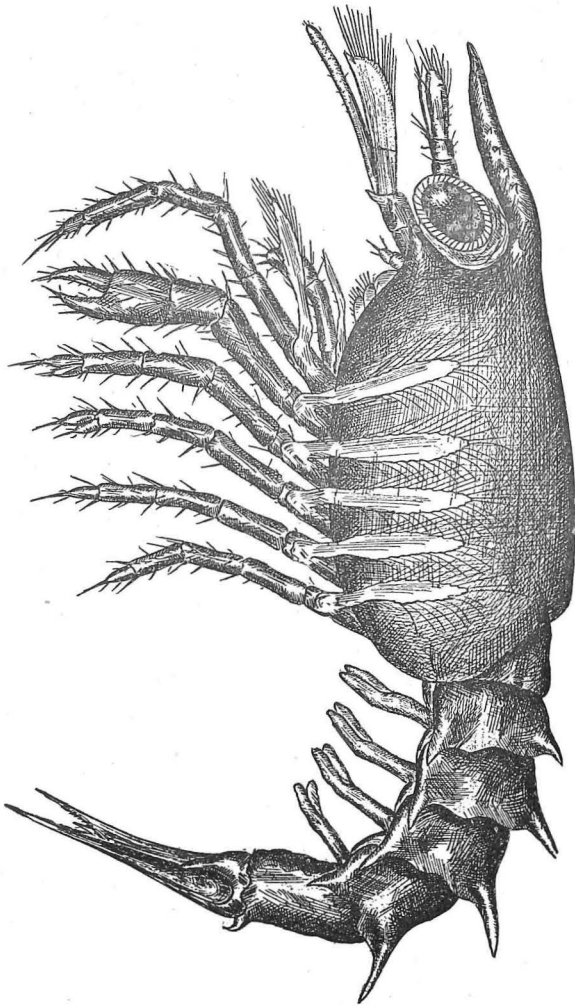
An adult female lobster in "berry," so-called, or bearing the egg-clusters under the tail  
(Photograph from life)





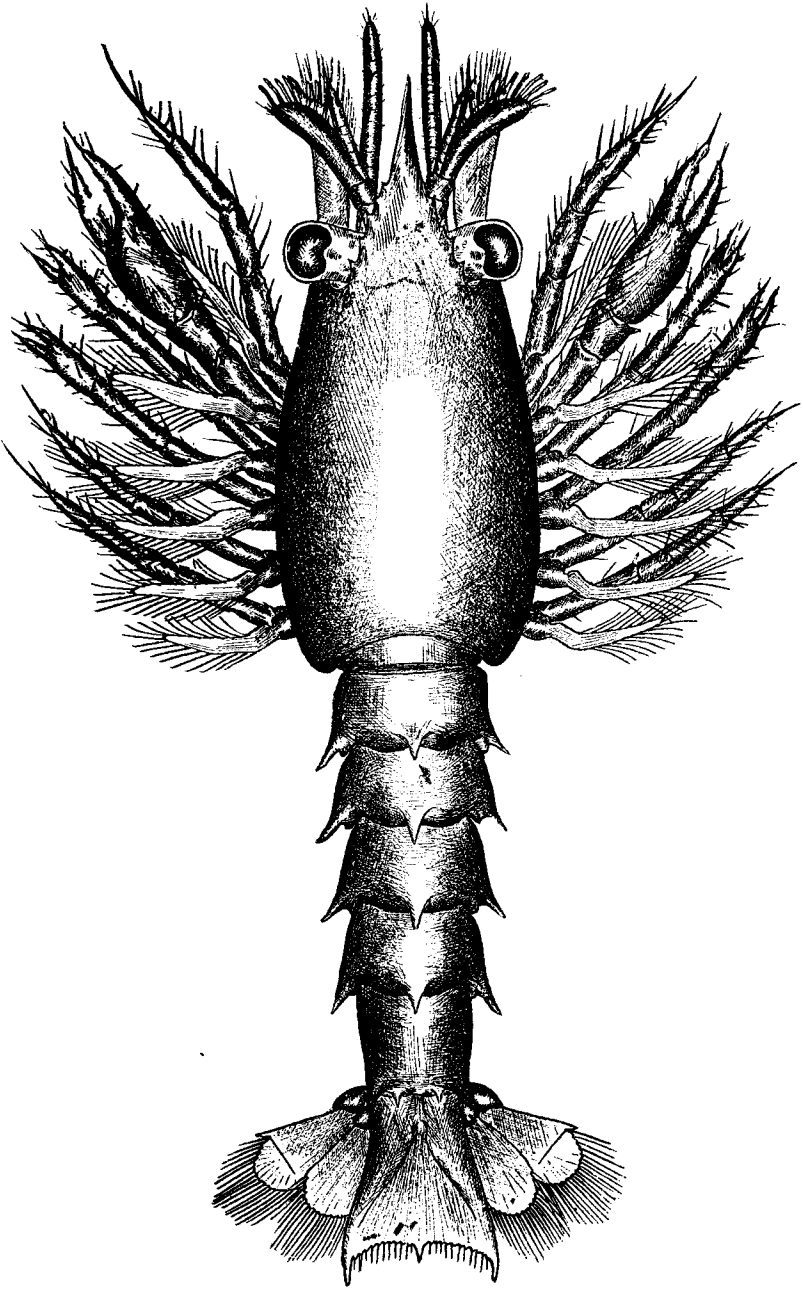
First stage lobster. First to fifth day





Second stage lobster. Fifth to eighth day

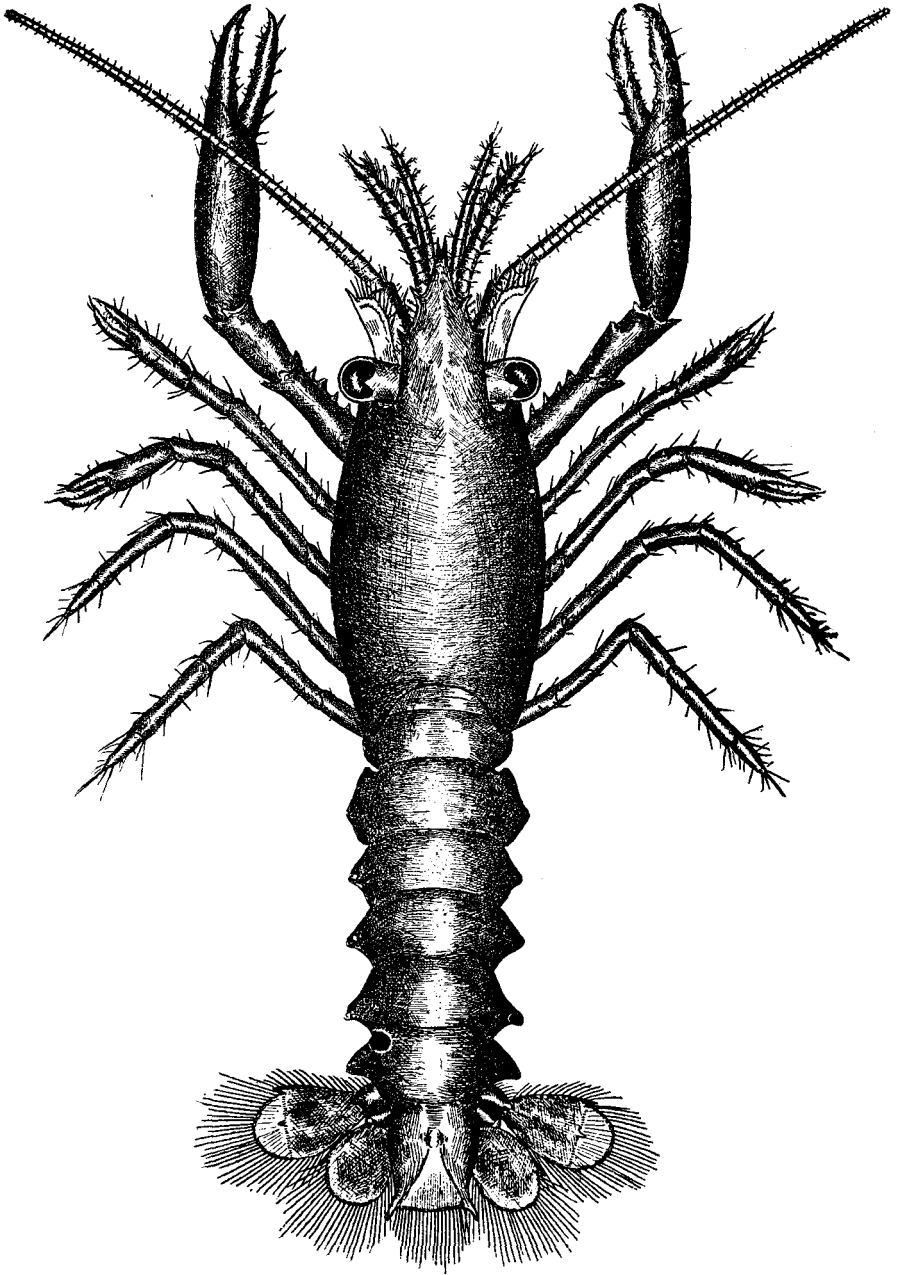




Third stage lobster. Eighth to thirteenth day

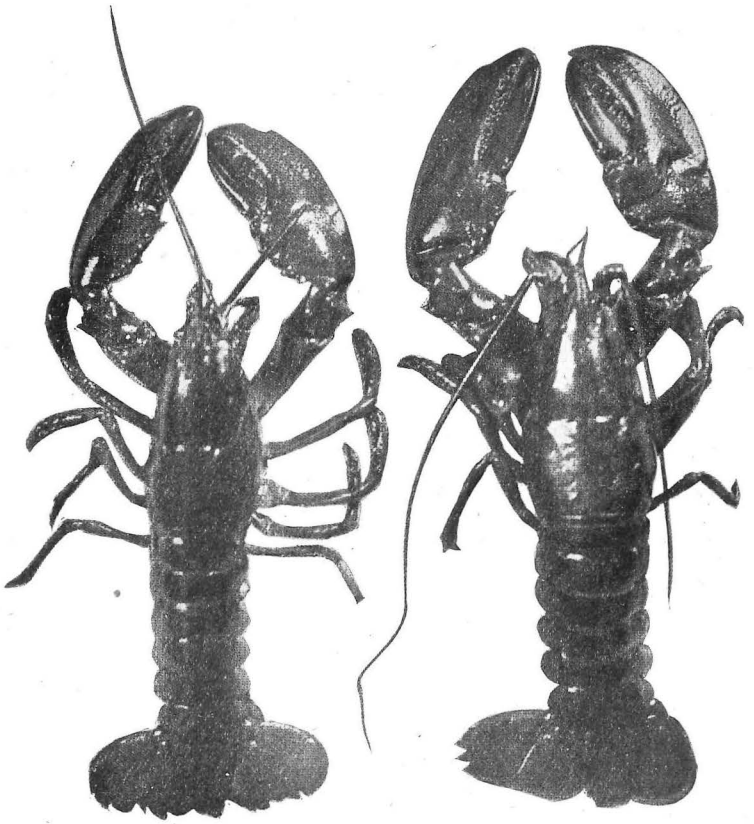






Fourth stage lobster. Thirteenth day. Lobster perfectly formed





Showing a young, newly-molted lobster (right), together with its old shell  
Age, 2 yrs., 5 mos.; size,  $5\frac{3}{4}$  inches



## PROTECTION OF LOBSTERS WITH EGGS ATTACHED.

For a number of years the State has appropriated \$5,000 annually for the protection of seed-bearing lobsters with eggs attached. The proper expenditure of this fund is a part of the duties of the Commissioner of Sea and Shore Fisheries. This is a very important branch of the Department, and is maintained entirely from the special appropriation for this purpose. A large power boat is kept in continuous service from as early in the spring to as late in the fall as weather conditions will permit. This launch purchased from fishermen, at a price higher than the market value would be if sold as ordinary lobsters, all lobsters with eggs attached or, perhaps more clearly expressed, seed lobsters, which the fishermen have caught and are willing to turn over to the Department. These lobsters are in turn liberated in the vicinity of where they are caught; or else, if taken in an unfavorable locality for propagation, are sold to the United States Hatchery at Boothbay Harbor, who in turn hatch and liberate the small fry. The work is very important to the general fishing interests of the State, as well as of particular importance to the lobster industry. The constant going and coming of the boat has a very beneficial influence upon all the fishermen, and the captain and engineer are chosen with regard not only to their ability to handle the craft but also as possessing particular ability to deal with the men with whom they come in contact. Through this service much valuable information is obtained by the fishermen and by the Department. The result which the appropriation is intended to bring about is most assuredly achieved. There can be no question at all but what the collection of the seed lobsters is of great benefit to the lobster industry. I believe it is unnecessary for me to recommend a continuance of the appropriation and service, as both are too well established and known to require any recommendation. The Department has recently purchased what is believed to be one of the ablest sea-going boats in New England, equipped with a 25 H. P. gasoline engine, which will make it possible by reason of increased size and speed over the old boat to cover in the aggregate in the course of a year all the territory in most any weather, and much oftener than heretofore.

## SUMMARY.

The summary tables in this report are believed to contain in a condensed form all valuable data pertaining to the fisheries. From these tables it is possible for any one interested to make up other tables giving special data as to particular localities or industries. The entire report has been condensed as much as possible consistent with clearness.

The Department has in its office a large quantity of detailed figures which have been used in making up the tables appended. The Department is not only willing but always pleased to receive communications asking for or giving information on any subject pertaining to the fisheries.

SUMMARY REPORT FOR YEAR ENDING NOVEMBER 30, 1907

| FISHERY AND PRODUCT.                    | WASHINGTON COUNTY. |           | HANCOCK COUNTY. |           | PENOBSCOT COUNTY. |         | WALDO COUNTY. |         | KNOX COUNTY. |             | LINCOLN COUNTY. |           | SAGADAHOE COUNTY. |           | CUMBERLAND COUNTY. |           | YORK COUNTY. |           | TOTALS.     |                         |             |
|---|--------------------|-----------|-----------------|-----------|-------------------|---------|---------------|---------|--------------|-------------|-----------------|-----------|-------------------|-----------|--------------------|-----------|--------------|-----------|-------------|-------------------------|-------------|
|   | Pounds.            | Value.    | Pounds.         | Value.    | Pounds.           | Value.  | Pounds.       | Value.  | Pounds.      | Value.      | Pounds.         | Value.    | Pounds.           | Value.    | Pounds.            | Value.    | Pounds.      | Value.    | Pounds.     | Value.                  |             |
| Alewife.....                            | 231,800            | \$3,482   |                 |           |                   |         |               |         | 300,000      | \$4,500     | 380,000         | \$9,000   |                   |           |                    |           |              |           | 911,800     | Alewife.....            | \$16,982    |
| Bass.....                               |                    |           |                 |           | 150               | \$15    |               |         |              |             | 4,000           | 1,200     |                   |           |                    |           |              |           | 4,150       | Bass.....               | 1,215       |
| Clam.....                               | 7,831,445          | 119,327   | 10,782,700      | \$251,575 |                   |         | 243,200       | \$1,872 | 5,554,900    | 113,108     | 4,650,060       | 40,771    | 732,300           | \$4,570   | 5,703,400          | \$61,453  | 832,000      | \$9,520   | 36,330,005  | Clam.....               | 602,196     |
| Cunner.....                             |                    |           |                 |           |                   |         |               |         |              |             |                 |           |                   |           | 41,475             | 638       | 4,000        | 40        | 45,475      | Cunner.....             | 678         |
| Eel.....                                | 21,700             | 1,729     | 24,200          | 2,375     |                   |         |               |         | 9,350        | 1,089       | 57,300          | 4,370     |                   |           | 51,625             | 3,772     |              |           | 164,175     | Eel.....                | 13,335      |
| Flounder.....                           | 16,000             | 480       | 25,700          | 1,266     |                   |         |               |         | 9,370        | 468         | 10,300          | 610       |                   |           | 61,875             | 1,465     |              |           | 123,245     | Flounder.....           | 4,289       |
| Ground Fish.....                        | 3,556,214          | 70,175    | 7,733,720       | 153,440   |                   |         |               |         | 14,674,689   | 233,559     | 2,296,729       | 40,338    | 2,205,584         | 55,906    | 14,231,939         | 325,651   | 1,395,351    | 37,308    | 46,094,226  | Ground fish.....        | 916,377     |
| Ground fish oil.....                    | 3,420              | 87        | 186,408         | 4,776     |                   |         |               |         | 29,308       | 8,956       | 60,960          | 1,524     | 33,000            | 688       | 134,400            | 3,360     | 15,960       | 438       | 463,456     | Ground fish oil.....    | 19,829      |
| Herring (fresh, salted and smoked)..... | 23,719,600         | 300,242   | 11,918,200      | 59,947    |                   |         |               |         | 7,630,600    | 48,828      | 7,755,700       | 39,706    | 635,000           | 4,605     | 8,987,600          | 81,898    | 907,200      | 5,670     | 61,553,900  | Herring.....            | 540,896     |
| Herring oil.....                        |                    |           |                 |           |                   |         |               |         |              |             |                 |           |                   |           |                    |           |              |           |             | Herring oil.....        | -           |
| Lobster.....                            | 3,182,512          | 334,765   | 2,672,178       | 307,582   |                   |         | 11,000        | 1,375   | 5,841,840    | 606,017     | 3,401,400       | 374,154   | 534,094           | 60,936    | 1,432,718          | 165,465   | 321,600      | 38,124    | 17,397,342  | Lobster.....            | 1,888,468   |
| Mackerel (fresh and salted).....        |                    |           |                 |           |                   |         |               |         | 24,600       | 1,810       | 30,600          | 2,434     | 25,200            | 993       | 176,600            | 11,120    | 72,000       | 5,250     | 329,000     | Mackerel.....           | 21,607      |
| Salmon.....                             | 5,000              | 1,000     |                 |           | 26,700            | 5,675   | 5,557         | 1,278   | 38           | 8           |                 |           | 3,586             | 682       |                    |           |              |           | 40,881      | Salmon.....             | 8,643       |
| Shad.....                               | 10,000             | 500       |                 |           |                   |         |               |         | 200          | 9           | 209,400         | 9,570     | 134,400           | 11,768    | 519,400            | 14,876    |              |           | 873,400     | Shad.....               | 36,723      |
| Scallop.....                            | 5,877              | 653       | 173,007         | 19,223    |                   |         |               |         | 341,820      | 37,980      |                 |           |                   |           |                    |           |              |           | 520,704     | Scallop.....            | 57,856      |
| Smelt.....                              | 238,635            | 20,918    | 180,249         | 18,894    |                   |         | 46,700        | 4,670   | 25,375       | 2,120       | 117,648         | 17,920    | 11,900            | 1,428     | 169,030            | 20,422    | 497          | 65        | 790,034     | Smelt.....              | 86,437      |
| Sword fish.....                         |                    |           |                 |           |                   |         |               |         | 288          | 29          | 37,600          | 1,696     |                   |           | 365,381            | 30,080    | 150,680      | 15,088    | 553,949     | Sword fish.....         | 46,893      |
| Sounds, hake.....                       | 4,510              | 1,486     | 13,064          | 3,965     |                   |         |               |         | 104,338      | 14,696      | 10,500          | 2,500     | 4,745             | 763       | 25,900             | 3,216     |              |           | 163,057     | Sounds, hake.....       | 26,626      |
| Tongues and sounds.....                 |                    |           |                 |           |                   |         |               |         | 2,100        | 168         | 3,000           | 150       |                   |           | 9,000              | 720       |              |           | 14,100      | Tongues and sounds..... | 1,038       |
| Tomcod.....                             | 68,000             | 680       |                 |           | 48,000            | 400     | 21,750        | 435     | 7,000        | 140         |                 |           |                   |           |                    |           |              |           | 144,750     | Tomcod.....             | 1,655       |
| County totals.....                      | 138,894,713        | \$855,524 | 33,709,426      | \$23,043  | 74,850            | \$6,090 | 328,207       | \$9,630 | 34,555,816   | \$1,073,485 | 19,025,197      | \$545,943 | 4,319,809         | \$142,389 | 31,910,343         | \$724,136 | 3,699,288    | \$111,503 |             |                         |             |
| Grand total yield and value.....        |                    |           |                 |           |                   |         |               |         |              |             |                 |           |                   |           |                    |           |              |           | 266,517,649 |                         | \$4,291,743 |
| Value of plants, boats, gear, etc.....  | \$1,306,845        |           | \$484,830       |           | \$497             |         | \$8,176       |         | \$576,675    |             | \$660,845       |           | \$75,634          |           | \$412,000          |           | \$102,498    |           | \$3,628,000 |                         |             |
| Number men employed.....                | 2,872              |           | 2,068           |           | 25                |         | 83            |         | 1,812        |             | 2,094           |           | 837               |           | 1,437              |           | 478          |           | 11,706      |                         |             |

Total number illegal lobsters seized and liberated by the wardens, 36,993.

SUMMARY REPORT FOR YEAR ENDING NOVEMBER 30, 1908

| FISHERY AND PRODUCT.                    | WASHINGTON COUNTY. |           | HANCOCK COUNTY. |           | PENOBSCOT COUNTY. |         | WALDO COUNTY. |         | KNOX COUNTY. |             | LINCOLN COUNTY. |           | SAGADAHOE COUNTY. |          | CUMBERLAND COUNTY. |           | YORK COUNTY. |          | TOTALS.     |                         |             |
|---|--------------------|-----------|-----------------|-----------|-------------------|---------|---------------|---------|--------------|-------------|-----------------|-----------|-------------------|----------|--------------------|-----------|--------------|----------|-------------|-------------------------|-------------|
|   | Pounds.            | Value.    | Pounds.         | Value.    | Pounds.           | Value.  | Pounds.       | Value.  | Pounds.      | Value.      | Pounds.         | Value.    | Pounds.           | Value.   | Pounds.            | Value.    | Pounds.      | Value.   | Pounds.     | Value.                  |             |
| Alewife.....                            |                    |           | 300,000         | \$5,300   | 4,000             | \$50    | 56,500        | \$1,130 | 56,550       | \$2,240     | 667,800         | \$9,821   |                   |          |                    |           |              |          | 1,084,850   | Alewife.....            | \$18,541    |
| Bass.....                               |                    |           |                 |           | 300               | 24      |               |         |              |             | 4,000           | 130       |                   |          |                    |           |              |          | 4,300       | Bass.....               | 154         |
| Clam.....                               | 8,393,040          | \$165,191 | 9,323,520       | 129,430   |                   |         | 187,500       | 1,850   | 6,546,100    | 110,426     | 6,857,800       | 60,520    | 365,900           | \$3,761  | 6,231,960          | \$58,748  | 834,000      | \$10,307 | 38,739,820  | Clam.....               | 540,233     |
| Cunner.....                             |                    |           |                 |           |                   |         |               |         |              |             |                 |           |                   |          | 75,450             | 880       |              |          | 75,450      | Cunner.....             | 880         |
| Eel.....                                | 25,900             | 1,750     | 55,012          | 4,782     | 500               | 40      |               |         | 8,790        | 1,016       | 97,000          | 6,350     | 5,275             | 397      | 51,290             | 5,129     | 7,000        | 560      | 250,767     | Eel.....                | 20,024      |
| Flounder.....                           | 30,000             | 600       | 98,300          | 2,200     |                   |         |               |         | 2,880        | 39          | 12,000          | 640       |                   |          | 40,300             | 1,050     |              |          | 183,480     | Flounder.....           | 4,529       |
| Ground fish.....                        | 7,885,673          | 125,855   | 14,486,885      | 192,748   |                   |         | 100,000       | 1,500   | 11,735,632   | 187,387     | 2,260,400       | 35,388    | 2,045,900         | 35,519   | 14,586,531         | 301,740   | 1,018,175    | 29,747   | 54,119,196  | Ground fish.....        | 909,884     |
| Ground fish oil.....                    | 80                 | 3         | 155,120         | 5,970     |                   |         |               |         | 119,360      | 4,560       | 55,200          | 2,000     | 19,256            | 840      | 155,000            | 5,900     | 10,448       | 467      | 514,464     | Ground fish oil.....    | 19,740      |
| Herring (fresh, salted and smoked)..... | 31,796,000         | 203,018   | 14,106,000      | 125,526   |                   |         |               |         | 9,878,800    | 54,719      | 7,244,400       | 39,492    | 1,599,000         | 7,196    | 3,217,400          | 18,322    | 369,200      | 2,392    | 68,210,800  | Herring.....            | 450,665     |
| Herring oil.....                        |                    |           |                 |           |                   |         |               |         |              |             |                 |           |                   |          |                    |           |              |          |             | Herring oil.....        | -           |
| Lobster.....                            | 3,325,080          | 266,651   | 2,603,522       | 200,297   |                   |         | 19,700        | 2,250   | 6,101,300    | 612,708     | 3,762,000       | 310,690   | 465,540           | 38,326   | 1,038,124          | 90,982    | 320,714      | 36,348   | 17,635,980  | Lobster.....            | 1,558,252   |
| Mackerel (fresh and salted).....        |                    |           |                 |           |                   |         |               |         | 4,000        | 400         | 77,800          | 5,900     | 24,400            | 1,464    | 196,600            | 14,685    |              |          | 302,800     | Mackerel.....           | 22,449      |
| Salmon.....                             | 320                | 65        | 14,800          | 4,600     | 14,497            | 4,623   | 4,128         | 950     |              |             |                 |           | 2,860             | 530      |                    |           |              |          | 36,605      | Salmon.....             | 10,768      |
| Shad.....                               | 10,000             | 410       | 1,160,000       | 35,450    | 16,000            | 400     |               |         | 29,000       | 740         | 226,400         | 11,326    | 221,200           | 9,954    | 219,200            | 5,313     |              |          | 1,881,800   | Shad.....               | 63,593      |
| Scallop.....                            | 38,979             | 2,592     | 304,650         | 27,527    |                   |         |               |         | 608,400      | 54,080      |                 |           |                   |          | 63                 | 7         |              |          | 952,092     | Scallop.....            | 84,206      |
| Smelt.....                              | 263,780            | 34,717    | 149,228         | 16,825    | 2,000             | 140     |               |         | 68,875       | 5,232       | 210,500         | 28,180    | 3,440             | 275      | 227,545            | 24,682    | 1,350        | 135      | 926,718     | Smelt.....              | 110,186     |
| Sword fish.....                         |                    |           |                 |           |                   |         |               |         |              |             | 32,000          | 3,285     |                   |          | 24,646             | 1,980     | 147,000      | 14,560   | 203,646     | Sword fish.....         | 19,825      |
| Sounds, hake.....                       | 9,820              | 490       | 100,000         | 5,000     |                   |         |               |         | 39,060       | 3,350       | 48,000          | 2,400     | 4,560             | 380      |                    |           |              |          | 201,440     | Sounds, hake.....       | 11,620      |
| Tongues and sounds.....                 |                    |           |                 |           |                   |         |               |         | 2,800        | 186         | 5,125           | 300       |                   |          |                    |           |              |          | 7,925       | Tongues and sounds..... | 486         |
| Tomcod.....                             | 33,400             | 608       | 13,310          | 332       | 97,500            | 2,925   |               |         |              |             |                 |           |                   |          |                    |           |              |          | 144,210     | Tomcod.....             | 3,865       |
| County totals.....                      | 51,812,072         | \$801,950 | 42,870,347      | \$755,987 | 134,797           | \$8,202 | 367,828       | \$7,680 | 35,201,547   | \$1,037,083 | 21,560,425      | \$516,422 | 4,757,331         | \$98,642 | 26,064,109         | \$529,418 | 2,707,887    | \$94,516 |             |                         |             |
| Grand total yield and value.....        |                    |           |                 |           |                   |         |               |         |              |             |                 |           |                   |          |                    |           |              |          | 185,476,343 |                         | \$3,849,900 |
| Value of plants, boats, gear, etc.....  | \$1,572,615        |           | \$462,171       |           | \$331             |         | \$6,840       |         | \$576,590    |             | \$537,925       |           | \$61,881          |          | \$449,942          |           | \$132,958    |          | \$3,801,253 |                         |             |
| Number men employed.....                | 2,631              |           | 2,119           |           | 25                |         | 89            |         | 1,727        |             | 2,050           |           | 674               |          | 1,890              |           | 457          |          | 11,662      |                         |             |

Total number illegal lobsters seized and liberated by the wardens, 29,288.



## LIST OF FISH WARDENS NOW IN COMMISSION.

## YORK.

|                        |           |
|------------------------|-----------|
| J. F. Goldthwaite..... | Biddeford |
| O. P. Philbrick.....   | Kittery   |

## CUMBERLAND.

|                    |           |
|--------------------|-----------|
| George A. Dow..... | Portland  |
| I. H. Snow.....    | Brunswick |

## SAGadahoc.

|                    |         |
|--------------------|---------|
| A. C. Johnson..... | Ashdale |
|--------------------|---------|

## LINCOLN.

|                    |                    |
|--------------------|--------------------|
| C. A. Fossett..... | Boothbay Harbor    |
| N. J. Hanna.....   | New Harbor         |
| R. T. York.....    | Damariscotta Mills |

## KNOX.

|                     |                 |
|---------------------|-----------------|
| C. S. Coughlin..... | Rockland        |
| A. J. Rawley.....   | Tenant's Harbor |

## PENOBSCOT.

|                     |        |
|---------------------|--------|
| T. E. Sullivan..... | Bangor |
|---------------------|--------|

## HANCOCK.

|                        |                 |
|------------------------|-----------------|
| Leander R. Bunker..... | Cranberry Isles |
| James A. Hill.....     | West Gouldsboro |
| F. L. Hodgkins.....    | Lamoine         |
| W. B. Thurlow.....     | Stonington      |

## WASHINGTON.

|                      |              |
|----------------------|--------------|
| W. W. Blood.....     | Milbridge    |
| James A. Foster..... | East Machias |
| D. O. French.....    | Jonesport    |
| W. A. Henderson..... | Cutler       |
| J. L. Parker.....    | Eastport     |
| F. A. Townsend.....  | Calais       |

LIST OF INSPECTORS OF PICKLED FISH.

| NAME.                    | Residence.          | Date of Commission. |          |
|--------------------------|---------------------|---------------------|----------|
| M. B. Linscott .....     | Harpwell .....      | March               | 3, 1904  |
| Freeland R. Bunker ..... | Winter Harbor ..... | July                | 1, 1904  |
| John H. Benner .....     | Edmunds .....       | July                | 1, 1904  |
| T. F. Lamson .....       | Rockland .....      | November            | 24, 1904 |
| B. L. Stevens .....      | Cushing .....       | April               | 13, 1905 |
| R. B. Stevens .....      | Jonesport .....     | September           | 7, 1905  |
| A. E. Farnsworth .....   | Brooklyn .....      | October             | 13, 1905 |
| G. H. Lyons .....        | Eastport .....      | January             | 23, 1906 |
| Joseph Farris .....      | Eastport .....      | March               | 23, 1906 |
| Wm. T. Maddocks .....    | Portland .....      | October             | 25, 1906 |
| Joseph W. Lord .....     | Portland .....      | October             | 25, 1906 |
| Charles A. Dyer .....    | Portland .....      | November            | 15, 1906 |

The above are commissioned for five years.