

U.S. DEPARTMENT OF COMMERCE
BUREAU OF FISHERIES

**FISHERY INDUSTRIES
OF THE UNITED STATES
1933**

By R. H. FIEDLER, JOHN RUEL MANNING
and F. F. JOHNSON

U.S. DEPARTMENT OF COMMERCE

DANIEL C. ROPER, Secretary

BUREAU OF FISHERIES

FRANK T. BELL, Commissioner

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**APPENDIX I TO REPORT OF COMMISSIONER OF FISHERIES
FOR THE FISCAL YEAR 1934**



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Administrative Reports.—This series contains the annual report of the Commissioner and the four divisional reports, namely, "Alaska Fishery and Fur-Seal Industries", "Fishery Industries of the United States", "Progress in Biological Inquiries", and "Propagation and Distribution of Food Fishes." These papers are distributed only as independent octavo pamphlets; however, a general title page and table of contents for each annual series is distributed for the convenience of those who wish to bind them.

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FISHERY INDUSTRIES OF THE UNITED STATES, 1933¹

By R. H. FIEDLER, *Chief, Division of Fishery Industries*, JOHN RUEL MANNING, *Chief Technologist*, and F. F. JOHNSON, *in charge, Statistical Investigations*, United States Bureau of Fisheries

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¹ Appendix I to the Report of the U.S. Commissioner of Fisheries, 1934. Approved for publication, Mar. 19, 1934.

FOREWORD

In order to understand the great economic importance to the Nation and to the public welfare of the field of service which this Division of the Bureau's activities covers, it is necessary to bear in mind that there are only two basic food industries, namely, the products of the land and the products of the sea. Food must be obtained from either land or sea. In the broad sense, the fisherman is the farmer of the sea. As such, he is a primary producer and at the present time he is in need of the same services as are being given to the farmer of the land. This will give a general perspective of the functions which should be performed by the Division of Fishery Industries. This report only describes the functions which the Division actually performs with the personnel, funds, and facilities available. It thus can be seen quite readily that there is a wide variance between the functions which the Division could and should perform with adequate facilities and those functions which it does perform with present facilities. The chief need of the fishery industries of this country today is a more efficient and orderly system of marketing its products. These marketing reforms cannot be worked out overnight. Very little study has been made by the Federal establishment of marketing methods in the fisheries. The importance of laying the foundation, as soon as possible, for these marketing studies in the fisheries will be apparent as this report unfolds. The fisheries constitute one of our great natural resources and a most vital source of foods for the American people. All of the activities and functions of this Division are devoted to the fullest economic husbandry and utilization of the annual harvests of these resources. As this report proceeds, it will be seen that some of the Division's activities have great significance in conservation and thus are of great concern to the American people and their posterity.

This report constitutes a summary of the activities of the Division of Fishery Industries as well as an annual review of fishery statistics of the United States. As its name indicates, this Division of the Bureau is concerned with the activities and welfare of the fishery industries, including the commercial fisheries, the trade in fishery products, and the fish canning and preserving industries. Its functions include the collection and publication of fishery statistics, the conducting of market surveys, the prosecution of research designed to solve the technical problems of the industry, and the dissemination of authoritative and practical information to the fishery industries and the public. Results of technological investigations and marketing studies are published in separate documents as each project is completed. The information obtained from statistical surveys is published in part 2 of this report, which includes detailed statistical information for the year 1932 that has become available since the issuance of the previous report ("Fishery Industries of the United States, 1932," by R. H. Fiedler), together with such summarized statements and interpretations of the statistics as are deemed significant and useful. In the preparation of this report, members of the Division's staff have taken part and their assistance is appreciatively acknowledged.

COOPERATION WITH THE STATES

Because of the Division's recognition of its responsibilities for service to the industry, as indicated in the preceding paragraphs, it has made every effort to obtain the maximum of accomplishment and extend its services to the fullest extent with the relatively small appropriations and facilities available. Therefore, it has initiated, encouraged, and fostered cooperation with the States in all branches of the Division's various functions and activities. Obviously, this method has brought results with a minimum of expense to the taxpayer, commensurate with efficient performance. Cooperation with the States has been especially helpful in the scientific investigations of the Division. In the technological section, many State agencies have cooperated in extending their facilities for the prosecution of these studies. State universities, hospitals, agricultural experiment stations, and other State institutions of research have contributed of their personnel and laboratories in various projects. Especially has this been true in the nutrition studies. Among the State institutions cooperating in this work are the South Carolina Food Research Commission and State Medical College, Charleston, S.C., the Massachusetts State Agricultural College, Amherst, Mass., the Ohio State Agricultural Experiment Station, Wooster, Ohio, the New York State College of Agriculture, Cornell University, Ithaca, N.Y., Washington State College and Agricultural Experiment Station, Pullman, Wash., the University of Washington, Seattle, Wash., and the University of Maryland, College Park, Md. In addition to cooperation in nutrition investigations, the members of the staff of the Massachusetts State College, Amherst, Mass., rendered valuable aid to the technological staff of the Division's laboratory at Gloucester, Mass., in the furtherance of the various experimental projects which this laboratory is carrying out. In tests of fishing gear, with respect to measurement of mesh size of nets, cooperation has been received by our technological staff from the States bordering on the Great Lakes.

In certain marketing investigations, including the studies of the grading of fish, the States of Virginia, North Carolina, Massachusetts, Maryland, and New Jersey either cooperated actively or gave valuable aid in some form.

The Division places great dependence upon cooperative arrangements with the various States in the collection of fishery statistics. In the annual surveys of the fisheries of the Great Lakes and Pacific Coast States such exceptional cooperation has been obtained from State fishery agencies in recent years that it has been only necessary for agents of the Bureau to conduct fragmentary surveys to supplement the data available. Recently, the States of Maryland and Virginia have adopted very complete statistical programs which not only alleviate the work of our agents but also produce more accurate data.

The above States have been cited as instances of exceptional cooperation. However, nearly every State in which commercial fishing is prosecuted renders some type of cooperative service to this Bureau in connection with its statistical surveys which makes possible the surveying of much larger territories than would otherwise be possible.

In addition to the above, at the request of the Florida State Marketing Bureau and Home Extension Service of the University of Florida and the Florida State College for Women, and in cooperation with these organizations, the Division assigned a member of its technological staff to assist the State and County Home Demonstration Agents in teaching the people of that State how to preserve, cook, and otherwise prepare, and utilize to the fullest extent, the fishery products of Florida. Norman D. Jarvis, assistant technologist of this Division performed these duties. As a result of his work, Bureau of Fisheries Memorandum S-331, entitled "Method for Smoking Fish in the Southern States, with Recipes for Cooking," and Bureau of Fisheries Memorandum S-332, entitled "Method for Dry Salting Fish in the Southern States, with Recipes for Cooking," were published. In previous years, other cooperative educational work was instituted and carried out by both Mr. Manning and Mr. Jarvis of the technological staff.

COOPERATION WITH THE EMERGENCY AGENCIES OF THE FEDERAL GOVERNMENT

During 1933, various emergency agencies of the Federal Government, recently established, made considerable use of the facilities of the Division of Fishery Industries, including its technical, marketing, and statistical reports and the knowledge and experience of its personnel. Such cooperation was rendered to the National Recovery Administration, the Agricultural Adjustment Administration, the Federal Emergency Relief Administration, the Federal Surplus Relief Corporation, and others. Members of the Division's staff were detailed first to the Agricultural Adjustment Administration and later to the National Recovery Administration to supervise and assist in the formulation of fishery codes of fair competition under the National Industrial Recovery Act, and others of the staff were called at the various conferences and public hearings in connection with the development of these fishery codes. In August 1933, R. H. Fiedler, chief of the Division, was detailed first to the Agricultural Adjustment Administration and later to the National Recovery Administration to become chief of the fisheries' section in connection with these code activities. John Ruel Manning, chief technologist, and F. F. Johnson, in charge of statistical investigations, were called as Government witnesses at many of the code hearings. In addition, the Division has furnished fishery statistics to aid in the formulation of fishery codes. Technical, marketing, and statistical information and reports were also furnished to nearly all of the emergency organizations of the Federal Government established during 1933 to promote economic recovery.

Part 1. OPERATIONS OF THE DIVISION

STATISTICAL INVESTIGATIONS

The statistical investigations include the collection of primary fishery statistical data, compilation and analyses of these data, and dissemination of statistical reports. However, the funds and personnel available for this work have never been sufficient for extensive analytical work and curtailment of these items in recent years have

resulted in decreased activities in connection with the collection of primary statistical data. These lessened activities are unfortunate since annual catch figures are necessary for the study of depletion of fishery resources. Furthermore, statistical analysis of economic phases of the industry are especially urgent at this time when such data are essential to administrative agencies concerned with planning and control, as well as to the industry itself.

COLLECTION OF STATISTICS

The statistical work in 1933, as in former years, included the collection and dissemination of statistics on the catch of fishery products and the operating units employed in making the catch, and, in addition, certain statistics of related fishery industries. In the former group are statistics that are intended for the use of the fishery biologist upon which to base conservation measures. They are also valuable for economic purposes. This is especially true of statistics of the landings of fish at principal fishing ports, which are published monthly. In the second group are statistics that are of use mainly for economic or trade purposes. These included statistics of canned fishery products and by-products of the United States and Alaska, cold storage holdings of fish and amounts of fish frozen, marine-animal oil production, and similar statistics.

The Division continued its plan of making annual general statistical surveys of the fisheries of the various geographical sections in 1933, and under the direction of F. F. Johnson, surveyed the commercial fisheries of our entire coastal and lake regions obtaining catch figures for 1932. Continuous annual catch figures are now available for the Great Lakes from 1913, Pacific Coast States from 1922, South Atlantic and Gulf States from 1927, New England States from 1928, and the Middle Atlantic and Chesapeake Bay States from 1929. That portion of the general statistical surveys relating to the wholesale trade, except for the production of canned, frozen, and packaged fishery products and fishery by-products which is obtained in special surveys, was omitted from the surveys made in 1933 due to curtailment in funds and personnel.

In addition to the general catch statistics, the collection and/or publication of statistics on special subjects for the year 1933, was continued during the year, as follows: The landings of fish by American fishing vessels at the ports of Boston and Gloucester, Mass., Portland, Maine, and Seattle, Wash. (published monthly); landings of halibut at North Pacific coast ports (published monthly); catch of mackerel in the North Atlantic fishery; cold-storage holdings of frozen and cured fish and amount of fish frozen, which are furnished by the Bureau of Agricultural Economics (published monthly); production, consumption, and holdings of marine-animal oils of the United States and Alaska (published quarterly by the Bureau of the Census); production of canned fishery products and by-products of the United States and Alaska; transactions on the sponge exchange at Tarpon Springs, Fla.; volume of fishery products handled at the municipal fish wharf and market, Washington, D.C.; and the volume of the United States foreign trade in fishery products, furnished by the Bureau of Foreign and Domestic Commerce.

TECHNOLOGICAL INVESTIGATIONS

Never before in the history of the fishery industry of this country has there been greater need for economy in production methods and for the fullest utilization of valuable products from the material at hand. Under present conditions of depressed business, losses or leakages in factory operation, which in more prosperous times seemed relatively unimportant, now represent very frequently the margin between profit and loss. For this reason there is greater need for the application of the best technological and engineering knowledge available to problems of manufacture, preservation, and marketing of fishery products. This is essential to make the most of the raw material available, to eliminate waste, and to bring factory operation to the highest point of efficiency. With this objective in mind, the technological research has followed the general lines of studies of methods of manufacture, preservation, storage, and marketing of both the primary products of the fisheries for food and the by-products for animal nutrition; biochemical tests to determine the food value of fishery products; the development of fishing gear; and experiments in developing chemical treatments for fishing nets to lengthen their usefulness. This has involved the application of the sciences of chemistry, engineering, bacteriology, and general technology to the solution of these problems. The discussion in the following pages is a summary of the accomplishments along these lines which have been made during the past year.

The accomplishments of the technological staff during recent years have resulted in notable contributions of outstanding value to both American fisheries and American agriculture. Among these achievements is the development by the Division's technologists of domestic fish oils of high vitamin potency, essential for use in human and animal nutrition, freeing this country from its almost complete dependence on foreign sources of fish oils of high vitamin potency.

Since, contrary to popular notion, baby chicks, rather than babies, consume most of these vitamin-bearing fish oils, this has meant a great deal to American agriculture. Information from reliable sources has indicated that, after taking into consideration all of the factors, the farmer is paying from one half to one third of the former price for these oils for animal feeding. In this connection, it should be borne in mind that fish oils are used extensively in mixed feeds as a source of the vitamin D carrier or ingredient. Recently, large pharmaceutical houses have turned to domestic sources of vitamin-bearing fish oils for human nutrition and medicinal use. This means that the entire public eventually is going to benefit from these discoveries by the technologists of this Division. Furthermore, the fisheries have benefited in that higher markets and better prices have been obtained for their products; and such inter-related or auxiliary industries, depending on these sources of raw material for their finished products, such as the pharmaceutical industry and the manufacturers of mixed feeds, also have benefited materially in that they have been made independent of foreign sources of raw material, and in that they have been able to get their raw material at more favorable prices, in many instances. In other words, all of these American industries have benefited, either directly or indirectly, from the differential in prices which is a direct result of the fish oil investigations.

Until recent years, most of the waste fish and the fish waste from the various fishery industries had not been manufactured into any products of economic value. As a result of our technological investigations, it is now possible to make fish meal of high quality for animal feeding from this waste. The fish-meal industry has now developed to a point where it makes valuable use of most of the waste or raw material available for its manufacture. There are still many places, however, where technical and economic obstacles prevent the profitable utilization of some of this waste.

Our studies of the waste from the vast filleting industry in New England have shown that a highly nutritious and palatable fish flour can be made, which is rich in calcium and phosphorus—those minerals so essential to the growth and maintenance of bones and teeth in children. Fish flour makes good soup stock and lends itself favorably to incorporation in bakery products.

Other studies which we have made of the great diversity of nutritional factors in fishery products have revealed many facts of immense value to the national dietary, such as the demonstration that oysters rank high as a source of those minerals of vital importance in the prevention and treatment of certain types of nutritional anemia.

Considerable interest has been shown in our recent published report that kelp meal is a valuable supplement to the rations of farm animals. This is particularly important since very little commercial development exists in the various seaweed industries of the United States, whereas in Japan seaweeds alone are the basis of an \$8,000,000 industry.

It has been estimated that about 20 cents of every dollar that the fisherman gets for his catch is spent to replace fishing nets. This amount can now be reduced by the application to the nets of chemical preservatives which have been developed by the technological staff of this Division. A conservative estimate places the savings, which can be made annually, at approximately \$2,000,000.

RESEARCH ASSOCIATE

In the above lines of technological research the Bureau has attacked those fundamental problems which promise to be of greatest value to the largest number and which are possible with the funds and personnel available for the purpose. For this reason the Division has not been able to study special problems affecting certain products, processes, or methods. In order to serve the industry in this connection, the Bureau by congressional authorization has provided research associate facilities whereby firms or groups having special technological problems to solve will furnish the investigator and pay his salary and expenses. The investigation is carried out in cooperation with the Bureau's staff in its laboratories and under its control. Thus the industry can be provided with laboratory, consultation, and library facilities which in many instances it is unable to obtain elsewhere.

LABORATORIES

During the past year, the Division carried on its technological investigations under the direction of John Ruel Manning, chief technologist, at laboratories in Washington, D.C., Gloucester, Mass., Seattle, Wash., and Charleston, S.C. All of the above are Bureau of

Fisheries laboratories with the exception of the Charleston laboratory, which is a State laboratory. In addition, certain phases of our technological investigations were conducted in other laboratories as conditions warranted. For instance, certain cooperative studies were carried out in the laboratories of the various State institutions mentioned in the preceding section of this report under "Cooperation with the States." Some of our technological studies were carried out in the laboratories of various bureaus in the Department of Agriculture, and a portion of the investigations in the preservation of fishing gear which were prosecuted in the Navy Rope Factory, Boston Navy Yard, under the control of the Bureau of Construction and Repair, Navy Department.

In Washington, D.C., the technological facilities of the Division include a nutrition laboratory, a well-equipped chemical laboratory, and a mechanical laboratory with carpenter and machine shops. Those problems which concern or affect the country as a whole are usually selected for study in the Washington laboratories. As an example, a large part of the nutrition experiments are conducted in Washington.

The Gloucester laboratory is intended primarily to serve as the headquarters for the conduct of technological investigations of the fisheries of the Atlantic coast, and is so equipped as far as possible under present conditions. The Gloucester organization includes a well equipped chemical laboratory, a bacteriological laboratory, a low temperature laboratory designed primarily for the study of fresh and frozen fish, and a small byproducts laboratory.

The Seattle organization includes a well-equipped chemical laboratory and a byproducts laboratory, with the use of some of the laboratories of the University of Washington.

The Charleston laboratory, as stated above, is a State laboratory, although the Division has personnel stationed in this laboratory and contributes to its upkeep. A financial arrangement has been worked out whereby investigations in the State laboratory can be performed at less expense to both the Federal Government and the State of South Carolina than either could conduct alone. The Charleston laboratory is equipped for both chemical and nutrition research.

PRESERVATION OF FISHERY PRODUCTS FOR FOOD

Our experimental work in fish preservation has utilized the services of chemists, engineers, and bacteriologists. Investigations in this section were carried out under the immediate direction of James M. Lemon, associate technologist, in charge of the Gloucester Technological Laboratory and by Norman D. Jarvis, assistant technologist, in the Washington Technological Laboratory.

IMPROVED METHODS FOR HANDLING FRESH AND FROZEN FISH

During the course of the investigations being conducted at the Bureau's technological laboratory at Gloucester, Mass., it became evident that it would be necessary to devise an accurate method for the determination of the relative decomposition of fish flesh. After several different methods were investigated, it was found that a combination of two of the methods gave a very satisfactory indication of both the enzyme and bacterial action in the flesh, both of which

cause a breakdown in the protein composing the fish tissue. This method is based on the absorption of a standard acid solution by the protein. It was found that an accurate index of the condition of the flesh was indicated by measuring electrometrically the quantity of acid absorbed. Haddock was the species of fish upon which this test was first applied. After making tests on a series of several hundred samples, it was possible to tabulate the results in such a way that a table for general use was evolved. It was found that it would be necessary to prepare a table of this nature for each species of fish since the property for absorbing acid by the protein varies slightly in different species. At present, tables are being prepared for use with cod, pollock, and mackerel. Some tests have also been made on Pacific coast salmon.

Other problems connected with the freezing and storage of fishery products are being studied. There are a great number of variable factors and combinations which arise in the consideration of problems of this nature. Although the technologists are making an effort to solve each of these problems as they arise, the variable conditions make progress difficult and slow.

Our technologists are investigating the technique of freezing several varieties of shellfish, and the effect of storage and fluctuations of temperature in the storage room. With these studies are included such conditions as the effect of freezing and storage upon the keeping quality of the product after it has been defrosted and displayed for sale, and the rate of increase of bacteria during this same period. Oysters and shrimp are given immediate attention since these two species compose the greater portion of shellfish being marketed. The change of weight over short and long periods of time is included in the study of the effect of packing fishery products in ice for shipment. The results, which are apparent at the present time, indicate that the weight of some species of fish increases for a short period then gradually decreases until at the end of approximately 10 days a decided loss in weight is noted. It has been observed that different species of fish show different rates of decrease in weight when packed in ice for shipment.

The development of lactic acid is the cause of the well-known "rigor mortis" which occurs in the flesh of all animals immediately subsequent to death. The effect of the further development of lactic acid in fish muscle is receiving attention. Attempts are being made to correlate the presence of different quantities of this acid with the different changes which occur when fish are frozen and placed in cold storage rooms. It is believed that the presence of lactic acid in the flesh of fresh fish, which are being frozen for storage, may have a very definite effect upon the keeping quality and flavor of them when they reach the hands of the ultimate consumer. In making studies of this nature, it has been necessary for the technologists to make trips in some of the small boats and bring in live fish, keeping them alive in a tank in the laboratory until they were needed. When the necessary preparations had been made, the fish were killed and tests made immediately for lactic acid. This method permits a study of the development of lactic acid in the fish muscle at frequent intervals as it increases to a maximum, then decreases until it disappears. Samples containing a known percentage of lactic acid are frozen and the results of these various concentrations upon the keeping quality observed.

A method for packing fish and fillets in an atmosphere of carbon dioxide was developed and the effect of this procedure observed. It was found that, for long periods of shipment, the atmosphere of carbon dioxide had a decided beneficial action both on the bacterial count and on enzyme action. In the case of short periods of shipment, the carbon dioxide was not appreciably better than air. It was observed that, in order to obtain full benefit, fish should be placed in an atmosphere containing approximately 25 percent of carbon dioxide gas immediately upon being caught.

All of the present methods for the determination of water in protein compounds are tedious and require considerable time for completion and the accuracy of most of them is somewhat doubtful. In some of the studies of stored fish it has been necessary to determine the moisture content of the flesh at frequent intervals and to a greater degree of accuracy than has heretofore been possible. A method has been developed for this determination which eliminates all of the difficulties previously encountered. A period of only a few hours is required for this determination by the new method and the accuracy is far greater than any previously employed. The water combined with the protein is liberated by coagulating the protein with acetone. The water and the acetone are then evaporated leaving only the completely dried protein. It has been possible to obtain results by this method which check within one tenth of 1 percent.

The following members of the technological staff performed the above-described investigations of the chemistry of the production, handling, preservation, storage, and marketing of fresh and frozen fish: James M. Lemon, Francis P. Griffiths, Maurice E. Stansby, Louella E. Cable, Richard Locke, Francis Yetman, and Donald Bean. These scientific workers are all located in the Division's technological laboratory at Gloucester, Mass.

IMPROVEMENTS IN THE SMOKING OF FISH

For the past several years, our Gloucester laboratory has carried out experimental work in the smoking of fish. As described in previous annual reports of this Division, a small model smokehouse was constructed so as to control the various factors affecting the quality of smoked fish such as temperature, humidity, volume of smoke, etc. Finnan haddie of uniformly high quality were produced experimentally by our technologists. Reports are being prepared for publication on certain completed phases of this work.

Mackerel were found to yield a smoked product of exceptionally high quality both as to appearance and flavor. The smoke was applied at as low a temperature as possible and in an atmosphere of high moisture content. It is believed that a market for smoked mackerel could be developed which would open a considerable field for the disposal of some of the surplus mackerel at a reasonable profit to the producer.

METHODS FOR CANNING FISH IN THE HOME

Because of the great demand from home economics workers of the various counties, States, and of the Federal Government, and due to a large number of inquiries received by this Bureau for methods, safe and satisfactory to the housewife, for canning fish in the home, and

because the present published literature on the subject is somewhat obsolete, we began the experimental canning of fish during the past year to obtain data for working out methods of canning fish which would be practical for the housewife with the training and equipment available to her. The following experimental packs have been made to date: Fish flakes; fish cakes; fish chowder; mullet, plain, tomato sauce, and spiced; mackerel, plain, tomato sauce, spiced, and smoked; amberfish; salmon, plain for 60 minutes, plain for 90 minutes, and spiced; grouper; squeteagues; croaker; eels; catfish; carp, plain, and spiced; lake trout; whitefish; shrimp, in number 2 cans and pints, in number $\frac{1}{2}$ flat cans and 5-ounce glass jars; crab; clams, minced, whole, and chowder; and oysters. It is estimated that it will be at least another year before these results can be published by the Bureau since it will be necessary to make extensive bacteriological examinations of the experimental packs for varying periods of time after all of the experimental canning has been completed. The experimental canning in connection with this project is being carried out by Norman D. Jarvis, in our Washington laboratory and the bacteriological examinations are being conducted by Francis P. Griffiths in our Gloucester laboratory.

STUDIES IN THE BACTERIOLOGY OF FISH PRESERVATION AND SPOILAGE

The bacteriology and chemistry of fish preservation go hand in hand. Therefore, we are closely coordinating the chemical and the bacteriological phases of attack on the problems described in the preceding sections. The changes caused by the action of bacteria are closely related to the chemical changes which accompany enzyme action in the fish flesh. Attempts are being made to correlate the various stages of spoilage with the bacterial count in each of these stages. In order that a comparison might be made of the popular methods of judging the degree of spoilage with the actual bacterial count, a number of tests were conducted. Opinions as to the organoleptic tests were made and the bacterial count of the fish at each stage was taken. Charts were prepared which showed that the organoleptic test is quite indefinite and is as variable as the number of persons making the test. It would indicate, however, that the organoleptic test within a wide range correlates fairly well with the bacterial count.

In addition to the bacteriological investigations above-described, certain aspects of the bacteriology of fishery food technology were extended to the studies of the smoking of fish and of the home canning of fish. These tests have been discussed in previous sections of this report. All studies in bacteriology have been conducted in the Gloucester laboratory by Francis P. Griffiths, bacteriologist of the Division's technological staff.

PRESERVATION OF FISHERY BYPRODUCTS

During the past year research in connection with the preservation of fishery by products has been continued at the Gloucester Technological Laboratory and new work undertaken in the recently established technological laboratory located at Seattle, Wash. These studies were carried on under the direction of Roger W. Harrison with the assistance of Andrew W. Anderson and S. R. Pottinger.

IMPROVED METHODS FOR MANUFACTURING FISH MEAL FROM NONOILY
FISH WASTE

The experimental work on improved methods for the manufacture of fish meal from nonoily fish waste as outlined in the 1932 report was completed during 1933. A comprehensive report of the investigation is now in the process of preparation. Data obtained during the course of the investigation indicate the following:

1. The digestibility, vitamin value and general nutritive value of the meal is affected by drying time, temperature of drying and method of applying heat, while the essential amino acid, Cystine, is affected more by temperature.

2. Of the various factors affecting the general nutritive value of fish meals which were investigated; namely, digestibility of the protein, biological value of the protein, essential amino acids and vitamin potency, vitamin G appeared to have greatest influence on the feeding results obtained with the fish meal.

3. Vitamin G is found largely in the head portion of cod and haddock fillet waste.

4. Vitamin G is found in the water soluble proteins and is therefore partially removed by wet processes for nonoily fish reduction generally used.

5. By satisfactory control of the temperature within a dryer, by regulation of steam pressure and vacuum, the glue problem encountered in the dry reduction of this type of material can be overcome.

6. Operation made possible by the conditions of (5) above, permit the preparation of a fish meal of greater general nutritive value with greater final yield of finished product.

DEVELOPMENT OF FISH FLOUR

Owing to the fact that quite satisfactory use is now being made of nonoily fish waste in the preparation of fish meal and the necessity to curtail work on account of reduced appropriations, the fish flour work was temporarily discontinued for the purpose of undertaking an investigation needing more immediate attention.

HADDOCK-LIVER OIL

The investigation concerning the physical, chemical, and biological properties of haddock-liver oil which was discussed in the 1932 report, was completed during the past year and a report of the results obtained is being prepared for publication. As stated in the last report, concern had been expressed as to the possibility of the properties of haddock-liver oil differing sufficiently from cod-liver oil to make an oil prepared largely from haddock livers incapable of meeting the existing United States Pharmacopoeia requirements for cod-liver oil, with respect to chemical and physical properties of the oil specified by the United States Pharmacopoeia.

The data obtained indicate that there is little likelihood of this occurring in the case of crude oils, but if the United States Pharmacopoeia requirements are held for winterized or cold-pressed oils, it is entirely possible that an oil of this nature will exceed the upper limit for iodine number. This is especially true in the oils from livers of haddock taken during the summer months and on Georges Bank.

By raising the upper limit for iodine number from 180 to 190, the danger of haddock-liver oil not meeting United States Pharmacopoeia requirements should be entirely eliminated.

SALMON OIL INVESTIGATION

In an effort to bring about increased utilization of fishery waste materials by conversion into useful products, the Bureau began, in 1933, an investigation concerned with the manufacture of vitamin-active oil and high quality meal from salmon waste. The possibilities for this development may be appreciated when it is considered that during 1932 the waste available from the salmon fishery was capable of yielding approximately 12,000 to 15,000 tons of meal and from 1,500,000 to 2,000,000 gallons of oil, while actual utilization resulted in the manufacture of only 2,435 tons of meal and 250,871 gallons of oil. During the season of 1933 studies were carried on in canneries located on the Columbia River and on Puget Sound. This work was largely of a preliminary nature to determine the nature and amount of oil in the different portions of the waste and the quality of the oil from the different species. Work was also begun on improved methods of oil manufacture.

The preliminary indications are that an oil can be produced commercially that will be comparable with cod-liver oil in both vitamins A and D. Also carefully prepared salmon meal should prove to be one of the best protein concentrates available for animal feeding.

The investigation is being continued and will be reported further next year.

SWORDFISH-LIVER OIL

With the discovery and successful exploitation of halibut-liver oil in the field of human nutrition, there has been an increasing interest in new sources of natural concentrates of vitamins A and D. Working on the premise that vitamin storage in fish may be a function of age, the Bureau began an investigation of the oil obtainable from the liver of the swordfish taken commercially on Georges Bank and adjacent fishing banks off the coast of New England.

Livers were procured and investigated from the standpoint of oil content and the nature of the oil present. Analysis showed that the moisture content of the liver varied between 60 and 68 percent; oil content, between 13 and 22 percent; and flesh residue, between 15 and 24 percent. The oil was a dark viscous fluid which solidifies at relatively high temperatures.

Samples of oil, examined colorimetrically, indicate that swordfish-liver oil is an extremely potent carrier of vitamins A and D. Several experimental methods of preparing the oil were studied. The vitamin tests of swordfish-liver oil, described later on in this report, indicated that solvent extraction methods yielded an oil of higher vitamin potency than oil extracted from the livers by mechanical processes.

CONTROLLING THE OXIDATION OF FISH OILS

Fish oils are composed of glycerides of saturated and unsaturated fatty acids. The unsaturated fatty acids have the ability to take up oxygen from the air and, when spread in a thin layer, form a relatively tough, protective film. This is known as drying, and constitutes the

value of drying oils in paints. Where fish oils are used for other than their drying properties, their ability to take up oxygen proves a handicap since oxidation leads to thickening and the acquiring of an undesirable odor and taste. When oils are winterized or cold pressed in order to give them the property of remaining fluid and clear at low temperatures, the proportion of unsaturated fatty acids to saturated fatty acids is increased, with the resultant tendency for them to have a greater faculty for taking up oxygen. Certain chemical compounds, when mixed with an oil of this nature, have the ability to retard oxidation. These are known as antioxidants or inhibitors, and should have usefulness in stabilizing the keeping properties of fish oils in certain uses. With this in mind, the Bureau has undertaken an investigation of the use of antioxidants in fish oils. The work which has just begun will be continued during the coming year.

NUTRITIVE VALUE OF FISHERY PRODUCTS

Since we are dealing fundamentally with a food industry and, therefore, since our technological investigations constitute a highly specialized field of food research, obviously the nutritive or food value of fishery products is of primary importance. This applies not only to the fishery products of current commercial importance, but also applies to any experimentally manufactured products resulting from studies of improvements in manufacture, preservation, handling, storage, and marketing. In other words, the consumer is not only interested in the fishery products now on the market and available for human nutrition and in the byproducts now available for animal nutrition, but he is interested in any improvements that can be made in these products by experimental work. It naturally follows that quality and increased food value are the measurements of any improvements which can be made in the products of this industry. For this reason, our nutrition experiments play an extremely important and vital role in our program of technological investigations, viewing these integrated phases of our technological program as a coordinated whole. Therefore, our nutrition tests serve two important functions. The first function of nutrition studies is to determine the quality and food value of current fishery products of commerce. The second function of this work is to provide a yardstick for evaluating improvements in methods of manufacture, preservation, handling, storage, and marketing, in terms of the quality and food value of the finished products of these experimental methods as compared with the finished products of commercial methods now in use.

During the past year various phases of our program of nutrition research were carried out in our laboratories in Washington, D.C., and in the State laboratory at Charleston, S.C., by the following members of our technological staff: E. J. Coulson, Charles F. Lee, and C. D. Tolle.

SWORDFISH-LIVER OIL

Recently the Bureau announced in a press release the results of studies made by members of its technological staff in connection with the vitamin content of swordfish-liver oil and the developments of methods of production of swordfish-liver oil of high vitamin potency. This work was performed in the Division's technological laboratories

located in Gloucester, Mass., Washington, D. C., and Seattle, Wash., by the following members of our technological staff: Roger W. Harrison, S. R. Pottinger, Andrew W. Anderson, and Charles F. Lee. Certain details concerning the swordfish-liver oil investigation have been discussed in a previous paragraph of this report under the heading of "Preservation of Fishery Byproducts." The nutrition tests in our Washington laboratories revealed that swordfish-liver oil contains from 75 to 100 times as much vitamin D as the United States Pharmacopoeia standard reference cod-liver oil, and from 15 to 25 times as much vitamin A as this standard cod-liver oil. Since the United States Pharmacopoeia standard reference cod-liver oil contains about 3,000 international vitamin A units and 95 international vitamin D units, this means that swordfish-liver oil contains from 45,000 to 75,000 international vitamin A units, and from 7,000 to 9,500 international vitamin D units. According to these results, while swordfish-liver oil is not as rich as halibut-liver oil in vitamin A content, it is many times higher in vitamin D.

OILS FROM SALMON CANNERY TRIMMINGS, SALMON EGGS, AND SALMON LIVERS

During the past year, our Washington Nutrition Laboratory continued vitamin assays of various oils experimentally prepared by our byproducts section from salmon cannery trimmings, salmon eggs, and salmon livers. The results of our vitamin assays to date have shown that salmon-liver oils are approximately 5 to 20 times as potent in vitamin A and approximately 2 to 3 times as potent in vitamin D as an average medicinal cod-liver oil. The oils prepared from salmon eggs varied considerably, although these compared favorably in vitamin potency with an average medicinal cod-liver oil. The same is, in general, true of oils from cannery trimmings.

MINERAL CONSTITUENTS OF FISHERY PRODUCTS

Much has been written in the scientific literature in recent years concerning the increasing importance of minerals in nutrition. Probably no other class of foods offers so attractive a field of study, in this respect, as fishery products since it is commonly known that these products contain minerals in quantity and variety, many of which have been shown by scientific investigators to be of great importance in both human and animal nutrition. In the State laboratory at Charleston, S. C., E. J. Coulson, a member of our technological staff, has been making an extensive study of the nutritive value of minerals in fishery products. Chemical analyses of the quantity of these minerals in various fishery products of commercial importance are being made. Following this, these fishery products are fed to laboratory animals to determine the biological value of such minerals. It is hoped that later on it may be possible to extend these mineral nutrition studies to patients in the State hospital or medical clinic in Charleston. While this study, because of its large scope, will necessarily require many years for completion, certain portions of it have been completed and the following reports have been prepared for publication by the Bureau: "The Iodine Content of Oysters", published as Bureau of Fisheries Memorandum S-334; "Studies on

the Nutritive Value of Oysters", published as Fisheries Investigational Report No. 17; and "The Oyster as a Source of Minerals", a report yet to be published. The above investigation has included other fishery products as well as oysters, but the work has not sufficiently progressed that reports on these commodities can yet be prepared.

DEVELOPMENTS AND IMPROVEMENTS OF FISHING GEAR

As stated previously in this report, certain of our technological and marketing investigations are of vital importance in any broad program of conservation of our fishery resources. There are few other fields of investigation which offer any greater opportunity for contributing to real conservation than developments and improvements in the various types of fishing gear which are used in the actual catch of fish.

MEASUREMENT OF MESH SIZE OF FISHING NETS

For many years, there have existed in various parts of the country numerous controversies between the conservation authorities of the States involved and interested parties in the fisheries, concerning the mesh size of fishing nets used in the various waters of those States. These disputes are, in themselves, indicative of the great importance of the size and type of fishing nets as an influence on conservation measures. The mesh size of nets determines the kinds and numbers of undersized and immature fish which will be permitted to escape from the commercial fisherman and, in the interests of conservation, contributes to the maintenance of the fisheries. Therefore, our technologists, as well as our biologists, have cooperated with the States and with the industry on this great problem. In this connection, during past years, technologists of this Bureau and of the Bureau of Standards have made a study of devices to enable the conservation authorities of the States to establish and apply uniform enforcement of these mesh sizes of nets. However, during 1933, due to limitations of appropriations in this Bureau and in the Bureau of Standards, this investigation had to be suspended temporarily.

NET PRESERVATION

The development of and tests of commercial preservatives for fishing nets were continued during 1933 by W. T. Conn, a member of the Division's technological staff. The work followed two principal objectives, one to confirm previous season's tests and the other to test new formulas developed. Several years ago, our technologists discovered that the greatest menace to fishing nets in fresh water consisted in attacks on the netting by cellulose digesting bacteria. In addition to recommendations for treating these nets with toxic dyes, as described in previous annual reports of this Division, it has been found during the past year that chrome tanning of the cotton netting is superior to these previously developed dye processes and that, where bacterial action is not serious, an improved method of cutting twine produces good service. In all cases, better results are obtained by covering the treated nets with a good grade of tar, properly applied, in addition to one of the above treatments.

Another serious problem in net deterioration has been the fouling of nets by weeds and other marine growth after the nets have been in

waters for varying lengths of time. Studies of this problem have revealed that certain mercury compounds are valuable in checking these growths.

Other chemicals tested out during the past year, of value in net preservation, include various antioxidants. It has been found that the inclusion of antioxidants in tar for treating nets is an improvement over plain tar treatments, since the antioxidants increase the flexibility of the tarred net, thereby prolonging its useful life. A detailed study has been made of the effect of exposing cotton and linen twines to rain and comparing these stocks dried in sunshine and in the shade. The sun-dried twines deteriorated very rapidly. The shade-dried linen deteriorated slightly in 6 months, but the cotton twine gained in strength. In these tests, it was found that even a small amount of soft coal smoke was very destructive to both linen and cotton twines.

During the past year, our technological staff cooperated with the Bureau of Construction and Repair of the Navy Department in developing chemical preservatives for manila cordage. It was found that antioxidants were of value in prolonging the life of linen cordage or rope. This work will result in considerable savings to the Navy Department since this Department naturally uses large quantities of this material.

During 1933, we issued a pamphlet entitled "More Life from Fish Nets", by W. T. Conn. This pamphlet proved to be very popular and hundreds of fishermen have written in for copies of it. In order to reach the fishermen of the country so that they could take advantage of the recommendations in this pamphlet, notices were sent to post offices where fishermen receive their mail and to small town newspapers. The interested response on the part of the fishermen was most gratifying.

EDUCATIONAL AND CONSULTING SERVICES

In addition to the activities previously described, our technological staff conducts very important educational and consulting services for those interested in the fisheries. Some of these educational functions and consulting services have been discussed or referred to in preceding paragraphs of this report. Therefore, it is only necessary to summarize these services and to describe their nature. We have cooperated with various State institutions, colleges, universities, schools, and other public institutions in disseminating information on the preservation, utilization, food value, etc., of fishery products. This has been done by means of lectures, practical demonstrations, radio addresses, letters, and reports. The members of our Division staff also prepare answers to letters or inquiries received by the Bureau from persons and companies interested in various industrial problems in the fisheries. These inquiries contain questions on the various problems connected with the manufacture, preservation, handling, storage, statistics, and marketing of the products of the fisheries. This correspondence is answered by reference to our published literature and the publications of other institutions of fishery research, from the information contained in the Bureau of Fisheries' Library, and from the knowledge and experience of the various technologists. The replies to these inquiries constitute a technological consulting service conducted by the Bureau for the benefit of the public.

Our technological publications and activities have attracted students to Washington, in recent years, from all parts of the world. Among those visiting our technological laboratories in Washington and elsewhere in the United States, during 1933, were students, scientific investigators, and members of the faculties of foreign universities from the following countries: England, France, Norway, Japan, Egypt, Argentina, and the Philippine Islands.

MARKETING INVESTIGATIONS

As indicated earlier in this report, the great need of the fishery industry today is marketing reform. Almost every conceivable system of marketing known is used in the fisheries. Considerable confusion and disorganization exist, permitting many practices which react unfavorably against the industry. Present marketing conditions in the industry are permitting the distribution and introduction to the public of inferior merchandise. This inferior merchandise unquestionably acts as a deterrent in any efforts to increase the consumption of fishery products in this country, and reacts against the industry as a whole. There is no intention here to be unduly critical of members of the industry. In fact, only constructive criticism is offered. It is recognized that there are many able and progressive individuals and firms in the fishery industries and some of the products of the industry are merchandise of high quality. However, a small amount of inferior merchandise can do more harm than the good accomplished by a large amount of good merchandise. It is a well-known fact that the United States has a lower annual per capita consumption of fishery products than most of the important nations of the world. This is not, by any means, entirely caused by the fact that we are primarily an agricultural nation, but is largely influenced by the lack of quality and standards of quality in the marketing of fishery products and the great confusion existing among producers, dealers and consumers, as to the intrinsic value of the products they are handling. It is recognized that there is justification for a greater "spread" in prices between producer and consumer in this industry, on account of the high rate of perishability of its products, but there is no permanent reason or excuse for the "spread" which exists under present conditions of marketing. The Bureau realizes that the needed marketing reforms cannot be accomplished overnight, but that to be successful they must be based on fundamental and thorough surveys of present conditions in the industry and recommendations to be made only after thorough studies founded on sound principles of economics.

THE SHRIMP INDUSTRY

An economic survey of the shrimp fishery and industry of the South Atlantic and Gulf States was made during 1933 by Fred F. Johnson of the Division of Fishery Industries and Milton J. Lindner of the Division of Scientific Inquiry.

It was brought out that the catch of shrimp in the South Atlantic and Gulf States in 1931 amounted to 96,451,000 pounds, with a value to the fishermen of \$2,730,000. This represents 97 percent of the volume and 95 percent of the value of the catch of the shrimp fisheries of the United States and Alaska. This fishery gave employment to

more than 14,000 persons as fishermen and workers in wholesale and manufacturing establishments.

The prosecution of this fishery and the packing and allied industries it supports, furnish the livelihood of many entire southern communities and contribute an important food product to the domestic and foreign trade of this country. Thus, it is essential that proper steps be taken to assure the future supply of this crustacean and that there be technological development of fishing and plant operation, and improved business methods, in order that normal activities in the industry may be expected not only in the immediate, but in the more distant, future as well.

These essentials of the industry require the concerted attention and efforts of the shrimp interests. Organization should lead to a development of statistical procedure that can definitely point out when and where depletion of the fishery may be imminent and remedial action be taken in time. It should foster research to improve fishing boats and gear, methods of handling, improvement of the finished product, marketing methods, and endeavor to establish new markets; and it should evolve a definite and adequate cost of production system to be followed by its members that they may know in what department their costs are excessive, and further that they may be able to price their goods to make a fair profit.

The paper which will publish the results of this survey will include for the South Atlantic and Gulf States the following sections among others: Natural history; fishing grounds; the fishermen; plant workers; methods of capture; craft used in capture; seasons of capture; preparation for market; marketing; prices; nutritive value; and data for foreign shrimp fisheries and markets.

THE RED SNAPPER INDUSTRY

During 1933, Norman D. Jarvis, assistant technologist, completed his investigation of the red snapper industry which was begun in 1932. The results of this study have been summarized in a report entitled "Fishery for Red Snappers and Groupers in the Gulf of Mexico", which the Bureau expects to publish during the coming year. This report contains information on gear, equipment, etc., used in the red snapper fishery and in the preparation, handling, and shipment of products of this fishery. It contains recommendations as to methods for smoking red snapper and grouper and suggestions with respect to other methods of preservation and handling.

MARKETING GRADES OR STANDARDS FOR FISH AND FISHERY PRODUCTS

At the request of various States, the Division has undertaken a study of the possibilities for establishing and applying voluntary marketing grades or standards for fishery products. This work has been under the direction of John Ruel Manning, chief technologist. The studies have been made in cooperation with several States on the products in those States. The work was begun over a year ago in Virginia by J. H. Meek, director, and N. W. Broome, supervisor, Virginia Division of Markets, and Mr. Manning of this Division. The experience of the past year in Virginia has shown that these marketing grades or standards are practical and have been successful in improving the economic condition of producer and dealer.

Consumers are much better satisfied, since they recognize in these grades dependent standards of quality. As pointed out in the Division's report for 1932, marketing standards have been very successful with all kinds of agricultural products. In addition to our work in Virginia, we have cooperated with other States during 1933 in the study of this marketing problem. Among the States where actual studies have either begun or where considerable interest is being shown are North Carolina, Massachusetts, Maryland, and New Jersey.

During 1933, in connection with the formulation of fishery codes, Mr. Manning prepared several reports on the standardization or grading of fishery products, based on his brief surveys, for the National Recovery Administration and the Agricultural Adjustment Administration. Considerable interest has been shown in this work by consumers. The Consumers' Advisory Board of the National Recovery Administration has used considerable of the material from our reports in its efforts to develop consumer's standards.

From our investigations to date, it appears that a national and uniform system of voluntary grading and standardization is practical and will be of considerable aid ultimately to the entire fishery industry. It will be a great contribution to conservation in keeping undersized and immature fish from the market and in eliminating waste. It would tend to stabilize the industry, cut down merchandising costs, would assist materially in the prevention of destructive price cutting, would facilitate the procurement of necessary credit by fishing enterprises from banks and other financial institutions, would assist in the elimination of evils of the consignment business, would increase the consumption of fishery products, and would be of general benefit to the producer, dealer, and consumer. It cannot be emphasized too strongly that marketing reforms in the fisheries are vital to any conservation program in the fisheries.

INTERCHANGEABILITY OF THE USES OF OILS AND FATS—FISH OILS

Because of the extremely depressed economic condition of the oils and fats industry in this country, and its direct effect on fish oils and other marine animal oils, the Division gave considerable thought and study to this problem. In fact, studies of the economic and marketing conditions of the fish-oil industry have engaged the attention of our division staff for the past several years. Recently, at the request of the Finance Committee of the United States Senate, John Ruel Manning, chief technologist, made a study of the technical and economic conditions in this industry, and prepared a brief summary concerning the interchangeability of the uses of oils and fats, with special reference to fish and marine animal oils. The summary is given below.

The information given herewith deals only with saponifiable oils and fats and does not pertain to the petroleum or mineral-oil industry.

The interchangeability of the uses of oils and fats in commerce and in the various industries involves both technical and economic considerations. From a technical standpoint, there can be and is free interchangeability of the uses of various oils and fats. Modern methods of hydrogenation, refining, treatment, etc., make it possible to prepare practically all oils and fats for almost any industrial use.

This means that it is possible, chemically, to use practically any animal or vegetable oil or fat in soap manufacture or in some of the other possible consuming industries of these commodities. Therefore, the actual practice of the interchangeability of the uses of oils and fats is a matter of prices or other economic considerations. Formerly, certain technical and economic obstacles prevented any great interchangeability. At the present time, certainly no technical obstacles exist, and it is doubtful that there are many economic obstacles which would hinder complete potential interchangeability.

It is quite true that the specifications of the finished product may to a certain extent govern interchangeability. However, in many instances, favorable economic influences will overcome even these requirements or specifications.

The statement is quite often made that this or that particular oil or fat is not suitable for the manufacture of soap or other finished products, because of the relatively high or low content of the particular oil or fat in some specific fatty acid. This statement is not true for the following reasons: Animal and vegetable fats and fatty oils are of similar general composition since they are mixtures of compounds of glycerin and certain organic acids, which, due to their presence in fats, are called fatty acids. Obviously, the variable in the composition of these materials is the fatty acid portion. For this reason, the properties of the various fats and oils, and consequently their desirability for a particular use, depend primarily upon their constituent fatty acids and the proportion of these various acids present. This situation applies to all oils and fats, both marine animal, terrestrial animal, and vegetable. Without making the discussion too involved, it is a known fact among chemists and technologists that developments in hydrogenation processes have made it possible to convert unsaturated liquid oils to any desired degree of hardness. Consequently, the apparent difference in the natural qualities of various fats and oils has resolved itself into little actual difference insofar as the possibilities for the interchangeability of these materials is concerned, or where hard fats are required for the particular use in question. It is, therefore, readily seen that, whenever economic considerations enter into the industrial picture, or in other words, when the price of a particular oil or fat is relatively low, it is quite often advantageous and economically attractive to substitute as an ingredient of the finished product a cheaper oil or fat than the one formerly used. It is commonly known among those familiar with the uses of oils and fats that such substitution or interchangeability is actually practiced in the consuming industries whenever market conditions are sufficiently favorable.

Statistics show that there is a world surplus of oils and fats. There is a domestic surplus of oils and fats for nearly all domestic uses. With the great possibilities for the interchangeability of the uses of these oils and fats as discussed above, it is readily apparent that a highly complicated and competitive market for these raw materials exists. Even though a particular oil or fat, because of some special natural property, is favored for certain specific uses, this specific oil or fat will be affected either directly or indirectly by changes in the market for these commodities as a whole. In other words, if the supply of oils or fats intended for shortenings, for other edible use, for a source of vitamins for use in either human or animal nutrition,

is more than the market can absorb, this oil or these oils and fats will affect and be affected by the supply and demand for other oils for other uses. Since the soap kettle is the principal consumer of oils and fats, it is probably one of the important, if not the most important, factors affecting the general market situation for these commodities. If an oil or fat is especially desired for some particular use and is commanding a higher price for that use than it would command for soap manufacture, and cannot find a market for this higher priced use, it will gravitate to the market for soap manufacture.

This is just one example of how the possible and actual interchangeability of the uses of various oils and fats can and does affect markets and prices for each and every type of oils and fats under conditions of a world surplus and a domestic surplus of oils and fats.

PUBLICATIONS OF THE DIVISION

During the calendar year 1933 the following publications were prepared by members of the Division's staff. These do not include the monthly statistical bulletins of the landings of fishery products at Boston and Gloucester, Mass., Portland, Me., and Seattle, Wash., nor the monthly reports on cold-storage holdings of frozen fish and quantities of fish frozen. The fishery documents, reports, and circulars may be purchased at the prices shown from the Superintendent of Documents, Government Printing Office, Washington, D.C. The statistical bulletins and special or S-memoranda are distributed free of charge upon request to the Bureau. The special articles may be obtained from the sources of publication.

Those wishing to receive current copies of this report and statistical bulletins issued by the Bureau should request that their names be placed on the Bureau's mailing lists no. 128 for the Annual Statistical Report, 128a for general statistical bulletins, and 128b for monthly cold-storage reports. Those desiring historical statistical data on the domestic fisheries for the period 1880 to 1929 should consult the report entitled "Fishery Industries of the United States, 1930" by R. H. Fiedler, Appendix II to the Report of the United States Commissioner of Fisheries for the fiscal year 1931.

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COULSON, E. J.

Studies on the nutritive value of oysters. 8°, 30 pp., 8 figs. Investigational Report No. 17. 5 cents.

FIEDLER, R. H.

Fishery industries of the United States, 1932. Appendix III, Report of Commissioner, 1933. 8°, 301 pp. 20 cents.

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ANDERSON, A. W., ROGER W. HARRISON.

A survey of the fishery byproducts industry of Maine. Fishing Magazine, November 1933, December 1933, and February 1934. New York City.

CONN, W. T.

Net preservative research, 1932, with recommendations. Bureau of Fisheries Memorandum S-330, January 27, 1933. Published in Fish and Oyster Reporter, March 1933, Tampa; Atlantic Fisherman, April 1933, Goffstown; Cord Age, May-June 1933. New York City.

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CONN, W. T.—Continued.

The tanning or barking of nets. Bureau of Fisheries Memorandum S-333, December 16, 1933.

More life from fish nets. Bureau of Fisheries Special Memorandum 1651-H, December 26, 1933.

COULSON, E. J.

The iodine content of oysters. Address before the Medicinal Chemistry Section, American Chemical Society, Washington, D.C., March 27, 1933. Bureau of Fisheries Memorandum S-334.

Nutritive value of oysters. Fishing Gazette, August 1933, New York City. Bureau of Fisheries Special Memorandum 2468-C.

FIEDLER, R. H.

Problems in the marketing of fishery products in the United States. Fish and Oyster Reporter, January 1933. Tampa.

JARVIS, NORMAN D.

Fish as food. Address before First District Conference, Florida State Chamber of Commerce, Apalachicola, Fla., April 29, 1933. Published in Fish and Oyster Reporter, July 1933. Tampa.

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JOHNSON, F. F., W. H. BROWN.

Retailing 'em alive in Miami and New Orleans. Fishing Gazette, March 1933. New York City.

MANNING, JOHN RUEL.

Look to the sea for your diet. Lecture delivered to class of dietitians at Army Veterinary School, Army Medical Center, Washington, D.C., on February 6, 1933. Bureau of Fisheries Special Memorandum 1061-A.

Nutritive value of marine products. Lecture delivered at Western Maryland College, Westminster, Md., March 21, 1933. Bureau of Fisheries Special Memorandum 2468-B.

Technological investigations in the fisheries. Lecture delivered to class of students in aquiculture and zoology, University of Maryland, College Park, Md., April 4, 1933. Bureau of Fisheries Special Memorandum 2520.

Fish meal in animal feeding. Paper presented before Fisheries' Section of the Fifth Pacific Science Congress in Vancouver, Canada. June 8, 1933. Published by His Majesty's Printing and Stationery Office, London, England.

Fish oils are a form of national health insurance. Published in United States News, September 16, 1933.

Fish flour as nutritive food for economy diet. Published in United States News, September 23, 1933.

The vital importance of establishing marketing grades or standards for fish and fishery products in the United States. Bureau of Fisheries Special Memorandum 2450-E.

Standardization of fishery products. Address delivered before the 15th Annual Meeting of The National Association of Marketing Officials, Washington, D.C., December 20, 1933. Bureau of Fisheries Special Memorandum 2450-H.

STANSBY, MAURICE, JAMES M. LEMON.

An electrometric method for detection of relative freshness of haddock. Analytical Edition, Industrial and Engineering Chemistry, vol. 5, p. 208, May 15, 1933. Bureau of Fisheries Special Memorandum 2511.

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Fisheries of the New England States, 1931. Statistical Bulletin No. 1030.

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Part 2. FISHERY STATISTICS, 1932

GENERAL REVIEW

The catch of fishery products in the United States and Alaska during 1932 decreased slightly from that in the previous year, the decrease amounting to 1 percent in quantity; however, the value decreased 27 percent. The value of the production of canned fishery products decreased 31 percent as compared with that in the previous year; and byproducts decreased 25 percent. There were also decreases in the production of packaged and frozen fish products. There was a decrease of 31 percent in the value of imports and 33 percent in the value of exports as compared with 1931.

During 1932 the domestic fisheries employed about 116,000 persons as fishermen. The catch amounted to 2,614,140,000 pounds, valued at \$54,764,000. In addition, the fishery for seed oysters showed a production of 3,076,000 bushels, valued at \$768,000.

In 1932 in the United States and Alaska, the production of canned fishery products amounted to 416,062,000 pounds, valued at \$43,749,000 and the output of byproducts was valued at \$12,466,000. The production of fresh and frozen packaged fish (exclusive of packaged shellfish) amounted to 51,976,000 pounds, valued at \$5,741,000, while the pack of frozen fishery products amounted to 92,472,000 pounds, estimated to be valued at \$7,000,000.

Fishery products imported for consumption were valued at \$29,566,000, and domestic exports were valued at \$7,808,000.

New England States.—The 1932 statistics for the catch of these States showed a decrease in volume as compared with any year for which there are records since 1924, and a decrease in value as compared with any year since 1902. The landings of fish by vessels at Boston and Gloucester, Mass., and Portland, Maine, showed a considerable decrease under 1931. The production of frozen fish decreased about 4 percent.

Middle Atlantic States.—The catch of fishery products of the Middle Atlantic States in 1932 was less in both volume and value than in any preceding year for which data are available. The landings of fish at New York, N. Y., and Groton, Conn., decreased sharply under 1931 landings. There was a decrease in the production of both packaged and frozen fish. The catch of shad in the Hudson River increased appreciably in 1932 over 1931.

Chesapeake Bay States.—In 1932 the catch of fishery products in the Chesapeake Bay States was greater than that in any year since 1920 for which there are records, but the value of the 1932 catch was

less than that for any year for which there are records since 1888. There was a large increase in the catch of croakers and menhaden.

South Atlantic and Gulf States.—The catch of fishery products of the South Atlantic and Gulf States in 1932 showed a small increase over that of 1931, but the value was less than in any year since 1902. There was a decrease in the production of canned shrimp and an increase in the output of canned oysters and menhaden products.

Pacific Coast States.—The catch statistics of the Pacific Coast States for 1932 showed the smallest catch since 1926, and a value less than in any year for which there are records since 1915. There were decreases in the packs of canned sardines, canned salmon, canned tuna, and frozen fish.

Lake States.—The United States fisheries prosecuted in the Great Lakes and the international lakes of northern Minnesota in 1932 decreased somewhat under the previous year. Beginning in 1929 a revised statistical procedure was used, including certain products not canvassed in some of the preceding surveys, and there was a change in the methods of collecting statistics in some of the States.

Mississippi River and tributaries.—The most recent complete catch statistics of the fisheries of the Mississippi River and tributaries are those collected for the year 1931. As compared with the 1922 survey, there was a decrease in the catch which was reflected principally in a smaller catch of fresh-water mussels. These are used primarily in pearl button manufacture.

Alaska.—The catch of fishery products in Alaska in 1932 was slightly greater in volume due to the resumption of whaling but less in value than that in 1931. The pack of canned salmon in 1932 was less than that of the previous year. There was a decrease in the amount of frozen fish and an increase in the amount of cured fish and byproducts.

Fisheries of the United States and Alaska, 1932¹

SUMMARY OF CATCH: BY SECTIONS

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Product	New England, area XXII		Middle Atlantic, area XXIII		Chesapeake, area XXIII		South Atlantic and Gulf, areas XXIV and XXV		Pacific	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Fish	440,918	9,184	112,302	1,938	267,107	2,548	184,158	2,715	542,859	8,416
Shellfish, etc.	39,603	4,817	28,919	2,716	91,900	3,357	115,759	3,713	17,032	1,052
Whale products									937	16
Total	480,521	14,001	141,221	4,654	359,007	5,905	299,917	6,428	560,828	9,484

Product	Lakes		Mississippi River and tributaries		Alaska		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Fish	81,829	4,304	44,062	2,258	595,943	6,813	2,269,178	38,176
Shellfish, etc.	1,915	28	38,320	640	2,913	158	336,361	16,481
Whale products					7,664	91	8,601	107
Total	83,744	4,332	82,382	2,898	606,520	7,062	2,614,140	54,764

¹ All figures are for 1932, except those for the Mississippi River and tributaries, which are for 1931.

NOTE.—The above excludes the seed-oyster fishery. See separate section following. The roman numerals appearing under the names of the sections are the numbers given these areas by the North American Council on Fishery Investigations. It should be explained that there are included under these areas craft owned under the respective areas but at times fishing elsewhere.

Fisheries of the United States and Alaska, 1932—Continued

OPERATING UNITS: BY SECTIONS

Item	New England	Middle Atlantic	Chesapeake	South Atlantic and Gulf ²
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	5, 142	2, 862	2, 056	2, 409
On boats and shore.....	11, 330	5, 508	18, 890	19, 151
Total	16, 472	8, 370	20, 946	21, 560
Vessels:				
Steam.....	24	8	19	-----
Net tonnage.....	3, 988	1, 600	2, 021	-----
Motor.....	594	407	110	441
Net tonnage.....	16, 984	6, 616	1, 768	6, 646
Sail.....	2	-----	193	71
Net tonnage.....	53	-----	2, 005	841
Total vessels	620	415	322	512
Total net tonnage	21, 025	8, 216	5, 794	7, 487
Boats:				
Motor.....	4, 604	1, 593	8, 216	5, 052
Other.....	3, 791	2, 046	6, 014	7, 797
Accessory boats.....	1, 212	48	52	85
Apparatus:				
Haul seines.....	84	331	302	891
Purse seines.....	179	22	27	42
Otter trawls (including all types and sizes).....	523	179	27	1, 680
Gill nets.....	11, 081	2, 399	11, 811	10, 860
Trammel nets.....	-----	-----	-----	358
Pound nets, trap nets, and weirs.....	517	642	2, 674	1, 737
Stop nets.....	-----	116	7	7
Fyke nets.....	349	3, 100	1, 873	1, 085
Bag nets and pocket nets.....	108	-----	-----	-----
Other nets ³	391	396	2, 672	2, 062
Hooks, baits, or snoods.....	3, 758, 823	735, 884	1, 372, 819	324, 694
Fish wheels.....	-----	-----	-----	21
Eel pots and traps.....	5, 136	6, 985	9, 654	1, 325
Lobster pots.....	341, 595	44, 653	-----	-----
Crab and crawfish pots, traps, drags, etc.....	3, 351	50	-----	4, 635
Clam dredges.....	79	90	-----	1
Crab dredges.....	-----	67	126	-----
Mussel dredges.....	-----	2	-----	-----
Oyster dredges.....	114	360	794	577
Scallop dredges and drags.....	3, 949	955	610	64
Crab scrapes.....	-----	-----	1, 036	-----
Tongs, rakes, hoes, forks, picks, grabs, etc.....	4, 441	2, 813	12, 321	2, 920
Sponge diving outfits.....	-----	-----	-----	54
Other apparatus ⁴	3, 275	177	-----	2, 593

Item	Pacific	Lakes	Mississippi River and tributaries	Alaska	Total
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	6, 132	1, 705	-----	8, 059 ²	28, 365
On boats and shore.....	11, 750	5, 227	15, 884	-----	87, 740
Total	17, 882	6, 932	15, 884	8, 059	116, 105
Vessels:					
Steam.....	4	106	-----	4	165
Net tonnage.....	106	2, 364	-----	276	10, 355
Motor.....	928	392	-----	442	3, 314
Net tonnage.....	24, 219	4, 055	-----	6, 088	66, 376
Sail.....	5	-----	-----	-----	271
Net tonnage.....	2, 107	-----	-----	-----	5, 006
Total vessels	937	498	-----	446	3, 750
Total net tonnage	26, 432	6, 419	-----	6, 364	81, 737

² Includes the operating units used in the fisheries of Lake Okeechobee, Fla.³ Includes persons in boat and shore fisheries.⁴ Includes dip nets, scap nets, reef nets, push nets, and other minor nets.⁵ Includes fish pots; harpoons; spears; gaffs; crab, sponge, and crawfish hooks; periwinkle and cockle pots; coquina scoops; and other apparatus not included in "Other nets."

Fisheries of the United States and Alaska, 1932—Continued

OPERATING UNITS: BY SECTIONS—Continued

Item	Pacific	Lakes	Mississippi River and tributaries	Alaska	Total
Boats:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Motor.....	5,028	1,624	4,426	1,083	31,626
Other.....	1,001	1,535	10,120	3,055	35,359
Accessory boats.....					1,397
Apparatus:					
Haul seines.....	135	332	1,013	90	3,178
Purse seines.....	364			292	926
Lampara nets.....	184				184
Otter trawls (including all types and sizes).....	2				2,411
Beam trawls.....	60			12	72
Paranzella nets.....	21				21
Gill nets.....	3,671	103,518	101	3,651	147,092
Trammel nets.....	50	226	518		1,152
Pound nets, trap nets, and weirs.....	330	9,259	374	363	15,896
Stop nets.....					130
Fyke nets.....	2,268	2,574	32,541		43,790
Bag nets and pocket nets.....					108
Other nets ⁴	419		191	50	6,381
Hooks, baits, or snoods.....	1,230,999	960,513	2,459,179	(5)	10,842,911
Fish wheels.....	29			283	333
Eel pots and traps.....					23,110
Lobster pots.....					386,248
Shrimp nets and traps.....	438				438
Crab and crawfish pots, traps, drags, etc.....	24,877	2,910	18	900	36,741
Clam dredges.....					170
Crab dredges.....					193
Mussel dredges.....			440		442
Oyster dredges.....	4				1,849
Scallop dredges and drags.....					5,578
Crab scrapes.....					1,036
Tongs, rakes, hoes, forks, picks, grabs, etc.....	3,910	126	3,994		30,525
Abalone diving outfits.....	18				18
Sponge diving outfits.....					54
Crowfoot bars.....		360	4,480		4,840
Other apparatus ⁶	76		3,781		9,902

CATCH: BY SECTIONS⁷

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	New England		Middle Atlantic		Chesapeake		South Atlantic and Gulf ⁸		Pacific	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
FISH										
Albacore.....			18	(9)						
Alewives.....	3,572	19	2,295	15	21,405	117	6,664	42		
Amberjack.....	1	(9)					5	(9)		
Anchovies.....									299	3
Barracuda.....							4	(9)	2,927	156
Black bass.....					34	4	310	22		
Bluefish.....	648	52	4,767	163	911	46	2,131	78		
Blue runner or hardtail.....							163	2		
Bonito.....	45	2	1,036	27	56	3				
Bowfin.....							2	(9)		
Buffalofish.....							12	(9)		
Butterfish.....	2,262	100	3,862	143	3,897	114	56	1		
Cabio or crab eater.....					4	(9)	6	(9)		
Cabrilla.....									340	12
Carp.....	41	3	330	32	363	19	128	7	93	2
Catfish and bullheads.....	2	(9)	62	5	883	28	4,364	139	254	27
Cero.....							13	1		
Cigarfish.....							9	(9)		

⁴ Includes dip nets, cast nets, scap nets, reef nets, push nets, and other minor nets.

⁵ Number not determined.

⁶ Includes fish pots; harpoons; spears; gaffs; crab, sponge, and crawfish hooks; periwinkle and cockle pots; coquina scoops; and other apparatus not included in "Other nets."

⁷ Salt fish have been converted to the basis of round weight.

⁸ Includes the catch of fish taken in Lake Okechobee, Fla.

⁹ Less than 500 pounds or dollars.

Fisheries of the United States and Alaska, 1932—Continued

CATCH: BY SECTIONS—Continued

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	New England		Middle Atlantic		Chesapeake		South Atlantic and Gulf		Pacific	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
FISH—continued	86, 276	1, 725	7, 481	176	22	1	2	(^o)	11, 746	128
Cod.....									2	(^o)
Corbina.....							405	12		
Crappie.....							24	1		
Crevalle.....							4, 675	50		
Croaker.....	469	10	857	21	16, 014	278				
Cunner.....	76	2								
Cusk.....	5, 173	67	135	2						
Dolphin.....							12	(^o)		
Drum:										
Black.....	(^o)	(^o)	(^o)	(^o)	64	1	1, 077	21		
Red or redfish.....			48	1	39	1	2, 063	78		
Eels.....	961	57	738	75	335	21	65	2	(^o)	(^o)
Flounders.....	37, 489	1, 129	10, 376	311	1, 288	53	1, 396	54	11, 446	435
Flyingfish.....									40	1
Frigate mackerel.....			3	(^o)			2	(^o)		
Garfish.....							(^o)	(^o)		
Gizzard shad.....					105	2	19	(^o)		
Goosefish.....	2	(^o)	3	(^o)						
Grayfish.....	27	(^o)	8	(^o)					851	13
Groupers.....							3, 302	67	19	1
Grunts.....							51	2		
Haddock.....	150, 468	3, 400	7, 613	207	(^o)	(^o)				
Hake.....	16, 942	209	303	5	31	1	10	(^o)	29	(^o)
Halibut.....	2, 417	257	45	6					24, 787	1, 112
Hardhead.....									111	8
Harvestfish or "starfish".....					102	3	1, 077	12		
Herring, sea.....	38, 074	157	656	4					1, 549	17
Herring smelt.....	4	(^o)								
Hickory shad.....					59	1	166	6		
Hogfish.....	3	(^o)					30	1		
Horse mackerel.....									536	14
Jewfish.....							38	1		
Kingfish (California).....									448	11
Kingfish or "king mackerel".....							3, 301	120		
King whiting or "kingfish".....	7	(^o)	178	10	33	1	652	13		
Ladyfish.....							3	(^o)		
Launce.....	24	1	37	(^o)						
"Lingcod".....									1, 528	42
Mackerel.....	60, 088	962	740	27	26	1			12, 474	95
Marlin.....									25	1
Menhaden.....	54	1	43, 194	73	195, 486	653	89, 346	132		
Minnnows.....	6	(^o)	3	1						
Mojarro.....							36	1		
Mullet.....			215	3	48	2	25, 087	417	23	1
Mummichog.....	4	(^o)	110	7						
Muttonfish.....							203	9		
Paddlefish.....							1	(^o)		
Permit.....							3	(^o)		
Pigfish.....			1	(^o)	33	1	129	2		
Pike or pickerel (jacks).....			1	(^o)	18	3	5	(^o)		
Pilchard.....									312, 172	825
Pilotfish.....			1	(^o)						
Pinfish.....							295	2		
Pollock.....	10, 635	103	662	11	(^o)	(^o)	590	81	10	3
Pompano.....			(^o)	(^o)			26	1		
Porgies.....							(^o)	(^o)		
Porkfish.....									437	21
Rock bass.....									5, 967	181
Rockfishes.....										
Rosefish.....	125	2	7	(^o)						
Rudderfish.....									37	2
Sablefish.....									2, 725	63
Salmon:										
Atlantic.....	36	9								
Blueback, red or sockeye.....									6, 904	397
Chinook or king.....									33, 094	1, 350
Chum or keta.....									15, 846	126
Humpback or pink.....									69	1
Silver or coho.....									20, 176	520
Sculpin.....									90	6
Scup.....	4, 458	114	7, 516	88	1, 748	47	254	6		
Sea bass.....	3, 607	95	3, 353	103	960	28	704	24	473	17
Sea bass, white (California).....									807	61

^o Less than 500 pounds or dollars.

Fisheries of the United States and Alaska, 1932—Continued

CATCH: BY SECTIONS—Continued

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	New England		Middle Atlantic		Chesapeake		South Atlantic and Gulf		Pacific	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
FISH—continued										
Sea robin.....	116	1	32	(^o)	(^o)	(^o)				
Shad.....	232	13	643	68	6,515	580	1,882	239	1,889	41
Sharks.....	245	2	21	(^o)			5,051	12		
Sheepshead, salt-water.....					21	(^o)	673	14	90	2
Silver perch.....										
Silversides.....			173	6						
Skates.....	949	7	79	1	1	(^o)			292	5
Smelts.....	277	38	(^o)	(^o)					2,829	76
Snapper:										
Mangrove.....							96	2		
Red.....			6	(^o)			6,359	315		
Snook.....							323	8		
Spanish mackerel.....			8	1	63	4	6,465	216	11	1
Spittail.....									24	1
Spot.....	22	(^o)	154	3	801	24	1,679	20		
Squawfish.....									2	(^o)
Squeteagues or "sea trout":										
Gray.....	132	9	9,088	211	13,780	339	3,992	74		
Spotted.....	2	(^o)				6	6,239	298		
Steelhead trout.....									2,459	61
Striped bass.....	42	7	52	8	1,028	128	507	55	556	47
Sturgeon.....	8	1	11	2	5	1	45	6	76	2
Suckers.....	138	6	122	7	1	(^o)	(^o)	(^o)	6	(^o)
Sunfish.....			2	(^o)			718	18		
Surffishes.....									253	10
Swellfish.....	(^o)	(^o)								
Swordfish.....	4,548	485	70	8					663	88
Tautog.....	446	19	161	5	(^o)	(^o)				
Tenpounder.....							80	1		
Thimble-eyed mackerel.....			68	1	12	(^o)				
Tilefish.....	249	10	1,870	50						
Tomcod.....	56	1	24	1					4	(^o)
Tripletail.....								(^o)		
Tuna and tunalike fishes:										
Albacore.....									620	31
Bluefin or horse mackerel.....	256	12	59	3			3	(^o)	1,071	51
Bonito.....									2,862	53
Skipjack or striped.....									21,637	751
Yellowfin.....									36,923	1,505
Turbot.....							4	(^o)		
Whitebait.....			7	1					134	6
Whitefish.....									162	8
White perch.....	54	6	253	14	642	26	832	21		
Whiting.....	7,201	61	2,705	31						
Wolfish.....	1,933	29	25	(^o)						
Yellow perch.....	16	1	15	1	185	11	180	5		
Yellowtail.....							92	4	1,796	51
Miscellaneous fish.....									166	4
Total.....	440,918	9,184	112,302	1,938	267,107	2,548	184,158	2,715	542,859	8,416
SHELLFISH, ETC.										
Abalone.....									563	77
Clams:										
Cockle.....	238	16							37	9
Coquina.....							5	(^o)		
Hard.....	3,459	422	2,271	355	1,512	352	1,387	61	406	20
Pismo.....									27	7
Razor.....	404	17							559	115
Soft.....	10,145	472	1,196	62					61	14
Surf.....	55	3	489	25						
Mixed.....									15	2
Conchs.....			39	3			1	(^o)		
Crabs:										
Hard.....	1,097	55	777	24	56,423	582	8,484	99	4,820	299
King.....			3,501	7						
Soft.....	1	(^o)	85	11	5,089	320	413	60		
Stone.....							154	8		
Crawfish.....									80	6
Lobsters:										
Common.....	10,279	1,913	878	166	(^o)	(^o)			1,018	142
Spiny.....							446	32		

^o Less than 500 pounds or dollars.

Fisheries of the United States and Alaska, 1932—Continued

CATCH: BY SECTIONS—Continued

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	New England		Middle Atlantic		Chesapeake		South Atlantic and Gulf		Pacific	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
SHELLFISH, ETC.—continued										
Mussels, sea.....	63	4	113	8			1	(⁹)	59	3
Octopus.....										
Oysters:										
Eastern, market, public.....	44	7	303	37	18,168	1,251	11,382	448		14
Eastern, market, private.....	7,343	1,196	14,724	1,726	9,722	765	4,368	264	42	139
Western, market.....									270	129
Japanese, market.....									2,103	
Periwinkles.....	77	3	1	(⁹)						
Scallops:										
Bay.....	1,537	402	393	42	659	80	153	14	7	2
Sea.....	1,572	194	1,772	140	(⁹)	(⁹)				
Shrimp.....	(⁹)	(⁹)	117	27			88,262	2,036	2,729	44
Squid.....	3,110	42	2,220	34	323	6	8	(⁹)	4,230	30
Terrapin.....			1	(⁹)	3	1	23	4		
Turtles.....	1	(⁹)	8	(⁹)	1	(⁹)	58	(⁹)	6	(⁹)
Frogs.....							1	(⁹)		
Irish moss.....	84	4								
Sponges.....							613	697		
Bloodworms.....	59	46	32	31						
Sandworms.....	35	21	19	18						
Total.....	39,603	4,817	28,919	2,716	91,900	3,357	115,759	3,713	17,032	1,052
WHALE PRODUCTS ¹⁰										
Meat.....									434	10
Oil, whale.....									503	6
Total.....									937	16
Grand total.....	480,521	14,001	141,221	4,654	359,007	5,905	299,917	6,428	560,828	9,484

Species	Lakes		Mississippi River and tributaries		Alaska		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
FISH								
Albacore.....							18	(⁹)
Alewives.....							33,936	193
Amberjack.....							6	(⁹)
Anchovies.....							299	3
Barracuda.....							2,931	156
Black bass.....			14	2			358	28
Bluefish.....							8,457	339
Blue pike.....	9,947	411					9,947	411
Blue runner or hardtail.....							163	2
Bonito.....							1,137	32
Bowfin.....	3	(⁹)	428	9			433	9
Buffalofish.....	2	(⁹)	15,772	687			15,786	687
Butterfish.....							10,077	358
Burbot.....	331	4					331	4
Cabio or crab eater.....							10	(⁹)
Cabrilla.....							340	12
Carp.....	4,284	118	11,892	455			17,131	636
Catfish and bullheads.....	833	46	10,267	878			16,665	1,123
Cero.....							13	1
Chubs.....	4,057	249					4,057	249
Cigarfish.....							9	(⁹)
Cisco.....	160	17					160	17
Cod.....					615	3	106,142	2,033
Corbina.....							2	(⁹)
Crappie.....	1	(⁹)	41	3			447	15
Crevalle.....							24	1

⁹ Less than 500 pounds or dollars.¹⁰ The weight of whales caught was not determined; therefore, the weight of the manufactured products is shown.

NOTE.—The above excludes the seed-oyster fishery. See separate section following.

Fisheries of the United States and Alaska, 1932—Continued

CATCH: BY SECTIONS—Continued

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	Lakes		Mississippi River and tributaries		Alaska		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
FISH—continued								
Croaker.....							22,015	359
Cunner.....							76	2
Cusk.....							5,308	69
Dolly Varden trout.....					13	1	13	1
Dolphin.....							12	(^o)
Drum:								
Black.....							1,141	22
Red or redbfish.....							2,170	80
Eels.....	44	1	7	1			2,150	157
Flounders.....							61,995	1,982
Flyingfish.....							40	1
Frigate mackerel.....							5	(^o)
Garfish.....			73	1			73	1
Gizzard shad.....							124	2
Goldfish.....	48	1					48	1
Goosefish.....							5	(^o)
Grayfish.....							886	13
Groupers.....							3,321	68
Grunts.....							51	2
Haddock.....							158,081	3,607
Hake.....							17,315	215
Halibut.....					15,058	493	42,307	1,868
Hardhead.....							111	8
Harvestfish or "starfish".....							1,179	15
Herring:								
Lake.....	11,686	181					11,686	181
Sea.....					127,578	548	167,857	726
Herring smelt.....							4	(^o)
Hickory shad.....							225	7
Hogfish.....							33	1
Horse mackerel.....							536	14
Jewfish.....							38	1
Kingfish (California).....							448	11
Kingfish or "king mackerel".....							3,301	120
King whiting or "kingfish".....							870	24
Ladyfish.....							3	(^o)
Lake trout.....	10,662	920					10,662	920
Launce.....							61	1
"Lingcod".....							1,528	42
Mackerel.....							73,328	1,085
Marlin.....							25	1
Menhaden.....							328,080	859
Minnnows.....			1	(^o)			10	1
Mojarro.....							36	1
Mooneye.....	16	(^o)	3	(^o)			19	(^o)
Mullet.....							25,373	423
Mummichog.....							114	7
Muttonfish.....							203	9
Paddlefish.....			951	43			952	43
Permit.....							3	(^o)
Pigfish.....							163	3
Pike or pickerel (jacks).....	373	16	5	1			402	20
Pilchard.....							312,172	825
Pilotfish.....							1	(^o)
Pinfish.....							295	2
Pollock.....							11,297	114
Pompano.....							600	84
Porgies.....							26	1
Porkfish.....							(^o)	(^o)
Quillback.....			269	11			269	11
Rock bass.....	17	1					454	22
Rockfishes.....					4	(^o)	5,971	181
Rosefish.....							132	2
Rudderfish.....							37	2
Sablefish.....					128	2	2,853	65
Salmon:								
Atlantic.....							36	9
Blueback, red or sockeye.....					188,294	3,014	195,198	3,411
Chinook or king.....					16,393	254	49,487	1,604
Chum or keta.....					86,175	611	102,021	737
Humpback or pink.....					144,943	1,695	145,012	1,696
Silver or coho.....					16,732	192	36,908	712

^o Less than 500 pounds or dollars.

Fisheries of the United States and Alaska, 1932—Continued

CATCH: BY SECTIONS—Continued

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	Lakes		Mississippi River and tributaries		Alaska		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
FISH—continued								
Sauger.....	3, 448	135	2	1			3, 450	136
Sculpin.....							90	6
Scup.....							13, 976	255
Sea bass.....							9, 097	267
Sea bass, white (California).....							807	61
Sea robin.....							148	1
Shad.....							11, 161	941
Sharks.....							5, 317	14
Sheepshead:								
Fresh-water.....	2, 158	44	3, 905	143			6, 063	187
Salt-water.....							763	16
Silver perch.....							21	(⁹)
Silversides.....							173	9
Skates.....							1, 321	13
Smelts.....	98	3			7	(⁹)	3, 211	117
Snapper:								
Mangrove.....							96	2
Red.....							6, 365	315
Snook.....							323	8
Spanish mackerel.....							6, 547	222
Splittail.....							24	1
Spot.....							2, 656	47
Squawfish.....							2	(⁹)
Squeteagues or "sea trout":								
Gray.....							26, 992	633
Spotted.....							6, 330	304
Steelhead trout.....	5	1			3	(⁹)	2, 467	62
Striped bass.....							2, 185	245
Sturgeon.....	30	6					175	18
Sturgeon, shovelnose.....			87	8			87	8
Suckers.....	6, 192	137	315	13			6, 774	163-
Sunfish.....	8	(⁹)	22	1			750	19
Surffishes.....							253	10
Swellfish.....							(⁹)	(⁹)
Swordfish.....							5, 281	551
Tautog.....							607	24
Tenpounder.....							80	1
Thimble-eyed mackerel.....							80	1
Tilefish.....							2, 119	60
Tomcod.....							84	2
Tripletail.....							2	(⁹)
Tullibee.....	1, 297	16					1, 297	16
Tuna and tunalike fishes:								
Albacore.....							620	31
Bluefin or horse mackerel.....							1, 389	66
Bonito.....							2, 862	53
Skipjack or striped.....							21, 637	751
Yellowfin.....							36, 923	1, 505
Turbot.....							4	(⁹)
White bass.....	253	10	3	(⁹)			256	10
Whitebait.....							141	7
Whitefish.....	9, 730	1, 045					9, 892	1, 053
Whitefish, Menominee.....	233	17					233	17
White perch.....							1, 781	67
Whiting.....							9, 906	92
Wolfish.....							1, 958	29
Yellow perch.....	11, 472	467					11, 668	485
Yellow pike.....	4, 441	458	5	1			4, 446	459
Yellowtail.....							1, 888	55
Miscellaneous fish.....							166	4
Total.....	81, 829	4, 304	44, 062	2, 258	595, 943	6, 813	2, 269, 178	38, 176
SHELLFISH, ETC.								
Abalone.....							563	77
Clams:								
Cockle.....							275	25
Coquina.....							5	(⁹)
Hard.....					2	(⁹)	9, 037	1, 210
Pismo.....							27	7
Razor.....					1, 755	89	2, 718	221
Soft.....							11, 402	548
Surf.....							544	28
Mixed.....							15	2

⁹ Less than 500 pounds or dollars.

Fisheries of the United States and Alaska, 1932—Continued

CATCH: BY SECTIONS

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Species	Lakes		Mississippi River and tributaries		Alaska		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity ⁴⁰	Value ⁴⁰
SHELLFISH, ETC.—continued								
Conchs.....								
Crabs:								
Hard.....					609	46	72,210	1,095
King.....							3,501	7
Soft.....							5,588	391
Stone.....							154	8
Crawfish.....	20	1	29	(9)			129	7
Lobsters:								
Common.....							11,157	2,079
Spiny.....							1,464	174
Mussels, sea.....							176	12
Mussel shells.....	1,895	26	37,254	422			39,149	448
Octopus.....							60	3
Oysters:								
Eastern, market, public.....							29,897	1,743
Eastern, market, private.....							36,199	3,965
Western, market.....							270	139
Japanese, market.....							2,103	129
Periwinkles.....							78	3
Scallops:								
Bay.....							2,749	540
Sea.....							3,344	334
Shrimp.....			49	4	547	23	91,704	2,134
Squid.....							9,871	112
Terrapin.....			19	(9)			46	5
Turtles.....			94	3			168	3
Frogs.....			875	131			876	131
Irish moss.....							84	4
Sponges.....							613	697
Bloodworms.....							91	77
Sandworms.....							54	39
Pearls and slugs.....		1		80				81
Total.....	1,915	28	38,320	640	2,913	158	336,361	16,481
WHALE PRODUCTS ¹⁰								
Meal.....					2,090	14	2,524	24
Oil:								
Sperm.....					54	1	54	1
Whale.....					5,520	76	6,023	82
Total.....					7,664	91	8,601	107
Grand total.....	83,744	4,332	82,382	2,898	606,520	7,062	2,614,140	54,764

⁹ Less than 500 pounds or dollars.¹⁰ The weight of whales caught was not determined; therefore, the weight of the manufactured products is shown.

NOTE.—The above excludes the seed-oyster fishery. See separate section following.

CATCH: BY STATES

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

State	Marine and coastal rivers		Mississippi River and tributaries		Lakes ¹¹		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Alabama.....	6,107	169	1,822	33			7,929	202
Arkansas.....			15,733	412			15,733	412
California.....	442,883	5,377					442,883	5,377
Connecticut.....	21,046	1,111					21,046	1,111
Delaware.....	3,729	101					3,729	101
Florida.....	101,920	2,917			1,370	56	103,290	2,973
Georgia.....	16,523	186					16,523	186
Illinois.....			14,262	367	885	58	15,147	425
Indiana.....			7,718	157	630	37	8,348	194

¹¹ Includes Lake Ontario, Lake Erie, Lake Huron, Lake Michigan, Lake Superior, Rainy Lake, Namakan Lake, Lake of the Woods, Lake Okeechobee, and several mussel-bearing streams tributary to Lakes Huron, Erie, and Michigan.

Fisheries of the United States and Alaska, 1922—Continued

CATCH BY STATES—Continued

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

State	Marine and coastal rivers		Mississippi River and tributaries		Lakes		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Iowa			7,778	303			7,778	303
Kansas			455	17			455	17
Kentucky			1,622	61			1,622	61
Louisiana	48,340	1,181	19,213	994			67,553	2,175
Maine	90,602	2,413					90,602	2,413
Maryland	61,626	1,940					61,626	1,940
Massachusetts	347,593	8,928					347,593	8,928
Michigan					30,130	2,162	30,130	2,162
Minnesota			3,498	138	8,507	199	12,005	337
Mississippi	20,603	497	2,650	123			23,253	620
Missouri			928	77			928	77
Nebraska			145	16			145	16
New Hampshire	744	58					744	58
New Jersey	72,595	2,218					72,595	2,218
New York	64,866	2,333			1,435	112	66,301	2,445
North Carolina	86,214	827					86,214	827
Ohio			185	7	28,515	1,161	28,700	1,168
Oklahoma			40	4			40	4
Oregon	22,986	729					22,986	729
Pennsylvania	31	2			2,535	110	2,566	112
Rhode Island	20,536	1,491					20,536	1,491
South Carolina	4,536	123					4,536	123
South Dakota			114	11			114	11
Tennessee			3,435	104			3,435	104
Texas	14,304	472	139	6			14,443	478
Virginia	297,381	3,965					297,381	3,965
Washington	94,959	3,378					94,959	3,378
Wisconsin			2,645	68	11,107	493	13,752	561
Alaska	606,520	7,062					606,520	7,062
Total	2,446,644	47,478	82,382	2,898	85,114	4,388	2,614,140	54,764

SEED OYSTER FISHERY

Item	New England		Middle Atlantic	
	Number	Value	Number	Value
OPERATING UNITS				
Fishermen:				
On vessels	79		1,742	
On boats and shore:				
Regular	16		390	
Casual	172		190	
Total	267		2,322	
Vessels:				
Steam	4			
Net tonnage	344			
Motor	13		19	
Net tonnage	140		226	
Sail	3		152	
Net tonnage	23		3,036	
Total vessels	20		171	
Total net tonnage	507		3,262	
Boats:				
Motor	6		273	
Other	112		176	
Apparatus:				
Dredges, oyster	97		334	
Yards at mouth	88		397	
Tongs	129		537	
Rakes	51		50	
CATCH				
Oysters:				
Seed, public, spring	29,164	\$15,840	1,250,691	\$425,654
Seed, public, fall	43,472	19,900	35,021	10,661
Seed, private, spring	136,356	74,445	21,113	19,833
Seed, private, fall	20,200	9,600	24,965	24,965
Total	229,192	119,785	1,331,790	481,013

Fisheries of the United States and Alaska, 1932—Continued

SEED OYSTER FISHERY—Continued

Item	Chesapeake		South Atlantic and Gulf		Total	
OPERATING UNITS						
Fishermen:	<i>Number</i>		<i>Number</i>		<i>Number</i>	
On vessels.....					1,821	
On boats and shore:						
Regular.....	1,300		12		1,718	
Casual.....	447				809	
Total	1,747		12		4,348	
Vessels:						
Steam.....					4	
Net tonnage.....					344	
Motor.....					32	
Net tonnage.....					366	
Sail.....					155	
Net tonnage.....					3,059	
Total vessels					191	
Total net tonnage					3,769	
Boats:						
Motor.....	746		6		1,031	
Other.....	184				472	
Apparatus:						
Dredges, oyster.....			12		443	
Yards at mouth.....			12		497	
Tongs.....	1,391				2,057	
Rakes.....	86				187	
CATCH						
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring.....	565,005	\$68,575	39,741	\$8,280	1,884,601	\$518,249
Seed, public, fall.....	897,048	89,025			975,541	119,586
Seed, private, spring.....	13,000	1,040			170,469	95,318
Seed, private, fall.....					45,165	34,565
Total	1,475,053	158,640	39,741	8,280	3,075,776	767,718

NOTE.—Of the number of persons fishing for seed oysters, 159 in the New England States, 1,537 in the Middle Atlantic States, 1,609 in the Chesapeake States and all in the South Atlantic and Gulf States—a total of 3,317 are duplicated among those fishing for market oysters or other species. Similarly the following craft and gear are duplicated: 100 boats other than motor, 112 tongs and all the rakes in the New England States; 93 vessels, 262 motor boats, 165 other boats, 176 dredges, 527 tongs and 47 rakes in the Middle Atlantic States; 692 motor boats, 172 other boats, 1,291 tongs and all the rakes in the Chesapeake States; and all craft and gear in the South Atlantic and Gulf States—a total of 93 vessels, 960 motor boats, 437 other boats, 188 dredges, 1,930 tongs, and 184 rakes.

Yield of the fisheries of the United States, 1932: By gear¹

Gear	New England		Middle Atlantic		Chesapeake	
	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
Purse seines.....	62,858,926	\$790,711	45,176,110	\$112,226	194,046,499	\$651,400
Haul seines.....	787,520	30,597	2,674,156	75,346	3,257,274	127,939
Gill nets.....	19,028,727	419,993	2,723,403	129,382	2,317,619	177,664
Lines.....	97,374,488	2,176,389	11,177,435	303,097	45,642,755	457,240
Pound nets.....	15,837,690	226,453	27,753,844	554,907	61,672,014	1,405,072
Floating traps.....	9,777,795	179,897	232,062	5,379		
Weirs.....	19,113,722	79,862	1,437,000	2,926		
Stop nets.....			143,587	14,565	27,343	1,299
Fyke nets.....	210,834	9,721	1,428,320	33,331	783,253	34,618
Dip nets.....	4,634,504	46,683	58,321	7,670	6,109,662	282,439
Cast nets.....			2,100	228		
Scap nets.....			151,198	8,221		
Bag nets.....	81,283	7,604				
Drag nets.....			116,000	19,142		
Push nets.....	66,528	16,537				
Pocket nets.....	1,000	120				
Otter trawls.....	209,054,097	4,729,013	23,120,463	653,201	5,057,405	142,241
Traps.....	101,200	1,276				

¹ All figures are for 1932 except those for the Mississippi River and tributaries, which are for 1931.

Yield of the fisheries of the United States, 1932: By gear—Continued

Gear	New England		Middle Atlantic		Chesapeake	
	Pounds	Value	Pounds	Value	Pounds	Value
Pots	11,964,238	\$2,000,039	2,813,094	\$239,796	284,333	\$18,059
Harpoons	4,629,021	488,335	69,906	8,291		
Spears	210,111	15,093	163,899	20,557		
Scrapes, crab					1,506,357	52,758
Dredges	11,110,609	1,814,861	17,965,769	1,957,372	15,696,536	671,414
Tongs	1,550,221	232,692	1,847,512	280,136	21,145,406	1,687,776
Rakes	1,185,515	143,986	857,472	112,490	1,019,244	112,278
Forks	2,773,693	298,506	476,376	76,859		
Hoes	8,057,960	306,653	668,240	25,965		
Grabs			100	5		
Picks					236,960	63,165
By hand	111,199	7,225	164,778	12,883	204,834	19,627
Total	480,520,881	14,001,296	141,221,145	4,653,975	359,007,494	5,904,989

Gear	South Atlantic and Gulf		Pacific		Lakes	
	Pounds	Value	Pounds	Value	Pounds	Value
Purse seines	89,971,248	\$163,404	238,063,610	\$1,476,067	4,538,616	\$129,882
Haul seines	24,175,742	602,678	3,759,436	124,211	32,046,421	1,709,171
Gill nets	38,137,303	943,195	30,220,589	936,156	205,545	4,140
Trammel nets	3,159,789	118,055	668,367	46,512	2,307,481	206,357
Lines	25,218,356	764,227	119,795,559	4,264,625	9,207,975	466,941
Pound nets	10,763,098	190,839	13,993,604	549,142		
Weirs	2,000	20	723,190	10,848		
Wheels	263,000	1,505	529,022	20,348		
Stop nets	891,793	15,055				
Fyke nets	345,520	10,691	278,053	28,538	3,425,469	161,008
Dip nets	491,388	27,215	1,480,485	35,929		
Cast nets	108,932	3,994				
Bag nets			1,300,416	19,506		
Drag nets			141,138	4,507		
Reef nets			22,846	883		
Lampara nets			124,030,670	460,664		
Paranzella nets			12,105,633	414,329		
Otter trawls	87,089,274	2,016,418	79,365	1,750		
Beam trawls			1,770,993	34,581		
Traps			6,126,457	454,925	30,098,291	1,626,039
Pots	1,117,738	50,446			19,677	984
Harpoons			1,624,719	75,672		
Spears	155,803	9,036				
Dredges	7,373,518	297,347				
Tongs	6,049,736	368,583	3,520,850	1,447,735	1,468,430	21,071
Crowfoot bars						
Rakes	312,476	20,913				
Forks	281,340	11,356				
Grabs	2,693,154	56,533			246,966	3,647
Picks						
Hooks	335,203	234,967				
Diving apparatus, abalone, or sponge	278,824	462,077	563,469	77,386		
By hand	701,493	59,861			179,518	2,536
Total	299,916,728	6,428,385	560,828,471	9,484,314	83,744,389	4,331,776

Gear	Mississippi River and tributaries		Total	
	Pounds	Value	Pounds	Value
Purse seines			630,146,393	\$3,193,808
Haul seines	13,739,657	\$574,541	52,932,401	1,665,194
Gill nets	166,598	6,547	124,640,660	4,322,108
Trammel nets	1,134,206	75,615	5,167,907	244,322
Lines	10,140,037	772,245	311,656,111	8,944,180
Pound nets			139,452,500	3,402,895
Floating traps	224,275	9,541	10,009,857	185,276
Weirs			21,275,912	93,656
Wheels			792,022	21,853
Stop nets			1,062,723	30,919
Fyke nets	18,507,204	797,130	24,978,653	1,075,007
Dip nets	30,045	3,307	12,804,405	403,243
Cast nets			111,032	4,222
Scap nets			151,198	8,221
Bag nets			1,381,699	27,110

³ Includes shovels, rakes, and dredges.

⁴ Includes coquina scoops.

Yield of the fisheries of the United States, 1932: By gear—Continued

Gear	Mississippi River and tributaries		Total	
	Pounds	Value	Pounds	Value
Drag nets.....			257, 138	\$23, 649
Push nets.....			66, 528	16, 587
Pocket nets.....			1, 000	120
Reef nets.....			22, 846	883
Lampara nets.....			124, 030, 670	460, 664
Paranzella nets.....			12, 105, 633	414, 329
Otter trawls.....			324, 400, 604	7, 542, 623
Beam trawls.....			1, 770, 993	34, 581
Traps.....	77, 751	\$4, 215	36, 403, 699	2, 086, 455
Pots.....	² 232, 704	² 22, 062	16, 431, 784	2, 340, 386
Harpoons.....			6, 323, 646	572, 298
Spears.....	2, 250	270	532, 063	44, 956
Scrapes, crab.....			1, 506, 357	52, 758
Dredges.....	3, 699, 100	40, 958	55, 845, 532	4, 781, 952
Tongs.....	1, 601, 876	21, 091	35, 715, 601	3, 038, 013
Crowfoot bars.....	20, 893, 550	265, 443	22, 361, 980	286, 514
Rakes.....	370, 130	4, 029	3, 744, 837	393, 696
Forks.....	4, 812, 737	76, 214	8, 344, 146	432, 935
Hoes.....			8, 726, 200	332, 618
Grabs.....	873, 099	130, 621	3, 566, 353	187, 159
Picks.....			483, 926	66, 812
Hooks.....			335, 203	234, 967
Diving apparatus, abalone, or sponge.....			842, 293	539, 463
By hand.....	5, 877, 304	93, 528	7, 239, 126	195, 660
Total.....	82, 382, 523	2, 897, 357	2, 007, 621, 631	47, 702, 092

² Includes baskets.

CANNED FISHERY PRODUCTS AND BYPRODUCTS TRADE

The output of canned fishery products and byproducts in the United States and Alaska in 1932 was valued at \$56,215,577. Of the total, canned products comprised \$43,749,182, and byproducts, \$12,466,395, a decrease of 31 percent in the value of canned products and 25 percent in the value of byproducts when compared with the respective values of the same groups for the previous year.

Fishery products were canned at 343 establishments in the United States and Alaska during 1932. The combined output of these canneries amounted to 10,494,606 standard cases. The net weight of the products canned amounted to 416,062,406 pounds.

Canned fishery products or byproducts were prepared in 27 States and Alaska during 1932. Alaska ranked first in the value of these products, accounting for 41 percent of the total; and California ranked second with 19 percent.

Canned fishery products and byproducts of the United States and Alaska, 1932

SUMMARY OF PRODUCTION: BY COMMODITIES

Product	Number of plants	Standard cases	Pounds	Value
Canned products:				
Salmon—				
United States.....	35	654, 460	31, 414, 080	\$4, 744, 162
Alaska.....	87	5, 254, 509	252, 216, 432	21, 715, 918
Sardines—				
Maine.....	13	545, 697	13, 642, 425	1, 370, 050
California.....	19	953, 981	45, 791, 088	2, 358, 399
Tuna and tunalike fishes.....	15	1, 206, 177	28, 948, 248	6, 183, 019
Alewives.....	3	11, 820	567, 360	24, 950
Alewife roe.....	24	21, 592	1, 036, 416	77, 716
Shad roe.....	11	1, 945	93, 360	51, 915

Canned fishery products and byproducts of the United States and Alaska, 1932—
Continued

SUMMARY OF PRODUCTION: BY COMMODITIES—Continued

Product	Number of plants	Standard cases	Pounds	Value
Canned products—Continued.				
Mackerel.....	10	94, 723	4, 546, 704	\$253, 572
Fish flakes.....	5	12, 552	602, 496	104, 575
Fish cakes, balls, etc.....	6	64, 556	3, 098, 688	463, 107
Cat and dog food.....	6	117, 255	5, 628, 240	286, 455
Salmon roe and caviar.....	5	4, 288	205, 824	28, 166
Sturgeon caviar.....	6	2, 541	121, 968	330, 149
Whitefish roe and caviar.....	5	896	43, 008	34, 047
Salmon eggs (for bait).....	8	4, 204	201, 792	95, 415
Miscellaneous fish, roe, and caviar.....	16	10, 105	485, 040	60, 054
Oysters.....	40	392, 664	5, 889, 960	1, 007, 624
Shrimp.....	51	758, 106	12, 612, 551	2, 594, 980
Clam products.....	63	371, 288	1 8, 376, 870	1, 797, 002
Crabs.....	7	5, 039	241, 872	80, 581
Turtle products.....	3	3, 663	175, 824	62, 879
Miscellaneous shellfish.....	6	2, 545	122, 160	24, 447
Total.....	2 343	10, 494, 606	416, 062, 406	43, 749, 182

Product	Quantity	Value
By-products:		
Oyster shell products..... tons.....	307, 652	\$1, 464, 961
Fresh-water mussel shell products.....		3, 556, 260
Marine pearl-shell products.....		2, 864, 019
Scrap, meal, etc..... tons.....	101, 738	2, 406, 506
Marine animal oils..... gallons.....	12, 195, 325	1, 392, 255
Miscellaneous by-products.....		782, 394
Total.....		12, 466, 395
Grand total.....		56, 215, 577

VALUE OF PRODUCTION: BY STATES

State	Canned products	Byproducts ³	Total
Maine.....	\$1, 825, 323	\$99, 876	\$1, 925, 199
Massachusetts.....	} 868, 817.	{ 1, 063, 828	} 1, 957, 405
Rhode Island.....		{ 24, 760	
Connecticut.....		{ 787, 701	787, 701
New York.....	} 686, 526	{ 1, 173, 466	} 2, 690, 496
New Jersey.....		{ 830, 504	
Pennsylvania.....		{ 700, 128	700, 128
Delaware.....		{ 6, 589	6, 586
Maryland.....	51, 828	561, 401	613, 229
Virginia.....	52, 015	918, 281	970, 296
North Carolina.....	} 265, 651	{ 164, 647	} 489, 059
South Carolina.....		{ 58, 761	
Georgia.....	311, 234	468, 417	972, 786
Florida.....	193, 135	} 160, 007	} 1, 522, 305
Alabama.....	240, 316		
Mississippi.....	1, 121, 982	367, 817	1, 684, 044
Louisiana.....	1, 316, 227	87, 294	352, 042
Texas, Utah, and Wisconsin.....	264, 748	67, 397	67, 397
Missouri, Illinois, and Kentucky.....		2, 499, 281	2, 499, 281
Iowa.....		} 57, 534	} 5, 318, 878
Washington.....	3, 109, 835		
Oregon.....	2, 151, 509	} 1, 774, 218	} 10, 826, 548
California.....	9, 052, 330		
Alaska.....	22, 237, 706	594, 488	22, 832, 194
Total.....	43, 749, 182	12, 466, 395	56, 215, 577

¹ "Cutout" or "drained" weights of can contents are included for whole and minced clams, and gross can contents for chowder, bouillon, broth, juice, and cocktail.

² Exclusive of duplication.

³ Includes menhaden, fresh-water mussel-shell products, and marine pearl-shell products.

Pack of canned salmon—Standard cases

Product	Alaska							
	Southeast		Central		Western		Total	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
Chinook or king:								
1-pound tall.....	18,424	\$81,800	14,436	\$62,029	10,153	\$43,931	43,013	\$187,760
1-pound flat.....	4,691	27,423	8,121	61,060	1,988	13,062	14,800	101,545
½-pound flat.....	509	4,684	9,745	73,647	1,459	11,672	11,713	90,003
Total.....	23,624	113,907	32,302	196,736	13,600	68,665	69,526	379,308
Blueback, red or sockeye:								
1-pound tall.....	111,243	593,185	572,260	3,039,034	1,296,347	7,286,064	1,979,850	10,918,283
1-pound flat.....	13,421	91,263	54,495	353,140	7,608	47,943	75,524	492,346
½-pound flat.....	14,278	110,802	33,406	278,254	23	184	47,707	389,240
Total.....	138,942	795,250	660,161	3,670,428	1,303,978	7,334,191	2,103,081	11,799,869
Silver or coho:								
1-pound tall.....	81,852	334,789	60,655	244,066	463	1,882	142,970	580,737
1-pound flat.....	1,763	8,815					1,763	8,815
½-pound flat.....	3,423	21,540	19	123			3,442	21,663
Total.....	87,038	365,144	60,674	244,189	463	1,882	148,175	611,215
Humpback or pink:								
1-pound tall.....	1,372,259	4,331,866	723,632	2,238,803	10,088	32,628	2,105,979	6,603,297
½-pound flat.....	6,747	31,787	419	1,878			7,166	33,665
Total.....	1,379,006	4,363,653	724,051	2,240,681	10,088	32,628	2,113,145	6,636,962
Chum or keta:								
1-pound tall.....	578,819	1,609,799	147,410	408,523	93,703	267,629	819,932	2,285,951
½-pound flat.....	624	2,496					624	2,496
Total.....	579,443	1,612,295	147,410	408,523	93,703	267,629	820,556	2,288,447
Steelhead:								
1-pound tall.....	26	117					26	117
Grand total.....	2,208,079	7,250,366	1,624,598	6,760,557	1,421,832	7,704,995	5,254,509	21,715,918

Product	United States						Grand total, Alaska and United States	
	Washington		Oregon and California		Total			
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
Chinook or king:								
1-pound tall.....	9,554	\$43,767	29,795	\$102,242	39,349	\$146,009	82,362	\$333,769
1-pound oval.....	241	5,061	928	19,280	1,169	24,341	1,169	24,341
1-pound flat.....	18,098	111,435	31,235	216,518	49,333	327,953	64,133	429,498
½-pound oval.....	13	286	244	5,368	257	5,654	257	5,654
½-pound flat.....	49,955	531,628	99,527	1,036,755	149,482	1,568,383	161,195	1,658,386
¼-pound flat.....	79	1,240	11,164	137,478	11,243	138,718	11,243	138,718
Total.....	77,940	693,417	172,893	1,517,641	250,833	2,211,058	320,359	2,590,366
Blueback, red or sockeye:								
1-pound tall.....	38	304			38	304	1,979,888	10,918,587
1-pound flat.....	21,426	210,659			21,426	210,659	96,950	703,005
½-pound flat.....	70,226	842,106	1,859	19,334	72,085	861,440	119,792	1,250,680
¼-pound flat.....	387	5,573			387	5,573	387	5,573
Total.....	92,077	1,058,642	1,859	19,334	93,936	1,077,976	2,197,017	12,877,845
Silver or coho:								
1-pound tall.....	19,692	78,658	2,752	121,088	22,444	199,746	165,414	780,483
1-pound flat.....	28,618	144,167	13,145	78,870	41,763	223,037	43,526	231,852
½-pound oval.....	18	126			18	126	18	126
½-pound flat.....	12,852	83,630	5,989	49,110	18,841	132,740	22,283	154,403
¼-pound oval.....	458	8,061			458	8,061	458	8,061
¼-pound flat.....	4,657	46,124	16,982	175,677	21,639	221,801	21,639	221,801
Total.....	66,295	360,766	38,868	424,745	105,163	785,511	253,338	1,396,726
Humpback or pink:								
1-pound tall.....	1,261	4,287			1,261	4,287	2,107,240	6,607,584
1-pound flat.....	96	326			96	326	96	326
½-pound flat.....	320	1,408			320	1,408	7,486	35,073
Total.....	1,677	6,021			1,677	6,021	2,114,822	6,642,983

Pack of canned salmon—Standard cases—Continued

Product	United States						Grand total, Alaska and United States	
	Washington		Oregon and California		Total			
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
Chum or keta:								
1-pound tall.....	167,571	\$469,199	16,305	\$42,393	183,876	\$511,592	1,003,808	\$2,797,543
1-pound flat.....	13	39	22	62	35	101	35	101
½-pound flat.....	1,167	3,968	1,377	4,957	2,544	8,925	3,168	11,421
Total.....	168,751	473,206	17,704	47,412	186,455	520,618	1,007,011	2,809,065
Steelhead:								
1-pound tall.....	6	24	1,023	4,706	1,029	4,730	1,055	4,847
1-pound oval.....			30	270	30	270	30	270
1-pound flat.....	3,829	22,974	1,819	10,914	5,648	33,888	5,648	33,888
½-pound oval.....			945	13,230	945	13,230	945	13,230
½-pound flat.....	1,656	17,161	2,521	20,168	4,177	37,329	4,177	37,329
¼-pound oval.....			496	7,936	496	7,936	496	7,936
¼-pound flat.....			4,071	45,595	4,071	45,595	4,071	45,595
Total.....	5,491	40,159	10,905	102,819	16,396	142,978	16,422	143,095
Grand total.....	412,231	2,632,211	242,229	2,111,951	654,460	4,744,162	5,908,969	26,460,080

NOTE.—“Standard cases” represent the various sized cases converted to the equivalent of 48 1-pound cans to the case. Salmon were canned at 24 plants in Washington, 9 in Oregon, 2 in California, and 87 in Alaska.

Pack of canned sardines

Sardines (herring)	Maine		Sardines (pilchard)	California	
	Cases	Value		Cases	Value
Quarters, ¼-pound (100 cans):			1-pound oval (48 cans):		
In cottonseed oil.....	450,357	\$1,130,261	In tomato sauce.....	757,293	\$1,794,436
In other sauces or oils.....	42,970	120,119	In mustard.....	81,431	193,154
Three-quarters, ¾-pound (48 cans):			In other sauces or oils.....	12,029	28,174
In mustard.....	36,368	119,670	¼-pound square (100 cans):		
Total.....	529,695	1,370,050	In various sauces or oils... ..	7,681	67,429
Total (standard cases).....	545,697		6-ounce (100 cans):		
			In various sauces or oils... ..	62,040	150,594
			1-pound tall (48 cans):		
			In natural oil.....	45,087	98,214
			Other sizes:		
			In various sauces or oils (standard cases).....	5,674	26,398
			Total.....	971,235	2,358,399
			Total (standard cases).....	953,981	

NOTE.—“Standard cases” represent the various sized cases converted to the uniform basis of 100 ¼-pound cans to case of sardines (herring), and 48 1-pound cans to the case of sardines (pilchard). Sardines were canned at 13 plants in Maine and 19 in California.

Pack of canned tuna and tunalike fishes in California

Size	Albacore		Yellowfin		Bluefin		Striped	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
¼-pound (48 cans).....	1,673	\$6,132	179,402	\$292,911	739	\$2,240	20,269	\$67,441
¼-pound (100 cans).....			364	2,184			2,169	13,014
½-pound (48 cans).....	48,856	263,887	465,312	2,525,319	5,563	28,143	205,945	970,700
1-pound (48 cans).....	28,185	281,557	243,121	2,397,772	767	6,762	13,968	111,915
Flakes (standard cases).....	7,221	30,348	393,763	3,366,327	2,114	8,592	15,945	60,776
Total.....	65,935	381,924	681,962	3,584,513	9,183	45,737	258,296	1,223,846
Total (standard cases).....	73,284		685,397		9,581		262,220	

¹ Includes the pack in ¼-pound jars, 96 to the case, which have been converted to the equivalent of ½-pound cans, 48 to the case.

² Includes the pack in 4-pound cans, 12 to the case, which have been converted to the equivalent of 1-pound cans, 48 to the case.

³ Includes a small amount of mixed bluefin and yellowfin flakes.

Pack of canned tuna and tunalike fishes in California—Continued

Size	"Tonno"		Bonito		Yellowtail		Total	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
¼-pound (48 cans).....	99	\$333	1,001	\$2,854	-----	-----	103,183	\$371,911
¼-pound (100 cans).....	108,669	673,909	7,994	48,631	-----	-----	119,196	737,738
½-pound (48 cans).....	8,754	50,564	25,034	101,642	2,023	\$8,142	761,487	3,948,397
1-pound (48 cans).....	-----	-----	7,812	53,079	1,092	7,824	74,945	658,909
Flakes (standard cases).....	-----	-----	10	21	-----	-----	119,053	466,064
Total.....	117,522	724,806	41,851	206,227	3,115	15,966	1,177,864	6,183,019
Total (standard cases).....	121,993	-----	49,495	-----	4,207	-----	1,206,177	-----

NOTE.—"Standard cases" represent the various sized cases converted to the equivalent of 48 ½-pound cans to the case. Tuna and tunalike fishes were canned in 15 plants in California.

Pack of canned alewives and alewife roe

STANDARD CASES

Product	Maryland		Virginia		North Carolina		Total	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
Alewives.....	11,820	\$24,950	-----	-----	-----	-----	11,820	\$24,950
Alewife roe.....	6,169	25,028	14,619	\$48,965	804	\$3,723	21,592	77,716
Total.....	17,989	49,978	14,619	48,965	804	3,723	33,412	102,666

ACTUAL CASES

Product and size	Cases	Value
Alewives:		
16-ounce (48 cans).....	11,820	\$24,950
Alewife roe:		
7½-, 8½-, and 11-ounce (48 cans).....	3,610	7,847
10-ounce (48 cans).....	2,060	5,368
10-, 15-, and 18-ounce (24 cans).....	750	1,795
16-ounce (48 cans).....	6,219	26,114
17-ounce (24 cans).....	22,131	36,592
Total.....	-----	77,716
Grand total.....	-----	102,666

NOTE.—"Standard cases" represent the various sized cases converted to the equivalent of 48 1-pound cans to the case. Alewives or alewife roe were canned at 5 plants in Maryland, 17 in Virginia, and 2 in North Carolina.

Pack of canned shrimp

STANDARD CASES

State	Dry pack (in tins)		Wet pack (in tins)		Wet pack (in glass) ¹		Total	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
South Carolina and Alabama.....	17,668	\$62,697	45,518	\$156,575	-----	-----	63,186	\$219,272
Georgia.....	18,748	67,645	53,357	173,619	8,143	\$47,123	80,248	288,387
Florida.....	2,237	7,272	8,805	28,226	2,597	16,480	13,639	51,978
Mississippi.....	33,431	113,912	126,474	430,071	-----	-----	159,905	543,983
Louisiana.....	104,230	362,697	270,483	890,413	-----	-----	374,713	1,253,110
Texas.....	14,836	50,625	46,901	159,853	-----	-----	61,737	210,478
Louisiana and Texas.....	-----	-----	-----	-----	4,678	27,772	4,678	27,772
Total.....	191,150	664,848	551,538	1,838,757	15,418	91,375	758,106	2,594,980

¹ The pack of shrimp in glass for Louisiana and Texas has been grouped to avoid the disclosure of private enterprise.

Pack of canned shrimp—Continued

ACTUAL CASES

Size	Cases	Value
In tins, dry:		
5-ounce (48 cans) ²	172, 885	\$587, 626
8¼-ounce (24 cans).....	20, 659	72, 552
8½-ounce (24 cans).....	1, 436	4, 670
In tins, wet:		
5¾-ounce (48 cans) ³	548, 278	1, 825, 976
9¾-ounce (24 cans).....	3, 845	12, 781
In glass, wet:		
4- and 5¼-ounce (24 jars).....	4, 712	13, 804
5¾-ounce (24 jars).....	17, 589	50, 289
6-ounce (24 jars).....	8, 837	27, 282
Total.....		2, 594, 980

² Includes a small production packed in 4- and 4½-ounce cans, 48 to the case, which has been converted to the equivalent of 5-ounce cans, 48 to the case.

³ Includes a small production packed in 4-ounce cans, 48 to the case, which has been converted to the equivalent of 5¾-ounce cans, 48 to the case.

NOTE.—“Standard cases” represent the various sized cases converted to the equivalent of 48 5-ounce cans to the case in the dry pack and 48 5¾-ounce cans to the case in the wet pack. Shrimp were canned at 1 plant in South Carolina, 6 in Georgia, 5 in Florida, 2 in Alabama, 15 in Mississippi, 17 in Louisiana, and 5 in Texas.

Pack of canned oysters

STANDARD CASES

State	Cases	Value	State	Cases	Value
South Carolina.....	80, 423	\$202, 557	Louisiana.....	19, 083	59, 405
Georgia and Florida.....	14, 151	35, 725	Washington.....	9, 140	53, 683
Alabama.....	33, 416	80, 415			
Mississippi.....	236, 451	575, 839	Total.....	392, 664	1, 007, 624

ACTUAL CASES

Size	Cases	Value	Size	Cases	Value
4-ounce (48 cans).....	33, 842	\$73, 473	8-ounce (24 cans).....	10, 542	\$22, 477
5-ounce (48 cans).....	305, 287	760, 274	10-ounce (24 cans).....	42, 887	103, 624
6-ounce (48 cans).....	721	2, 315			
7½-ounce (48 cans).....	5, 412	45, 461	Total.....		1, 007, 624

NOTE.—“Standard cases” represent the various sized cases converted to the equivalent of 48 5-ounce cans to the case. Oysters were canned at 6 plants in South Carolina, 2 in Georgia, 3 in Florida, 3 in Alabama, 15 in Mississippi, 5 in Louisiana, and 6 in Washington. The pack during the spring period (January to May 1932) amounted to 336,941 standard cases, valued at \$855,425, and that during the fall period (September to December 1932) amounted to 55,723 standard cases, valued at \$152,199. The pack during the spring period of 1931 amounted to 244,284 standard cases, valued at \$787,719, and during the fall period of 1931, 61,994 standard cases, valued at \$175,806.

Pack of canned clams and clam products

Item and State	Cases	Value
Razor clams (Washington, Oregon, and Alaska):		
Whole—		
No. 1, 5-ounce (48 cans).....	3, 716	\$34, 581
Other sizes (standard cases).....	1, 962	14, 075
Minced—		
½-pound, 4-ounce (48 cans).....	91, 155	577, 134
No. 1, 5-ounce (48 cans).....	10, 518	88, 332
No. 2, 10-ounce (24 cans).....	178	1, 477
Other sizes (standard cases).....	447	2, 940
Juice—		
All sizes (standard cases).....	537	1, 886
Total.....	108, 513	720, 425
Total (standard cases).....	90, 282	

Pack of canned clams and clam products—Continued

Item and State	Cases	Value
Hard clams (Massachusetts, Rhode Island, New York, New Jersey, Florida, Washington, and Alaska): ¹		
Whole—		
1-pound, 8-ounce (48 cans).....	1,032	\$6,846
No. 2, 10-ounce (24 cans).....	2,832	17,654
No. 10, 52-ounce (6 cans).....	1,817	8,368
Other sizes (standard cases).....	2,145	16,590
Minced—		
½-pound, 4-ounce (48 cans).....	4,091	15,703
No. 1, 5-ounce (48 cans).....	986	5,380
Other sizes (standard cases).....	5,456	35,859
Chowder—		
No. 1, 10-ounce (48 cans).....	79,209	285,568
33-ounce (12 cans).....	12,457	89,625
No. 10, 102-ounce (6 cans).....	1,957	12,017
Other sizes (standard cases).....	24,219	121,331
Juice—		
No. 1, 10-ounce (48 cans).....	906	5,878
No. 10, 102-ounce (6 cans).....	1,791	6,663
Other sizes (standard cases).....	2,120	9,208
Cocktail—		
4-ounce (48 jars).....	535	2,300
Other sizes (standard cases).....	407	3,891
Broth and bouillon—		
All sizes (standard cases).....	4,279	25,002
Total.....	146,239	667,883
Total (standard cases).....	155,391	
Soft clams (Maine and Massachusetts):		
Whole—		
No. 1, 5-ounce (48 cans).....	56,791	209,786
1-pound, 8-ounce (48 cans).....	3,040	13,820
No. 2, 10-ounce (24 cans).....	10,486	30,522
Other sizes.....	3,529	15,093
Chowder—		
No. 1, 10-ounce (48 cans).....	13,331	45,653
33-ounce (24 cans).....	12,225	37,286
Other sizes (standard cases).....	7,932	37,918
Bouillon and juice—		
No. 2, 20-ounce (24 cans).....	3,117	5,900
Other sizes (standard cases).....	5,394	12,706
Total.....	115,845	408,694
Total (standard cases).....	125,615	
Grand total (standard cases).....	371,288	1,797,002

¹ Includes a small amount of coquina broth packed in Florida.

NOTE.—“Standard cases” represent the various sized cases converted to the equivalent of 48 no. 1, 5-ounce cans to the case, for whole and minced clams; and 48 no. 1, 10-ounce cans to the case, for other clam products. Razor clam products were canned at 12 plants in Washington, 4 in Oregon, and 15 in Alaska; hard clam products at 1 plant in Massachusetts, 1 in Rhode Island, 3 in New York, 1 in New Jersey, 1 in Florida, 6 in Washington, and 1 in Alaska; soft clam products, at 17 plants in Maine and 1 in Massachusetts; and coquina clam products, at 2 plants in Florida.

Pack of miscellaneous canned fishery products

Item	Stand-ard cases	Value	Item	Stand-ard cases	Value
Mackerel.....	94,723	\$253,572	Whitefish roe and caviar.....	896	\$34,047
Fish flakes ¹	12,552	104,575	Miscellaneous fish and roe ²	10,105	60,054
Fish cakes, balls, etc.....	64,556	463,107	Crabs.....	5,039	80,581
Cat and dog food.....	117,255	286,455	Turtle products.....	3,663	62,879
Salmon roe and caviar.....	4,288	28,166	Miscellaneous shellfish ⁴	2,545	24,447
Salmon eggs (for bait).....	4,204	95,415			
Shad roe.....	1,945	51,915	Total.....	324,312	1,875,362
Sturgeon caviar ³	2,541	330,149			

¹ Tuna flakes are not included in this table but are included in the table for canned tuna and tunalike fishes.

² Produced principally from imported sturgeon.

³ Includes shad, smoked salmon, fillets, finnan haddie, fish chowder, pickled and smoked eels, tuna and noodles, spiced sea herring, carp for fish food, miscellaneous roe, etc.

⁴ Includes clam cakes, shrimp creole, pickled mussels, conch products, terrapin products, and sea cucumber.

NOTE.—“Standard cases” represent the various sized cases converted to the equivalent of 48 1-pound cans to the case.

Production of miscellaneous byproducts

Product	Atlantic and Gulf coasts		Pacific coast (including Alaska)		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
Dried scrap:						
Alewife.....tons.....	705	\$17,239			705	\$17,239
Blue crab.....do.....	950	8,570			950	8,570
King crab.....do.....	342	8,475			342	8,475
Miscellaneous ¹.....do.....	829	19,229			829	19,229
Meal:						
Herring (Alaska).....do.....			9,609	\$229,906	9,609	229,906
Herring (Maine).....do.....	654	14,456			654	14,456
Pilchard.....do.....			25,445	587,528	25,445	587,528
Salmon.....do.....			1,389	35,604	1,389	35,604
Tuna.....do.....			4,123	92,551	4,123	92,551
Ground fish "white fish".....do.....	9,088	363,798			9,088	363,798
Shrimp.....do.....	513	6,642	172	3,440	685	10,082
Miscellaneous ².....do.....	1,179	42,122	3,269	69,330	4,448	111,452
Miscellaneous green scrap ³.....do.....	86	1,035			86	1,035
Oil:						
Alewife.....gallons.....	22,590	2,446			22,590	2,446
Cod and cod-liver—						
Medicinal.....do.....	24,806	12,401			24,806	12,401
Industrial.....do.....	77,061	31,633			77,061	31,633
Herring (Alaska).....do.....			2,505,709	256,619	2,505,709	256,619
Herring (Maine).....do.....	28,876	3,253			28,876	3,253
Pilchard.....do.....			5,528,946	704,740	5,528,946	704,740
Salmon.....do.....			154,040	16,049	154,040	16,049
Tuna.....do.....			30,667	4,382	30,667	4,382
Whale—						
Sperm.....do.....			7,208	884	7,208	884
Other.....do.....			801,011	82,879	801,011	82,879
Miscellaneous ⁴.....do.....	5,070	1,806	12,243	1,677	17,313	3,483
Liquid glue.....do.....	⁵ 365,907	⁵ 648,461	(⁵)	(⁵)	365,907	648,461
Miscellaneous by-products ⁶.....pounds.....	107,017	22,308	2,517,485	111,625	2,624,502	133,933
Total.....		1,203,874		2,197,214		3,401,088

¹ Includes ground fish, herring, and miscellaneous dried scrap.

² Includes blue crab, clam, salmon egg, mackerel, whale meat and bone, and miscellaneous meal.

³ Includes herring pomace (Maine) and miscellaneous green scrap.

⁴ Includes mackerel, shark, and miscellaneous fish oil.

⁵ A quantity of liquid glue produced by 1 firm in California is included with the production of the Atlantic and Gulf coasts.

⁶ Includes pearl essence, fish-scale ornaments, shark skins and fins, agar, and kelp products.

NOTE.—The oils produced on the Pacific coast are reported in trade gallons (7½ pounds) and those produced on the Atlantic and Gulf coasts are reported in United States gallons (about 7.74 pounds).

Production of oyster-shell products

State	Crushed oyster-shell for poultry feed		Oyster-shell lime		Total	
	Tons	Value	Tons	Value	Tons	Value
Rhode Island and Delaware.....	1,035	\$10,507	323	\$1,281	1,358	\$11,788
New Jersey.....	4,337	41,142	1,373	5,732	5,710	46,874
Pennsylvania.....	3,152	31,370	822	3,274	3,974	34,644
Maryland.....	28,271	167,838	15,289	24,455	43,560	192,293
Virginia.....	15,508	113,322	13,926	62,738	29,434	176,060
North Carolina and South Carolina.....	10,415	57,903	910	4,137	11,325	62,040
Florida.....	61,836	255,589	1,259	2,238	63,095	257,827
Alabama and Texas.....	7,357	38,164	9,475	8,119	16,832	46,283
Mississippi.....	23,131	132,317	2,073	787	25,204	133,104
Louisiana.....	79,775	359,863	1,385	1,312	81,160	361,175
Washington.....	² 1,646	14,461			1,646	14,461
California.....	³ 21,908	118,014	2,446	10,398	24,354	128,412
Total.....	258,371	1,340,490	49,281	124,471	307,652	1,464,961

¹ Of this amount, 7,626 tons, valued at \$44,688 were reported as "burned" lime.

² This production was made from clam shells.

³ Includes a small amount of crushed clam shells for poultry feed.

NOTE.—Crushed oyster-shell products were prepared at 2 plants in Rhode Island, 5 in New Jersey, 5 in Pennsylvania, 1 in Delaware, 6 in Maryland, 8 in Virginia, 3 in North Carolina, 4 in South Carolina, 3 in Florida, 2 in Alabama, 6 in Mississippi, 4 in Louisiana, 2 in Texas, and 5 in California; and clam-shell products were prepared at 1 plant in California and 4 in Washington.

Production of fresh-water mussel-shell products

Item	Iowa		New York		Other States		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Pearl buttons . . . gross . . .	10,501,702	\$2,325,071	3,951,787	\$890,074	730,983	\$163,778	15,184,472	\$3,378,923
Crushed shell for poultry feed tons . . .	6,788	53,274	-----	-----	490	2,790	7,278	56,064
Lime do	1,081	1,081	(1)	(1)	104	337	1,185	1,418
Other products ²	-----	119,855	-----	-----	-----	-----	-----	119,855
Total	-----	2,490,281	-----	890,074	-----	166,905	-----	3,556,260

¹ A small production made in New York has been included with "Other States."

² Includes stucco, colored shells, and "pearl novelties."

NOTE.—Mussel shells utilized in the above production amounted to 27,296,000 pounds, valued at \$282,691. Shells were taken in 15 States in the Mississippi Valley and Great Lakes region. The producing States in the order of their importance were Illinois, which contributed 23 percent of the total quantity; Indiana, 22 percent; Arkansas, 15 percent; Tennessee, 11 percent; Michigan, 7 percent; Iowa, 6 percent; Kentucky, 4 percent; Minnesota, 3 percent; Texas, 3 percent; Ohio, 2 percent; Wisconsin, 1 percent; Mississippi, Alabama, Kansas, and Missouri, each less than one half of 1 percent.

Production of marine pearl-shell products ¹

Item	Maine, Massachusetts, and Connecticut		Rhode Island		New York		New Jersey	
	Gross	Value	Gross	Value	Gross	Value	Gross	Value
Pearl buttons	1,132,032	\$789,014	-----	-----	393,720	\$225,794	669,523	\$536,541
Novelties ²	-----	90,700	-----	\$18,001	-----	22,350	-----	114,300
Total	-----	879,714	-----	18,001	-----	248,144	-----	650,841

Item	Pennsylvania, Maryland, and Florida		California		Total	
	Gross	Value	Gross	Value	Gross	Value
Pearl buttons	1,644,018	\$952,954	-----	-----	3,839,293	\$2,504,303
Novelties ²	-----	82,605	-----	\$31,760	-----	359,716
Total	-----	1,035,559	-----	31,760	-----	2,864,019

¹ Produced principally from imported shells.

² Includes buckles, inlays for jewelry, knife handles, lamps, handles for manicure sets, ornaments, etc.

NOTE.—Marine pearl-shell products were manufactured at 1 plant in Maine, 2 in Massachusetts, 3 in Rhode Island, 6 in Connecticut, 9 in New York, 22 in New Jersey, 3 in Pennsylvania, 1 in Maryland, 3 in Florida, and 3 in California.

Fish utilized and products of the menhaden industry

State	Menhaden utilized	Products						
		Dry scrap and meal		Acidulated scrap		Oil		Total
	Number	Tons	Value	Tons	Value	Gallons	Value	Value
New Jersey, Georgia, and Florida	167,324,000	7,200	\$178,413	5,096	\$54,432	853,026	\$76,460	\$309,305
Virginia	323,697,000	24,035	533,797	-----	-----	1,865,513	175,597	709,394
North Carolina	69,396,000	5,309	121,479	1,745	18,460	278,559	21,429	161,368
Total	560,417,000	36,544	833,689	6,841	72,892	2,997,098	273,486	1,180,067

¹ 336,250,000 pounds.

² Of this quantity 32,382 tons, valued at \$720,372, were reported as dry scrap, and 4,162 tons, valued at \$113,317, as fish meal.

NOTE.—The menhaden factories were located as follows: 2 in New Jersey, 10 in Virginia, 6 in North Carolina, 1 in Georgia, and 5 in Florida.

PACKAGED-FISH TRADE

In 1932 the production of fresh and frozen packaged fish in the United States amounted to 51,975,862 pounds, valued at \$5,741,418. The most important species packaged was haddock, which alone accounted for 33,401,425 pounds, valued at \$3,356,535.

Production of fresh and frozen packaged fish in the United States, 1932

Species	Maine		Massachusetts and Connecticut		New York	
	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike.....					136,644	\$24,939
Cod.....	408,117	\$63,095	5,231,076	\$524,003	2,146,500	269,486
Cusk.....	187,071	32,264	299,137	37,814		
Flounders, including "sole".....	(1)	(1)	1,214,379	1,198,589	385,300	58,545
Haddock.....	259,616	42,898	30,478,578	2,978,840	2,568,231	320,857
Hake.....	247,826	39,607	1,365,433	122,037	314,500	32,400
Halibut.....			131,301	29,482		
Mackerel.....			79,976	10,643		
Pollock.....			501,151	35,018		
Salmon.....			80,075	15,692		
Wolfish.....			180,928	16,309		
Yellow perch.....					9,783	1,879
Miscellaneous ⁴			1,028,021	95,394	1,000	250
Total.....	1,102,630	177,864	40,590,055	4,063,821	5,561,958	708,356

Species	Pennsylvania		Virginia and North Carolina		Florida and Alabama	
	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike.....	364,822	\$65,873				
Croaker.....			27,000	\$3,360		
Flounders, including "sole".....			17,500	2,980		
Groupers.....					345,569	\$35,590
Haddock.....			95,000	13,940		
Sauger pike.....	(3)	(3)				
Snapper, red, and red rockfish.....					2,107,230	2,14,648
Spanish mackerel.....			3,800	684	28,343	5,651
Squeteague or "sea trout".....			93,000	14,100	44,453	9,659
Yellow perch.....	52,310	9,335				
Yellow pike.....	(3)	(3)				
Miscellaneous ⁴	1,101	254			47,725	9,888
Total.....	418,233	75,462	236,300	35,064	573,320	75,436

Species	Ohio, Illinois, Kentucky, and Wisconsin		Oregon and Washington		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike.....	1,390,574	\$265,146			1,892,040	\$355,958
Cod.....					7,785,693	856,584
Croaker.....					27,000	3,360
Cusk.....					486,208	70,078
Flounders, including "sole".....			70,219	\$6,383	1,687,398	266,497
Groupers.....					345,569	35,590
Haddock.....					33,401,425	3,356,535
Hake.....					1,927,759	194,044
Halibut.....			230,000	22,940	361,301	52,422
Mackerel.....					79,976	10,643
Pollock.....					501,151	35,018
Salmon.....			88,000	10,400	168,075	26,092
Sauger pike.....	³ 142,250	³ 28,291			142,250	28,291
Snapper, red, and red rockfish.....			(2)	(2)	107,230	14,648
Spanish mackerel.....					32,143	6,335
Squeteague or "sea trout".....					137,453	23,759
Wolfish.....					180,928	16,309
Yellow perch.....	1,519,245	262,600			1,581,338	273,814
Yellow pike.....	³ 28,478	³ 6,715			28,478	6,715
Miscellaneous ⁴	6,600	1,620	18,000	1,320	1,102,447	108,726
Total.....	3,087,147	564,372	406,219	41,043	⁵ 51,975,862	⁵ 5,741,418

¹ A small amount of flounders in Maine has been included with Massachusetts and Connecticut.

² A small amount of red rockfish in Oregon has been included with Florida and Alabama.

³ A small amount of sauger pike and yellow pike in Pennsylvania has been included with Ohio, Illinois, Kentucky, and Wisconsin.

⁴ Includes bluefish, red drum or redfish, frog legs, kingfish, lake trout, "lingcod", mullet, pompano, sauger pike, sea bass, snooks, sunfish, swordfish, whitefish, and whiting.

⁵ Of this amount 49,228,247 pounds, valued at \$5,401,887, were filets; 35,352 pounds, valued at \$4,265, were pandressed; 963,687 pounds, valued at \$124,639, were steaks; 1,745,476 pounds, valued at \$209,077, were sticks; and 3,100 pounds, valued at \$1,550, were prepared by other methods. Of the total quantity of filets prepared 35,390,632 pounds valued at \$4,285,427, were fresh; and 13,837,615 pounds, valued at \$1,116,460, were frozen. Of the pandressed 22,828 pounds, valued at \$1,878, were fresh; and 12,524 pounds, valued at \$2,387, were frozen. Of the steaks 325,042 pounds, valued at \$48,831, were fresh; and 638,645 pounds, valued at \$75,808, were frozen. Of the sticks 792,699 pounds, valued at \$131,376, were fresh; and 952,777 pounds, valued at \$77,701, were frozen. There were prepared by other methods 3,100 pounds, valued at \$1,550.

NOTE.—Fish products were packaged at 8 plants in Maine; 54 in Massachusetts; 1 in Connecticut; 31 in New York; 8 in Pennsylvania; 7 in Virginia; 1 in North Carolina; 10 in Florida; 1 in Alabama; 29 in Ohio; 6 in Illinois; 1 in Kentucky; 4 in Wisconsin; 4 in Oregon; and 5 in Washington—a total of 170 plants.

FROZEN FISH TRADE²

FISH FROZEN

In 1932 the freezing plants in the United States and Alaska, reporting their activities to the Government, packed 92,471,545 pounds of frozen fishery products. These products at the time they were held in cold-storage plants were estimated to be valued at \$7,000,000. Compared with the pack in 1931, this is a decrease of 18 percent. Over 65 percent of the pack consisted of six species or groups of fishery products. Of first importance was mackerel, with 17 percent of the total. Of next importance was the cod, haddock, haddock fillets, hake, and pollock group, with 16 percent of the total. Haddock fillets accounted for the bulk of the volume of this group. Salmon made up 12 percent of the total; halibut, 10 percent; whiting, 6 percent; and shellfish, 4 percent. Considerable quantities of sea herring, squid, croaker, cisco or lake herring, smelts, and weakfish, including southern "sea trout", also were frozen. Frozen squid and sea herring are marketed primarily for bait, although quantities of each are used for human consumption.

Production of frozen fishery products, 1932

BY SPECIES AND MONTHS

Species	Month ended the 15th of—						
	January	February	March	April	May	June	July
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Bluefish (all trade sizes).....	10, 159	13, 777	4, 804	13, 194	5, 128	27, 432	27, 703
Butterfish (all trade sizes).....	12, 725	10, 289	9, 788	45, 212	62, 369	162, 540	209, 848
Catfish.....	12, 998	29, 277	6, 239	27, 572	34, 081	14, 543	27, 946
Cisco (Lake Erie).....	69, 202		183	12, 935	8, 200	4, 132	18, 401
Cisco (lake herring), including blue- fin, blackfin, and chub.....	66, 425	1, 821	15, 105	19, 997	71, 221	56, 111	98, 710
Cisco (tullibees, Canadian lakes).....	59, 159	42, 488	36, 310	9, 423	12, 813	6, 746	3, 795
Cod, haddock, hake, and pollock.....	252, 490	140, 950	116, 809	242, 860	161, 508	149, 865	203, 384
Croaker.....	19, 224	11, 758	7, 918	6, 678	258, 945	62, 980	60, 347
Flounders.....	18, 666	34, 393	8, 219	9, 401	56, 647	125, 951	21, 917
Haddock fillets.....	797, 402	603, 564	268, 068	1, 499, 030	1, 582, 088	913, 915	1, 073, 454
Halibut (all trade sizes).....	333, 059	204, 335	764, 259	561, 014	1, 729, 962	508, 109	1, 362, 245
Herring, sea (including alewives and bluebacks).....	187, 591	116, 543	123, 245	183, 108	1, 038, 274	345, 059	72, 703
Lake trout.....	47, 125	28, 252	18, 000	22, 379	46, 999	32, 956	42, 466
Mackerel (except Spanish).....	127, 501	155, 044	126, 437	84, 438	1, 014, 754	954, 341	2, 961, 879
Pike, blue and sauger.....	42, 571	1, 730	10, 553	128, 068	236, 849	273, 623	31, 992
Pike, yellow or wall-eyed.....	65, 120	8, 609	43, 765	9, 817	20, 053	13, 339	6, 943
Pike (including pickerel, jacks, and yellow jack).....	70, 675	79, 702	41, 556	12, 082	25, 239	15, 551	11, 686
Sablefish (black cod).....	36, 428	22, 841	42, 784	13, 731	58, 461	74, 500	182, 843
Salmon, chinook or king.....	1, 000	4, 352	2, 331	5, 458	67, 865	480, 788	707, 281
Salmon, silver or coho.....	32, 098	29, 366	30, 191	9, 939	46, 840	15, 396	158, 390
Salmon, fall and pink.....	90, 390	22, 268	41, 759	6, 265	12, 478	6, 000	1, 577
Salmon, steelhead trout.....		184	41, 828	26, 761	12, 910	1, 132	92, 458
Salmon, red or sockeye.....	60, 634	81, 139	58, 814	59, 957	184, 236	451, 979	139, 438
Scup (porgies).....	2, 516	1, 148	1, 905		1, 910	159, 722	15, 963
Shad and shad roe.....	59, 905	34, 369	16, 286	5, 373	36, 108	60, 703	47, 041
Shellfish.....	372, 114	289, 064	211, 921	63, 999	215, 643	280, 727	260, 994
Smelts, eulachon, etc.....	216, 136	382, 228	207, 771	18, 199	3, 558	2, 462	13, 420
Squid.....	7, 520	15, 855	1, 443	575	902, 540	1, 376, 960	252, 539
Sturgeon and spoonbill cat.....	2, 081	4, 105	1, 084	5, 315	23, 704	39, 940	18, 788
Suckers.....	655	100	50	940	7, 381	5, 676	2, 220
Weakfish (including southern "sea trout").....	31, 516	36, 775	27, 714	2, 308	180, 101	64, 916	136, 875
Whitefish.....	60, 604	40, 577	17, 707	38, 307	19, 188	54, 400	259, 522
Whiting.....	56, 543	105, 814	113, 811	11, 800	162, 787	2, 620, 616	1, 828, 796
Miscellaneous fish.....	845, 294	620, 274	477, 513	689, 915	992, 674	909, 313	770, 467
Total.....	4, 067, 526	3, 172, 991	2, 896, 170	3, 846, 050	9, 293, 514	10, 272, 423	11, 124, 031

¹ Prior to July 15, 1932, this item was listed as "Salmon, all other" and may have included species properly classified in one of the other groups of salmon.

² The statistics in this section have been furnished by the Bureau of Agricultural Economics, Department of Agriculture.

Production of frozen fishery products, 1932—Continued

BY SPECIES AND MONTHS—Continued

Species	Month ended the 15th of—					
	August	September	October	November	December	Total
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Bluefish (all trade sizes).....	449,510	93,766	117,542	25,747	12,249	801,011
Butterfish (all trade sizes).....	163,586	18,854	78,242	100,101	14,109	887,663
Catfish.....	22,201	17,080	31,488	61,449	34,909	319,783
Cisco (Lake Erie).....	38,604	46,142	29,454	42,694	8,809	278,756
Cisco (lake herring), including bluefin, blackfin, and chub.....	259,562	115,281	109,727	246,632	583,942	1,644,534
Cisco (tullibees, Canadian lakes).....	24,493	39,649	7,066	61,499	57,855	361,296
Cod, haddock, hake, and pollock.....	480,532	420,618	405,815	263,761	177,724	3,016,316
Croaker.....	415,307	318,471	8,300	6,933	7,312	1,184,173
Flounders.....	22,918	31,051	52,631	51,473	98,234	531,501
Haddock fillets.....	1,346,934	1,742,048	1,198,339	471,763	298,365	11,794,970
Halibut (all trade sizes).....	1,405,182	1,161,031	682,499	588,834	171,401	9,471,930
Herring, sea (including alewives and bluebacks).....	429,563	509,675	252,168	229,974	386,757	3,874,660
Lake trout.....	54,145	13,082	110,385	462,283	44,633	922,705
Mackerel (except Spanish).....	3,013,960	3,361,334	3,511,799	617,622	204,338	16,133,447
Pike, blue and sauger.....	653	32,654	47,856	66,072	90,764	963,385
Pike, yellow or wall-eyed.....	11,901	16,241	19,132	13,754	9,053	237,727
Pike (including pickerel, jacks, and yellow jack).....	9,294	9,031	14,444	30,416	7,241	326,917
Sablefish (black cod).....	187,327	255,554	390,500	206,956	24,813	1,496,738
Salmon, chinook or king.....	580,024	478,720	263,981	91,210	7,209	2,690,219
Salmon, silver or coho.....	1,576,143	1,588,444	1,229,857	815,244	76,607	5,608,515
Salmon, fall and pink.....	105,441	139,169	287,350	573,241	29,356	1,315,294
Salmon, steelhead trout.....	149,065	66,578	17,643	2,368	1,294	412,221
Salmon, red or sockeye ¹	114,578	104,483	137,761	39,123	40,067	1,472,209
Scup (porgies).....	35,150	25,221	2,898	2,179	200	248,812
Shad and shad roe.....	3,622	106,781	14,220	20,108	20,096	424,612
Shellfish.....	298,892	510,367	588,362	548,738	257,994	3,898,815
Smelts, eulachon, etc.....	7,191	16,703	10,909	43,197	157,083	1,078,857
Squid.....	131,913	29,956	29,372	51,196	5,628	2,805,497
Sturgeon and spoonbill cat.....	33,200	8,321	10,075	11,634	1,732	159,979
Stuckers.....	473	2,059	4,772	4,630	470	29,426
Weakfish (including southern "sea trout").....	256,528	181,822	89,625	37,133	8,692	1,054,005
Whitefish.....	119,180	127,032	99,096	27,211	61,116	923,940
Whiting.....	269,728	124,125	61,213	112,159	177,418	5,644,810
Miscellaneous fish.....	951,803	832,541	820,971	1,101,462	1,444,595	10,456,822
Total.....	12,968,603	12,543,884	10,735,492	7,028,796	4,522,065	92,471,545

BY GEOGRAPHICAL SECTIONS AND SPECIES²

[Expressed in thousands of pounds; that is, 000 omitted]

Species	New England	Middle Atlantic	South Atlantic	North Central, East	North Central, West	South Central	Pacific	Total
Bluefish (all trade sizes).....	22	678	5	47	1	48	-----	801
Butterfish (all trade sizes).....	279	536	33	40	-----	-----	-----	888
Catfish.....	35	1	31	66	138	49	-----	320
Cisco (Lake Erie).....	-----	276	3	-----	-----	-----	-----	279
Cisco (lake herring), including bluefin, blackfin, and chub.....	-----	509	-----	794	342	-----	-----	1,645
Cisco (tullibees, Canadian lakes).....	38	171	3	116	33	-----	-----	361
Cod, haddock, hake, and pollock.....	2,325	233	3	72	225	-----	157	3,016
Croaker.....	-----	155	851	176	-----	1	-----	1,184
Flounders.....	275	219	9	5	17	-----	6	531
Haddock fillets.....	10,779	252	32	419	151	46	116	11,795
Halibut (all trade sizes).....	240	588	51	617	111	18	7,847	9,472
Herring, sea (including alewives and bluebacks).....	2,769	207	17	488	1	14	379	3,875

¹ Prior to July 15, 1932, this item was listed as "Salmon, all other" and may have included species properly classified in one of the other groups of salmon.

² New England includes the 6 States of that section; Middle Atlantic—New York, New Jersey, and Pennsylvania; South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida; North Central, East—Ohio, Indiana, Illinois, Michigan, and Wisconsin; North Central, West—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas; South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, and Arkansas; Pacific—Washington, Oregon, California, and Alaska.

Production of frozen fishery products, 1932—Continued

BY GEOGRAPHICAL SECTIONS AND SPECIES—Continued

[Expressed in thousands of pounds; that is, 000 omitted]

Species	New England	Middle Atlantic	South Atlantic	North Central, East	North Central, West	South Central	Pacific	Total
Lake trout.....	1	119		659	134	3	7	923
Mackerel (except Spanish).....	14,280	1,357	3	267	17	11	198	16,133
Pike, blue and sauger.....		427		535		1		963
Pike, yellow or wall-eyed.....		61		46	131			238
Pike (including pickerel, jacks, and yellow jack).....		9		103	215			327
Sablefish (black cod).....		2		156	25		1,314	1,497
Salmon, chinook or king.....	79	45		17	11		2,538	2,690
Salmon, silver or coho.....	58	215		39	30	2	5,265	5,609
Salmon, fall and pink.....	64	13	2	17	24		1,195	1,315
Salmon, steelhead trout.....	3	28	40	1			340	412
Salmon, red or sockeye ¹	10	246	3	180	22	2	1,009	1,472
Scup (porgies).....	21	88	140					249
Shad and shad roe.....	110	160	3	56	3	1	92	425
Shellfish.....	543	1,607	300	561	132	11	745	3,899
Smelts, eulachon, etc.....	33	850	2	93	3		98	1,079
Squid.....	1,774	1,018					13	2,805
Sturgeon and spoonbill cat.....		103	3	10	13	20	11	160
Suckers.....		1		28				29
Weakfish (including southern "sea trout").....		794	259	1				1,054
Whitefish.....	4	492	26	376	20	5	1	924
Whiting.....	4,846	595	60		143	1		5,645
Miscellaneous fish.....	1,268	1,268	1,418	2,510	481	1,585	1,927	10,457
Total.....	39,856	13,323	3,297	8,495	2,423	1,820	23,258	92,472

BY GEOGRAPHICAL SECTIONS AND MONTHS

[Expressed in thousands of pounds; that is, 000 omitted]

Month ended the 15th of—	New England	Middle Atlantic	South Atlantic	North Central, East	North Central, West	South Central	Pacific	Total
January.....	1,287	1,106	157	550	282	186	500	4,068
February.....	592	950	228	567	293	85	458	3,173
March.....	207	635	62	410	296	53	1,233	2,896
April.....	1,801	141	40	810	99	179	776	3,846
May.....	4,121	1,502	341	895	70	138	2,227	9,294
June.....	5,429	1,649	267	830	111	246	1,740	10,272
July.....	6,287	1,208	202	483	95	169	2,680	11,124
August.....	5,809	1,712	719	495	108	107	4,019	12,969
September.....	6,493	1,156	426	432	61	122	3,854	12,544
October.....	5,426	1,160	129	500	155	163	3,202	10,735
November.....	1,605	1,070	168	1,263	386	235	2,302	7,029
December.....	799	1,034	558	1,260	467	137	267	4,522
Total.....	39,856	13,323	3,297	8,495	2,423	1,820	23,258	92,472

¹ Prior to July 15, 1932, this item was listed as "Salmon, all other" and may have included species properly classified in one of the other groups of salmon.

HOLDINGS

During 1932 monthly holdings of frozen fish and shellfish averaged 47,714,000 pounds, which is 13 percent less than the average monthly holdings in 1931. The holdings in January were largest, amounting to 64,478,000 pounds. The holdings in February and in each of the months from August to December exceeded 50,000,000 pounds. The smallest holdings were in April, when only 25,916,000 pounds of frozen fish were in storage.

Holdings of frozen fishery products, 1932

BY SPECIES AND MONTHS

Species	Month ended the 15th of—					
	January	February	March	April	May	June
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Bluefish (all trade sizes)	911,994	768,158	569,090	502,516	445,358	429,705
Butterfish (all trade sizes)	1,311,964	908,759	533,063	265,782	242,617	351,967
Catfish	471,838	420,759	281,774	187,818	183,003	155,316
Cisco (Lake Erie)	198,597	116,953	50,192	14,259	9,065	11,158
Cisco (lake herring), including bluefin, blackfin, and chub	1,443,836	822,192	523,838	255,347	231,813	222,991
Cisco (tullibees, Canadian lakes)	677,938	664,024	606,979	556,493	536,042	521,440
Cod, haddock, hake, and pollock	1,330,507	984,037	507,367	1,030,315	913,864	840,497
Croaker	906,921	685,105	371,980	129,572	353,555	412,246
Flounders	437,162	376,207	233,079	151,548	181,158	244,141
Haddock fillets	5,618,864	5,000,868	3,628,732	2,880,764	3,257,797	3,149,331
Halibut (all trade sizes)	5,956,454	3,718,728	2,875,034	2,476,163	4,052,388	4,399,501
Herring, sea (including alewives and bluebacks)	2,627,487	2,127,405	1,569,052	1,278,293	1,968,595	1,895,455
Lake trout	1,128,660	936,916	599,968	308,394	315,455	317,929
Mackerel (except Spanish)	8,561,678	6,527,700	4,025,132	1,991,957	2,317,783	3,060,393
Pike, blue and sauger	666,253	458,923	212,171	209,681	402,122	572,032
Pike, yellow or wall-eyed	382,597	291,769	173,571	104,240	128,310	134,872
Pike (including pickerel, jacks, and yellow jack)	479,812	384,913	337,959	262,476	246,959	232,110
Sablefish (black cod)	1,123,303	800,660	636,450	467,313	420,766	395,807
Salmon, chinook or king	767,366	431,370	218,901	108,365	96,471	443,213
Salmon, silver or coho	3,015,744	1,764,947	953,469	658,077	416,821	267,146
Salmon, fall and pink	1,287,569	885,460	630,073	549,559	436,934	396,778
Salmon, steelhead trout	997,685	910,747	802,446	685,046	641,732	626,315
Salmon, red or sockeye	1,555,002	1,170,552	947,130	548,637	607,521	895,864
Scup (porgies)	369,651	277,047	195,284	158,010	132,539	299,765
Shad and shad roe	492,634	431,936	325,901	255,563	196,643	221,388
Shellfish	2,720,159	2,620,420	2,295,716	1,852,048	1,281,001	1,286,468
Smelts, eulachon, etc.	665,251	1,161,413	972,147	265,985	223,891	212,356
Squid	840,343	689,602	432,976	176,619	1,027,520	2,364,860
Sturgeon and spoonbill cat	716,733	483,299	763,670	589,837	574,883	497,833
Suckers	37,295	12,620	8,910	3,531	10,762	14,691
Weakfish (including southern "sea trout")	1,206,059	636,618	220,009	83,248	214,038	264,409
Whitefish	1,251,853	1,067,554	846,216	511,091	368,366	356,335
Whiting	4,883,795	3,917,506	2,502,803	1,986,570	1,621,107	3,969,426
Miscellaneous fish	9,434,788	8,116,202	5,713,328	4,410,522	4,575,352	4,847,184
Total	64,477,782	50,601,269	35,564,410	25,915,639	28,622,126	34,310,922

Species	Month ended the 15th of—					
	July	August	September	October	November	December
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Bluefish (all trade sizes)	492,130	825,689	769,871	787,107	679,598	673,093
Butterfish (all trade sizes)	491,397	620,610	564,252	586,024	583,442	445,024
Catfish	161,006	151,201	129,346	136,894	171,532	220,321
Cisco (Lake Erie)	41,771	71,903	136,882	142,882	279,001	302,796
Cisco (lake herring), including bluefin, blackfin, and chub	257,483	497,536	495,711	557,054	591,776	937,887
Cisco (tullibees, Canadian lakes)	491,168	596,697	670,068	715,336	609,885	604,262
Cod, haddock, hake, and pollock	903,729	1,270,291	1,508,040	1,090,800	1,010,503	934,642
Croaker	458,291	880,094	1,207,274	982,258	852,927	776,363
Flounders	229,514	215,295	187,686	179,640	179,626	232,015
Haddock fillets	3,484,618	3,999,593	4,780,689	4,754,194	3,692,032	2,817,606
Halibut (all trade sizes)	5,614,215	6,957,557	7,975,140	7,732,624	7,150,616	4,984,651
Herring, sea (including alewives and bluebacks)	1,682,081	1,741,288	1,834,665	1,770,782	1,747,253	1,942,034
Lake trout	359,934	394,713	349,217	439,745	863,787	777,902
Mackerel (except Spanish)	5,649,791	8,297,979	11,136,686	14,130,518	13,900,718	12,315,010
Pike, blue and sauger	501,799	407,587	379,681	394,959	402,467	448,761
Pike, yellow or wall-eyed	117,631	118,277	128,392	139,474	137,997	164,497
Pike (including pickerel, jacks, and yellow jack)	206,572	201,290	198,748	248,842	245,257	182,647
Sablefish (black cod)	502,331	631,293	805,521	1,095,704	1,068,344	906,076
Salmon, chinook or king	1,384,760	1,947,210	2,310,507	2,324,761	2,139,758	1,959,040
Salmon, silver or coho	363,747	2,019,831	3,474,599	4,485,205	4,872,948	4,296,289
Salmon, fall and pink	409,020	529,556	594,302	820,388	1,307,858	1,106,301
Salmon, steelhead trout	623,103	689,280	697,699	606,736	576,183	513,890
Salmon, red or sockeye	397,323	460,100	524,953	661,904	571,887	551,101

¹ Prior to July 15, 1932, this item was listed as "Salmon, all other" and may have included species properly classified in one of the other groups of salmon.

Holdings of frozen fishery products, 1932—Continued

BY SPECIES AND MONTHS—Continued

Species	Month ended the 15th of—					
	July	August	September	October	November	December
Scup (porgies).....	Pounds 300,748	Pounds 334,167	Pounds 353,555	Pounds 343,939	Pounds 322,693	Pounds 262,527
Shad and shad roe.....	236,668	187,910	270,410	253,358	249,578	230,661
Shellfish.....	1,438,877	1,354,759	1,248,837	1,582,603	1,785,985	1,899,675
Smelts, eulachon, etc.....	197,392	186,915	191,507	180,362	240,171	258,631
Squid.....	2,559,458	2,604,517	2,423,032	2,222,493	2,097,601	1,850,703
Sturgeon and spoonbill cat.....	606,572	556,352	520,944	767,336	730,161	846,451
Suckers.....	14,160	11,378	12,207	16,103	19,995	14,136
Weakfish (including southern "sea trout").....	384,826	624,120	689,489	684,680	665,852	878,290
Whitefish.....	660,006	1,181,026	1,733,576	1,761,807	1,736,548	1,606,440
Whiting.....	5,246,188	5,364,879	5,106,113	4,732,202	4,516,083	3,681,339
Miscellaneous fish.....	4,837,376	5,650,462	5,859,569	5,744,308	6,103,730	6,116,659
Total.....	41,305,685	51,581,355	59,269,168	63,073,022	62,103,792	55,738,170

BY GEOGRAPHICAL SECTIONS AND MONTHS ²

[Expressed in thousands of pounds; that is, 000 omitted]

Month ended the 15th of—	New England	Middle Atlantic	South Atlantic	North Central, East	North Central, West	South Central	Pacific ³	Total
January.....	18,958	16,269	3,738	7,998	3,695	886	12,934	64,478
February.....	14,867	14,017	3,140	6,090	3,297	860	8,330	50,601
March.....	9,011	10,527	1,919	4,075	2,893	700	6,439	35,564
April.....	5,664	7,351	994	3,302	2,461	576	5,568	25,916
May.....	7,068	7,011	1,043	3,735	2,230	587	6,948	28,622
June.....	10,736	7,802	1,253	3,864	2,057	681	7,918	34,311
July.....	15,302	8,578	1,391	3,762	1,904	647	9,722	41,306
August.....	19,641	10,078	2,086	3,717	1,850	581	13,628	51,581
September.....	23,895	10,118	2,505	3,787	1,715	581	16,668	59,269
October.....	25,879	10,628	2,435	3,731	2,056	561	17,783	63,073
November.....	24,167	10,813	2,623	4,904	2,333	592	16,672	62,104
December.....	20,311	11,046	3,128	5,372	2,401	594	12,886	55,738
Average.....	16,292	10,353	2,188	4,528	2,408	654	11,291	47,714

² New England includes the 6 States of that section; Middle Atlantic—New York, New Jersey, and Pennsylvania; South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida; North Central, East—Ohio, Indiana, Illinois, Michigan, and Wisconsin; North Central, West—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas; South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, and Arkansas; Pacific—Washington, Oregon, California, and Alaska.

³ Includes a very small amount of fish held in Colorado in the Mountain section.

COLD-STORAGE HOLDINGS OF CURED FISH

During 1932, monthly holdings of cured herring and mild-cured salmon averaged 18,183,297 pounds, which is an increase of less than one-half of 1 percent as compared with the average monthly holdings in 1931. The holdings in September were the largest, amounting to 21,097,753 pounds, and the smallest were in July, amounting to 14,255,170 pounds.

Holdings of cured fish, 1932, by species and months

Month ended the 15th of—	Cured herring	Mild-cured salmon	Total	Month ended the 15th of—	Cured herring	Mild-cured salmon	Total
January.....	Pounds 15,849,856	Pounds 4,756,698	Pounds 20,606,554	July.....	Pounds 10,349,785	Pounds 3,905,385	Pounds 14,255,170
February.....	15,549,801	4,503,513	20,053,314	August.....	12,087,969	6,133,617	18,221,586
March.....	13,740,380	3,020,793	16,761,173	September.....	14,351,194	6,746,559	21,097,753
April.....	13,157,354	2,946,074	16,103,428	October.....	14,250,227	6,779,642	21,029,869
May.....	13,303,682	2,337,839	15,641,521	November.....	14,810,078	6,276,379	21,086,457
June.....	12,774,287	2,672,757	15,447,044	December.....	12,986,672	4,909,028	17,895,700

FOREIGN FISHERY TRADE

Foreign trade in fishery products in the United States in 1932, amounted to \$37,373,744, of which \$29,565,731 represents the value of these products imported for consumption, and \$7,808,013 the value of exports of domestic fishery products. Compared with the previous year, there was a decrease of 32 percent in the total trade, 31 percent in the value of imports, and 33 percent in the value of exports.

Imports consisted of 259,884,587 pounds of edible products, valued at \$21,672,985, and nonedible products, valued at \$7,892,746. Fishery exports consisted of 86,932,806 pounds of edible products, valued at \$7,657,324, and nonedible products, valued at \$150,689.

Exports of domestic fishery products, 1932

Item	Quantity	Value
EDIBLE FISHERY PRODUCTS		
Fish, fresh, frozen, or packed in ice:		
Salmon.....pounds.....	5,299,020	\$484,320
Other fresh fish.....do.....	3,627,624	201,811
Total.....do.....	8,926,644	686,131
Fish, salted or dry cured:		
Cod.....do.....	890,076	93,713
Haddock, hake, and pollock.....do.....	562,136	32,801
Herring.....do.....	665,268	33,922
Salmon.....do.....	1,470,357	157,462
Other.....do.....	638,379	35,846
Total.....do.....	4,226,216	353,744
Fish, pickled:		
Salmon.....do.....	1,933,200	281,166
Other.....do.....	1,284,800	57,285
Total.....do.....	3,218,000	338,451
Fish, canned:		
Salmon.....do.....	32,610,017	3,584,886
Sardines.....do.....	26,644,525	1,542,399
Mackerel.....do.....	1,409,168	79,391
Other.....do.....	469,478	67,387
Total.....do.....	61,133,188	5,274,063
Shellfish:		
Canned.....do.....	2,234,485	320,734
Not canned.....do.....	6,972,007	632,441
Total.....do.....	9,206,492	953,175
Other fish products.....do.....	222,266	51,760
Total edible products.....do.....	86,932,806	7,657,324
NONEDIBLE FISHERY PRODUCTS		
Marine-animal oils.....do.....	1,477,340	64,678
Buttons, pearl or shell.....gross.....	140,953	19,219
Sponges.....pounds.....	61,629	66,792
Total.....do.....		86,011
Total nonedible products.....do.....		150,689
Grand total.....do.....		7,808,013

Imports of fishery products entered for consumption, 1932

Item	Pounds	Value
EDIBLE FISHERY PRODUCTS		
Fish, fresh or frozen:		
Whole, beheaded, or eviscerated or both:		
Salmon.....	2,931,705	\$248,790
Fresh-water fish, not elsewhere specified:		
Yellow pike.....	6,156,120	530,958
Whitefish.....	6,627,512	633,542
Tullibees.....	1,514,767	70,133
Jacks or grass pike.....	1,781,190	71,977
Lake trout.....	1,586,622	153,642
Yellow perch.....	1,117,278	58,689
Lake herring, ciscoes, and chubs.....	1,315,958	153,469
Fresh water fish, not specially provided for.....	15,302,968	873,357
Eels.....	326,307	23,966
Cod, haddock, hake, pollock, and cusk.....	468,670	19,050
Halibut:		
Fresh.....	1,307,306	108,048
Frozen.....	141,267	10,023
Mackerel.....	583,439	24,827
Swordfish.....	1,552,512	97,758
Sturgeon.....	2,153,879	306,254
Fish, not specially provided for.....	2,259,991	122,669
Whether or not whole:		
Smelts.....	7,407,283	816,193
Tunafish.....	5,037,875	297,790
Sea herring:		
Fresh.....	10,864,454	30,259
Frozen.....	1,379,422	42,480
Fillets, skinned, boned, sliced, or divided, not specially provided for.....	1,781,698	194,765
Total.....	73,598,223	4,888,639
Fish, salted, dried, smoked, pickled, or preserved:		
Dried and unsalted:		
Cod, haddock, hake, pollock, and cusk.....	368,990	29,104
Other.....	3,302,208	244,515
In oil or in oil and other substances:		
Sardines.....	42,335,906	3,562,489
Anchovies.....	1,853,137	446,160
Antipasto.....	326,957	107,364
Tunafish.....	5,999,155	717,146
Other.....	260,958	33,967
Not in oil or in oil and other substances:		
In air-tight containers weighing with contents, not over 15 pounds each:		
Anchovies.....	3,036,565	228,020
Salmon.....	5,307,251	230,044
Herring and sardines.....	7,117,096	405,255
Fish cakes, balls, and pudding.....	1,372,277	62,291
Other.....	1,488,560	125,576
Pickled or salted:		
Not in oil, etc., and not in air-tight containers weighing, with contents, 15 pounds or less each:		
Salmon.....	247,374	16,214
Cod, haddock, hake, pollock, and cusk, neither skinned nor boned (except that vertebral column may be removed):		
Containing not more than 43 percent moisture by weight.....	18,405,482	829,753
Containing more than 43 percent moisture by weight.....	16,756,071	622,271
Cod, haddock, hake, pollock, and cusk, skinned or boned.....	1,968,650	149,944
Herring:		
In bulk or in containers weighing, with contents, more than 15 pounds each.....	32,011,053	1,498,514
In containers (not air-tight), weighing, with contents, not more than 15 pounds each (net weight).....	201,423	8,857
Mackerel:		
In bulk or in containers weighing, with contents, more than 15 pounds each (net weight).....	4,205,949	141,470
Pickled or salted, not specially provided for:		
In bulk or in containers weighing, with contents, more than 15 pounds each (net weight).....	1,490,668	105,391
In containers (not air-tight) weighing, with contents, not more than 15 pounds each (net weight).....	34,848	3,020
Smoked or kippered:		
Not in oil, etc., and not in air-tight containers weighing, with contents, 15 pounds or less each:		
Salmon.....	3,328	805
Herring:		
Whole or beheaded.....	822,874	39,948
Eviscerated, split, skinned, boned, or divided.....	904,146	67,448
Cod, haddock, hake, pollock, and cusk:		
Whole, or beheaded, or eviscerated or both.....	676,957	52,787
Filleted, skinned, boned, sliced, or divided.....	915,242	80,513
Smoked or kippered, not specially provided for.....	13,155	1,565

Imports of fishery products entered for consumption, 1932—Continued

Item	Pounds	Value
EDIBLE FISHERY PRODUCTS—continued		
Fish, salted, dried, smoked, pickled, or preserved—Continued.		
Prepared or preserved, not specially provided for:		
In containers weighing, with contents, not more than 15 pounds each	93, 501	\$14, 238
In bulk, or in containers weighing, with contents, more than 15 pounds each (net weight)	305, 601	29, 129
Fish paste and fish sauce	61, 742	15, 949
Total	151, 887, 124	9, 869, 747
Caviar and other fish roe:		
Not boiled, etc.:		
Sturgeon	372, 042	448, 693
Fish roe, not specially provided for	99, 261	14, 392
Boiled, packed in air-tight containers	57, 781	4, 423
Total	529, 084	467, 508
Shellfish:		
Crab meat, crab sauce, and crab paste	8, 869, 673	3, 111, 109
Clams, clam juice, or either in combination with other substances, in air-tight containers	1, 483, 942	153, 792
Oysters, oyster juice, or either in combination with other substances, in air-tight containers	166, 320	25, 339
Lobsters, (including spiny lobsters and crawfish):		
Not canned	11, 694, 342	1, 941, 240
Canned	1, 307, 078	567, 708
Clams not in air-tight containers	2, 373, 086	30, 139
Shrimps and prawns	457, 291	57, 828
Scallops	367, 430	42, 040
Oysters, not in air-tight containers	3, 521, 287	195, 897
Shellfish, not specially provided for	3, 198, 489	294, 343
Pastes and sauces of shellfish, not specially provided for	115, 340	10, 519
Crabs	19, 059	1, 315
Turtles	296, 819	15, 822
Total	33, 870, 156	6, 447, 091
Total, edible fishery products	259, 884, 587	21, 672, 985
NONEDIBLE FISHERY PRODUCTS		
Marine-animal oils:		
	<i>Quantity</i>	
Cod oil..... gallons	3, 296, 366	919, 822
Cod-liver oil..... do	1, 247, 998	804, 375
Eulachon oil..... do	850	425
Herring oil..... do	2, 094, 417	399, 755
Menhaden and sod oil..... do	58, 633	8, 231
Seal oil..... do	60, 383	11, 850
Whale oil:		
Sperm, crude..... do	184, 645	61, 136
Sperm, refined or otherwise processed..... do	56, 676	17, 714
Whale oil, not specially provided for..... do	5, 618, 192	2, 343, 259
Total	12, 618, 160	4, 566, 567
Pearls and imitation pearls:		
Pearls and parts, not strung or set		552, 908
Imitation pearls:		
Half pearls and hollow or filled		9, 426
Solid pearls, not elsewhere specified:		
Valued at more than one-fourth cent and not more than 1 cent an inch..... inches	121, 909	840
Valued at more than 5 cents an inch..... do	5, 178	524
Iridescent solid pearls:		
Valued at not more than 10 cents per inch..... do	71, 910	278
Valued at more than 10 cents per inch..... do	1, 932	250
Total		564, 226
Shells and buttons of pearl or shell:		
Shells, unmanufactured—		
Green snail shell..... pounds	109, 456	8, 115
Mother-of-pearl..... do	3, 974, 903	909, 167
Shells, not specially provided for..... do	4, 794, 724	22, 568
Shells and mother-of-pearl, engraved, cut, ornamented, or manufactured		26, 363
Shell pearl buttons—Ocean..... gross	930, 034	325, 486
Total		1, 291, 699

Imports of fishery products entered for consumption, 1932—Continued

Item	Pounds	Value
NONEDIBLE FISHERY PRODUCTS—continued		
Sponges:		
Sheepswool.....pounds	119, 430	\$226, 489
Yellow, grass, or velvet.....do	224, 246	98, 148
Other.....do	26, 852	47, 846
Manufactures of.....do	441	150
Total.....	370, 969	372, 633
Agar-agar.....pounds	468, 999	194, 963
Ambergris.....do	13	2, 402
Cod-liver oil cake and cod-liver oil cake meal.....do	1, 147, 285	20, 834
Cuttlefish bone.....do	341, 296	31, 897
Goldfish, live.....number	1, 575, 615	12, 195
Fish for other than human consumption.....		115, 754
Fish sounds.....pounds	95, 947	11, 861
Fish scrap and fish meal.....long tons	21, 805	530, 502
Skins, fish, raw, or salted.....pounds	1, 117, 648	47, 797
Skins, seal, raw (not fur skins).....do	1, 703, 549	119, 830
Spermaceti wax.....do	80, 952	7, 093
Whalebone, unmanufactured.....do	767	991
Whalebone, manufactures of.....		1, 502
Total.....		1, 097, 621
Total nonedible fishery products.....		7, 892, 746
Grand total.....		29, 565, 731

FISHERIES OF THE NEW ENGLAND STATES

(Area XXII)³

The yield of the commercial fisheries of the New England States (Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut) during 1932, amounted to 480,520,881 pounds, valued at \$14,001,296 to the fishermen, representing a decrease of 10 percent in volume and 28 percent in value as compared with the catch in the previous year. In addition there was a production of 229,192 bushels of seed oysters, valued at \$119,785. These fisheries gave employment to 16,580 fishermen, including those in the fishery for seed oysters.

Fisheries of the New England States, 1932

SUMMARY OF CATCH

Product	Maine		New Hampshire		Massachusetts	
	Pounds	Value	Pounds	Value	Pounds	Value
Fish.....	75, 595, 283	\$941, 332	523, 891	\$13, 249	335, 222, 512	\$7, 384, 574
Shellfish, etc.....	15, 006, 585	1, 471, 948	219, 803	44, 479	12, 370, 857	1, 543, 696
Total.....	90, 601, 868	2, 413, 280	743, 694	57, 728	347, 593, 369	8, 928, 270
Product	Rhode Island		Connecticut		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
Fish.....	12, 657, 715	\$354, 958	16, 918, 844	\$489, 895	440, 918, 245	\$9, 184, 008
Shellfish, etc.....	7, 878, 476	1, 136, 442	4, 126, 915	620, 723	39, 602, 636	4, 817, 288
Total.....	20, 536, 191	1, 491, 400	21, 045, 759	1, 110, 618	480, 520, 881	14, 001, 296

³ This is the number given this area by the North American Council on Fishery Investigations. It should be explained that there are included under this area craft owned in the area but at times fishing elsewhere. Notable examples are the ground fish fishery in area XXI and the mackerel and southern trawl fisheries in areas XXIII and XXIV. It should be observed that the persons engaged, gear and craft employed, and catch of the seed oyster fishery are not included among the statistics of the fishery for market oysters and other species but are shown in separate tables in this section.

Fisheries of the New England States, 1932—Continued

OPERATING UNITS: BY STATES

Item	Maine	New Hampshire	Massachusetts	Rhode Island	Connecticut	Total
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	433		4,081	228	400	5,142
On boats and shore:						
Regular.....	3,617	62	2,612	738	258	7,287
Casual.....	1,379	23	1,805	254	582	4,043
Total.....	5,429	85	8,498	1,220	1,240	16,472
Vessels:						
Steam.....	1		14		9	24
Net tonnage.....	18		2,106		1,864	3,988
Motor.....	79		366	80	69	594
Net tonnage.....	904		14,164	951	965	16,984
Sail.....	1		1			2
Net tonnage.....	47		6			53
Total vessels.....	81		381	80	78	620
Total net tonnage.....	969		16,276	951	2,829	21,025
Boats:						
Motor.....	2,225	50	1,643	448	238	4,604
Other.....	1,364	10	1,623	483	311	3,791
Accessory boats.....	160		962	48	42	1,212
Apparatus:						
Purse seines:						
Mackerel.....	10		110	1	4	125
Length, yards.....	3,284		53,720	240	730	57,974
Other.....	49		2	3		54
Length, yards.....	8,300		260	330		8,890
Haul seines.....	29	1	18	8	28	84
Length, yards.....	3,120	45	2,960	845	3,482	10,452
Gill nets:						
Anchor.....	1,611	2	1,038		2	2,653
Square yards.....	382,605	360	395,430		2,040	780,435
Drift.....	100		8,120	130	50	8,400
Square yards.....	33,540		2,761,984	52,180	15,250	2,862,954
Runaround.....			1	6		7
Square yards.....			1,800	2,700		4,500
Stake.....					21	21
Square yards.....					2,760	2,760
Lines:						
Hand.....	3,443	90	568	348	332	4,781
Hooks.....	3,949	92	858	508	350	5,757
Trawl.....	24,600	360	54,271	1,116	841	81,188
Hooks.....	1,231,000	18,000	2,414,228	52,040	37,800	3,753,066
Pound nets.....	4		122	51	14	191
Floating traps.....	19		19	56		94
Weirs.....	226		6			232
Fyke nets.....	48		28	170	103	349
Dip nets.....	134		109	14	23	280
Bag nets.....	106					106
Push nets.....			111			111
Pocket nets.....	2					2
Otter trawls.....	33		306	76	108	523
Yards at mouth.....	857		9,013	2,079	3,331	15,280
Box traps.....	2		3			6
Pots:						
Crab.....	1,793		1,546		12	3,351
Eel.....	490		1,590	1,717	1,339	5,136
Lobster.....	205,217	4,120	73,440	42,085	16,733	341,595
Periwinkle or cockle.....			975	1,630		2,605
Harpoons.....	55	2	129	67	28	281
Spears.....	23		262	43	56	384
Dredges:						
Clam.....			67	12		79
Yards at mouth.....			36	8		44
Oyster.....			30	36	48	114
Yards at mouth.....			35	54	76	165
Scallop.....	105		3,218	624	2	3,949
Yards at mouth.....	167		2,231	521	7	2,926
Tongs.....			171	403	166	740
Rakes.....			657	45	104	806
Forks.....			925	26		951
Hoes.....	1,596		251	2	95	1,944

Fisheries of the New England States, 1932—Continued

CATCH: BY STATES

Species	Maine		New Hampshire		Massachusetts		Rhode Island		Connecticut		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH												
Alewives	2, 296, 287	\$9, 145	19, 800	\$200	1, 164, 283	\$8, 412	72, 470	\$761	19, 339	\$221	3, 572, 179	\$18, 739
Amberjack					975	39					975	39
Bluefish	1, 414	55			226, 003	16, 209	134, 275	11, 173	285, 993	24, 559	647, 685	51, 996
Bonito					33, 728	1, 633	10, 747	468	47	3	44, 522	2, 104
Butterfish	146, 568	4, 235			1, 452, 184	68, 454	646, 039	25, 980	17, 506	1, 243	2, 262, 297	99, 912
Carp									41, 430	3, 452	41, 430	3, 452
Catfish and bullheads									1, 600	32	1, 600	32
Cod	12, 105, 284	231, 660	54, 848	1, 453	71, 479, 827	1, 421, 807	722, 107	24, 433	1, 913, 545	45, 904	86, 275, 611	1, 725, 257
Croaker					468, 884	10, 427					468, 884	10, 427
Cunners							76, 000	2, 170			76, 000	2, 170
Cusk	1, 029, 147	13, 081	394	8	4, 035, 540	51, 432			107, 702	2, 303	5, 172, 783	66, 824
Drum, black					51	1					51	1
Eels	131, 455	11, 515			438, 205	16, 880	195, 749	12, 499	196, 013	15, 888	961, 422	56, 782
Flounders	866, 669	21, 905	126	5	23, 313, 097	802, 265	4, 761, 587	117, 229	8, 547, 525	187, 578	37, 489, 004	1, 128, 982
Goosefish									2, 332	23	2, 332	23
Grayfish					24, 149	345	2, 900	29			27, 049	374
Haddock	9, 798, 746	266, 018	205, 046	7, 242	136, 386, 573	3, 006, 689	257, 133	7, 761	3, 820, 864	112, 366	150, 468, 362	3, 400, 076
Hake	6, 171, 696	55, 619	202, 045	3, 109	10, 366, 864	146, 495	19, 990	249	181, 135	3, 150	16, 941, 640	208, 622
Halibut	70, 220	9, 035			2, 316, 420	244, 011			30, 005	3, 657	2, 416, 645	256, 703
Herring, sea	31, 988, 132	99, 083			5, 687, 254	50, 277	399, 066	7, 302			38, 074, 452	156, 662
Herring smelt					3, 600	169					3, 600	169
Hogfish					2, 998	37					2, 998	37
King whiting or "kingfish"	466	17			5, 991	182	488	29			6, 945	228
Lance					24, 000	480					24, 000	480
Mackerel	7, 661, 060	96, 713	2, 600	104	51, 527, 569	850, 043	777, 361	12, 873	119, 553	2, 627	60, 088, 143	962, 360
Menhaden					46, 802	467	1, 512	38	5, 320	203	53, 634	708
Minnows					125	25			5, 400	186	5, 525	211
Mummichog									4, 250	43	4, 250	43
Pollock	1, 997, 478	12, 220	29, 686	451	8, 285, 290	85, 913	42, 946	474	279, 609	4, 179	10, 635, 009	103, 237
Rosefish	1, 995	20			117, 575	1, 396			5, 159	134	124, 729	1, 550
Salmon	36, 125	8, 566									36, 125	8, 566
Scup or porgy	10, 100	52			2, 426, 516	61, 983	1, 957, 919	49, 333	63, 207	2, 530	4, 457, 742	113, 908
Sea bass					3, 419, 394	84, 026	62, 742	2, 586	124, 834	7, 985	3, 606, 970	94, 597
Sea robin					5, 050	51	81, 002	954	30, 378	241	116, 430	1, 246
Shad	107, 891	1, 699			46, 198	2, 125	7, 502	471	70, 525	8, 463	232, 116	12, 758
Sharks	60, 570	502			44, 631	331	700	7	139, 118	1, 185	245, 019	2, 025
Skates					32, 067	316	917, 089	7, 137			949, 156	7, 453
Smelt	270, 327	36, 546	1, 850	353	1, 800	252	240	36	3, 124	312	277, 341	37, 499
Spot					22, 200	222					22, 200	222
Squeteagues or "sea trout":												
Gray	318	17			57, 373	2, 432	58, 137	5, 103	16, 505	1, 828	132, 333	9, 380
Spotted					2, 328	216					2, 328	216

Fisheries of the New England States, 1932—Continued

CATCH: BY STATES—Continued

Species	Maine		New Hampshire		Massachusetts		Rhode Island		Connecticut		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH—continued												
Striped bass	537	\$68			30,926	\$5,389	6,811	\$896	3,664	\$563	41,938	\$6,916
Sturgeon	2,122	267			5,810	451	200	20			8,132	738
Suckers	43,500	1,740							94,586	4,191	138,086	5,931
Swellfish	200	2									200	2
Swordfish	579,611	56,656			3,188,168	318,085	399,110	42,259	381,461	38,390	4,548,350	485,390
Tautog					159,117	6,132	210,008	8,314	76,709	4,095	445,834	18,541
Tilefish									249,207	10,576	249,207	10,576
Tomcod	50,514	892					3,460	52	2,250	225	56,224	1,169
Tuna or "horse mackerel"	78,517	2,998	3,264	\$261	149,154	6,977	21,833	1,092	2,858	233	255,626	11,561
White perch					46,920	5,022	6,000	420	525	133	53,445	5,575
Whiting	2,486	25			6,376,948	49,389	792,215	11,563	29,399	248	7,201,048	61,225
Wolfish	85,836	970	4,232	63	1,796,840	26,720			46,042	906	1,932,950	28,659
Yellow perch	12	1			3,085	367	12,167	1,247	125	40	15,689	1,655
Total	75,595,283	941,332	523,801	13,249	335,222,512	7,384,674	12,657,715	354,958	16,918,844	489,895	440,918,245	9,184,008
SHELLFISH, ETC.												
Crabs:												
Hard	831,026	21,650			199,450	26,615	39,120	5,827	27,251	868	1,096,847	54,960
Soft									1,095	425	1,095	425
Lobsters	6,056,932	1,090,741	219,803	41,479	2,140,371	433,404	1,257,204	203,255	589,809	141,148	10,279,119	1,913,027
Shrimp					320	120					320	120
Squid	4,529	57			2,147,582	22,937	946,051	17,970	12,005	554	3,110,167	41,518
Clams:												
Cockle					50,022	5,767	187,626	10,022			237,648	15,789
Hard, public ¹	134,860	13,642			1,797,353	195,982	1,312,400	162,587	205,880	48,231	3,450,493	420,442
Hard, private ¹					8,250	1,750					8,250	1,750
Razor					403,744	17,254					403,744	17,254
Soft, public ²	7,263,625	234,297			2,802,909	226,656	13,740	1,970	64,262	9,041	10,144,536	471,964
Surf or skimmer					55,390	3,525					55,390	3,525
Mussels, sea	33,800	1,404			20,700	3,000					63,390	4,404
Oysters: ³												
Market, public, spring					5,250	1,600			24,179	3,358	29,429	4,958
Market, public, fall					1,312	300	1,300	250	11,475	1,200	14,087	1,750
Market, private, spring					118,824	43,817	951,375	176,381	1,155,078	153,086	2,225,277	373,284
Market, private, fall					154,184	49,791	3,037,801	518,744	1,925,654	253,800	5,117,639	822,335
Periwinkles	53,109	2,186			17,550	1,225			6,700	84	77,359	3,495
Scallops:												
Bay					1,405,498	362,068	131,859	39,436			1,537,357	401,504
Sea	607,780	96,239			869,634	88,555			94,527	8,928	1,571,941	193,722
Irish moss					83,500	4,175					83,500	4,175

Bloodworms.....	21,034	11,732			37,633	34,110					58,667	45,842
Sandworms.....					34,956	21,030					34,956	21,030
Turtles, loggerhead.....					1,425	15					1,425	15
Total.....	15,006,585	1,471,948	219,803	44,479	12,370,857	1,543,696	7,878,476	1,136,442	4,126,915	620,723	39,602,636	4,817,288
Grand total.....	90,601,868	2,413,280	743,694	57,728	347,593,369	8,928,270	20,536,191	1,491,400	21,045,759	1,110,618	490,520,881	14,001,296

¹ Statistics on hard clams used in this table are based on yields of 11 pounds of meats per bushel in Maine, Massachusetts, and Rhode Island and 10 pounds in Connecticut.

² Statistics on soft clams used in this table are based on yields of 15 pounds of meats per bushel in Maine; 16.09 pounds in Massachusetts; 15.61 pounds in Rhode Island; and 14 pounds in Connecticut.

³ Statistics on oysters used in this table are based on yields of 6.56 pounds of meats per bushel in Massachusetts; 6.50 pounds in Rhode Island; and 6.75 pounds in Connecticut.

NOTE.—Of the total catch in Maine 27,100 pounds of fishery products, valued at \$1,218, were taken in the southern winter trawl fishery off Maryland, Virginia, and North Carolina. Of the total catch in Massachusetts, 7,385,576 pounds of fishery products, valued at \$204,542, were taken in the same fishery, while of the total catch in Connecticut, 191,494 pounds of fishery products, valued at \$9,381, were taken in the same fishery. These products consisted principally of scup or porgy, sea bass, flounders, croaker, and gray squeteague.

Fisheries of the New England States, 1932—Continued

PRODUCTION OF CERTAIN SHELLFISH IN NUMBER AND BUSHELS

Product	Maine		Massachusetts		Rhode Island		Connecticut		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Crabs:										
Hard.....number.....	2,493,078	\$21,650	598,350	\$26,615	117,360	\$5,827	81,753	\$868	3,290,541	\$54,960
Soft.....do.....							4,380	425	4,380	425
Clams:										
Cockle.....bushels.....			2,779	5,767	10,424	10,022			13,203	15,789
Hard, public.....do.....	12,260	13,642	163,395	195,982	119,309	162,587	20,588	48,231	315,552	420,442
Hard, private.....do.....			750	1,750					750	1,750
Razor.....do.....			12,617	17,254					12,617	17,254
Soft, public.....do.....	484,242	234,297	174,202	226,656	880	1,970	4,590	9,041	663,914	471,964
Surf or skimmer.....do.....			3,077	3,525					3,077	3,525
Mussels, sea.....do.....	3,369	1,404	2,970	3,000					6,339	4,404
Oysters:										
Market, public, spring bushels.....			800	1,600			3,582	3,358	4,382	4,958
Market, public, fall bushels.....			200	300	200	250	1,700	1,200	2,100	1,750
Market, private, spring bushels.....			18,114	43,817	146,365	176,381	171,123	153,086	335,602	373,284
Market, private, fall bushels.....			23,504	49,791	467,354	518,744	285,282	253,800	776,140	822,335
Periwinkles.....do.....	2,665	2,186	975	1,225			335	84	3,965	3,495
Scallops:										
Bay.....do.....			208,222	362,068	19,535	39,436			227,757	401,504
Sea.....do.....	90,041	96,239	128,835	88,555			14,004	8,928	232,880	193,722

SEED OYSTER FISHERY

Item	Rhode Island		Connecticut		Total	
OPERATING UNITS						
Fishermen:	<i>Number</i>		<i>Number</i>		<i>Number</i>	
On vessels.....			79		79	
On boats and shore:						
Regular.....	10		6		16	
Casual.....			172		172	
Total.....	10		257		267	
Vessels:						
Steam.....			4		4	
Net tonnage.....			344		344	
Motor.....			13		13	
Net tonnage.....			140		140	
Sail.....			3		3	
Net tonnage.....			23		23	
Total vessels.....			20		20	
Total net tonnage.....			507		507	
Boats:						
Motor.....			6		6	
Other.....			112		112	
Apparatus:						
Dredges, oyster.....			97		97	
Yards at mouth.....			88		88	
Tongs.....			129		129	
Rakes.....	10		41		51	
CATCH						
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring.....			29,164	\$15,840	29,164	\$15,840
Seed, public, fall.....	1,022	\$307	42,450	19,593	43,472	19,900
Seed, private, spring.....			136,356	74,445	136,356	74,445
Seed, private, fall.....			20,200	9,600	20,200	9,600
Total.....	1,022	307	228,170	119,478	229,192	119,785

NOTE.—Of the number of persons fishing for seed oysters, 10 in Rhode Island, and 149 in Connecticut—a total of 159 are duplicated among those fishing for market oysters or other species. Similarly the following craft and gear are duplicated: 100 boats other than motor in Connecticut, 112 tongs, and all the rakes.

Fisheries of Maine, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Pots			Har- poons	Spears	Dredges, scallop	Hoes	By hand	Total, exclu- sive of dupli- cation
	Crab	Eel	Lobster						
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number	Number
On vessels.....			5	103		33			433
On boats and shore:									
Regular.....	44	5	2,572	77		105	1,113	18	3,617
Casual.....	11	19	47		23	17	507	36	1,379
Total.....	55	24	2,624	180	23	155	1,620	54	5,420
Vessels:									
Steam.....									1
Net tonnage.....									18
Motor.....			5	15		8			79
Net tonnage.....			28	312		95			904
Sail.....									1
Net tonnage.....									47
Total vessels.....			5	15		8			81
Total net ton- nage.....			28	312		95			969
Boats:									
Motor.....	25	1	1,839	40		78	173		2,225
Other.....	27	24	665		23		677		1,364
Accessory boats.....				15					160
Apparatus:									
Number.....	1,793	490	205,217	55	23	105	1,596		
Yards at mouth.....						167			

CATCH: BY GEAR

Species	Purse seines				Haul seines		Gill nets			
	Mackerel		Other				Anchor		Drift	
	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value
Alewives.....	508,527	\$2,553	13,750	\$69			78,640.	\$641	785	\$8
Bluefish.....	1,159	35								
Butterfish.....	7,112	280	15,444	459					47	3
Cod.....	145	3					4,815,374	106,059		
Cusk.....							18,156	183		
Flounders.....							15,179	229		
Haddock.....							1,540,703	31,931		
Hake.....							447,538	4,275		
Halibut.....							69	10		
Herring, sea.....	949,712	4,661	14,901,561	46,711			76,893	274		
Mackerel.....	4,223,594	52,507	477,492	6,612			764,829	12,155	120,700	5,377
Pollock.....	16,994	87	50,982	260			852,187	4,690		
Salmon.....							3,638	732		
Shad.....	72,721	772	14,590	290			2,306	182	13	1
Sharks.....	2,470	20					49,549	403	2,304	17
Smelt.....					45,011	\$4,920	30,264	4,676		
Sturgeon.....	513	40					809	91	800	136
Tomcod.....					3,714	38				
Wolfish.....							3,283	14		
Lobsters.....							162	41		
Total.....	5,782,947	60,958	15,473,819	54,401	48,725	4,958	8,699,579	166,586	124,649	5,542

Fisheries of Maine, 1932—Continued

CATCH: BY GEAR—Continued

Species	Lines				Pound nets		Floating traps		Weirs	
	Hand		Trawl		Lb.	Value	Lb.	Value	Lb.	Value
Alewives.....									557,975	\$2,068
Bluefish.....							255	\$20		
Butterfish.....					21,019	\$620	102,472	2,858		
Cod.....	2,234,500	\$29,920	4,459,169	\$86,631						
Cusk.....	12,257	70	940,787	12,034						
Eels.....			10,240	819						
Flounders.....	415	8	10,591	190					8,150	488
Haddock.....	1,212,852	26,829	5,824,061	172,815						
Hake.....	1,489,216	9,560	3,930,737	39,101						
Halibut.....	8,864	1,030	57,623	7,478						
Herring, sea.....					50,253	629	149,544	1,870	15,860,169	44,938
Mackerel.....					155,392	1,741	916,568	9,667	1,002,485	8,654
Pollock.....	690,149	4,596	330,159	2,294			56,640	290		
Rosefish.....			633	6						
Salmon.....					268	54	6,101	1,337	25,518	6,323
Shad.....					3,828	124	1,679	54	12,754	276
Sharks.....	6,000	60								
Smelt.....	108,212	15,479					3,940	411	4,337	680
Striped bass.....									537	68
Whiting.....					2,486	25				
Wolfish.....			79,818	940						
Squid.....					4,474	56				
Total.....	5,762,465	87,552	15,643,818	322,308	237,720	3,249	1,237,199	16,507	17,471,925	63,495

Species	Fyke nets		Dip nets		Bag nets		Pocket nets		Otter trawls	
	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value
Alewives.....			1,136,610	\$3,806						
Butterfish.....									474	\$15
Cod.....									596,096	9,047
Cusk.....									57,947	794
Eels.....	2,516	\$202								
Flounders.....									832,334	20,990
Haddock.....									1,221,130	34,443
Hake.....									304,205	2,683
Halibut.....									3,664	517
King whiting or "kingfish".....									466	17
Pollock.....									367	3
Rosefish.....									1,362	14
Salmon.....			600	120						
Scup or porgy.....									10,100	62
Sharks.....									247	2
Smelt.....			16,280	2,706	61,283	\$7,554	1,000	\$120		
Squeteague or "sea trout", gray.....									318	17
Suckers.....	43,500	1,740								
Swallowfish.....									200	2
Tomcod.....	26,800	804			20,000	50				
Wolfish.....									2,735	16
Yellow perch.....	12	1								
Squid.....									55	1
Total.....	72,828	2,747	1,153,490	6,632	81,283	7,604	1,000	1203	3,031,700	68,623

Species	Box traps		Pots						Harpoons			
			Crab		Eel		Lobster					
	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value		
Eels.....	9,200	\$816			67,014	\$5,369						
Swordfish.....									579,611	\$56,656		
Tuna or "horse mackerel".....									78,517	2,998		
Crabs, hard.....			614,022	\$15,139				217,004	\$6,511			
Lobsters.....			9,936	2,530				6,046,834	1,088,170			
Total.....	9,200	816	623,958	17,669	67,014	5,369	6,263,838	1,094,681	658,128	59,654		

Fisheries of Maine, 1932—Continued

CATCH: BY GEAR—Continued

Species	Spears		Dredges, scallop		Hoes		By hand	
	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value
Eels.....	42,485	\$4,309						
Clams:								
Hard, public.....					134,860	\$13,642		
Soft, public.....					7,263,625	234,297		
Mussels.....							33,690	\$1,404
Periwinkles.....							53,109	2,186
Scallops, sea.....			607,780	\$96,239				
Bloodworms.....					21,034	11,732		
Total.....	42,485	4,309	607,780	96,239	7,419,519	259,671	86,799	3,590

NEW HAMPSHIRE

Fisheries of New Hampshire, 1932¹

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets, anchor	Lines		Pots, lobster	Harpoons	Total, exclusive of duplication
			Hand	Trawl			
Fishermen:							
On boats and shore:							
Regular.....	Number	Number	Number	Number	Number	Number	Number
Casual.....	2	2	23	11	57	4	62
Total.....	2	2	23	11	57	4	85
Boats:							
Motor.....	1	1	1	8	47	2	50
Other.....	1				9		10
Apparatus:							
Number.....	1	2	90	360	4,120	2	
Length, yards.....	45						
Square yards.....		360					
Hooks.....			92	18,000			

CATCH: BY GEAR

Species	Haul seines		Gill nets, anchor		Lines				Pots, lobster		Harpoons	
	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value
Alewives.....	19,800	\$200										
Cod.....					3,800	\$162	51,048	\$1,291				
Cusk.....							394	8				
Flounders.....							126	5				
Haddock.....							205,046	7,242				
Hake.....							202,045	3,109				
Mackerel.....			2,600	\$104								
Pollock.....							29,686	451				
Smelt.....	350	53			1,500	300						
Tuna or "horse mackerel".....											3,264	\$261
Wolfish.....							4,232	63				
Lobsters.....									219,803	\$44,479		
Total.....	20,150	253	2,600	104	5,300	462	492,577	12,169	219,803	44,479	3,264	261

¹ The fisheries of New Hampshire are confined to Rockingham County.

MASSACHUSETTS

Fisheries of Massachusetts, 1932

OPERATING UNITS: BY GEAR

Item	Purse seines			Gill nets			Lines		Pound nets	Floating traps
	Mackerel	Other	Haul seines	Anchor	Drift	Runaround	Hand	Trawl		
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Fishermen:										
On vessels.....	1, 121			169	490	4	163	1, 229		
On boats and shore—										
Regular.....	59		49	8	178		224	579	184	44
Casual.....	11	6	9		8		48	4		
Total	1, 191	6	58	177	676	4	435	1, 812	184	44
Vessels:										
Motor.....	97			19	64	1	17	75		
Net tonnage.....	3, 315			362	1, 489	5	420	3, 822		
Sail.....							1			
Net tonnage.....							6			
Total vessels	97			19	64	1	18	75		
Total net tonnage	3, 315			362	1, 489	5	426	3, 822		
Boats:										
Motor.....	122	2	6	4	86		179	218	49	18
Other.....	12	4	28		70		58	70	85	26
Accessory boats.....	52			17	71	2	13	578		
Apparatus:										
Number.....	110	2	18	1, 038	8, 120	1	568	54, 271	122	19
Length, yards.....	53, 720	260	2, 960							
Square yards.....				395, 430	2, 761, 984	1, 800				
Hooks, baits, or snoods.....							858	2, 414, 226		

Item							Pots			
	Weirs	Fyke nets	Dip nets	Push nets	Otter trawls	Box traps	Crab	Eel	Lobster	Periwinkle or cockle
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Fishermen:										
On vessels.....					1, 996				6	
On boats and shore—										
Regular.....	8	13	124	23	149	3	33	41	566	20
Casual.....		8	41	88				9	398	
Total	8	21	165	111	2, 145	3	33	50	970	20
Vessels:										
Steam.....					14					
Net tonnage.....					2, 106					
Motor.....					222				3	
Net tonnage.....					8, 891				25	
Total vessels					236				3	
Total net tonnage					10, 997				25	
Boats:										
Motor.....	2		24		70		23	28	696	11
Other.....	4	10	37	70				24	282	8
Accessory boats.....					96					
Apparatus:										
Number.....	6	28	109	111	306	3	1, 546	1, 590	73, 440	975
Yards at mouth.....					9, 013					

Fisheries of Massachusetts, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Harpoons	Spears	Dredges			Tongs	Rakes	Forks	Hoes	By hand	Total, exclusive of duplication
			Clam	Oyster	Scallop						
Fishermen:	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
On vessels.....	701		18	9	89						4,081
On boats and shore—											
Regular.....	88	120	106	24	517	140	406	470	185	24	2,612
Casual.....	7	142			579	31	251	455	66	15	1,805
Total.....	796	262	124	33	1,185	171	657	925	251	39	8,498
Vessels:											
Steam.....											14
Net tonnage.....											2,106
Motor.....	91		8	3	20						366
Net tonnage.....	3,210		86	35	247						14,164
Sail.....											1
Net tonnage.....											6
Total vessels.....	91		8	3	20						381
Total net tonnage.....	3,210		86	35	247						16,276
Boats:											
Motor.....	137		59	12	648	34	49	65			1,643
Other.....	46	145			10	141	577	290	95		1,623
Accessory boats.....	133										962
Apparatus:											
Number.....	129	262	67	30	3,218	171	657	925	251		
Yards at mouth.....			36	35	2,231						

CATCH: BY GEAR

Species	Purse seines				Haul seines		Gill nets	
	Mackerel		Other		Pounds	Value	Anchor	
	Pounds	Value	Pounds	Value			Pounds	Value
Alewives.....	126,200	\$843			313,800	\$2,455	5,600	\$28
Bluefish.....					5,500	550		
Butterfish.....	5,950	296						
Cod.....	72	1					2,669,691	78,659
Cusk.....							470	3
Eels.....					100,000	2,000		
Flounders.....							840	14
Haddock.....							1,156,411	24,857
Hake.....							800,567	5,817
Halibut.....							74	6
Herring, sea.....	7,200	46			3,500	53		
Launce.....			24,000	\$480				
Mackerel.....	41,167,984	669,181			19,250	578	7,750	232
Pollock.....	440	1					961,978	6,988
Shad.....	1,340	28			22,600	1,130		
Sharks.....	1,104	11					2,132	14
Striped bass.....					15,500	2,325		
Tuna or "horse mackerel".....	2,775	128						
White perch.....					45,450	4,798		
Whiting.....	75	2						
Yellow perch.....					3,000	360		
Total.....	41,313,140	670,537	24,000	480	528,600	14,249	5,605,513	116,618

Fisheries of Massachusetts, 1932—Continued

CATCH: BY GEAR—Continued

Species	Gill nets—Continued				Lines			
	Drift		Runaround		Hand		Trawl	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	400	\$3						
Bluefish.....	21,650	2,363	20,000	\$1,600	139,100	\$8,234		
Bonito.....					200	6		
Butterfish.....	1,455	92			9,500	950	2,631	\$180
Cod.....	441,024	13,710			1,686,707	33,437	28,652,596	552,208
Cusk.....					27,255	369	3,441,296	43,238
Eels.....					10,760	646	63,175	716
Flounders.....	5,500	165			20,600	900	491,033	18,962
Grayfish.....	4,250	85						
Haddock.....	77,809	1,064			190,879	5,068	28,356,066	700,863
Hake.....	119,922	832			28,333	317	5,294,063	72,248
Hallbut.....					46,855	4,586	1,764,535	178,489
Herring, sea.....	4,200	52						
Mackerel.....	3,703,091	98,111			75,000	2,250	2,835	76
Pollock.....	63,910	678			123,846	1,313	1,570,756	14,725
Rosefish.....							11,850	232
Scup or porgy.....					264,500	6,321		
Sea bass.....			500	60	75,350	3,152		
Shad.....	35	1						
Sharks.....	330	13						
Skates.....							11,200	112
Smelt.....					1,800	252		
Striped bass.....					3,000	360		
Swordfish.....					162	34	5,455	520
Tautog.....					129,160	5,060		
White perch.....	1,200	216						
Wolfish.....					18,830	452	373,397	5,060
Total.....	4,441,836	118,285	20,500	1,660	2,860,837	73,737	70,041,788	1,587,746

Species	Pound nets		Floating traps		Weirs		Fyke nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	52,750	\$337	48,200	\$392				
Amberjack.....	975	39						
Bluefish.....	20,514	1,649	935	86	15,000	\$1,500		
Bonito.....	29,883	1,433	260	10	3,175	157		
Butterfish.....	1,041,491	48,819	226,066	8,574	27,785	1,153		
Cod.....	4,512	107	23,727	454	1,732	47		
Eels.....	15,516	777					17,200	\$1,182
Flounders.....	26,634	935						
Grayfish.....	17,834	236			1,200	14		
Hake.....			4,512	57				
Herring, sea.....	2,380,574	17,052	342,705	3,329	24,575	185		
Mackerel.....	4,173,724	51,761	1,389,245	16,807	893,745	7,328		
Menhaden.....	2,156	21	44,646	446				
Pollock.....	87,913	800	68,023	397				
Scup or porgy.....	104,742	3,239						
Sea bass.....	15,599	1,401						
Sea robin.....	5,050	51						
Shad.....	15,638	741	1,275	64				
Sharks.....	25,968	118	270	5				
Skates.....	4,497	46						
Squeteagues or "sea trout":								
Gray.....	157	16						
Spotted.....	2,328	216						
Striped bass.....	276	36	50	3	1,600	180		
Swordfish.....	228	27						
Tautog.....	29,162	1,037	480	24	175	7		
Tuna or "horse mackerel":	124,637	5,893	200	14	9,965	519		
Whiting.....	4,577,772	34,359	1,079,386	6,729	587,859	4,409		
Yellow perch.....	85	7						
Squid.....	1,978,189	20,440	48,025	829	74,965	868		
Turtles, loggerhead.....	1,425	15						
Total.....	14,740,235	191,698	3,277,945	38,220	1,641,797	16,367	17,200	1,182

Fisheries of Massachusetts, 1932—Continued

CATCH: BY GEAR—Continued

Species	Dip nets		Push nets		Otter trawls		Box traps	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	447,100	\$3,320			78,233	\$574	92,000	\$460
Bluefish					3,304	227		
Bonito					270	27		
Butterfish					137,306	8,381		
Cod					37,069,790	743,064		
Croaker					468,884	10,427		
Cusk					566,519	7,822		
Drum, black					51	1		
Eels					82,529	2,038		
Flounders					22,768,490	781,289		
Grayfish					865	10		
Haddock					106,596,348	2,273,937		
Hake					4,118,537	67,194		
Halibut					504,956	60,930		
Herring, sea	2,870,000	29,150			54,500	410		
Herring smelt					3,600	169		
Hogfish					2,998	37		
King whiting or "kingfish"					5,991	182		
Mackerel	67,500	1,800			27,445	1,919		
Minnnows	125	25						
Pollock					5,408,424	61,011		
Rosefish					105,725	1,164		
Scup or porry					2,057,274	52,423		
Sea bass					3,327,945	79,413		
Shad					5,310	161		
Sharks					12,907	138		
Skates					16,070	146		
Spot					22,200	222		
Squeteagues or "sea trout", gray					57,216	2,416		
Striped bass	10,500	2,485						
Sturgeon					5,810	451		
Swordfish					1,212	110		
Tautog					140	4		
Tuna or "horse mackerel"					10,650	312		
White perch					270	8		
Whiting					131,865	3,890		
Wolfish					1,404,613	21,199		
Shrimp	320	120						
Scallops, bay			66,528	\$16,587				
Squid					46,373	800		
Total	3,395,545	36,900	66,528	16,587	186,034,620	4,183,436	92,000	460

Species	Pots							
	Crab		Eel		Lobster		Periwinkle or cockle	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Eels			88,075	\$4,980				
Crabs, hard	134,837	\$18,069			64,613	\$8,546		
Lobsters					2,146,371	\$33,404		
Clams, cockle							46,062	\$5,382
Periwinkles							17,550	1,225
Total	134,837	18,069	88,075	4,980	2,210,984	441,950	63,612	6,607

Species	Harpoons		Spears		Dredges			
					Clam		Oyster	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Eels			60,950	\$3,641				
Sharks	1,920	\$32						
Skates	300	12						
Swordfish	3,181,111	347,385						
Tuna or "horse mackerel"	927	111						
Clams:								
Hard, public					533,185	\$55,219		
Surf or skimmer					2,250	250		
Mussels, sea					29,700	3,000		
Oysters:								
Market, private, spring							69,285	\$24,188
Market, private, fall							68,511	19,446
Total	3,184,258	347,540	60,950	3,641	565,135	58,469	137,796	43,634

Fisheries of Massachusetts, 1932—Continued

CATCH: BY GEAR—Continued

Species	Dredges—Continued		Tongs		Rakes	
	Scallop					
	Pounds	Value	Pounds	Value	Pounds	Value
Clams:						
Hard, public.....			363, 501	\$40, 240	900, 667	\$100, 523
Hard, private.....			8, 250	1, 750		
Surf or skimmer.....	1, 800	\$100				
Oysters:						
Market, public, spring.....			5, 250	1, 600		
Market, public, fall.....			1, 312	300		
Market, private, spring.....			49, 539	19, 629		
Market, private, fall.....			85, 673	30, 345		
Scallops:						
Bay.....	1, 324, 570	341, 506			4, 500	1, 500
Sea.....	869, 634	88, 555				
Irish moss.....					83, 500	4, 175
Total.....	2, 196, 004	430, 161	513, 525	93, 864	988, 667	106, 198

Species	Forks		Hoes		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value
Clams:						
Cockle.....					3, 960	\$385
Razor.....	59, 200	\$1, 850	344, 544	\$15, 404		
Soft, public.....	2, 590, 084	207, 426	212, 825	19, 230		
Surf or skimmer.....	40, 800	2, 400			10, 540	775
Scallops, bay.....					9, 900	2, 475
Bloodworms.....	37, 633	34, 110				
Sandworms.....	34, 956	21, 030				
Total.....	2, 762, 673	266, 816	557, 369	34, 634	24, 400	3, 635

RHODE ISLAND

Fisheries of Rhode Island, 1932

OPERATING UNITS: BY GEAR

Item	Purse seines		Haul seines	Gill nets		Lines		Pound nets	Floating traps
	Mack-erel	Other		Drift	Run-around	Hand	Trawl		
	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:									
On vessels.....	3			8		39	10		
On boats and shore:									
Regular.....		15	15	8	12	162	31	43	144
Casual.....			4			7			
Total.....	3	15	19	16	12	208	41	43	144
Vessels:									
Motor.....	1			3		19	4		
Net tonnage.....	7			30		134	26		
Boats:									
Motor.....		3		4	3	105	18	15	24
Other.....		6	10	4	5	20	2	35	56
Accessory boats.....				2		4			
Apparatus:									
Number.....	1	3	8	130	6	348	1, 116	51	56
Length, yards.....	240	330	845						
Square yards.....				52, 180	2, 700				
Hooks, baits, or snoods.....						508	52, 040		

Fisheries of Rhode Island, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Fyke nets	Dip nets	Otter trawls	Pots			Harpoons	Spears
				Eel	Lobster	Periwinkle or cockle		
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number
On vessels.....			109		32		97	
On boats and shore:								
Regular.....	13	14	58	30	296	27	53	21
Casual.....	1			6	42	1		22
Total.....	14	14	167	36	370	28	150	43
Vessels:								
Motor.....			43		15		33	
Net tonnage.....			383		103		267	
Boats:								
Motor.....	10	12	33	26	253	25	30	
Other.....	2			8	38		30	3
Accessory boats.....			7				35	
Apparatus:								
Number.....	170	14	76	1,717	42,085	1,630	67	43
Yards at mouth.....			2,079					

Item	Dredges			Tongs	Rakes	Forks	Hoes	Total, exclusive of duplication
	Clam	Oyster	Scallop					
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number
On vessels.....	5	69						228
On boats and shore:								
Regular.....	26		152	248	35	10	1	738
Casual.....			22	158	9	16	1	254
Total.....	31	69	174	406	44	26	2	1,220
Vessels:								
Motor.....	2	18						80
Net tonnage.....	18	425						951
Boats:								
Motor.....	10		132	97	8			448
Other.....				310	34		2	483
Accessory boats.....								48
Apparatus:								
Number.....	12	36	624	403	45	26	2	
Yards at mouth.....	8	54	521					

CATCH: BY GEAR

Species	Purse seines				Haul seines		Gill nets	
	Mackerel		Other		Pounds	Value	Drift	
	Pounds	Value	Pounds	Value			Pounds	Value
Bluefish.....					6,500	\$715	13,750	\$1,180
Eels.....					19,800	1,353		
Herring, sea.....			105,000	\$1,400	20,000	200		
Mackerel.....	45,000	\$675					38,000	710
Squeteagues or "sea trout", gray.....					3,500	350		
Striped bass.....					800	144		
Tautog.....					1,500	75		
Total.....	45,000	675	105,000	1,400	52,100	2,837	51,750	1,890

Fisheries of Rhode Island, 1932—Continued

CATCH: BY GEAR—Continued

Species	Gill nets—Con.		Lines				Pound nets	
	Runaround		Hand		Trawl			
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....							25,710	\$327
Bluefish.....	24,000	\$2,450	26,500	\$2,695			6,000	500
Butterfish.....							154,383	6,279
Cod.....			461,411	14,978	151,855	\$6,594	1,100	30
Eels.....			12,950	906			41,718	2,571
Flounders.....					1,600	72	29,488	1,612
Grayfish.....							500	5
Haddock.....			6,930	252	129,354	4,669		
Hake.....			4,440	44	1,200	28		
Herring, sea.....							113,506	1,512
Mackerel.....			5,600	168			99,077	2,180
Menhaden.....							100	5
Pollock.....			11,220	130				
Scup or porgy.....							8,500	255
Sea bass.....			200	12				
Sea robin.....							2,000	20
Shad.....							3,655	316
Sharks.....							500	5
Skates.....			2,500	25	3,500	43		
Smelt.....							240	36
Squeteagues or "sea trout", gray.....			500	40			20,612	2,009
Striped bass.....							4,436	569
Tautog.....			103,700	4,138			55,868	2,468
Tomcod.....							3,460	52
Tuna or "horse mackerel".....			19,800	990				
White perch.....							4,500	360
Whiting.....							51,274	634
Yellow perch.....							12,467	1,247
Squid.....							138,476	2,148
Total.....	24,500	2,450	655,751	24,378	287,509	11,406	777,620	25,140

Species	Floating traps		Fyke nets		Dip nets		Otter trawls	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	46,760	\$434						
Bluefish.....	57,025	3,633						
Bonito.....	10,747	468						
Butterfish.....	491,656	19,701						
Cod.....	41,946	1,145					65,795	\$1,686
Cunners.....	1,000	20			75,000	\$2,150		
Eels.....	571	28	13,000	\$860			9,000	540
Flounders.....	336,549	10,229	36,600	1,312			4,357,350	104,004
Grayfish.....	2,400	24						
Haddock.....	1,189	32					119,660	2,808
Hake.....	14,260	177						
Herring, sea.....	115,335	1,400					45,225	2,790
King whiting or "kingfish".....	488	29						
Mackerel.....	589,684	9,140						
Menhaden.....	1,412	33						
Pollock.....	30,626	324					1,100	20
Scup or porgy.....	1,949,419	49,078						
Sea bass.....	62,542	2,574						
Sea robin.....	79,002	934						
Shad.....	3,847	155						
Sharks.....	200	2						
Skates.....	8,229	82					902,860	6,987
Squeteagues or "sea trout", gray.....	33,525	2,704						
Striped bass.....	1,525	183						
Sturgeon.....	200	20						
Tautog.....	36,240	1,315	12,700	318				
Tuna or "horse mackerel".....	2,033	102						
White perch.....	1,500	60						
Whiting.....	536,366	5,358					204,575	5,571
Squid.....	806,375	15,786					1,200	36
Total.....	5,262,651	125,170	62,300	2,490	75,000	2,150	5,706,765	124,442

Fisheries of Rhode Island, 1932—Continued

CATCH: BY GEAR—Continued

Species	Pots						Harpoons	
	Eel		Lobster		Periwinkle or cockle			
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Eels.....	81, 150	\$5, 071					399, 110	\$42, 259
Swordfish.....								
Crabs, hard.....			39, 120	\$5, 827				
Lobsters.....			1, 257, 204	203, 255				
Clams, cockle.....			33, 300	1, 715	154, 326	\$8, 307		
Total.....	81, 150	5, 071	1, 329, 624	210, 797	154, 326	8, 307	399, 110	42, 259

Species	Spears		Dredges					
			Clams		Oyster		Scallop	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Eels.....	17, 560	\$1, 170						
Clams, hard, public.....			322, 400	\$38, 858				
Oysters:								
Market, private, spring.....					951, 375	\$176, 381		
Market, private, fall.....					3, 036, 501	518, 494		
Scallops, bay.....							131, 859	\$39, 436
Total.....	17, 560	1, 170	322, 400	38, 858	3, 987, 876	694, 875	131, 859	39, 436

Species	Tongs		Rakes		Forks		Hoes	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Clams:								
Hard, public.....	892, 925	\$111, 339	97, 075	\$12, 390				
Soft, public.....					11, 020	\$1, 690	2, 720	\$280
Oysters:								
Market, public, fall.....	1, 300	250						
Market, private, fall.....	1, 300	250						
Total.....	895, 525	111, 839	97, 075	12, 390	11, 020	1, 690	2, 720	280

SEED OYSTER FISHERY: BY GEAR

Operating units		Rakes
Fishermen, on boats and shore:		Number
Regular.....		10
Apparatus:		
Number.....		10
Catch		Bushels
Oysters, seed, public, fall.....		1, 022
		Value
		\$307

NOTE.—Of the persons and gear employed in the seed oyster fishery all are duplicated among those in the market oyster fishery or fisheries for other species.

CONNECTICUT

Fisheries of Connecticut, 1932

OPERATING UNITS: BY GEAR

Item	Purse seines, mackerel	Haul seines	Gill nets			Lines		Pound nets
			Anchor	Drift	Stake	Hand	Trawl	
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number
On vessels	7					31	28	
On boats and shore:								
Regular	6	5	2	1		114	7	17
Casual		104		69	10	33		
Total	13	109	2	70	10	178	35	17
Motor	2					9	2	
Net tonnage	21					118	71	
Boats:								
Motor	2	1	2	37		93	3	9
Other	2	34		10	8		1	5
Accessory boats						5	19	
Apparatus:								
Number	4	28	2	50	21	332	841	14
Length, yards	730	3,482						
Square yards			2,040	15,250	2,760			
Hooks, baits, or snoods						350	37,800	

Item	Fyke nets	Dip nets	Otter trawls	Pots			Harpoons
				Crab	Eel	Lobster	
Fishermen:	Number	Number	Number	Number	Number	Number	Number
On vessels			216			8	73
On boats and shore:							
Regular	1	2	107		6	170	17
Casual	24	21		1	45	25	6
Total	25	23	323	1	51	203	96
Vessels:							
Steam			5				
Net tonnage			963				
Motor			45			4	18
Net tonnage			548			30	272
Total vessels			50			4	18
Total net tonnage			1,511			30	272
Boats:							
Motor			58		1	151	10
Other	16	16		1	49	17	3
Accessory boats			1				17
Apparatus:							
Number	103	23	108	12	1,339	16,773	28
Yards at mouth			3,331				

Item	Spears	Dredges		Tongs	Rakes	Hoes	Total, exclusive of duplication
		Oyster	Scallop				
Fishermen:	Number	Number	Number	Number	Number	Number	Number
On vessels		130	8				400
On boats and shore:							
Regular	6			13	4	11	258
Casual	50			153	100	84	582
Total	56	130	8	166	104	95	1,240
Vessels:							
Steam		4					9
Net tonnage		901					1,864
Motor		17	1				69
Net tonnage		300	55				965
Total vessels		21	1				78
Total net tonnage		1,201	55				2,829
Boats:							
Motor				2		2	238
Other	39			110	37	49	311
Accessory boats							42
Apparatus:							
Number	56	48	2	166	104	95	
Yards at mouth		76	7				

Fisheries of Connecticut, 1932—Continued

CATCH: BY GEAR

Species	Purse seines, mackerel		Haul seines		Gill nets					
	Pounds	Value	Pounds	Value	Anchor		Drift		Stake	
					Pounds	Value	Pounds	Value	Pounds	Value
Alewives			9,500	\$95						
Bluefish					2,000	\$260				
Carp			25,658	2,160					10,272	\$767
Mackerel	115,020	\$2,260								
Minnnows			4,900	161						
Mummichog			4,250	43						
Shad			29,652	2,940			40,180	\$5,454		
Smelt			3,124	312						
Squeteagues, or "sea trout", gray					848	77				
Striped bass					1,500	300				
Suckers			60,235	2,526						
Tomcod			626	63						
Total	115,020	2,260	137,945	8,300	4,348	637	40,180	5,454	10,272	767

Species	Lines				Pound nets		Fyke nets	
	Hand		Trawl		Pounds	Value	Pounds	Value
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives					1,876	\$28	7,963	\$98
Bluefish	274,556	\$23,436			9,179	846		
Bonito	47	3						
Butterfish					15,406	1,138		
Carp							5,500	525
Catfish and bullheads							1,600	32
Cod	61,273	1,180	369,968	\$6,698				
Cusk			13,408	150				
Eels			3,979	205	1,949	237	7,942	759
Flounders					13,585	1,062		
Haddock			454,887	8,215				
Hake			67,260	507				
Halibut			8,000	300				
Mackerel					4,533	367		
Menhaden					5,320	203		
Pollock	12,600	504	33,407	150				
Scup or porgy					200	40		
Sea bass	24,196	1,734						
Sharks			230	2	1,750	13		
Squeteagues, or "sea trout", gray	537	56			14,260	1,623	500	50
Striped bass	1,200	120			964	143		
Suckers							34,351	1,665
Tautog	49,630	2,793			4,228	235		
Tilefish			249,207	10,576				
Tuna or "horse mackerel"	58	2						
White perch							525	133
Yellow perch							125	40
Squid					8,865	521		
Total	424,097	29,828	1,200,346	26,803	82,115	6,456	58,506	3,302

Fisheries of Connecticut—Continued

CATCH: BY GEAR—Continued

Species	Dip nets		Otter trawls		Pots			
	Pounds	Value	Pounds	Value	Crab		Eel	
Bluefish			258	\$17				
Butterfish			2,100	105				
Cod			1,482,304	38,026				
Cusk			94,294	2,153				
Eels			660	14			92,367	\$8,700
Flounders			8,533,940	186,516				
Goosefish			2,332	23				
Haddock			3,365,977	104,151				
Hake			113,875	2,643				
Halibut			22,005	3,357				
Minnnows	500	\$25						
Pollock			233,602	3,525				
Rosefish			5,159	134				
Scup or porgy			63,007	2,490				
Sea bass			100,638	6,251				
Sea robin			30,378	241				
Shad	693	69						
Sharks			137,138	1,170				
Squeteagues, or "sea trout", gray			360	22				
Tautog			14,319	470				
Tomcod							1,624	162
Whiting			29,399	248				
Wolfish			46,042	906				
Crabs:								
Hard	8,181	482			428	\$13		
Soft	1,095	425						
Lobsters			85	17				
Squid			3,140	33				
Total	10,469	1,001	14,281,012	352,512	428	13	93,991	8,862

Species	Pots—Con.		Harpoons		Spears		Dredges			
	Lobster		Pounds	Value	Pounds	Value	Oyster		Scallop	
Eels					89,116	\$5,973				
Swordfish			381,461	\$38,390						
Tautog	8,532	\$597								
Tuna or "horse mackerel"			2,800	231						
Crabs, hard	18,642	373								
Lobsters	598,724	141,131								
Oysters:										
Market, private, spring							1,149,678	\$151,961		
Market, private, fall							1,917,554	252,300		
Periwinkles	6,700	84							94,527	\$8,928
Scallops, sea										
Total	632,598	142,185	384,261	38,621	89,116	5,973	3,067,232	404,261	94,527	8,928

Species	Tongs		Rakes		Hoes	
	Pounds	Value	Pounds	Value	Pounds	Value
Clams:						
Hard, public	93,030	\$20,106	98,760	\$25,098	14,090	\$3,027
Soft, public					64,262	9,041
Oysters:						
Market, public, spring	23,166	3,058	1,013	300		
Market, public, fall	11,475	1,200				
Market, private, spring	5,400	1,125				
Market, private, fall	8,100	1,500				
Total	141,171	26,989	99,773	25,398	78,352	12,068

Fisheries of Connecticut—Continued

SEED OYSTER FISHERY: BY GEAR

Item	Oyster dredges		Tongs		Rakes		Total, exclusive of duplication	
OPERATING UNITS								
Fishermen:	<i>Number</i>		<i>Number</i>		<i>Number</i>		<i>Number</i>	
On vessels.....	79						79	
On boats and shore:								
Regular.....			6				6	
Casual.....	12		123		41		172	
Total.....	91		129		41		257	
Vessels:								
Steam.....	4						4	
Net tonnage.....	344						344	
Motor.....	13						13	
Net tonnage.....	140						140	
Sail.....	3						3	
Net tonnage.....	23						23	
Total vessels.....	20						20	
Total net tonnage.....	507						507	
Boats:								
Motor.....	6						6	
Other.....			93		19		112	
Apparatus:								
Number.....	97		129		41		267	
Length, yards.....	88						88	
CATCH								
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring.....	23, 104	\$12, 507	4, 260	\$2, 343	1, 800	\$990	29, 164	\$15, 840
Seed, public, fall.....	19, 316	8, 985	20, 989	9, 535	2, 145	1, 073	42, 450	19, 593
Seed, private, spring.....	135, 256	73, 840	1, 100	605			136, 356	74, 445
Seed, private, fall.....	19, 000	9, 000	1, 200	600			20, 200	9, 600
Total.....	196, 676	104, 332	27, 549	13, 083	3, 945	2, 063	228, 170	119, 478

NOTE.—Of the number of persons fishing for seed oysters none in the dredge fishery, 108 in the fishery by tongs, and all in the fishery by rakes are duplicated among those fishing in the market oyster fishery or in fisheries for other species. Similarly, none of the vessels, none of the motor boats or dredges was duplicated in the dredge fishery; 81 of the other boats, and 112 tongs were duplicated in the fishery by tongs; and all other boats and rakes were duplicated in the fishery by rakes.

VESSEL FISHERIES AT THE PRINCIPAL NEW ENGLAND PORTS

ECONOMIC ASPECT

The landings of fishery products at the 3 principal New England ports (Boston and Gloucester, Mass., and Portland, Maine), by vessels of 5 net tons and over, during 1932, amounted to 252,334,325 pounds as landed, valued at \$6,083,851. This is a decrease of 4 percent in the quantity of the catch as compared with 1931, and a decrease of 34 percent in the value of the catch. Of the total landings 99 percent consisted of fresh fish and 1 percent, salted fish. The landings at Boston accounted for 215,618,979 pounds, valued at \$5,366,925 or 85 percent of the total quantity. The landings at Gloucester in 1932 amounted to 25,328,213 pounds, valued at \$434,076 or 10 percent of the total quantity. Landings at Portland amounted to 11,387,133 pounds, valued at \$282,850, or 5 percent of the total landings.

Among the landings of fresh fish, haddock outranked other species in volume landed, the amount of all sizes in 1932 being 120,116,874 pounds or 48 percent of the total fresh fish.

Landings by fishing vessels at principal New England ports, 1932

BOSTON: BY MONTHS

Species	January		February		March		April	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:								
Large.....	1,812,800	\$53,097	2,397,825	\$90,181	3,352,945	\$105,495	2,467,689	\$36,395
Market.....	1,063,185	48,450	1,419,820	43,138	2,212,555	54,627	1,900,153	20,345
Scrod.....	40,960	775	17,940	359	28,075	396		
Cod, salted: Large.....							3,700	92
Haddock, fresh:								
Large.....	5,885,565	238,511	9,165,780	335,958	9,563,825	294,547	11,676,315	187,317
Scrod.....	2,101,119	47,701	3,209,090	78,035	2,051,440	48,627	1,223,170	12,289
Hake, fresh:								
Large.....	616,150	14,435	638,230	21,525	398,261	14,206	212,400	3,603
Small.....	800	11			800	32	1,000	40
Pollock, fresh.....	752,300	7,668	588,445	14,529	479,785	13,867	663,290	4,673
Pollock, salted.....							7,300	73
Cusk, fresh.....	500,070	8,519	263,160	6,717	124,670	3,173	157,970	1,646
Halibut, fresh.....	65,982	12,657	158,183	27,369	138,390	17,375	263,210	31,184
Mackerel, fresh.....					120	10		
Flounders, fresh.....	708,113	37,507	595,766	37,063	521,847	30,551	559,325	16,919
Other, fresh.....	174,382	3,533	231,565	5,490	348,140	9,487	428,105	6,431
Total, fresh.....	14,621,426	472,864	18,685,804	660,364	19,220,853	592,393	19,552,627	320,842
Total, salted.....							11,000	165
Grand total.....	14,621,426	472,864	18,685,804	660,364	19,220,853	592,393	19,563,627	321,007
Landed in 1931: Fresh.....	16,449,890	688,271	19,180,475	793,063	25,772,140	887,774	19,606,998	438,496

Species	May		June		July	
	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:						
Large.....	1,786,817	\$33,189	1,318,563	\$38,122	1,701,640	\$30,411
Market.....	1,853,664	21,473	1,537,119	23,951	3,203,475	31,765
Scrod.....	200	2	100	1		
Cod, salted:						
Large.....	10,000	300	16,000	493	700	14
Market.....			8,000	248	450	11
Haddock, fresh:						
Large.....	7,767,205	157,897	5,962,335	149,591	6,555,835	126,379
Scrod.....	2,437,390	20,414	2,539,610	21,084	1,994,270	15,968
Hake, fresh:						
Large.....	172,825	2,903	195,955	2,051	132,760	1,048
Small.....	4,500	92	1,500	15	6,400	44
Pollock, fresh.....	276,047	3,024	170,340	2,148	214,180	1,965
Cusk, fresh.....	283,520	2,339	176,665	1,371	90,655	825
Halibut, fresh.....	382,242	34,102	255,333	28,985	252,975	25,684
Mackerel, fresh.....	3,885,771	98,252	4,056,140	94,441	3,247,779	47,373
Flounders, fresh.....	660,535	12,281	492,755	10,226	240,365	8,987
Swordfish, fresh.....			194,940	44,899	633,403	96,309
Herring, fresh.....			4,000	30		
Other, fresh.....	262,471	3,198	140,922	1,834	79,405	1,557
Total, fresh.....	19,773,187	389,166	17,046,277	418,749	18,353,142	388,315
Total, salted.....	10,000	300	24,000	741	1,150	25
Grand total.....	19,783,187	389,466	17,070,277	419,490	18,354,292	388,340
Landed in 1931:						
Fresh.....	18,028,617	514,462	18,675,995	664,482	19,650,407	720,438
Salted.....	8,290	269				
Total.....	18,036,907	514,731	18,675,995	664,482	19,650,407	720,438

NOTE.—The weights of fresh and salted fish given in these statistics represent the fish as landed from the vessels, and the values are those received by the fishermen. Large cod are classified as those weighing over 10 pounds; market cod, 2½ to 10 pounds; and scrod cod, 1 to 2½ pounds. Large haddock are those weighing 2½ pounds and scrod haddock, 1 to 2½ pounds. Large hake are those weighing over 6 pounds and small hake, under 6 pounds. Only landings by vessels having a capacity of 5 net tons or greater are used in this tabulation.

Landings by fishing vessels at principal New England ports, 1932—Continued

BOSTON: BY MONTHS—Continued

Species	August		September		October		November	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:								
Large.....	1,583,130	\$31,045	1,052,973	\$33,336	1,347,785	\$39,668	1,233,342	\$47,623
Market.....	3,701,215	29,933	2,400,685	35,860	2,713,595	44,465	2,351,665	58,195
Scrod.....	1,000	5	160	2	1,000	10	900	9
Cod, salted:								
Large.....	630	19			15,000	510	1,785	90
Market.....	16,550	166					7,360	162
Haddock, fresh:								
Large.....	6,777,285	136,632	7,546,640	160,329	6,444,020	171,031	4,880,995	196,513
Scrod.....	2,772,740	19,141	3,919,780	31,009	2,918,710	35,460	1,504,445	39,819
Hake, fresh:								
Large.....	418,985	2,825	373,150	4,750	758,455	7,085	826,535	15,616
Small.....					500	5	3,500	79
Pollock, fresh.....	317,025	2,539	246,271	2,847	466,145	3,429	711,230	6,373
Cusk, fresh.....	28,695	358	82,445	1,094	167,085	2,326	333,115	5,315
Halibut, fresh.....	304,238	26,808	141,756	15,699	73,233	8,577	22,497	4,918
Mackerel, fresh.....	3,433,666	53,264	4,016,830	54,572	4,895,298	56,576	1,338,690	39,387
Flounders, fresh.....	353,665	12,012	407,970	20,543	592,940	21,024	902,075	35,706
Swordfish, fresh.....	1,077,157	113,544	344,447	58,198	7,575	2,142		
Herring, fresh.....	3,000	45						
Other, fresh.....	58,980	2,445	40,054	2,185	74,848	3,640	67,046	3,374
Total, fresh.....	20,830,781	430,596	20,573,161	420,414	20,461,179	396,038	14,176,025	452,927
Total, salted.....	17,180	185			15,000	510	9,145	252
Grand total.....	20,847,961	430,781	20,573,161	420,414	20,476,179	396,548	14,185,170	453,179
Landed in 1931:								
Fresh.....	19,054,222	787,485	18,084,618	745,525	16,498,909	670,316	16,315,902	535,637
Salted.....			7,400	291				
Total.....	19,054,222	787,485	18,092,018	745,816	16,498,909	670,316	16,315,902	535,637

Species	December		Total, 1932		1931	
	Pounds	Value	Pounds	Value	Pounds	Value
Cod fresh:						
Large.....	1,389,665	\$48,144	21,445,174	\$586,706	23,932,629	\$794,081
Market.....	1,660,515	41,833	26,917,646	454,035	25,730,600	620,059
Scrod.....	10,680	178	101,015	1,737	244,345	3,882
Cod, salted:						
Large.....			47,815	1,518	12,690	440
Market.....			32,360	587		
Haddock, fresh:						
Large.....	4,858,175	213,442	87,083,975	2,368,147	106,028,345	3,819,572
Scrod.....	977,990	29,805	27,649,754	399,352	14,258,395	261,610
Hake, fresh:						
Large.....	903,795	20,529	5,647,501	111,176	5,860,915	142,802
Small.....			19,000	318	43,420	1,144
Hake, salted:						
Small.....	4,000	80	4,000	80		
Pollock, fresh.....	890,385	7,540	5,775,443	70,602	5,027,987	83,717
Pollock, salted.....			7,300	73		
Cusk, fresh.....	284,545	4,514	2,492,595	38,187	3,447,091	68,290
Halibut, fresh.....	26,137	5,818	2,084,176	239,176	2,309,826	341,734
Mackerel, fresh.....	400,200	16,339	25,274,474	460,214	19,855,052	889,633
Mackerel, salted.....					3,000	120
Flounders, fresh.....	761,448	31,860	6,796,804	274,679	9,493,487	420,205
Swordfish, fresh.....			2,257,522	315,092	1,526,342	399,629
Herring, fresh.....	500	15	7,500	90	5,700	142
Other, fresh.....	69,007	1,982	1,974,925	45,156	2,165,179	59,434
Total, fresh.....	12,233,042	421,999	215,527,504	5,364,667	219,929,313	7,905,934
Total, salted.....	4,000	80	91,475	2,258	15,690	560
Grand total.....	12,237,042	422,079	215,618,979	5,366,925	219,945,003	7,906,494
Landed in 1931:						
Fresh.....	12,611,140	459,985			219,929,313	7,905,934
Salted.....					15,690	560
Total.....	12,611,140	459,985			219,945,003	7,906,494

Landings by fishing vessels at principal New England ports, 1932—Continued

GLOUCESTER: BY MONTHS

Species	January		February		March		April	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:								
Large	145,780	\$5,881	298,820	\$15,391	355,960	\$10,571	936,850	\$16,624
Market	4,615	113	2,480	71	25,730	281	252,155	2,522
Scrod	295	4	115	1			50	
Haddock, fresh:								
Large	53,575	2,393	83,700	3,454	326,620	8,900	872,655	17,280
Scrod	9,960	170	4,190	60	1,470	30	2,840	15
Hake, fresh:								
Large	31,380	473	20,680	376	15,016	261	1,940	14
Pollock, fresh	6,715	83	240	4	6,145	42	34,900	228
Cusk, fresh	150	3	180	3	1,895	20	8,105	59
Halibut, fresh	89	21	10	2	19	3		
Flounders, fresh	97,375	4,344	39,995	1,906	35,930	1,992	16,075	343
Other, fresh	6,445	35	7,270	52	4,280	26	490	3
Total, fresh	356,379	13,520	457,680	21,320	773,065	22,126	2,126,060	37,088
Landed in 1931:								
Fresh	867,918	30,642	586,930	27,504	1,431,771	41,486	3,259,315	71,660
Salted	1,441,368	51,915					117,481	4,422
Total	2,309,286	82,557	586,930	27,504	1,431,771	41,486	3,376,796	76,082

Species	May		June		July	
	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:						
Large	987,780	\$17,424	431,685	\$9,475	342,210	\$6,012
Market	398,760	3,738	106,915	1,072	399,910	3,999
Scrod	40				340	2
Cod, salted:						
Large	111,445	3,095	104,200	3,127	144,240	4,798
Market	8,645	155	13,010	262	131,264	3,248
Scrod					25,400	381
Haddock, fresh:						
Large	260,605	4,802	80,682	1,056	187,780	1,894
Scrod	7,750	59	13,000	103	111,015	833
Hake, fresh:						
Large	11,400	65	37,175	279	47,220	395
Hake, salted:						
Large	470	5				
Pollock, fresh	19,430	126	4,130	28	34,940	218
Pollock, salted			95	1	1,200	12
Cusk, fresh	21,840	129	93,185	690	39,555	305
Cusk, salted	120	2	260	3	1,200	15
Halibut, salted			505	36		
Mackerel, fresh	279,955	4,341	754,315	12,043	1,328,100	13,710
Flounders, fresh	8,780	205	21,730	570	53,300	1,219
Swordfish, fresh					3,283	382
Herring, fresh	19,000	190			2,000	20
Herring, salted	134,800	5,055				
Other, fresh	150	2	3,488	75	1,175	30
Total, fresh	2,015,490	31,081	1,546,305	25,391	2,550,828	29,019
Total, salted	255,480	8,312	118,070	3,429	303,304	8,454
Grand total	2,270,970	39,393	1,664,375	28,820	2,854,132	37,473
Landed in 1931:						
Fresh	2,149,496	52,449	1,109,150	34,163	1,844,862	52,817
Salted	263,360	9,037	148,160	5,063	122,725	4,073
Total	2,412,856	61,486	1,257,310	39,226	1,967,587	56,890

Landings by fishing vessels at principal New England ports, 1932—Continued

GLOUCESTER: BY MONTHS—Continued

Species	August		September		October		November	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:								
Large	413,805	\$6,214	369,756	\$15,658	467,190	\$16,925	73,635	\$3,352
Market	512,680	5,123	57,565	577	44,795	452	2,135	40
Scrod	1,480	8			135	3	10	
Cod, salted:								
Large	82,560	2,564	148,250	4,532	69,570	2,126		
Market	7,075	151	91,480	1,833	164,065	4,156		
Scrod			85,665	857	10,900	109		
Haddock, fresh:								
Large	143,790	1,456	85,780	1,469	58,795	1,576	26,285	1,087
Scrod	41,895	316	18,440	92	6,170	51	200	4
Hake, fresh:								
Large	26,225	155	125,595	1,458	581,195	3,122	74,405	1,418
Hake, salted:								
Large	575	9						
Pollock, fresh	45,855	298	75,845	1,237	314,320	1,839	476,385	3,987
Cusk, fresh	59,312	407	5,110	33	6,450	43	670	6
Cusk, salted	2,420	37						
Halibut, fresh	29,472	2,432	105,348	5,982	11,385	1,594	15,984	1,752
Halibut, salted	245	17	90	6				
Mackerel, fresh	2,027,235	20,591	3,090,597	29,606	2,644,180	18,219	486,838	21,880
Mackerel, salted	5,050	180	7,075	93	11,100	423		
Flounders, fresh	19,750	693	425	19	23,165	553	30,355	1,025
Swordfish, fresh	3,072	277	677	130				
Other, fresh	142,500	1,074	52,100	359	3,990	270	3,890	62
Total, fresh	3,467,071	39,647	3,984,238	56,620	4,161,740	44,647	1,190,792	34,613
Total, salted	97,925	2,958	332,560	7,321	255,655	6,814		
Grand total	3,564,996	42,605	4,316,798	63,941	4,417,395	51,461	1,190,792	34,613
Landed in 1931:								
Fresh	3,452,270	101,021	2,996,267	94,280	1,274,255	49,638	1,737,836	64,106
Salted	537,939	17,356	69,505	2,448	41,390	1,398		
Total	3,990,209	118,377	3,065,772	96,728	1,315,645	51,036	1,737,836	64,106

Species	December		Total, 1932		1931	
	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:						
Large	62,720	\$2,743	4,883,161	\$126,270	4,670,912	\$151,511
Market	5,930	122	1,813,670	18,113	897,257	14,215
Scrod	655	6	3,120	24	10,440	159
Cod, salted:						
Large			660,265	20,242	1,028,832	36,262
Market			415,559	9,805	201,532	5,015
Scrod			121,965	1,347	5,645	85
Haddock, fresh:						
Large	32,290	1,359	2,212,557	46,726	4,847,223	134,093
Scrod	1,155	19	218,065	1,752	207,750	2,485
Haddock, salted:						
Large					810	12
Hake, fresh:						
Large	56,920	1,295	1,029,151	9,311	596,375	11,480
Small					1,130	12
Hake, salted:						
Large			1,045	14	5,100	66
Pollock, fresh	156,045	1,554	1,174,950	9,644	1,397,103	19,313
Pollock, salted			1,295	13	1,262	24
Cusk, fresh	405	4	236,857	1,702	140,990	1,674
Cusk, salted			4,000	57	4,805	93
Halibut, fresh	13	1	162,320	11,787	55,469	5,632
Halibut, salted			840	59	245	30
Mackerel, fresh	419,788	17,953	11,031,008	138,343	7,298,373	273,477
Mackerel, salted			23,225	696	52,329	2,210
Flounders, fresh	69,115	2,111	415,995	14,980	468,675	21,199
Swordfish, fresh			7,032	789	10,620	2,690
Herring, fresh			21,000	210	204,700	3,684
Herring, salted	520,900	15,075	655,700	20,130	2,286,876	80,589
Other, fresh	9,635	74	235,413	2,062	455,350	9,813
Total, fresh	814,671	27,241	23,444,319	381,713	21,262,367	651,437
Total, salted	520,900	15,075	1,883,894	52,363	3,587,436	124,386
Grand total	1,335,571	42,316	25,328,213	434,076	24,849,803	775,823
Landed in 1931:						
Fresh	552,297	31,672			21,262,367	651,437
Salted	845,508	28,674			3,587,436	124,386
Total	1,397,805	60,346			24,849,803	775,823

Landings by fishing vessels at principal New England ports, 1932—Continued

PORTLAND: BY MONTHS

Species	January		February		March		April	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:								
Large	76,085	\$2,516	69,497	\$2,830	109,999	\$3,790	377,970	\$6,009
Market	47,694	938	32,709	809	66,704	1,364	156,925	1,602
Scrod	3,580	37	1,035	11	445	4	1,840	11
Cod, salted:								
Large							885	27
Market							610	12
Haddock, fresh:								
Large	189,387	10,094	191,402	9,208	417,451	12,276	895,379	13,574
Scrod	3,690	48	1,178	14	2,171	21	1,535	8
Hake, fresh:								
Large	29,835	510	31,819	922	30,054	708	16,294	220
Small	66,963	1,201	49,857	1,344	50,206	1,169	15,049	168
Pollock, fresh	72,635	364	48,946	526	29,785	417	64,286	465
Pollock, salted							265	1
Cusk, fresh	45,845	813	50,618	1,219	70,174	1,498	51,187	576
Cusk, salted							90	1
Halibut, fresh	196	35	411	87	130	21	19,134	1,532
Flounders, fresh	16,645	652	4,993	186	26,183	1,101	20,395	231
Other, fresh	32,388	676	32,822	796	40,774	1,895	56,856	1,086
Total, fresh	584,943	17,884	515,287	17,952	844,076	23,264	1,676,850	25,482
Total, salted							1,850	41
Grand total	584,943	17,884	515,287	17,952	844,076	23,264	1,678,700	25,523
Landed in 1931:								
Fresh	833,153	31,783	633,840	25,073	1,855,017	51,570	6,146,501	144,198

Species	May		June		July	
	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:						
Large	220,485	\$3,248	258,012	\$7,014	428,055	\$10,381
Market	88,759	834	31,623	339	17,180	175
Scrod	1,320	7	3,630	20	550	3
Cod, salted:						
Large	3,385	107	1,785	61	251	10
Market	1,615	37	1,330	33	250	5
Scrod	35	1			55	1
Haddock, fresh:						
Large	234,291	3,738	148,339	4,688	133,265	4,304
Scrod	250	1	5,625	31	7,103	41
Hake, fresh:						
Large	10,019	117	9,195	45	6,915	47
Small	41,795	426	49,512	312	46,925	323
Hake, salted:						
Small			280	1		
Pollock, fresh	85,790	311	54,140	286	88,582	446
Pollock, salted	350	2				
Cusk, fresh	15,003	146	1,845	8	1,516	9
Cusk, salted	70	1				
Halibut, fresh	25,867	2,303	40,224	3,890	6,277	682
Mackerel, fresh	2,410	96	25,300	615	164,151	1,924
Flounders, fresh	27,237	380	16,105	429	29,128	587
Swordfish, fresh			26,358	4,890	104,555	13,446
Herring, fresh	32,000	160	39,000	195		
Other, fresh	3,379	45	22,061	421	37,918	555
Total, fresh	788,605	11,812	730,969	23,183	1,072,120	32,923
Total, salted	5,455	148	3,395	95	556	16
Grand total	794,060	11,960	734,364	23,278	1,072,676	32,939
Landed in 1931:						
Fresh	862,575	19,695	681,602	28,120	912,444	57,691
Salted			6,905	217	4,275	146
Total	862,575	19,695	688,507	28,337	916,719	57,837

Landings by fishing vessels at principal New England ports, 1932—Continued

PORTLAND: BY MONTHS—Continued

Species	August		September		October		November	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:								
Large	347,371	\$11,688	327,128	\$14,388	146,212	\$5,060	79,103	\$3,455
Market	15,616	146	20,978	309	31,435	412	27,887	532
Scrod	1,055	6	2,265	15	3,087	21	2,135	18
Haddock, fresh:								
Large	126,788	4,870	93,362	4,861	144,330	7,026	137,857	7,755
Scrod	9,150	78	7,932	65	12,625	124	10,106	92
Hake, fresh:								
Large	2,420	17	6,185	96	3,650	27	2,995	60
Small	46,125	334	88,855	888	145,468	1,486	152,601	2,927
Hake, salted:								
Small							175	3
Pollock, fresh	107,473	536	103,537	697	64,427	425	71,360	448
Cusk, fresh	1,401	12	6,772	83	26,130	321	24,696	481
Halibut, fresh	12,734	1,267	676	45	1,514	154	817	104
Halibut, salted							195	6
Mackerel, fresh	664,273	9,690	788,396	4,789	30,621	1,267	2,170	182
Mackerel, salted	55,000	413	35,500	178				
Flounders, fresh	38,895	853	18,155	466	15,047	335	1,822	87
Swordfish, fresh	132,183	12,574	73,553	9,599	2,712	543		
Other, fresh	70,901	778	156,794	527	32,545	639	24,956	466
Total, fresh	1,576,395	42,849	1,694,588	36,828	679,803	17,840	538,505	16,607
Total, salted	55,000	413	35,500	178			370	9
Grand total	1,631,395	43,262	1,730,088	37,006	679,803	17,840	538,875	16,616
Landed in 1931:								
Fresh	2,403,087	91,593	1,501,536	43,717	1,543,243	35,166	862,319	20,902
Salted	19,850	400	26,625	960	85	3		
Total	2,422,937	92,053	1,528,161	44,677	1,543,328	35,169	862,319	20,902

Species	December		Total, 1932		1931	
	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:						
Large	67,522	\$2,278	2,507,439	\$72,657	3,314,761	\$119,625
Market	30,069	542	567,519	8,002	514,116	11,069
Scrod	2,980	23	23,932	176	33,364	314
Cod, salted:						
Large			6,366	205	41,635	1,512
Market			3,805	87	6,070	155
Scrod			90	2	115	2
Haddock, fresh:						
Large	170,286	7,819	2,882,137	90,213	7,429,541	215,848
Scrod	9,001	95	70,366	618	73,401	749
Hake, fresh:						
Large	46,055	782	195,436	3,551	310,323	5,993
Small	95,175	1,560	848,531	12,138	938,564	16,484
Hake, salted:						
Small			455	4	155	1
Pollock, fresh	79,678	433	890,639	5,354	1,205,240	10,684
Pollock, salted			615	3	10	
Cusk, fresh	40,201	651	332,388	5,817	671,521	13,148
Cusk, salted			160	2	200	3
Halibut, fresh	553	71	108,533	10,191	204,696	28,470
Halibut, salted			195	6		
Mackerel, fresh			1,677,321	18,563	2,305,421	60,120
Mackerel, salted			90,500	591	9,555	113
Flounders, fresh	15,429	551	230,034	5,858	313,182	9,461
Swordfish, fresh			339,361	41,052	223,367	56,426
Herring, fresh			71,000	355	667,430	4,670
Other, fresh	25,977	521	537,371	7,405	627,111	12,093
Total, fresh	582,866	15,326	11,285,007	281,950	18,832,038	565,154
Total, salted			102,126	900	57,740	1,786
Grand total	582,866	15,326	11,387,133	282,850	18,889,778	566,940
Landed in 1931:						
Fresh	596,721	15,646			18,832,038	565,154
Salted					57,740	1,786
Total	596,721	15,646			18,889,778	566,940

Landings by fishing vessels at principal New England ports, 1932—Continued

SUMMARY: BY PORTS

Species	Boston		Gloucester		Portland	
	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:						
Large.....	21,445,174	\$586,706	4,883,161	\$126,270	2,507,439	\$72,657
Market.....	26,917,646	454,035	1,813,670	18,113	567,519	8,002
Scrod.....	101,015	1,737	3,120	24	23,932	176
Cod, salted:						
Large.....	47,815	1,518	660,265	20,242	6,306	205
Market.....	32,360	587	415,559	9,805	3,805	87
Scrod.....			121,965	1,347	90	2
Haddock, fresh:						
Large.....	87,083,975	2,368,147	2,212,557	46,726	2,882,137	90,213
Scrod.....	27,649,754	399,352	218,085	1,752	70,366	618
Hake, fresh:						
Large.....	5,647,501	111,176	1,029,151	9,311	195,436	3,551
Small.....	19,000	318			848,531	12,138
Hake, salted:						
Large.....			1,045	14		
Small.....	4,000	80			455	4
Pollock, fresh.....	5,775,443	70,602	1,174,950	9,644	890,639	5,354
Pollock, salted.....	7,300	73	1,295	13	615	3
Cusk, fresh.....	2,492,595	38,187	236,857	1,702	335,388	5,817
Cusk, salted.....			4,000	57	160	2
Halibut, fresh.....	2,084,176	239,176	162,320	11,787	108,533	10,191
Halibut, salted.....			840	59	195	6
Mackerel, fresh.....	25,274,474	460,214	11,031,008	138,343	1,677,321	18,563
Mackerel, salted.....			23,225	696	90,500	591
Flounders, fresh.....	6,796,804	274,679	415,995	14,980	230,034	5,858
Swordfish, fresh.....	2,257,522	315,092	7,032	789	339,361	41,052
Herring, fresh.....	7,500	90	21,000	210	71,000	355
Herring, salted.....			655,700	20,130		
Other, fresh.....	1,974,925	45,156	235,413	2,062	537,371	7,405
Total, fresh.....	215,527,504	5,364,667	23,444,319	381,713	11,285,007	281,950
Total, salted.....	91,475	2,258	1,883,894	52,363	102,126	900
Grand total.....	215,618,979	5,366,925	25,328,213	434,076	11,387,133	282,850
Landed in 1931:						
Fresh.....	219,929,313	7,905,934	21,262,367	651,437	18,832,038	565,154
Salted.....	15,690	560	3,587,436	124,886	57,740	1,786
Total.....	219,945,003	7,906,494	24,849,803	776,323	18,889,778	566,940

Species	Total, 1932		1931	
	Pounds	Value	Pounds	Value
Cod, fresh:				
Large.....	28,835,774	\$785,633	31,918,302	\$1,065,217
Market.....	29,298,835	480,150	27,141,973	645,343
Scrod.....	128,067	1,937	288,149	4,355
Cod, salted:				
Large.....	714,386	21,965	1,083,157	38,214
Market.....	451,724	10,479	207,602	5,170
Scrod.....	122,055	1,349	5,760	87
Haddock, fresh:				
Large.....	92,178,669	2,505,086	118,305,109	4,169,513
Scrod.....	27,938,205	401,722	14,539,546	264,844
Haddock, salted:				
Large.....			810	12
Hake, fresh:				
Large.....	6,872,088	124,038	6,767,613	160,275
Small.....	867,531	12,456	983,114	17,640
Hake, salted:				
Large.....	1,045	14	5,100	66
Small.....	4,455	84	155	1
Pollock, fresh.....	7,841,032	85,600	7,630,330	113,714
Pollock, salted.....	9,210	89	1,272	24
Cusk, fresh.....	3,064,840	45,706	4,259,602	83,112
Cusk, salted.....	4,160	59	5,005	96
Halibut, fresh.....	2,355,029	261,154	2,569,991	375,896
Halibut, salted.....	1,035	65	245	30
Mackerel, fresh.....	37,982,803	617,120	29,458,846	1,223,230
Mackerel, salted.....	113,725	1,287	64,884	2,443
Flounders, fresh.....	7,442,833	295,517	10,275,344	420,865
Swordfish, fresh.....	2,603,915	356,933	1,760,329	458,745

Landings by fishing vessels at principal New England ports, 1932—Continued

SUMMARY: BY PORTS—Continued

Species	Total, 1932		1931	
	Pounds	Value	Pounds	Value
Herring, fresh.....	99,500	\$655	877,830	\$8,496
Herring, salted.....	655,700	20,130	2,286,876	80,589
Other, fresh.....	1 2,747,709	54,623	3,247,640	81,340
Total, fresh.....	250,256,830	6,028,330	260,023,718	9,122,525
Total, salted.....	2,077,495	55,521	3,660,866	126,732
Grand total.....	252,334,325	6,083,851	263,684,584	9,249,257
Landed in 1931:				
Fresh.....			260,023,718	9,122,525
Salted.....			3,660,866	126,732
Total.....			263,684,584	9,249,257

¹ The items under "Other, fresh" include albacore, 927 pounds, value \$111; alewives, 385,674 pounds, value \$2,017; butterfish, 145,149 pounds, value \$9,058; croaker, 2,400 pounds, value \$72; cunner (perch), 335 pounds, value \$6; eels, 25 pounds, value \$1; rosefish, 57,230 pounds, value \$521; salmon, 18 pounds, value \$3; scup, 6,900 pounds, value \$207; sea bass, 170 pounds, value \$5; shad, 7,351 pounds, value \$213; sharks, 44,428 pounds, value \$486; skates, 14,070 pounds, value \$131; smelt, 3,600 pounds, value \$169; sturgeon, 6,123 pounds, value \$436; tuna or "horse mackerel", 3,244 pounds, value \$137; whiting, 143,445 pounds, value \$4,242; wolffish, 1,583,034 pounds, value \$27,329; lobsters, 162 pounds, value \$41; scallops, 2,307 pounds, value \$576; squid, 100 pounds, value \$4; livers, 280,480 pounds, value \$5,605; and spawn, 60,477 pounds, value \$3,253.

BIOLOGICAL ASPECT

In 1932 the fishing fleet landing fares at Boston and Gloucester, Mass., and Portland, Maine, and operating on the fishing banks of the North Atlantic from Flemish Cap to New York, numbered 372 steam, motor, and sail vessels of over 5 net tons as measured by the United States Customs Service. These made 11,112 trips to the fishing grounds, and were absent from port 48,729 days, or an average of about 4.4 days per trip. This is 0.4 of a day less than the average length of a trip during 1931. Their catches of edible fish landed at the three ports amounted to 253,907,536 pounds when the salted fish had been converted to the basis of fresh gutted or round fish as landed. This does not represent the entire catch of edible fish of these vessels, for small quantities estimated at not more than 5 percent of their total catch were landed at ports in New England other than these three, at New York City, and at ports in New Jersey.

Otter trawls on all sizes of vessels accounted for 142,196,578 pounds, or 56 percent of the total catch. Line trawls were next in importance, accounting for 57,267,269 pounds, or 23 percent of the total catch landed at the three ports in 1932.

The catch taken on Georges Bank was considerably larger than that taken on any other fishing ground and landed at the three ports in 1932. It amounted to 93,896,295 pounds, or 37 percent of the total catch.

The landings from South Channel amounted to 36,265,135 pounds, or 14 percent of the total and from Browns Bank, 25,712,196 pounds, or 10 percent.

Landings by fishing vessels at the 3 principal New England ports, 1932

BY GEAR AND FISHING GROUNDS

Gear and fishing grounds	Vessels fishing	Trips	Days absent	Cod			Haddock		Hake	
				Large	Market	Scrod	Large	Scrod	Large	Small
	Number	Number	Number	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Line trawls:										
Grand Bank	3	8	197	20,269	2,228				1,477	
St. Peters Bank	3	3	56							
Off Newfoundland	1	1	19	93,233	86,048	84,808				
Seal Island Grounds	6	5	52	50,150	90,200		124,300	29,050	1,000	
Gulf of St. Lawrence	3	5	140	431,438	660,013	156,683				
Scatari Bank	3	3	43	67,296	14,829					
Quereau Bank	9	18	379	150,280	10,819		1,700		17,638	
The Gully	3	3	45							
Sable Island Bank (Western Bank)	19	30	432	604,260	525,091		1,059,800		31,780	
Cape Shore	32	81	860	600,588	1,004,040	120	1,269,815	126,370	281,000	
Emerald Bank	5	6	86	105,100	66,700		306,400	12,200	8,975	
La Have Bank	33	84	1,006	1,204,555	1,236,298	1,400	2,730,027	15,000	132,410	
Roseway Bank	3	3	33	44,910	66,240		33,690	500	2,700	
Browns Bank	45	260	2,868	2,577,393	2,817,268	1,720	8,398,445	84,390	463,050	
Georges Bank	45	186	1,992	3,701,784	1,801,120	380	2,893,480	83,375	309,205	
South Channel	42	222	1,607	1,894,150	1,473,335	1,900	4,238,695	102,120	1,022,670	1,000
Off Highland Light	3	5	40	5,500	2,435		55,400	980	15,070	
Off Chatham	10	17	141	26,260	22,725		148,950	7,975	19,210	
Nantucket Shoals	3	3	17	6,950	7,260		12,950	1,000	2,615	
Cashes Bank	13	33	159	64,003	51,956	1,881	111,942	5,679	91,995	55,495
Fippenies Bank	12	23	118	63,515	30,155		95,540	6,075	212,260	6,075
Platts Bank	3	5	14	4,760	2,720		10,920	1,260	3,170	12,480
Jeffreys Ledge	24	188	451	118,031	82,512	6,160	576,636	25,964	174,950	230,090
Tillies Bank	2	2	6	530	350		8,850	150	4,800	
Middle Bank (Stellwagen Bank)	18	70	348	74,830	39,990		560,885	16,765	324,185	
Shore, general	53	280	821	291,841	220,055	16,240	862,637	34,088	258,459	273,613
Total	1 109	1,544	11,930	12,156,635	10,314,387	271,917	23,501,062	552,941	3,378,619	578,753
Hand lines:										
Cape Shore	2	5	54	54,650	69,160	900	1,360		50	
Browns Bank	7	8	85	135,693	141,850		34,480			
Georges Bank	7	29	252	691,345	256,395	2,300	9,570		855	
Nantucket Shoals	6	25	199	123,790	120,455	100	965			
Shore, general	4	5	26	11,499	10,756		230		1,125	
Shore, general (occasional)				1,007	790	109			60	
Total	1 13	72	616	1,017,984	599,406	3,409	46,605		2,090	

¹ Exclusive of duplication.

Landings by fishing vessels at the 3 principal New England ports, 1932—Continued

BY GEAR AND FISHING GROUNDS—Continued

Gear and fishing grounds	Vessels fishing	Trips	Days absent	Cod			Haddock		Hake	
				Large	Market	Scrod	Large	Scrod	Large	Small
	Number	Number	Number	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Harpoons:										
Cape Shore.....	11	11	287							
Browns Bank.....	33	41	687							
Georges Bank.....	66	181	3,419							
Nantucket Shoals.....	7	8	112							
Cashes Bank.....	1	1	15							
South.....	1	1	4							
Shore, general.....	14	19	289							
Total.....	169	262	4,813							
Otter trawls, large:										
St. Peters Bank.....	1	1	17	16,200	54,700		61,500			
Sable Island Bank (Western Bank).....	37	91	1,093	2,056,207	2,419,050	13,480	5,613,445	440,580	106,795	
Cape Shore.....	3	5	54	18,185	30,870	1,940	228,610	57,260	19,460	
Emerald Bank.....	4	4	41	64,550	82,980		194,300	11,100	3,925	
La Have Bank.....	23	39	465	531,255	682,140	12,160	1,608,690	259,345	86,216	
Browns Bank.....	31	60	615	1,041,480	798,898	3,470	4,073,195	454,565	69,080	
Georges Bank.....	47	673	6,254	4,361,864	9,366,499	34,775	25,388,970	16,576,409	851,770	6,200
South Channel.....	39	187	1,694	965,170	845,275	5,330	7,693,865	2,215,950	503,010	8,900
Off Highland Light.....	1	1	7	500	700		55,500	6,800	150	
Off Chatham.....	3	5	38	9,175	10,720	1,000	204,150	28,975	11,900	
Nantucket Shoals.....	10	11	95	33,295	122,870		517,185	91,090	16,285	
Shore, general.....	2	2	3	2,350	19,700		17,500	13,600	350	
Total.....	152	1,079	10,376	9,100,231	14,434,402	72,155	45,656,910	20,155,674	1,668,941	15,100
Otter trawls, medium:										
Sable Island Bank (Western Bank).....	3	4	38	89,900	119,200		376,700	5,800	7,750	
Cape Shore.....	2	4	36	18,175	48,535		46,670	4,600	1,445	
La Have Bank.....	5	5	49	22,275	13,570		192,250	15,500	5,230	
Browns Bank.....	19	29	277	262,490	243,030		1,022,175	100,550	7,400	
Georges Bank.....	48	465	4,059	1,579,130	2,361,278	15,850	8,622,735	4,186,050	220,540	800
Clark Bank.....	2	2	15	2,280	2,450		37,100	16,200	3,930	
South Channel.....	41	308	2,561	670,693	1,082,645	4,850	7,197,650	2,228,910	348,045	9,720
Off Highland Light.....	6	7	50	8,320	12,000		67,370	25,100	6,000	
Off Chatham.....	17	60	457	129,200	166,840		789,760	142,140	127,465	
Nantucket Shoals.....	24	48	374	85,710	198,145		784,410	241,905	40,320	300
Middle Bank (Stellwagen Bank).....	2	4	26	8,855	4,840		23,830	1,680	28,740	
Shore, general.....	26	131	419	30,275	49,320	235	359,390	100,160	59,015	2,520
Total.....	169	1,067	8,361	2,907,303	4,301,853	20,935	19,520,040	7,068,595	855,880	13,340

Otter trawls, small:										
Georges Bank	3	30	256	68,420	46,995		357,420	82,815	2,335	
Clark Bank	1	1	5	800	600		11,500	680	700	
South Channel	3	20	158	20,640	54,085		331,485	45,505	3,290	
Off Highland Light	1	1	7	575	275		5,500	1,475	3,900	
Shore, general	47	435	1,153	97,170	93,866	1,220	618,171	30,175	87,484	32,548
Total	1 48	487	1,579	187,605	195,821	1,220	1,324,076	160,650	97,709	32,548
Sink gill nets:										
Jeffreys Ledge	5	59	50	82,135	6,378		13,791		13,145	13,650
Shore, general	40	3,892	3,916	4,740,189	322,638	100	2,114,710	345	856,619	222,960
Total	1 40	3,951	3,975	4,822,324	329,016	100	2,128,501	345	869,764	236,610
Drift gill nets:										
Bay of Islands	3	3	237							
Jeffreys Ledge	1	1	2							
Shore, general	63	492	975	82						
Total	1 66	496	1,214	82						
Danish seines:										
Nantucket Shoals	1	1	14							
Shore, general	1	5	31				1,440		1,070	
Total	1 1	6	45				1,440		1,070	
Purse seines:										
Cape Shore	15	16	99							
Georges Bank	6	8	50							
South Channel	22	23	122	140	75					
Off Chatham	1	1	3							
Nantucket Shoals	20	23	112							
Middle Bank (Stellwagen Bank)	3	3	24							
South	39	53	198							
Shore, general	120	2,020	5,205	805	220		35			
Total	1 120	2,147	5,813	945	295		35			
Scallop drags:										
Nantucket Shoals	1	1	7							
Grand total	1 372	11,112	48,729	30,193,109	30,175,180	369,736	92,178,669	27,938,205	6,874,073	876,351

¹ Exclusive of duplication.

NOTE.—The 3 principal New England ports are Boston and Gloucester, Mass., and Portland, Maine. Otter trawls (including V-D trawls) are classified according to the size of the vessel. The weight of salted fish landed has been converted to the equivalent of fresh fish as landed. Only landings by vessels having a capacity of 5 net tons or greater are used in this tabulation. "Occasional" after the name of a bank or ground indicates that the vessel or vessels contributing to the catch as shown fished chiefly with another type of gear. In such cases the number of vessels fishing, number of trips, and number of days absent are shown under the principal types of gear used.

Landings by fishing vessels at the 3 principal New England ports, 1932—Continued

BY GEAR AND FISHING GROUNDS—Continued

Gear and fishing grounds	Pollock	Cusk	Halibut	Flounders	Swordfish	Mackerel	Herring	Other	Total
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Line trawls:									
Grand Bank.....	440	150	288,333						312,897
St. Peters Bank.....			76,837						76,837
Off Newfoundland.....									264,089
Seal Island Grounds.....	5,000	36,975	3,207					5,825	345,707
Gulf of St. Lawrence.....			26,382						1,274,516
Scatari Bank.....			60,312						142,437
Quereau Bank.....		9,900	383,865	14,032				2,604	590,847
The Gully.....			79,344						79,344
Sable Island Bank (Western Bank).....	15,280	146,600	233,511					3,350	2,619,672
Cape Shore.....	62,305	357,340	8,064		434				21,545
Emerald Bank.....	8,350	8,900	2,769						3,731,621
La Have Bank.....	63,135	172,590	64,917					1,400	520,794
Roseway Bank.....	970	13,350	198						17,550
Browns Bank.....	247,045	1,119,620	143,465	4,898				400	5,637,882
Georges Bank.....	233,355	317,317	566,016	3,590	15,917			107,267	15,964,561
South Channel.....	275,475	134,580	18,396	13,870	526	2,000			9,937,509
Off Highland Light.....	1,115	4,960	172						26,115
Off Chatham.....	6,110	2,375	6,170	600					85,632
Nantucket Shoals.....	400	2,050	4,010						865
Cashes Bank.....	27,159	97,524	4,640						660
Fippenies Bank.....	21,025	63,895	996						14,317
Platts Bank.....	2,790	6,405	296						526,591
Jeffreys Ledge.....	124,383	141,902	2,281	66					970
Tillies Bank.....	4,100	335							2,250
Middle Bank (Stellwagen Bank).....	48,735	56,365	1,130	1,780					47,676
Shore, general.....	72,610	163,296	18,946	12,613	3,679				67,673
Total.....	1,219,782	2,856,429	1,994,347	51,449	20,556	2,000		368,392	1,550,648
Hand lines:									19,115
Gulf of St. Lawrence (occasional).....						14,985			14,985
Cape Shore.....	12,350	4,400							5,185
Browns Bank.....	24,820	2,875	631						148,055
Georges Bank.....	94,921	3,500	4,011		135				13,460
Nantucket Shoals.....	5,040	1,100	2,216						7,443
Shore, general.....	591	650							2,255
Shore, general (occasional).....	125								75
Total.....	137,838	12,525	6,858		135	14,985		28,418	255,921
									24,926
									2,091
									1,870,263

Harpoons:									
Grand Bank (occasional)					410				410
Quereau Bank (occasional)					2,957				2,957
Cape Shore					85,329				85,329
La Have Bank (occasional)					367				367
Browns Bank					327,284				327,284
Browns Bank (occasional)					2,212				2,212
Georges Bank					1,865,816		1,137		1,866,953
Georges Bank (occasional)					54,168				54,168
South Channel (occasional)					1,233				1,233
Nantucket Shoals					83,059				83,059
Cashes Bank					11,526				11,526
South					4,047				4,047
Shore, general					128,020				128,020
Shore, general (occasional)					2,188				2,188
Total					2,568,616			1,137	2,569,753
Otter trawls, large:									
St. Peters Bank			904					2,300	135,604
Sable Island Bank (Western Bank)	629,065	9,405	49,469	152,125				283,055	11,772,676
Cape Shore	5,525	1,195	852	74,495				13,810	452,202
Emerald Bank	8,050		2,375	3,210				9,450	379,940
La Have Bank	315,515	14,555	29,737	97,775				107,661	3,745,049
Browns Bank	393,830	10,380	42,175	121,325				247,135	7,255,533
Georges Bank	2,006,460	106,935	125,963	1,436,038	145	18,180	3,500	330,729	60,614,437
South Channel	656,080	16,150	29,358	433,837				173,205	13,546,480
Off Highland Light	70			1,700				375	65,795
Off Chatham	6,525	50	85	12,700		1,200		8,025	294,505
Nantucket Shoals	15,380		1,299	23,275		290		2,485	823,454
Shore, general	75			7,500				950	62,025
Total	4,036,575	158,670	282,217	2,363,980	145	20,020	3,500	1,179,180	99,147,700
Otter trawls, medium:									
Sable Island Bank (Western Bank)	14,300		2,239	2,400				7,800	626,089
Cape Shore	2,275	4,800	480	3,605			100	190	130,875
La Have Bank	13,885		773	6,400				1,735	271,618
Browns Bank	79,355	5,635	7,029	35,015	2,343			43,775	1,808,797
Georges Bank	267,565	7,950	37,055	2,075,631	10,142	1,920		143,470	19,530,116
Clark Bank	375			2,000				1,165	65,500
South Channel	186,325	8,455	14,699	912,070	1,978	1,210		199,630	12,866,880
Off Highland Light	11,400		154	28,700					159,044
Off Chatham	73,585	200	966	97,863		3,790		101,565	1,633,374
Nantucket Shoals	37,615	100	787	172,965		300		11,265	1,573,822
Middle Bank (Stellwagen Bank)	9,185	6,710	80	700				80	84,700
Shore, general	12,805	1,065	644	270,130			35	25,560	911,154
Total	708,670	34,915	64,906	3,607,479	14,463	7,355		536,235	39,661,969

¹ Incidental catch.

Landings by fishing vessels at the 3 principal New England ports, 1932—Continued

BY GEAR AND FISHING GROUNDS—Continued

Gear and fishing grounds	Pollock	Cusk	Halibut	Flounders	Swordfish	Mackerel	Herring	Other	Total
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Otter trawls, small:									
Georges Bank.....	2,040		2,291	181,275				4,185	747,776
Clark Bank.....				600					14,880
South Channel.....	170		5,650	67,130		150		2,865	530,970
Off Highland Light.....	550			2,450					14,725
Shore, general.....	2,745	361	720	1,086,064				28,034	2,078,558
Total.....	5,505	361	8,661	1,337,519		150		35,084	3,386,909
Sink gill nets:									
Jeffreys Ledge.....	38,160	673	14	250				8,249	176,445
Shore, general.....	1,696,236	9,171	96	16,131				156,058	10,135,253
Total.....	1,734,396	9,844	110	16,381				164,307	10,311,698
Drift gill nets:									
Bay of Islands.....							983,550		983,550
Jeffreys Ledge.....						65		65	130
Shore, general.....						1,780,381		10,252	1,790,715
Total.....						1,780,446	983,550	10,317	2,774,395
Danish seines:									
Nantucket Shoals.....				6,425				600	7,025
Shore, general.....				59,600					62,110
Total.....				66,025				600	69,135
Purse seines:									
Cape Shore.....						617,015		80	617,095
Georges Bank.....						74,870			74,870
South Channel.....						159,525			159,740
Off Chatham.....						10,250			10,250
Nantucket Shoals.....						312,220			312,220
Middle Bank (Stellwagen Bank).....						39,675			39,675
South.....						2,341,056			2,341,056
Shore, general.....	15,765					32,756,765	96,000	422,159	33,291,759
Total.....	15,765					36,311,376	96,000	422,239	36,846,655
Scallop drags:									
Nantucket Shoals.....								1,800	1,800
Grand total.....	7,858,531	3,072,744	2,357,099	7,442,833	2,603,915	38,136,332	1,083,050	2,747,709	253,907,636

SUMMARY: BY FISHING GROUNDS

Fishing grounds	Vessels fishing	Trips	Days absent	Cod			Haddock		Hake	
				Large	Market	Scrod	Large	Scrod	Large	Small
	Number	Number	Number	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Off Newfoundland:										
Area XIX—										
Bay of Islands.....	3	3	237							
Off Newfoundland (Treaty Coast).....	1	1	19	93, 233	86, 048	84, 808				
Area XX—										
Grand Bank.....	3	8	197	20, 269	2, 228				1, 477	
St. Peters Bank.....	4	4	73	16, 200	54, 700		61, 500			
Total.....	19	16	526	129, 702	142, 976	84, 808	61, 500		1, 477	
Off Canada:										
Area XIX—										
Gulf of St. Lawrence.....	3	5	140	431, 438	660, 013	156, 683				
Area XXI—										
Seal Island Grounds.....	5	5	52	50, 150	90, 200		124, 300	29, 050	1, 000	
Scatari Bank.....	3	3	43	67, 296	14, 829					
Quereau Bank.....	9	18	379	150, 289	10, 819		1, 700		17, 638	
The Gully.....	3	3	45							
Sable Island Bank (Western Bank).....	59	125	1, 563	2, 750, 367	3, 063, 341	13, 480	7, 049, 945	446, 380	146, 325	
Cape Shore.....	62	122	1, 390	691, 598	1, 152, 605	2, 960	1, 546, 455	188, 230	301, 955	
Emerald Bank.....	9	10	127	169, 650	149, 680		500, 700	23, 300	12, 900	
La Have Bank.....	61	128	1, 520	1, 758, 085	1, 932, 008	13, 560	4, 530, 967	289, 845	223, 856	
Roseway Bank.....	3	3	33	44, 910	66, 240		33, 690	500	2, 700	
Browns Bank.....	124	398	4, 532	4, 017, 056	4, 001, 046	5, 190	13, 528, 295	639, 505	539, 530	
Total.....	172	820	9, 824	10, 130, 839	11, 140, 781	191, 873	27, 316, 052	1, 616, 810	1, 245, 904	
Off United States:										
Area XXII—										
Georges Bank.....	191	1, 572	16, 282	10, 402, 543	13, 832, 287	53, 305	37, 272, 175	20, 928, 649	1, 384, 705	7, 000
Clark Bank.....	3	3	20	3, 080	3, 050		48, 600	16, 880	4, 630	
South Channel.....	138	760	6, 142	3, 505, 793	3, 455, 415	12, 080	19, 461, 695	4, 592, 485	1, 877, 015	19, 620
Off Highland Light.....	11	14	104	14, 895	15, 410		183, 770	34, 355	25, 120	
Off Chatham.....	131	83	639	164, 635	200, 285	1, 000	1, 142, 860	179, 090	158, 575	
Nantucket Shoals.....	70	120	930	249, 745	448, 730	100	1, 315, 510	333, 995	59, 220	300
Cashes Bank.....	14	34	174	64, 003	51, 956	1, 881	111, 942	5, 679	91, 995	55, 495
Fippenies Bank.....	12	23	118	63, 515	30, 155		95, 540	6, 075	212, 260	6, 075
Platts Bank.....	3	5	14	4, 760	2, 720		10, 920	1, 260	3, 170	12, 480
Jeffreys Ledge.....	30	248	512	200, 166	88, 890	6, 160	590, 427	25, 964	188, 095	243, 740

¹ Exclusive of duplication.

Landings by fishing vessels at the 3 principal New England ports, 1932—Continued

SUMMARY: BY FISHING GROUNDS—Continued

Fishing grounds	Vessels fishing	Trips	Days absent	Cod			Haddock		Hake	
				Large	Market	Scrod	Large	Scrod	Large	Small
Off United States—Continued.										
Area XXII—Continued.	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Tillies Bank.....	2	2	6	530	350	-----	8,850	150	4,800	-----
Middle Bank (Stellwagen Bank).....	22	77	398	83,685	44,830	-----	584,715	18,445	352,925	-----
Shore, general.....	250	7,281	12,838	5,175,218	717,345	17,904	3,974,113	178,368	1,264,182	531,641
Area XXIII—										
South.....	40	54	202	-----	-----	-----	-----	-----	-----	-----
Total.....	1 362	10,276	38,379	19,932,568	18,891,423	93,055	64,801,117	26,321,395	5,626,692	876,351
Grand total.....	1 372	11,112	48,729	30,193,109	30,175,180	369,736	92,178,669	27,938,205	6,874,073	876,351

Fishing grounds	Pollock	Cusk	Halibut	Flounders	Swordfish	Mackerel	Herring	Other	Total
Off Newfoundland:									
Area XIX—	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Bay of Islands.....	-----	-----	-----	-----	-----	-----	983,550	-----	983,550
Off Newfoundland (Treaty Coast).....	-----	-----	-----	-----	-----	-----	-----	-----	264,089
Area XX—									
Grand Bank.....	440	150	288,333	-----	410	-----	-----	-----	313,307
St. Peters Bank.....	-----	-----	77,741	-----	-----	-----	-----	2,300	212,441
Total.....	440	150	366,074	-----	410	-----	983,550	2,300	1,773,387
Off Canada:									
Area XIX—									
Gulf of St. Lawrence.....	-----	-----	26,382	-----	-----	14,985	-----	-----	1,289,501
Area XXI—									
Seal Island Grounds.....	5,000	36,975	3,207	-----	-----	-----	-----	5,825	345,707
Scatari Bank.....	-----	-----	60,312	-----	-----	-----	-----	-----	142,437
Quereau Bank.....	-----	9,900	383,865	14,032	2,957	-----	-----	2,604	593,804
The Gully.....	-----	-----	79,344	-----	-----	-----	-----	-----	79,344
Sable Island Bank (Western Bank).....	658,645	156,005	285,219	154,525	-----	-----	-----	294,205	15,018,437
Cape Shore.....	82,465	367,735	9,396	78,100	85,763	617,115	-----	40,810	5,165,177
Emerald Bank.....	16,400	8,900	5,144	3,210	-----	-----	-----	10,850	900,734
La Have Bank.....	392,635	187,145	95,427	104,175	367	-----	-----	126,946	9,654,916

Roseway Bank.....	970	13,350	198					400	162,958
Browns Bank.....	745,050	1,138,510	193,300	161,238	331,839			411,637	25,712,196
Total.....	1,901,055	1,918,520	1,141,794	515,280	420,926	632,100		893,277	59,065,211
Off United States:									
Area XXII—									
Georges Bank.....	2,604,332	435,702	735,426	3,696,534	1,946,323	94,970	3,500	498,844	93,896,295
Clark Bank.....	375			2,600				1,165	80,380
South Channel.....	1,118,050	159,185	68,103	1,426,907	3,737	163,235		401,815	36,265,135
Off Highland Light.....	13,135	4,960	326	32,850				375	325,196
Off Chatham.....	86,220	2,625	7,221	111,163			15,240	110,455	2,179,369
Nantucket Shoals.....	58,435	3,250	8,312	202,665	83,059	312,810		19,065	3,095,196
Cashes Bank.....	27,159	97,524	4,640		11,526			14,317	538,117
Fippenies Bank.....	21,025	63,895	996					970	500,506
Platts Bank.....	2,790	6,405	296					2,250	47,676
Jeffreys Ledge.....	162,543	142,575	2,295	316		65		75,987	1,727,223
Tillies Bank.....	4,100	335							19,115
Middle Bank (Stellwagen Bank).....	57,920	63,075	1,210	2,480		39,675		3,924	1,252,884
Shore, general.....	1,800,952	174,543	20,406	1,452,038	133,887	34,537,181	96,000	722,965	50,796,743
Area XXIII—									
South.....					4,047	2,341,056			2,345,103
Total.....	5,957,036	1,154,074	849,231	6,927,553	2,182,579	37,504,232	99,500	1,852,132	193,068,938
Grand total.....	7,858,531	3,072,744	2,357,099	7,442,833	2,603,915	38,136,332	1,083,050	2,747,709	253,907,536

¹ Exclusive of duplication.

NOTE.—The weight of salted fish landed has been converted to the equivalent of fresh fish as landed. The Roman numerals appearing in the stub of the above table refer to the numbers given these areas by the North American Council on Fishery Investigations.

Days' absence from port of fishing vessels landing fish at Boston and Gloucester, Mass., and Portland, Maine, 1932

Fishing grounds	January	February	March	April	May	June	July
Off Newfoundland:							
Area XIX: Bay of Islands.....					130		
Area XX—							
Grand Bank.....					61		22
St. Peters Bank.....		68	5				
Total.....		68	5		191		22
Off Canada:							
Area XIX: Gulf of St. Lawrence.....					26	18	44
Area XXI—							
Seal Island Grounds.....						52	
Seaturi Bank.....					19	24	
Quereau Bank.....		7	61	92	88	48	
The Gully.....				34	11		
Sable Island Bank (Western Bank)...	107	137	319	324	101	169	123
Cape Shore.....	76	29	29		48	112	9
Emerald Bank.....		36	45	22			
La Have Bank.....	306	379	128	79	74	109	96
Roseway Bank.....					26		
Browns Bank.....	689	512	557	770	479	148	252
Total.....	1,178	1,100	1,139	1,321	872	680	524
Off United States:							
Area XXII—							
Georges Bank.....	1,041	1,443	1,096	449	1,067	1,699	2,359
Clark Bank.....		10	10				
South Channel.....	204	569	673	513	330	574	398
Off Highland Light.....	13	14	32	4			
Off Chatham.....	28	48	143	61	56	30	14
Nantucket Shoals.....	127			34	111	166	92
Cashes Bank.....	21	6	6	27	26		
Fippenies Bank.....	35	27	8	3	7		
Platts Bank.....					2		
Jeffreys Ledge.....	130	66	21	6			
Tillies Bank.....	6						
Middle Bank (Stellwagen Bank).....	36	88	73	12	7	20	4
Shore, general.....	527	580	625	819	1,017	1,241	1,433
Area XXIII: South.....					180	22	
Total.....	2,168	2,851	2,692	1,928	2,803	3,752	4,300
Grand total.....	3,346	4,019	3,836	3,249	3,866	4,432	4,846

Days' absence from port of fishing vessels landing fish at Boston and Gloucester, Mass., and Portland, Maine, 1932—Continued

Fishing grounds	August	September	October	November	December	Total
Off Newfoundland:						
Area XIX—						
Bay of Islands.....					107	237
Off Newfoundland (Treaty Coast).....		19				19
Area XX—						
Grand Bank.....	35	24	26	29		197
St. Peters Bank.....						73
Total.....	35	43	26	29	107	526
Off Canada:						
Area XIX: Gulf of St. Lawrence.....		19	33			140
Area XXI—						
Seal Island Grounds.....						52
Scatari Bank.....						43
Quereau Bank.....	17	66				379
The Gully.....						45
Sable Island Bank (Western Bank).....	23	56	27	13	164	1,563
Cape Shore.....	214	165	81	396	231	1,390
Emerald Bank.....				24		127
La Have Bank.....	30	44	31	35	209	1,520
Roseway Bank.....				7		33
Browns Bank.....	236	467	88	47	287	4,532
Total.....	520	817	260	522	891	9,824
Off United States:						
Area XXII—						
Georges Bank.....	2,349	1,776	1,252	1,145	606	16,282
Clark Bank.....						20
South Channel.....	583	595	653	438	612	6,142
Off Highland Light.....						41
Off Chatham.....	4	13	83	47	112	639
Nantucket Shoals.....	122	15	65	103	95	930
Cashes Bank.....	15	8	4	27	34	174
Fippenies Bank.....		5	5	12	16	118
Platts Bank.....			7	5		14
Jeffreys Ledge.....	4	4	66	114	101	512
Tillies Bank.....						6
Middle Bank (Stellwagen Bank).....			21	60	72	398
Shore, general.....	1,644	1,597	1,529	1,034	792	12,838
Area XXIII: South.....						202
Total.....	4,721	4,013	3,685	2,985	2,481	38,379
Grand total.....	5,276	4,873	3,971	3,536	3,479	48,729

NOTE.—The roman numerals appearing in the stubs of the above tables refer to the numbers given these areas by the North American Council on Fishery Investigations.

MACKEREL FISHERY OF THE ATLANTIC COAST

That part of the 1932 mackerel catch taken by purse seines and drift gill nets and landed at the principal Atlantic receiving ports amounted to 46,770,749 pounds, an increase of 28 percent over the corresponding statistics for the previous year. The increase was caused by the extraordinarily large catches of young mackerel under 1 pound in weight, these blinks and tinkers accounting for more than 53 percent of the total.

Statistics on the catch by the Atlantic mackerel fleet are obtained by combining the figures of mackerel landed at Boston and Gloucester, Mass., and Portland, Maine, with those obtained by agents who in

recent years have been stationed at other Atlantic ports where mackerel are landed. The figures include only the catches made by purse-seine and drift-gill-net craft and in some cases the catch by craft of less than 5 net tons capacity is not included.

Mackerel fishery of the Atlantic coast, 1932

CATCH: BY AREAS IN 5-DAY PERIODS

Date	Southern (area XXIII)		Block Island (area XXII, west of Nantucket Shoals)		Gulf of Maine (area XXII, north of Nantucket Shoals)		Cape Shore (area XXI)	Total
	Seiners	Netters	Seiners	Netters	Seiners	Netters	Seiners	
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Apr. 16-20		250						250
Apr. 21-25	529,322	47,872						577,194
Apr. 26-30	501,595	8,588						510,183
May 1-5	1,523,031	74,274						1,597,305
May 6-10	2,863,220	29,900						2,893,120
May 11-15	245,700	692						246,392
May 16-20	499,660	247,462	183,134	6,240				936,496
May 21-25		115,325	985,185	66,270				1,166,780
May 26-31	1,130	1,390	900,785	11,530	2,410			917,245
June 1-5			1,035,628	22,500				1,061,008
June 6-10			741,493	18,000	11,615	17,625	306,925	1,095,658
June 11-15			1,303,930	15,500	5,714	12,174	293,950	1,631,268
June 16-20			317,335	3,130	39,712	1,000	167,540	528,717
June 21-25			696,265		148,450	2,260		846,975
June 26-30					551,012	1,535		552,547
July 1-5					411,450			411,450
July 6-10					485,770	250		486,020
July 11-15					1,191,395	40,620		1,232,015
July 16-20					1,210,890	63,840		1,274,730
July 21-25					350,973	39,470		390,443
July 26-31			18,715		1,305,265	39,325		1,363,305
Aug. 1-5					1,431,628	48,870		1,480,498
Aug. 6-10					1,399,377	11,550		1,410,927
Aug. 11-15					1,053,465	3,830		1,057,295
Aug. 16-20					546,572			546,572
Aug. 21-25					1,547,745	415		1,548,160
Aug. 26-31					1,154,075			1,154,075
Sept. 1-5					662,883	300		663,183
Sept. 6-10					855,867	1,170		857,037
Sept. 11-15					1,344,191	915		1,345,106
Sept. 16-20					1,763,913	1,960		1,770,873
Sept. 21-25					1,070,259			1,070,259
Sept. 26-30					3,313,720	8,155		3,321,875
Oct. 1-5					2,911,815	3,650		2,915,465
Oct. 6-10					1,326,965	450		1,327,415
Oct. 11-15					1,112,109	1,655		1,113,764
Oct. 16-20					396,250	1,011		397,261
Oct. 21-25					1,334,474	488		1,334,962
Oct. 26-31					929,700	4,042		933,742
Nov. 1-5					627,090	30,810		657,900
Nov. 6-10					237,680	26,705		264,385
Nov. 11-15					5,400	45,020		50,420
Nov. 16-20						278,499		278,499
Nov. 21-25					4,575	443,170		447,745
Nov. 26-30					55,150	220,630		275,780
Dec. 1-5						381,085		381,085
Dec. 6-10						385,535		385,535
Dec. 11-15						55,455		55,455
Dec. 21-25						5,975		5,975
Dec. 26-30						100		100
Total	6,163,658	625,753	6,182,470	143,170	30,865,439	2,181,844	768,415	46,770,749

Mackerel fishery of the Atlantic coast, 1932—Continued

OPERATING UNITS AND CATCH: BY FLEET CLASSIFICATION AND GROUNDS

Designation	Vessels and boats	Tonnage	Crew	Trips	Total catch
SOUTHERN—AREA XXIII					
Seiners:	<i>Number</i>	<i>Net tons</i>	<i>Number</i>	<i>Number</i>	<i>Pounds</i>
Regular vessels.....	44	1,703	557	226	4,803,803
Miscellaneous vessels.....	25	898	301	56	1,359,855
Netters:					
Regular vessels.....	13	272	93	91	396,499
Miscellaneous vessels.....	5	70	29	17	78,512
Miscellaneous boats.....	9			21	50,742
Total.....	¹ 87	2,943	980	411	6,689,411
BLOCK ISLAND—AREA XXII					
(West of Nantucket Shoals only)					
Seiners:					
Regular vessels.....	51	1,980	637	267	4,986,172
Miscellaneous vessels.....	34	1,092	389	81	1,196,298
Netters:					
Regular vessels.....	5	81	37	11	71,395
Miscellaneous vessels.....	10	152	67	10	63,285
Miscellaneous boats.....	2			3	8,490
Total.....	¹ 100	3,305	1,130	372	6,325,640
GULF OF MAINE—AREA XXII					
(North of Nantucket Shoals only)					
Seiners:					
Regular vessels.....	58	1,955	693	1,527	24,158,341
Miscellaneous vessels.....	51	1,374	498	586	6,854,505
Miscellaneous boats.....	5			25	162,593
Netters:					
Spring and summer:					
Miscellaneous vessels.....	19	311	135	128	142,554
Miscellaneous boats.....	38			173	160,765
Fall:					
Regular vessels.....	30	817	225	399	1,456,939
Miscellaneous vessels.....	22	617	160	142	410,120
Miscellaneous boats.....	7			19	11,466
Total.....	¹ 141	5,074	1,715	2,999	32,987,283
CAPE SHORE—AREA XXI					
Seiners.....	19	872	242	20	768,415
Total seiners.....	¹ 114			2,788	43,919,982
Total netters.....	¹ 71			1,014	2,850,767
Grand total.....	¹ 150			3,802	² 46,770,749

¹ Exclusive of duplication and of boats.

² Of this total, 320,000 pounds were tacks (under ½ lb. each), 24,660,000 pounds were tinkers (½ to 1 pound each), and 21,790,000 pounds were of larger sizes (over 1 pound each). There were no bullseye mackerel landed by the fleet.

NOTE.—The Roman numerals appearing in the stub of the above table refer to the numbers given these areas by the North American Council on Fishery Investigations.

FISHERIES OF THE MIDDLE ATLANTIC STATES

(Area XXIII) ¹

The yield of the commercial fisheries in the Middle Atlantic States (New York, New Jersey, Pennsylvania, and Delaware) during 1932 amounted to 141,221,457 pounds, valued at \$4,653,979 to the fishermen, representing a decrease of 7 percent in volume and 36 percent in value as compared with the catch in the previous year. In addition, there was a production of 1,331,790 bushels of seed oysters, valued at \$481,013. These fisheries gave employment to 9,155 fishermen, including those in the fishery for seed oysters.

Fisheries of the Middle Atlantic States, 1932

SUMMARY OF CATCH

Product	New York		New Jersey		Pennsylvania	
	Pounds	Value	Pounds	Value	Pounds	Value
Fish.....	53,499,498	\$919,599	56,432,759	\$984,160	31,729	\$1,739
Shellfish, etc.....	11,166,724	1,413,748	16,161,565	1,233,675	-----	-----
Total.....	64,866,222	2,333,347	72,594,324	2,217,835	31,729	1,739

Product	Delaware		Total	
	Pounds	Value	Pounds	Value
Fish.....	2,377,901	\$32,713	112,301,887	\$1,938,211
Shellfish, etc.....	1,356,969	68,341	28,919,258	2,715,764
Total.....	3,728,870	101,054	141,221,145	4,653,975

OPERATING UNITS: BY STATES

Item	New York	New Jersey	Pennsylvania	Delaware	Total
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	937	1,853	-----	72	2,862
On boats and shore:					
Regular.....	1,106	974	-----	67	2,147
Casual.....	1,314	1,581	51	415	3,361
Total.....	3,357	4,408	51	554	8,370
Vessels:					
Steam.....	8	-----	-----	-----	8
Net tonnage.....	1,600	-----	-----	-----	1,600
Motor.....	176	217	-----	14	407
Net tonnage.....	2,910	3,485	-----	221	6,616
Total vessels.....	184	217	-----	14	415
Total net tonnage.....	4,510	3,485	-----	221	8,216
Boats:					
Motor.....	438	1,102	-----	53	1,593
Other.....	1,173	712	12	149	2,046
Accessory boats.....	48	-----	-----	-----	48

¹ This is the number given to this area by the North American Council on Fishery Investigations. It should be explained that there are included in this area craft owned in the area but at times fishing elsewhere. A notable example is the southern trawl fishery which extends into area XXIV. It should be observed that the persons engaged, gear and craft employed, and catch of the seed oyster fishery are not included among the statistics of the fishery for market oysters and other species but are shown in separate tables in this section.

Fisheries of the Middle Atlantic States, 1932—Continued

OPERATING UNITS: BY STATES—Continued

Item	New York	New Jersey	Pennsylvania	Delaware	Total
Apparatus:					
Purse seines:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Menhaden.....	5	2			7
Length, yards.....	1,680	906			2,586
Other.....	2	13			15
Length, yards.....	800	4,960			5,760
Haul seines.....	131	127	13	60	331
Length, yards.....	13,544	12,690	1,735	18,425	46,394
Gill nets:					
Anchor.....	115	1			116
Square yards.....	72,827	900			73,727
Drift.....	391	801		52	1,244
Square yards.....	428,384	599,720		136,675	1,164,779
Runaround.....	35	84		19	138
Square yards.....	124,422	247,520		27,900	399,842
Stake.....	42	697			741
Square yards.....	15,102	92,620		12,890	120,612
Lines:					
Hand.....	187	854		37	1,078
Hooks.....	363	11,116		74	11,553
Trawl.....	747	803		21	1,571
Hooks.....	221,920	475,100		15,300	712,320
Troll.....	16				16
Hooks.....	16				16
Trot with baits or snoods.....	6	4			10
Baits or snoods.....	5,500	3,400			8,900
Trot with hooks.....	22				22
Hooks.....	3,095				3,095
Pound nets.....	308	163		55	526
Floating traps.....	5				5
Weirs.....		111			111
Stop nets.....	20	61		35	116
Square yards.....	9,004	63,600		7,984	80,588
Fyke nets.....	1,325	1,588		187	3,100
Dip nets.....	15	25		21	61
Cast nets.....		4		1	5
Scap nets.....	269				269
Drag nets.....	52	9			61
Yards at mouth.....	140	18			158
Otter trawls.....	120	59			179
Yards at mouth.....	2,605	1,315			3,920
Pots:					
Crab.....	40	10			50
Bel.....	3,290	3,062		643	6,995
Lobster.....	17,008	27,460		185	44,653
Harpoons.....	24				24
Spears.....	92	54		6	152
Dredges:					
Clam.....	14	56		20	90
Yards at mouth.....	12	60		19	91
Crab.....	6	49		12	67
Yards at mouth.....	5	62		18	85
Mussel.....	2				2
Yards at mouth.....	2				2
Oyster.....	91	247		22	360
Yards at mouth.....	131	294		28	453
Scallop.....	945	10			955
Yards at mouth.....	877	32			909
Tongs.....	508	868		64	1,440
Rakes.....	464	462			926
Forks.....	265	47			312
Hoes.....		135			135
Gaffs.....				1	1

Fisheries of the Middle Atlantic States, 1932- Continued

CATCH BY STATES

Species	New York		New Jersey		Pennsylvania		Delaware		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Albacore.....	8,200	8226	9,869	899					18,069	\$325
Alewives.....	416,483	6,359	10,227	1,182	10,000	\$100	1,735,000	\$7,268	2,291,710	14,909
Bluefish.....	913,422	49,091	3,843,594	112,983			10,262	533	4,767,278	162,607
Bonito.....	54,203	1,528	981,979	25,876					1,036,182	27,404
Butterfish.....	1,239,220	31,344	2,622,886	198,206					3,862,106	142,550
Carp.....	161,241	14,390	136,190	14,936	950	91	31,129	2,299	329,810	31,716
Calfish and bullheads.....	15,402	2,373	40,290	2,455			6,108	367	61,800	5,175
Cod.....	3,337,370	85,528	4,115,029	89,125			29,000	876	7,481,399	175,529
Croaker.....	66,830	1,393	724,142	18,150			66,140	1,503	857,112	21,046
Cusk.....	134,643	1,555							134,643	1,555
Drum:										
Black.....	118	1							118	1
Red or redfish.....			48,200	1,007					48,200	1,007
Eels.....	333,793	32,720	373,120	39,257			31,128	3,126	738,041	75,103
Flounders.....	7,009,587	198,731	3,354,773	111,248			11,871	719	10,376,231	310,698
Frigate mackerel.....				34					2,750	34
Goosefish.....				2,667					2,667	20
Grayfish.....	800	8	7,340	73					8,140	81
Haddock.....	7,612,905	206,841							7,612,905	206,841
Hake.....	147,039	3,400	156,040	2,004					303,079	5,404
Halibut.....	45,181	6,496							45,181	6,496
Herring, sea.....	23,721	344	615,284	3,671			17,000	300	656,005	4,315
King whiting or "kingfish".....	64,889	4,337	112,767	5,608			532	33	178,188	9,978
Launce.....	37,118	468							37,118	468
Mackerel.....	373,176	15,154	367,021	12,066					740,197	27,220
Menhaden.....	25,493,054	43,319	17,701,033	29,721					43,194,087	73,040
Minnnows.....				345					3,450	345
Mullet.....	2,141	104	28,371	1,750			184,507	1,951	215,019	3,805
Mummichog.....	89,470	4,380	20,905	2,349					110,375	6,729
Pigfish.....	537	8							537	8
Pike or pickerel.....	655	76							655	76
Pilotfish.....			1,200	35					1,200	35
Pollock.....	660,367	10,994	1,362	43					661,729	11,037
Pompano.....			200	10					200	10
Rosefish.....	7,426	96							7,426	96
Scup or porgy.....	1,074,163	20,975	6,436,097	66,436			5,400	216	7,515,660	87,627
Sea bass.....	479,320	20,471	2,869,462	82,554			3,900	175	3,352,682	103,200
Sea robin.....	14,733	266	16,828	168					31,561	434
Shad.....	400,595	41,259	223,934	23,556	2,029	608	16,026	2,067	642,584	67,490
Sharks.....	250	2	21,138	230					21,388	232

Silversides.....	166,690	5,358	6,071	728					172,761	6,086
Skates.....	15,855	188	62,950	400					78,805	588
Smelts.....	250	30							250	30
Snapper, red.....			6,250	400					6,250	400
Spanish mackerel.....			7,983	670					7,983	670
Spot.....	27,157	457	107,156	1,913			19,500	689	153,813	3,059
Squeteague or "sea trout", gray.....	677,057	32,720	8,304,547	172,652			105,959	5,487	9,087,563	210,859
Striped bass.....	31,590	4,558	11,543	2,205			8,444	1,223	51,577	7,986
Sturgeon.....	2,982	548	6,510	760			1,600	304	11,092	1,612
Suckers.....	33,915	2,560	69,150	3,808	18,750	940			121,815	7,308
Sunfish.....	1,868	169							1,868	169
Swordfish.....	69,906	8,291							69,906	8,291
Tautog.....	70,753	2,446	29,656	858			61,000	1,860	161,409	5,164
Thimble-eyed mackerel.....			67,755	768					67,755	768
Tilefish.....	1,870,119	50,455							1,870,119	50,455
Tomcod.....	23,820	695	250	3					24,070	698
Tuna or "horse mackerel".....	2,950	89	56,518	2,527					59,468	2,616
Whitebait.....	6,760	893							6,760	893
White perch.....	10,250	990	215,225	11,389			27,805	1,349	253,280	13,728
Whiting.....	171,003	1,224	2,533,847	29,669					2,704,849	30,893
Wolfish.....	25,247	291							25,247	291
Yellow perch.....	3,275	400	5,900	233			5,590	368	14,765	1,001
Total.....	53,459,498	919,599	56,432,759	984,160	31,729	1,739	2,377,901	32,713	112,301,887	1,938,211
SHELLFISH, ETC.										
Crabs:										
Hard.....	181,688	2,121	254,274	16,966			340,625	4,937	776,587	24,024
King.....			3,006,417	6,375			494,800	715	3,501,217	7,090
Soft.....	2,381	771	59,314	6,998			23,400	3,514	85,095	11,283
Lobsters.....	397,081	70,157	470,130	92,755			11,050	2,763	878,261	165,675
Shrimp.....	111,950	24,284	5,300	2,650					117,250	26,934
Squid.....	824,879	10,799	1,375,591	23,530					2,200,470	34,329
Clams:										
Hard, public ¹	771,664	123,632	1,258,928	183,900			29,500	6,675	2,060,092	314,207
Hard, private ²	113,680	23,081	97,242	17,054					210,922	40,135
Soft, public ³	518,272	35,306	668,240	25,965					1,186,512	61,271
Soft, private ³	9,200	900							9,200	900
Surf or skimmers.....	352,656	18,440	136,250	6,175					488,906	24,615
Conchs.....	38,520	3,080							38,520	3,080
Mussels.....	86,000	5,560	4,000	200			23,400	2,250	113,400	8,010
Oysters: ⁴										
Market, public, spring.....	103,010	13,519	16,585	2,007					119,595	15,526
Market, public, fall.....	11,900	1,229	50,971	4,590			120,300	15,880	183,171	21,699
Market, private, spring.....	2,689,688	398,225	158,118	22,565					2,847,806	420,790
Market, private, fall.....	3,231,655	481,448	8,337,955	792,521			306,294	31,522	11,875,904	1,305,491
Periwinkles.....			630	18					630	18

¹ Statistics on hard clams, public, are based on yields of 8 pounds of meats to the bushel in New York, 8.89 pounds in New Jersey, and 10 pounds in Delaware.

² Statistics on hard clams, private, used in this table are based on yields of 8 pounds of meats to the bushel in New York and 9.34 pounds in New Jersey.

³ Statistics on soft clams used in this table are based on yields of 16 pounds of meats to the bushel in New York and 20 pounds in New Jersey.

⁴ Statistics on oysters used in this table are based on yields of 7 pounds of meats to the bushel in New York, 8.88 in New Jersey, and 6.15 pounds in Delaware.

Fisheries of the Middle Atlantic States, 1932—Continued

CATCH: BY STATES—Continued

Species	New York		New Jersey		Pennsylvania		Delaware		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH										
Scallops:										
Bay.....	393,040	\$41,811							393,040	\$41,811
Sea.....	1,531,587	125,749	240,234	\$14,030					1,771,821	139,779
Terrapin, diamond-back.....			515	180					515	180
Turtles:										
Hawksbill.....			3,650	76					3,650	76
Loggerhead.....			1,550	5					1,550	5
Snapper.....			1,600	160			1,600	\$85	3,200	245
Bloodworms.....	28,981	27,366	3,505	3,774					32,486	31,140
Sandworms.....	8,892	6,270	10,566	11,181					19,458	17,451
Total.....	11,406,724	1,413,748	16,161,565	1,233,675			1,350,969	68,341	28,919,258	2,715,764
Grand total.....	64,866,222	2,333,347	72,594,324	2,217,835	31,729	\$1,739	3,728,870	101,054	141,221,145	4,653,975

NOTE.—Of the total catch in New Jersey there were 7,000 pounds of shad, valued at \$560, caught in the St. Johns River in Florida. There were also, 1,081,294 pounds of fishery products, valued at \$45,302, taken in the southern trawl fishery off Maryland, Virginia, and North Carolina. Of the total catch in New York, there were 738,541 pounds of fishery products, valued at \$26,853, taken in the same fishery. These products consisted principally of croaker, flounders, scup, sea bass, and gray squeteague.

Fisheries of the Middle Atlantic States, 1932—Continued

PRODUCTION OF CERTAIN SHELLFISH IN NUMBER AND BUSHELS

Product	New York		New Jersey		Delaware		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Crabs:								
Hard.....number.....	545,064	\$2,121	762,822	\$16,966	1,021,875	\$4,937	2,329,761	\$24,024
King.....do.....			801,711	6,375	131,947	715	933,658	7,090
Soft.....do.....	9,524	771	177,942	6,998	70,200	3,514	257,666	11,283
Clams:								
Hard, public.....bushels.....	96,458	123,632	141,612	183,900	2,950	6,675	241,020	314,207
Hard, private.....do.....	14,210	23,081	10,411	17,054			24,621	40,135
Soft, public.....do.....	32,392	35,306	33,412	25,965			65,804	61,271
Soft, private.....do.....	575	900					575	900
Surf or skimmer.....do.....	29,388	18,440	10,900	6,175			40,288	24,615
Conchs.....do.....	2,140	3,080					2,140	3,080
Mussels, sea.....do.....	8,600	5,560	400	200	1,800	2,250	10,800	8,010
Oysters:								
Market, public, spring.....do.....	14,716	13,519	1,847	2,007			16,563	15,526
Market, public, fall.....do.....	1,700	1,229	5,676	4,590	19,561	15,880	26,937	21,699
Market, private, spring.....do.....	384,241	398,225	17,608	22,565			401,849	420,790
Market, private, fall.....do.....	461,665	481,448	928,503	792,521	49,804	31,522	1,439,972	1,305,491
Scallops:								
Bay.....do.....	78,608	41,811					78,608	41,811
Sea.....do.....	255,264	125,749	40,039	14,030			295,303	139,779

SEED OYSTER FISHERY

Item	New York		New Jersey		Delaware		Total	
OPERATING UNITS								
Fishermen:	<i>Number</i>		<i>Number</i>		<i>Number</i>		<i>Number</i>	
On vessels.....	26		1,645		71		1,742	
On boats and shore:								
Regular.....	278		83		29		390	
Casual.....	6		139		45		190	
Total.....	310		1,867		145		2,322	
Vessels:								
Motor.....	8				11		19	
Net tonnage.....	74				152		226	
Sail.....			150		2		152	
Net tonnage.....			3,011		25		3,036	
Total vessels.....	8		150		13		171	
Total net tonnage.....	74		3,011		177		3,262	
Boats:								
Motor.....	161		104		8		273	
Other.....	9		104		63		176	
Apparatus:								
Dredges.....	6		300		28		334	
Yards at mouth.....	8		356		33		397	
Tongs.....	286		181		70		537	
Rakes.....	9		40		1		50	
CATCH								
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring.....	33,884	\$20,240	1,111,337	\$380,826	105,470	\$24,488	1,250,691	\$425,554
Seed, public, fall.....	5,621	3,283	27,000	6,788	2,400	590	35,021	10,661
Seed, private, spring.....	21,113	19,833					21,113	19,833
Seed, private, fall.....	24,965	24,965					24,965	24,965
Total.....	85,583	68,321	1,138,337	387,614	107,870	25,078	1,331,790	481,013

NOTE.—Of the number of persons fishing for seed oysters, 298 in New York, 1,146 in New Jersey, and 93 in Delaware—a total of 1,537 are duplicated among those fishing for market oysters or other species. Similarly the following craft and gear are duplicated: 6 vessels, all the boats, 2 dredges, and all tongs and rakes in New York; 81 vessels, 99 motor boats, 100 other boats, 162 dredges, 178 tongs and 38 rakes in New Jersey; and 6 vessels, 2 motor boats, 56 other boats, 12 dredges, and 63 tongs in Delaware—a total of 93 vessels, 262 motor boats, 165 other boats, 176 dredges, 527 tongs and 47 rakes.

U. S. BUREAU OF FISHERIES

NEW YORK

Fisheries of New York, 1932

OPERATING UNITS: BY GEAR

Item	Purse seines		Haul seines	Gill nets				Lines				
	Menhaden	Other		Anchor	Drift	Runaround	Stake	Hand	Trawl	Troll	Trot with baits or snoods	Trot with hooks
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Fishermen:	89	17	2	8	17	17		43	94			
On vessels.....												
On boats and shore:												
Regular.....			109	42	63	50	12	50	90	6	6	1
Casual.....			168	20	159	1	47	10	17	2	2	21
Total.....	89	17	279	70	239	68	59	103	201	8	8	22
Vessels:												
Steam.....												
Net tonnage.....												
Motor.....	5	2	1	4	2	6		7	14			
Net tonnage.....	114	41	8	28	83	62		143	270			
Total vessels.....	5	2	1	4	2	6		7	14			
Total net tonnage.....	114	41	8	28	83	62		143	270			
Boats:												
Motor.....			3	12		25	1	41	42	4	6	
Other.....			117	32	111	2	38	5	11			22
Accessory boats.....	14			2				1	31			
Apparatus:												
Number.....	5	2	131	115	391	35	42	187	747	16	6	22
Length, yards.....	1,680	800	13,544									
Square yards.....				72,827	428,384	124,422	15,102					
Yards at mouth.....												
Hooks, baits, or snoods.....								363	221,920	16	5,500	3,095

Item	Pound nets	Floating traps	Stop nets	Fyke nets	Dip nets	Scap nets	Drag nets	Other trawls	Pots			Harpoons
									Crab	Eel	Lobster	
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Fishermen:												
On vessels.....	3			6				354			9	35
On boats and shore:												
Regular.....	125	10	5	49	11	5	22	66	4	63	167	34
Casual.....	7		24	52	4	263	30	11		41	33	2
Total.....	135	10	29	107	15	268	52	431	4	104	209	71
Vessels:												
Steam.....								8				
Net tonnage.....								1,600				
Motor.....	1			3				62			6	7
Net tonnage.....	10			22				955			40	146
Total vessels.....	1			3				70			6	7
Total net tonnage.....	10			22				2,555			40	146
Boats:												
Motor.....	35			15			2	50	2	28	127	17
Other.....	103	5	19	74	15	191		1		62	8	
Accessory boats.....												2
Apparatus:												
Number.....	308	5	20	1,325	15	269	52	120	40	3,290	17,008	24
Square yards.....			9,004									
Yards at mouth.....							140	2,605				

Fisheries of New York, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Spears	Dredges					Tongs	Rakes	Forks	By hand	Total, exclusive of duplication
		Clam	Crab	Mussel	Oyster	Scallop					
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Fishermen:											
On vessels.....		10	2	2	193	155	47				937
On boats and shore:											
Regular.....	48	11			6	130	304	192	165		1,106
Casual.....	44	3				189	156	267	132	1	1,314
Total.....	92	24	2	2	199	474	507	459	297	1	3,357
Vessels:											
Steam.....											8
Net tonnage.....											1,600
Motor.....		5	1	1	43	30	22				176
Net tonnage.....		45	6	13	946	483	137				2,910
Total vessels.....		5	1	1	43	30	22				184
Total net tonnage.....		43	6	13	946	483	137				4,510
Boats:											
Motor.....		9			3	70	118	70			438
Other.....	82					162	265	352	14	1	1,173
Accessory boats.....											48
Apparatus:											
Number.....	92	14	6	2	91	945	508	464	265		
Yards at mouth.....		12	5	2	131	877					

CATCH: BY GEAR

Species	Purse seines				Haul seines		Gill-nets	
	Menhaden		Other				Anchor	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....					213,120	\$2,109		
Bluefish.....			23,100	\$1,314	12,858	541	82,880	\$5,135
Bonito.....					170	17		
Butterfish.....					25	4		
Carp.....					54,945	4,989	5,075	505
Catfish and bullheads.....					4,505	747		
Eels.....					13,380	1,470		
Flounders.....					4,000	160		
King whiting or "kingfish".....					11,433	571		
Launce.....					1,000	17		
Mackerel.....					3,750	187		
Menhaden.....	25,245,600	\$42,076						
Mummichog.....					44,530	2,856		
Scup or porgy.....			383,700	7,674	1,225	12		
Sea bass.....			5,500	220				
Shad.....					1,350	150		
Silversides.....					166,470	5,331		
Squeteagues or "sea trout", gray.....			125,100	3,773	99,157	3,457	95,256	4,705
Striped bass.....					5,785	954	215	44
Sturgeon.....					190	16	310	60
Sucker.....					10,030	668	200	30
Sunfish.....					300	28		
Tomcod.....					500	25		
Whitebait.....					6,760	893		
White perch.....					1,800	155	2,150	192
Yellow perch.....					645	73	550	55
Shrimp.....					41,250	8,192		
Squid.....					7,500	38		
Total.....	25,245,600	42,076	537,400	12,981	706,678	33,660	186,636	10,726

Fisheries of New York, 1932—Continued

CATCH: BY GEAR—Continued

Species	Gill nets—Continued						Lines	
	Drift		Runaround		Stake		Hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	11,750	\$378			5,845	\$122		
Bluefish.....			218,400	\$10,127	500	25	530,770	\$29,796
Bonito.....			8,000	240				
Butterfish.....			11,000	255	300	12		
Carp.....	1,225	106			770	72		
Catfish and bullheads.....	20	3					139,620	2,687
Cod.....								
Eels.....					260	39		
Flounders.....							32,300	646
Haddock.....							1,200	24
Herring, sea.....			500	15				
King whiting or "kingfish".....			310	31			25	2
Mackerel.....	152,955	2,293	62,400	4,368			2,150	108
Pike or pickerel.....					400	40		
Pollock.....							201,000	3,015
Scup or porgy.....							31,786	632
Sea bass.....							92,400	4,699
Shad.....	344,597	33,468			51,560	7,367		
Squeteagues or "sea trout", gray.....			41,105	2,514	7,900	547	5,175	297
Striped bass.....	1,540	258	8,250	1,070	1,910	389		
Sturgeon.....	1,000	197			200	39		
Suckers.....					1,900	150		
Tautog.....					300	9	23,650	716
White perch.....	500	25			2,175	195		
Total.....	513,587	36,728	349,965	18,620	74,020	9,006	1,060,076	42,622

Species	Lines—Continued							
	Trawl		Troll		Trot with baits or snoods		Trot with hooks	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bluefish.....			9,200	\$460				
Carp.....							1,905	\$194
Catfish and bullheads.....							240	42
Cod.....	735,070	\$17,942						
Eels.....	6,015	112					1,400	216
Grayfish.....	800	8						
Haddock.....	33,040	896						
Hake.....	2,613	59						
Pollock.....	300	8						
Skates.....	8,960	127						
Squeteagues or "sea trout", gray.....	72,351	3,857						
Suckers.....							350	35
Tilefish.....	1,870,119	50,455						
White perch.....							120	12
Crabs, hard.....					25,190	\$229		
Total.....	2,729,268	73,464	9,200	460	25,190	229	4,015	499

Species	Pound nets		Floating traps		Stop nets		Fyke nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Albacore.....	8,200	\$226						
Alewives.....					790	\$20	127,750	\$1,316
Bluefish.....	35,455	1,669						
Bonito.....	46,033	1,271						
Butterfish.....	1,216,373	33,835	9,864	\$183				
Carp.....					37,883	3,457	9,325	688
Catfish and bullheads.....					475	72	7,300	1,126
Cod.....	2,210	47						
Eels.....	115,192	14,475					8,950	851
Flounders.....	168,517	7,954	127,152	3,726			776,985	8,619
Hake.....			1,235	12				
Herring, sea.....	23,221	329						
King whiting or "kingfish".....	51,707	3,698						
Launce.....	36,118	451						
Mackerel.....	151,181	8,171	740	27				
Menhaden.....	247,454	1,243						

Fisheries of New York, 1932—Continued

CATCH: BY GEAR—Continued

Species	Pound nets		Floating traps		Stop nets		Fyke nets	
	Pounds 91	Value 4	Pounds	Value	Pounds	Value	Pounds	Value
Mullet							2,050	100
Pike or pickerel							180	28
Pollock			1,471	16				
Scup or porgy	463,431	8,535	37,821	378				
Sea bass	15,330	845	19,568	587				
Sea robin	13,283	261	1,450	5				
Shad	2,988	259				100	15	
Sharks			250	2				
Skates			2,840	21				
Spot	27,157	457						
Squeteagues or "sea trout", gray	223,977	13,349						
Striped bass	13,485	1,759			280	60	125	24
Sturgeon			119	12	150	45	300	30
Suckers					760	55	12,538	923
Sunfish					180	12	1,080	103
Tautog	42,111	1,512	77	2			4,530	205
Tomcod							23,320	670
Tuna or "horse mackerel"	2,950	89						
White perch					175	17	2,325	296
Whiting	167,727	1,207	3,275	17				
Yellow perch							1,755	239
Crabs, hard	60,000	600					41,500	445
Squid	789,768	10,355	26,200	391				
Total	3,923,959	112,601	232,062	5,379	40,793	3,753	1,020,013	15,664

Species	Dip nets		Scap nets		Drag nets		Otter trawls	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives			87,228	\$2,414				
Bluefish							259	24
Butterfish							1,658	55
Carp			50,038	4,372				
Catfish and bullheads			2,812	377				
Cod							2,460,470	64,852
Croaker							66,830	1,393
Cusk							134,643	1,555
Drum, black							118	1
Eels			280	40			1,761	39
Flounders							5,900,633	177,626
Haddock							7,578,665	205,921
Hake							143,191	3,329
Halibut							45,181	6,496
Hogfish							537	8
King whiting or "kingfish"							1,414	35
Pike or pickerel			75	8				
Pollock							457,596	7,955
Rosefish							7,426	96
Scup or porgy			390	19			155,810	3,725
Sea bass							276,522	9,920
Skates							4,055	40
Smelt			250	30				
Squeteagues or "sea trout", gray							7,036	221
Sturgeon			550	125			163	24
Suckers			8,137	699				
Sunfish			308	26				
Tautog							85	1
White perch			1,005	98				
Wolfish							25,247	291
Yellow perch			125	13				
Crabs:								
Hard	5,620	\$110			40,000	\$400		
Soft	2,381	771						
Lobsters							105	13
Shrimp					70,700	16,092		
Scallops, sea							27	2
Squid							1,411	15
Total	8,001	881	151,198	8,221	110,700	16,492	17,270,843	483,637

Fisheries of New York, 1932—Continued

CATCH: BY GEAR—Continued

Species	Pots						Harpoons	
	Crab		Eel		Lobster			
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Carp.....			75	7				
Catfish and bullheads.....			50	6				
Eels.....			154,015	12,322				
Pike or pickerel.....			44,940	1,524				
Sea robin.....					70,000	\$4,200		
Skates.....			220	27				
Tautog.....							69,906	\$8,291
Yellow perch.....			200	20				
Crabs, hard.....	3,650	\$233			3,728	74		
Lobsters.....					396,976	70,144		
Conchs.....			14,400	400				
Total.....	3,650	233	213,900	14,306	470,704	74,418	69,906	8,291

Species	Spears		Dredges					
			Clam		Crab		Mussel	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Eels.....	32,540	\$3,156						
Crabs, hard.....					2,000	\$30		
Clams, surf or skimmer.....			309,876	\$13,762				
Mussels, sea.....							80,000	\$5,200
Total.....	32,540	3,156	309,876	13,762	2,000	30	80,000	5,200

Species	Dredges—Continued				Tongs	
	Oyster		Scallop			
	Pounds	Value	Pounds	Value	Pounds	Value
Clams:						
Hard, public.....					564,688	\$91,026
Hard, private.....	43,120	\$6,160			68,760	16,536
Soft, public.....					1,920	240
Surf or skimmer.....					42,780	4,678
Conchs.....			24,120	\$2,680		
Oysters:						
Market, public, spring.....	85,687	12,226			10,673	1,091
Market, public, fall.....	700	80			9,520	1,005
Market, private, spring.....	2,675,478	395,617			12,950	2,500
Market, private, fall.....	3,216,465	478,666			13,650	2,650
Scallops:						
Bay.....			393,040	41,811		
Sea.....			1,531,560	125,747		
Total.....	6,021,450	892,749	1,948,720	170,238	724,941	119,726

Species	Rakes		Forks		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value
Clams:						
Hard, public.....	204,976	\$32,356	2,000	\$250		
Hard, private.....	1,800	385				
Soft, public.....	109,120	8,308	407,232	26,758		
Soft, private.....			9,200	900		
Mussels, sea.....			6,000	360		
Oysters:						
Market, public, spring.....	6,510	187			140	\$15
Market, public, fall.....	1,680	144				
Market, private, spring.....	1,260	108				
Market, private, fall.....	1,540	132				
Bloodworms.....			28,981	27,366		
Sandworms.....			8,892	6,270		
Total.....	326,886	41,620	462,305	61,904	140	15

Fisheries of New York, 1932—Continued

SEED OYSTER FISHERY: BY GEAR

Item	Dredges, oyster		Tongs		Rakes		Total, exclusive of duplication	
OPERATING UNITS								
Fishermen:	<i>Number</i>		<i>Number</i>		<i>Number</i>		<i>Number</i>	
On vessels.....	15		11				26	
On boats and shore:								
Regular.....			270		8		278	
Casual.....			5		1		6	
Total.....	15		286		9		310	
Vessels:								
Motor.....	3		5				8	
Net tonnage.....	45		29				74	
Boats:								
Motor.....			158		3		161	
Other.....			3		6		9	
Apparatus:								
Number.....	6		286		9		301	
Yards at mouth.....	8						8	
CATCH								
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring.....			33,434	\$20,060	450	\$180	33,884	\$20,240
Seed, public, fall.....			5,171	3,103	450	180	5,621	3,283
Seed, private, spring.....	21,113	\$19,833					21,113	19,833
Seed, private, fall.....	24,965	24,965					24,965	24,965
Total.....	46,078	44,798	38,605	23,163	900	360	85,583	68,321

NOTE.—Of the number of persons fishing for seed oysters, all of those in the tong and rake fisheries, and 3 in the dredge fishery are duplicated among those in the market oyster fishery or fisheries for other species. Similarly, all the craft and gear in the tong and rake fishery are duplicated as well as 1 motor vessel, and 2 dredges in the dredge fishery.

NEW JERSEY

Fisheries of New Jersey, 1932

OPERATING UNITS: BY GEAR

Item	Purse seines		Haul seines	Gill nets				Lines		
	Menhaden	Other		Anchor	Drift	Runaround	Stake	Hand	Trawl	Trot with baits or snoods
Fishermen:	<i>No.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>
On vessels.....	42	114			8			99	62	
On boats and shore:										
Regular.....			83		96	54	31	184	246	3
Casual.....			225	2	168	60	66	156	66	4
Total.....	42	114	308	2	272	114	97	439	374	7
Vessels:										
Motor.....	2	13			1			18	16	
Net tonnage.....	128	195			11			220	178	
Boats:										
Motor.....			22	1	106	57	39	206	145	3
Other.....			95		30		7	6	1	
Accessory boats.....		17	1					39	21	
Apparatus:										
Number.....	2	13	127	1	801	84	697	854	803	4
Length, yards.....	906	4,960	12,690							
Square yards.....				900	599,720	247,520	92,620			
Hooks, baits, or snoods.....								1,116	475,100	3,400

Fisheries of New Jersey, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Pound nets	Weirs	Stop nets	Fykes	Dip nets	Cast nets	Drag nets	Otter trawls	Pots		
									Crab	Eel	Lobster
Fishermen:	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
On vessels.....	249							142			
On boats and shore:											
Regular.....	115		21	53	6		4	53	1	32	176
Casual.....	6	24	60	83	19	4	7	10		63	56
Total.....	370	24	81	136	25	4	11	205	1	95	232
Vessels:											
Motor.....	38							30			
Net tonnage.....	230							637			
Boats:											
Motor.....	22	8	15	37	8		7	29		44	132
Other.....	7	5	34	46	15				1	25	
Apparatus:											
Number.....	163	111	61	1,588	25	4	9	59	10	3,062	27,460
Square yards.....			63,600								
Yards at mouth.....								1,315			

Item	Spears	Dredges					Tongs	Rakes	Forks	Hoes	By hand	Total, exclusive of duplication
		Clam	Crab	Oyster	Scallop							
Fishermen:	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
On vessels.....		174	16	1,217	37						1,853	
On boats and shore:												
Regular.....	35	12	1	18		296	161	15	48	29	974	
Casual.....	19		4	13		572	301	32	87	91	1,581	
Total.....	54	186	21	1,248	37	868	462	47	135	120	4,408	
Vessels:												
Motor.....		22	7	105	5						217	
Net tonnage.....		332	67	2,073	74						3,485	
Boats:												
Motor.....	9	6	3	19		428	229		21	25	1,102	
Other.....	43					371	204		59	68	712	
Accessory boats.....						8					86	
Apparatus:												
Number.....	54	56	49	247	10	868	462	47	135			
Yards at mouth.....		60	62	294	32							

Fisheries of New Jersey, 1932—Continued

CATCH: BY GEAR

Species	Purse seines				Haul seines		Gill nets	
	Menhaden		Other		Pounds	Value	Anchor	
	Pounds	Value	Pounds	Value			Pounds	Value
Alewives					77,795	\$882		
Bluefish			207,724	\$8,949	4,200	352	2,000	\$40
Bonito			1,310	42				
Butterfish			494	20				
Carp					49,690	5,391		
Catfish and bullheads					23,888	1,253		
Croaker			62,236	499	2,600	82		
Eels					46,049	3,665		
Flounders			12,618	254	29,565	1,745		
King whiting or "kingfish"					1,550	107		
Menhaden	12,945,708	\$19,438	2,842,170	4,423				
Minnnows					3,450	345		
Mullet					28,371	1,750		
Mummichog					7,655	980		
Scup or porgy			1,440,920	5,488				
Sea bass			31,419	880				
Shad					9,006	2,031		
Silversides					6,071	728		
Spot					150	8		
Squeteagues or "sea trout", gray			1,807,701	16,168	44,313	2,474	700	49
Striped bass					1,050	188		
Suckers					69,050	3,798		
Thimble-eyed mackerel			810	8				
Tuna or "horse mackerel"			40,000	1,000				
White perch					10,865	832		
Yellow perch					250	10		
Crabs:								
Hard					240	15		
Soft					23,194	3,303		
Total	12,945,708	19,438	6,447,402	37,731	439,002	29,939	2,700	89

Species	Gill nets—Continued						Lines	
	Drift		Runaround		Stake		Hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives					5,520	\$181		
Bluefish	51,875	\$2,402	272,412	\$8,382	13,312	827	2,745,483	\$75,496
Bonito	1,000	20					108,406	3,270
Butterfish	25	3	19	2				
Cod							9,617	167
Croaker	34,100	604			1,000	90	6,485	156
Eels							11,697	1,221
Flounders							23,357	908
Mackerel	176,375	5,481						
Menhaden			400	4				
Scup or porgy			231	2			28,301	597
Sea bass							313,713	10,364
Shad	44,702	6,200			115,733	7,600		
Sharks							2,000	30
Snapper, red							6,250	400
Spanish mackerel							1,250	20
Spot	200	4						
Squeteagues or "sea trout", gray	90,650	3,048	98,549	3,173	18,244	1,070	58,375	2,511
Striped bass					4,180	866	400	48
Sturgeon	573	45						
Tautog							3,700	197
Tuna or "horse mackerel"							56	2
White perch					34,650	2,876	100	4
Yellow perch							100	4
Crabs:								
Hard	800	50			360	41		
Soft					340	55		
Total	400,300	17,857	371,611	11,563	193,339	13,606	3,319,290	95,395

Fisheries of New Jersey, 1932—Continued

CATCH: BY GEAR—Continued

Species	Lines—Continued				Pound nets		Weirs	
	Trawl		Trot with baits or snoods		Pounds	Value	Pounds	Value
	Pounds	Value	Pounds	Value				
Albacore					9, 869	\$99		
Bluefish					541, 252	16, 168		
Bonito					871, 263	22, 544		
Butterfish					2, 585, 526	106, 888		
Cod	3, 827, 022	\$83, 003			164, 359	4, 160		
Croaker					306, 073	6, 529		
Drum, red or redfish					48, 200	1, 007		
Eels					10, 440	1, 244		
Flounders	7, 000	255			293, 991	13, 058		
Frigate mackerel					2, 750	34		
Goosefish					2, 667	20		
Grayfish					7, 340	73		
Hake	24, 500	704			120, 340	1, 081		
Herring, sea					615, 284	3, 671		
King whiting or "kingfish"					96, 366	5, 017		
Mackerel					190, 646	6, 585		
Menhaden					1, 912, 755	5, 856		
Pilotfish					1, 200	35		
Pollock					1, 362	43		
Pompano					200	10		
Scup or porgy					3, 482, 395	28, 409		
Sea bass					261, 045	8, 334		
Sea robin					16, 828	168		
Shad					54, 231	7, 662		
Sharks					19, 138	200		
Skates	800	4			62, 150	396		
Spanish mackerel					6, 733	650		
Spot					105, 189	1, 874		
Squeteagues or "sea trout", gray					6, 025, 103	139, 194		
Striped bass					1, 115	164		
Sturgeon					876	200		
Tautog					16, 028	414		
Thimble-eyed mackerel					66, 945	760		
Tomcod					250	3		
Tuna or "horse mackerel"					16, 462	1, 525		
White perch					360	22		
Whiting					2, 533, 727	29, 668		
Crabs:								
Hard			24, 000	\$1, 000	7, 713	48		
King					1, 517, 250	3, 209	1, 437, 000	\$2, 926
Soft			10, 720	285				
Squid					1, 370, 196	23, 396		
Turtles:								
Hawksbill					3, 650	76		
Loggerhead					1, 550	5		
Total	3, 859, 322	83, 966	34, 720	1, 285	23, 350, 817	440, 499	1, 437, 000	2, 926

Species	Stop nets		Fyke nets		Dip nets		Cast nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives			19, 912	\$119				
Carp	84, 800	\$9, 325					2, 000	\$220
Catfish and bullheads			16, 402	1, 182				
Eels			28, 212	2, 689				
Flounders			117, 065	3, 426				
Shad	262	63						
Striped bass	250	30	4, 548	909				
Suckers			100	10				
White perch			169, 250	7, 655				
Yellow perch			5, 550	219				
Crabs:								
Hard					12, 300	\$721		
King			14, 667	160				
Soft					14, 620	2, 554		
Turtles, snapper			1, 600	160				
Total	85, 312	9, 418	377, 306	16, 529	26, 920	3, 275	2, 000	220

Fisheries of New Jersey, 1932—Continued

CATCH: BY GEAR—Continued

Species	Drag nets		Otter trawls		Pots			
					Crab		Eel	
					Pounds	Value	Pounds	Value
Bluefish.....			5,336	\$367				
Butterfish.....			36,822	1,293				
Cod.....			114,031	1,795				
Croaker.....			311,648	10,190				
Eels.....			3,823	77			142,190	\$12,996
Flounders.....			2,871,177	91,602				
Hake.....			11,200	219				
King whiting or "kingfish".....			14,851	484				
Mummichog.....							13,250	1,369
Scup or porgy.....			1,484,250	31,940				
Sea bass.....			820,069	25,820				
Spot.....			1,617	27				
Squeteagues or "sea trout," gray.....			160,912	4,965				
Sturgeon.....			5,061	515				
Tautog.....			2,213	47				
Whiting.....			120	1				
Crabs:								
Hard.....					8,000	\$400		
Soft.....					3,200	600		
Lobsters.....			465	70				
Shrimp.....	5,300	\$2,650						
Periwinkles.....			630	18				
Squid.....			5,395	134				
Total.....	5,300	2,650	5,849,620	169,564	11,200	1,000	155,440	14,365

Species	Pots—Continued		Spears		Dredges			
	Lobster				Clam		Crab	
	Pounds	Value			Pounds	Value	Pounds	Value
Eels.....	10	\$1	130,699	\$17,364				
Sea bass.....	1,443,216	37,156						
Tautog.....	7,715	200						
Crabs, hard.....							181,101	\$14,167
Lobsters.....	469,665	92,685						
Clams:								
Hard, public.....					24,321	\$4,380		
Hard, private.....					63,158	7,101		
Surf or skimmer.....					136,250	6,175		
Total.....	1,920,606	130,042	130,699	17,364	223,729	17,656	181,101	14,167

Species	Dredges—Continued				Tongs		Rakes	
	Oyster		Scallop					
	Pounds	Value	Pounds	Value				
Crabs:								
Hard.....					7,980	\$229	11,780	\$295
Soft.....					3,520	108	3,720	93
Clams:								
Hard, public.....	4,200	\$552			705,753	107,798	460,006	59,345
Hard, private.....	18,428	4,212			8,456	2,141	7,200	3,600
Oysters:								
Market, public, spring.....					13,035	1,507	3,550	500
Market, public, fall.....					49,398	4,405	1,573	185
Market, private, spring.....	92,625	13,452			58,854	7,886	4,089	777
Market, private, fall.....	8,180,907	770,620			117,955	15,776	38,668	6,075
Scallops, sea.....			240,234	\$14,030				
Total.....	8,296,160	788,836	240,234	14,030	964,951	139,850	530,586	70,870

Fisheries of New Jersey, 1932—Continued

CATCH: BY GEAR—Continued

Species	Forks		Hoes		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value
Crabs, king					37,500	\$80
Clams:						
Hard, public					64,648	11,825
Soft, public			668,240	\$25,965		
Mussels, sea					4,000	200
Oysters:						
Market, private, spring					2,550	450
Market, private, fall					425	50
Terrapin, diamond-back					515	180
Bloodworms	3,505	\$3,774				
Sandworms	10,566	11,181				
Total	14,071	14,955	668,240	25,965	109,638	12,785

SEED OYSTER FISHERY: BY GEAR

Item	Dredges, oyster		Tongs		Rakes		Total, exclusive of duplication	
	Number	Value	Number	Value	Number	Value	Number	Value
OPERATING UNITS								
Fishermen:	Number		Number		Number		Number	
On vessels	1,645						1,645	
On boats and shore:								
Regular			65		18		83	
Casual			116		23		139	
Total	1,645		181		41		1,867	
Vessels:								
Sail	150						150	
Net tonnage	3,011						3,011	
Boats:								
Motor			71		33		104	
Other			97		7		104	
Apparatus:								
Number	300		181		40		521	
Yards at mouth	356						356	
CATCH								
Oysters:	Bushels	Value	Bushels	Value	Bushels	Value	Bushels	Value
Seed, public, spring	1,033,400	\$362,040	69,502	\$16,927	8,435	\$1,859	1,111,337	\$380,826
Seed, public, fall			26,750	6,688	250	100	27,000	6,788
Total	1,033,400	362,040	96,252	23,615	8,685	1,959	1,138,337	387,614

NOTE.—Of the number of persons fishing for seed oysters, 929 in the dredge fishery, 178 in the tong fishery, and 39 in the rake fishery are duplicated among those fishing for market oysters or in fisheries for other species. Similarly, 81 vessels, and 162 dredges in the dredge fishery; 68 motor boats, all the other boats and 178 tongs in the fishery with tongs; and 31 motor boats, 3 other boats, and 38 rakes in the fishery by rakes are duplicated.

PENNSYLVANIA

Fisheries of Pennsylvania, 1932¹

OPERATING UNITS: BY GEAR

Item	Haul seines
	Number
Fishermen, on boats and shore, casual	51
Boats:	
Other	12
Apparatus:	
Number	13
Length, yards	1,735

¹ The fisheries of Pennsylvania are confined to Bucks County.

Fisheries of Pennsylvania, 1932—Continued

CATCH: BY GEAR

Species	Haul seines	
	Pounds	Value
Alewives.....	10,000	\$100
Carp.....	950	91
Shad.....	2,029	608
Suckers.....	18,750	940
Total.....	31,729	1,739

DELAWARE

Fisheries of Delaware, 1932

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets			Lines		Pound nets
		Drift	Run-around	Stake	Hand	Trawl	
Fishermen:							
On boats and shore:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Regular.....	12	10	12	17	23	5	2
Casual.....	240	62	19	30	9	9	33
Total.....	252	72	31	47	32	14	35
Boats:							
Motor.....		26	13	4	9	5	
Other.....	64	10	3	18	4	1	19
Accessory boats.....	1			1			1
Apparatus:							
Number.....	60	52	19	162	37	21	55
Length, yards.....	18,425						
Square yards.....		136,675	27,900	12,890			
Hooks, baits, or snoods.....					74	15,300	

Item	Stop nets	Fyke nets	Dip nets	Cast nets	Pots		Spears
					Eel	Lobster	
Fishermen:							
On boats and shore:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Regular.....	2	13	10		14	13	
Casual.....	37	23	11	1	14		6
Total.....	39	36	21	1	28	13	6
Boats:							
Motor.....		6			2	4	2
Other.....	19	15	11		13		3
Accessory boats.....	1						
Apparatus:							
Number.....	35	187	21	1	643	185	6
Square yards.....	7,984						

Fisheries of Delaware, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Dredges			Tongs	Gaffs	By hand	Total, exclusive of duplication
	Clam	Crab	Oyster				
	Number	Number	Number	Number	Number	Number	Number
Fishermen:							
On vessels.....	11	19	63				72
On boats and shore:							
Regular.....	7			26			67
Casual.....	4			38	1	12	415
Total.....	22	19	63	64	1	12	554
Vessels:							
Motor.....	4	6	11				14
Net tonnage.....	64	108	165				221
Boats:							
Motor.....	6			2			53
Other.....				56			149
Accessory boats.....				9			13
Apparatus:							
Number.....	20	12	22	64	1		
Yards at mouth.....	19	18	28				

CATCH: BY GEAR

Species	Haul seines		Gill nets					
			Drift		Runaround		Stake	
			Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	1,361,700	\$3,910	44,100	\$409			280,650	\$2,053
Bluefish.....			8,625	448			665	27
Carp.....	12,350	809						
Catfish and bullheads.....	1,775	122					13	1
Croaker.....	23,045	460	20,900	350	1,524	\$25		
Eels.....	510	63						
Flounders.....	1,300	78					9,337	561
Herring, sea.....	17,000	300						
King whiting or "kingfish".....	532	35						
Mullet.....					184,500	1,950	7	1
Shad.....	5,616	728	10,300	1,327			110	12
Spot.....			19,500	689				
Squeteagues or "sea trout", gray.....	56,600	2,547	25,600	1,181	198	10	8,150	425
Striped bass.....	1,222	150					7,012	1,030
Sturgeon.....			1,600	304				
White perch.....	10,852	527					8,454	384
Yellow perch.....	4,245	281						
Total.....	1,496,747	10,008	130,625	4,708	186,222	1,985	314,398	4,494

Fisheries of Delaware, 1932—Continued

CATCH: BY GEAR—Continued

Species	Lines				Pound nets		Stop nets	
	Hand		Trawl		Pounds	Value	Pounds	Value
	Pounds	Value	Pounds	Value				
Alewives.....					30,000	\$550		
Bluefish.....	972	\$58						
Carp.....					1,203	93	17,050	\$1,372
Catfish and bullheads.....					3,000	183	272	11
Cod.....			29,000	\$876				
Croaker.....	20,671	668						
Eels.....					1,571	156		
Flounders.....					125	12		
Scup or porgy.....	5,400	216						
Sea bass.....	3,900	175						
Squeteagues or "sea trout", gray.....	15,411	1,324						
Striped bass.....					20	5		
Tautog.....	61,000	1,860						
White perch.....					3,029	159		
Yellow perch.....					320	17	160	11
Crabs, king.....					439,800	632		
Total.....	107,354	4,301	29,000	876	479,068	1,807	17,482	1,394

Species	Fyke nets		Dip nets		Cast nets		Pots	
	Pounds	Value	Pounds	Value	Pounds	Value	Eel	
Pounds							Value	
Alewives.....	18,550	\$346						
Carp.....	126	5			100	\$8		
Catfish and bullheads.....	868	38						
Eels.....	2,323	225					26,544	\$2,669
Flounders.....	1,109	68						
Striped bass.....	190	38						
White perch.....	5,470	279						
Yellow perch.....	865	59						
Crabs, soft.....			23,400	\$3,514				
Turtles, snapper.....	1,500	80						
Total.....	31,001	1,138	23,400	3,514	100	8	26,544	2,669

Species	Pots—Con.		Spears		Dredges			
	Lobster				Clam		Crab	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Carp.....			300	\$12				
Catfish and bulheads.....			180	12				
Eels.....			180	13				
Crabs, hard.....							262,500	\$4,000
Lobsters.....	11,050	\$2,763						
Clams, hard, public.....					18,500	\$4,375	2,000	500
Total.....	11,050	2,763	660	37	18,500	4,375	264,500	4,500

Species	Dredges—Con.		Tongs		Gaffs		By hand	
	Oyster							
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Crabs:								
Hard.....	78,125	\$937						
King.....							55,000	\$83
Clams, hard, public.....			9,000	\$1,800				
Mussels, sea.....			23,400	2,250				
Oysters:								
Market, public, fall.....			120,300	15,880				
Market, private, fall.....	301,374	30,892	4,920	630				
Turtles, snapper.....					100	\$5		
Total.....	379,499	31,829	157,620	20,560	100	5	55,000	83

Fisheries of Delaware, 1932—Continued

SEED OYSTER FISHERY: BY GEAR

Item	Dredges, oyster		Tongs		Rakes		Total, exclusive of duplication	
	Number		Number		Number		Number	
OPERATING UNITS								
Fishermen:								
On vessels.....	71							71
On boats and shore:								
Regular.....	3		25		1			29
Casual.....			45					45
Total.....	74		70		1			145
Vessels:								
Motor.....	11							11
Net tonnage.....	152							152
Sail.....	2							2
Net tonnage.....	25							25
Total vessels.....	13							13
Total net tonnage.....	177							177
Boats:								
Motor.....	1		7					8
Other.....			62		1			63
Apparatus:								
Number.....	28		70		1			99
Yards at mouth.....	33							33
CATCH								
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring.....	76,050	\$17,698	28,920	\$6,690	500	\$100	105,470	\$24,488
Seed, public, fall.....			2,400	590			2,400	590
Total.....	76,050	17,698	31,320	7,280	500	100	107,870	25,078

NOTE.—Of the number of persons fishing for seed oysters, 29 in the dredge fishery, 63 in the fishery by tongs, and the 1 person in the rake fishery are duplicated among those in the market oyster fishery or in fisheries for other species. Similarly, 4 motor vessels, all the sail vessels, and 12 dredges in the dredge fishery; and 2 motor boats, 56 other boats, and 63 tongs in the fishery by tongs are duplicated.

VESSEL FISHERIES AT NEW YORK CITY AND GROTON, CONN. ⁵

During 1932 fishing vessels of 5 net tons capacity or greater landed 35,601,941 pounds of fishery products at New York City and Groton, Conn. This is 31 percent less than during the previous year. The landings consisted of bluefish, 1,752,250 pounds; cod, 1,773,998 pounds; flounders, 7,797,021 pounds; haddock, 17,135,977 pounds; hake, 47,085 pounds; halibut, 1,916 pounds; mackerel, 2,565,000 pounds; pollock, 118,043 pounds; scup or porgies, and sea bass, 708,200 pounds; tilefish, 1,875,800 pounds; scallops, 1,725,845 pounds; and miscellaneous species 100,806 pounds.

It is estimated that during the year there were approximately 15,000,000 pounds of fish and shellfish landed at New York City by craft under 5 net tons.

SHAD FISHERY OF THE HUDSON RIVER

The shad fishery of the Hudson River in 1932 was prosecuted by 274 fishermen, who used 3 motor boats, 129 other boats, 110 drift gill nets, having a total area of 376,884 square yards, 16 stake gill nets, having a total area of 18,748 square yards, and 2 haul seines

⁵ Statistics on the landings at New York City are collected by J. H. Matthews, executive secretary, Middle Atlantic Fisheries Association, and forwarded to this Bureau where they are combined with Groton landings. The statistics for the two ports are combined to avoid disclosure of individual enterprise.

having a combined length of 277 yards. The total catch was 159,358 shad, having a weight of 529,754 pounds, and a value to the fishermen of \$50,849. This is an increase of slightly over 26 percent in number and 2 percent in value as compared with 1931. The average price per pound received by the fishermen in 1932 was about 10 cents, as compared with 12 cents in 1931.

Nearly 66 percent of the shad in weight were taken in drift gill nets and 34 percent in stake gill nets. Small quantities amounting to less than one-half of 1 percent of the total were taken by haul seines, and incidentally with gear being fished primarily for other species.

With the exception of some fishing with stake gill nets from one town in New Jersey, the fishery was prosecuted entirely from points in New York.

Shad fishery of the Hudson River, 1932

Item	New York			New Jersey			Total		
	Number	Pounds	Value	Number	Pounds	Value	Number	Pounds	Value
Fishermen:									
On boats and shore:									
Regular.....	54			4			58		
Casual.....	191			25			216		
Total.....	245			29			274		
Boats:									
Motor.....				3			3		
Other.....	122			7			129		
Apparatus:									
Haul seines.....	2						2		
Length, yards.....	277						277		
Gill nets:									
Drift.....	110						110		
Square yards.....	376,884						376,884		
Stake.....	10			6			16		
Square yards.....	9,072			9,676			18,748		
Shad caught:									
With haul seines.....	535	1,350	\$150				535	1,350	\$150
With drift gill nets.....	107,753	347,354	33,468				107,753	347,354	33,468
With stake gill nets.....	13,032	48,950	6,454	38,000	132,000	\$10,762	51,032	180,950	17,216
Incidentally.....	38	100	15				38	100	15
Total.....	121,358	397,754	40,087	38,000	132,000	10,762	159,358	529,754	50,849

FISHERIES OF THE CHESAPEAKE BAY STATES

(Area XXIII ⁶)

The yield of the commercial fisheries in the Chesapeake Bay States (Maryland and Virginia) during 1932 amounted to 359,007,494 pounds, valued at \$5,904,989 to the fisherman, representing an increase of 26 percent in volume but a decrease of 18 percent in value as compared with the catch in the previous year. In addition, there was a production of 1,475,053 bushels of seed oysters, valued at \$158,640. These fisheries gave employment to 21,084 fishermen, including those in the fishery for seed oysters.

⁶ This is the number given to this area by the North American Council on Fishery Investigations. It should be explained that there are included under this area craft owned in the area but at times fishing elsewhere. A notable example is the southern trawl fishery, which extends into area XXIV. Data on the operating units and catch of the fisheries of the Chesapeake Bay States have been taken largely from statistics collected by the State fishery agencies of Maryland and Virginia. Supplementary surveys, compilations, and analyses have been made by agents of this Bureau in order that the figures may be presented in a manner comparable with those of other sections. It should be observed that the persons engaged, gear and craft employed, and catch of the seed-oyster fishery are not included among the statistics of the fishery for market oysters and other species but are shown in separate tables in this section.

Fisheries of the Chesapeake Bay States, 1932

SUMMARY OF CATCH

Product	Maryland		Virginia		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
Fish.....	15,667,697	\$473,406	251,439,634	\$2,074,917	267,107,331	\$2,548,323
Shellfish, etc.....	45,958,756	1,466,310	45,941,407	1,890,356	91,900,163	3,356,666
Total.....	61,626,453	1,939,716	297,381,041	3,965,273	359,007,494	5,904,989

OPERATING UNITS: BY STATES

Item	Maryland	Virginia	Total
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	767	1,289	2,056
On boats and shore:			
Regular.....	5,628	6,613	12,241
Casual.....	2,422	4,227	6,649
Total.....	8,817	12,129	20,946
Vessels:			
Steam.....		19	19
Net tonnage.....		2,021	2,021
Motor.....	1	109	110
Net tonnage.....	9	1,759	1,768
Sail.....	187	6	193
Net tonnage.....	1,966	39	2,005
Total vessels.....	188	134	322
Total net tonnage.....	1,975	3,819	5,794
Boats:			
Motor.....	3,721	4,495	8,216
Other.....	2,329	3,685	6,014
Accessory boats.....		52	52
Apparatus:			
Purse seines:			
Menhaden.....		26	26
Length, yards.....		7,860	7,860
Other.....		1	1
Length, yards.....		300	300
Haul seines.....	211	91	302
Length, yards.....	26,946	24,223	51,169
Gill nets:			
Anchor.....	29		29
Square yards.....	12,274		12,274
Drift.....	158	457	615
Square yards.....	317,040	424,443	741,483
Stake.....	3,345	7,822	11,167
Square yards.....	249,499	358,317	607,816
Lines:			
Hand.....	16		16
Hooks.....	64		64
Trot with baits or snoods.....	1,227	994	2,221
Baits or snoods.....	792,370	580,385	1,372,755
Pound nets.....	655	2,019	2,674
Stop nets.....	3	4	7
Square yards.....	5,400	9,450	14,850
Fyke nets.....	1,183	690	1,873
Dip nets.....	1,523	1,349	2,872
Otter trawls.....		27	27
Yards at mouth.....		769	769
Pots, eel.....	9,940	14	9,954
Scrapes.....	956	80	1,036
Yards at mouth.....	956	80	1,036
Dredges:			
Crab.....		126	126
Yards at mouth.....		251	251
Oyster.....	538	256	794
Yards at mouth.....	650	347	997
Scallop.....		610	610
Yards at mouth.....		407	407
Tongs.....	4,962	5,641	10,603
Rakes.....	98	894	992
Picks.....		726	726

Fisheries of the Chesapeake Bay States, 1932—Continued

CATCH: BY STATES

Species	Maryland		Virginia		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Alewives.....	7,552,695	\$52,361	13,852,493	\$64,521	21,405,188	\$116,882
Black bass.....	33,658	3,600			33,658	3,600
Bluefish.....	360,129	20,649	550,739	25,490	910,868	46,139
Bonito.....	5,120	226	50,420	2,321	55,540	2,547
Butterfish.....	990,424	30,304	2,906,623	84,189	3,897,047	114,493
Cabio or crab eater.....	2,000	50	2,515	50	4,515	100
Carp.....	123,050	9,148	240,146	10,335	363,196	19,483
Catfish and bullheads.....	186,747	6,601	695,857	21,200	882,604	27,801
Cod.....			21,950	521	21,950	521
Croaker.....	1,321,621	26,954	14,692,706	251,539	16,014,327	278,493
Drum:						
Black.....	34,204	344	29,362	297	63,566	641
Red or redbfish.....	13,670	358	25,259	822	38,929	1,180
Eels.....	308,536	19,547	26,326	1,374	334,862	20,921
Flounders.....	97,990	4,386	1,190,389	48,385	1,288,379	52,771
Gizzard shad.....	14,339	289	90,734	1,813	105,073	2,102
Haddock.....			460	10	460	10
Hake.....			31,084	574	31,084	574
Harvestfish.....	7,690	568	93,988	2,369	101,678	2,937
Hickory shad.....	10,668	492	48,311	970	58,979	1,462
King whiting or "kingfish".....	6,200	248	26,930	955	33,130	1,203
Mackerel.....	2,500	125	23,517	1,136	26,017	1,261
Menhaden.....			195,485,600	652,536	195,485,600	652,536
Mullet.....	15,765	783	32,314	1,196	48,079	1,979
Pigfish.....			33,457	1,256	33,457	1,256
Pike or pickerel.....	18,073	2,978			18,073	2,978
Pompano.....	490	112			490	112
Scup.....	35,900	1,523	1,711,820	45,457	1,747,720	46,980
Sea bass.....	119,060	3,584	840,864	24,370	959,924	27,954
Sea robin.....	475	5			475	5
Shad.....	1,667,452	155,535	4,847,487	424,316	6,514,939	579,851
Silver perch.....	21,300	439			21,300	439
Skates.....	1,225	15			1,225	15
Spanish mackerel.....			62,834	3,849	62,834	3,849
Spot.....	47,377	1,498	753,318	22,264	800,695	23,762
Squeteagues or "sea trout":						
Gray.....	1,805,364	52,377	11,974,271	286,927	13,779,635	339,304
Spotted.....	4,060	432	84,487	5,501	88,547	5,933
Striped bass.....	433,811	56,300	594,299	71,455	1,028,110	127,755
Sturgeon.....	210	52	4,832	795	5,042	847
Suckers.....	1,500	47			1,500	47
Tautog.....	175	4	232	7	407	11
Thimble-eyed mackerel.....			11,619	232	11,619	232
White perch.....	323,808	14,737	318,191	11,516	641,999	26,253
Yellow perch.....	100,411	6,735	84,200	4,369	184,611	11,104
Total.....	15,667,697	473,406	251,439,634	2,074,917	267,107,331	2,548,323
SHELLFISH, ETC.						
Crabs:						
Hard.....	29,399,178	291,130	27,024,045	290,821	56,423,223	581,951
Soft.....	3,540,253	227,674	1,549,061	91,810	5,089,314	319,484
Lobsters.....			33	6	33	6
Squid.....	2,200	66	320,954	6,387	323,154	6,453
Clams, hard, public.....	27,048	4,734	1,484,464	347,647	1,511,512	352,381
Oysters: ¹						
Market, public, spring.....	4,343,805	335,021	1,614,674	112,094	5,958,479	447,115
Market, public, fall.....	7,762,740	523,540	4,446,419	280,271	12,209,159	803,811
Market, private, spring.....	610,888	59,277	3,420,102	274,804	4,030,990	334,081
Market, private, fall.....	267,925	24,005	5,423,053	406,423	5,690,978	430,428
Scallops:						
Bay.....			658,584	80,090	658,584	80,090
Sea.....			18	3	18	3
Terrapin, diamond-back.....	3,378	823			3,378	823
Turtles, snapper.....	1,341	40			1,341	40
Total.....	45,958,756	1,466,310	45,941,407	1,890,356	91,900,163	3,356,666
Grand total.....	61,626,453	1,939,716	297,381,041	3,965,273	359,007,494	5,904,989

¹ Statistics on oysters used in this table are based on yields of 6.66 pounds of meats to the bushel for market oysters in Maryland and 6.51 pounds in Virginia.

Fisheries of the Chesapeake Bay States, 1932—Continued

PRODUCTION OF CERTAIN SHELLFISH IN NUMBER AND BUSHELS

Product	Maryland		Virginia		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
Crabs:						
Hard.....number.....	88, 197, 534	\$291, 130	81, 072, 135	\$290, 821	169, 269, 669	\$581, 951
Soft.....do.....	14, 161, 012	227, 674	6, 196, 244	91, 810	20, 357, 256	319, 484
Clams, hard.....bushels.....	3, 381	4, 734	185, 558	347, 647	188, 939	352, 381
Oysters:						
Market, public, spring.....do.....	652, 419	335, 021	248, 030	112, 094	900, 449	447, 115
Market, public, fall.....do.....	1, 165, 927	523, 540	683, 014	280, 271	1, 848, 941	803, 811
Market, private, spring.....do.....	91, 752	59, 277	525, 361	274, 804	617, 113	334, 081
Market, private, fall.....do.....	40, 241	24, 005	833, 034	406, 423	873, 275	430, 428
Scallops:						
Bay.....do.....			109, 764	80, 090	109, 764	80, 090
Sea.....do.....			3	3	3	3

SEED OYSTER FISHERY

Item	Maryland		Virginia		Total	
	Bushels	Value	Bushels	Value	Bushels	Value
OPERATING UNITS						
Fishermen:						
On boats and shore:						
Regular.....do.....	126		1, 174		1, 300	
Casual.....do.....			447		447	
Total.....do.....	126		1, 621		1, 747	
Boats:						
Motor.....do.....	58		688		746	
Other.....do.....			184		184	
Apparatus:						
Tongs.....do.....	126		1, 265		1, 391	
Rakes.....do.....			86		86	
CATCH						
Oysters:						
Seed, public, spring.....do.....	7, 043	\$1, 056	557, 962	\$67, 519	565, 005	\$68, 575
Seed, public, fall.....do.....			897, 048	89, 025	897, 048	89, 025
Seed, private, spring.....do.....			13, 000	1, 040	13, 000	1, 040
Total.....do.....	7, 043	1, 056	1, 468, 010	157, 584	1, 475, 053	158, 640

NOTE.—Of the number of persons fishing for seed oysters, all of those in Maryland and 1,483 in Virginia—a total of 1,609 are duplicated among those fishing for market oysters or other species. Similarly the following craft and gear are duplicated: All craft and gear in Maryland and 634 motor boats, 172 other boats, 1,165 tongs, and 86 rakes in Virginia—a total of 692 motor boats, 172 other boats, 1,291 tongs, and 86 rakes.

MARYLAND

Fisheries of Maryland, 1932

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets			Lines		Pound nets	Stop nets	Fyke nets
		Anchor	Drift	Stake	Hand	Trot with baits or snoods			
Fishermen:									
On boats and shore:									
Regular.....do.....	185	6	55	107	16	983	544	4	63
Casual.....do.....	333	8	226	94		268	101	3	41
Total.....do.....	518	14	281	201	16	1, 251	645	7	104
Boats:									
Motor.....do.....	95	6	85	87	8	1, 079	216	3	41
Other.....do.....	229	6	71	69		138	175	3	57
Apparatus:									
Number.....do.....	211	29	158	3, 345	16	1, 227	655	3	1, 183
Length, yards.....do.....	26, 946								
Square yards.....do.....		12, 274	317, 040	249, 499				5, 400	
Hooks, baits, or snoods.....do.....					64	792, 370			

Fisheries of Maryland, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Dip nets	Pots, eel	Scrapes	Dredges, oyster	Tongs	Rakes	By hand	Total exclusive of duplication
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....				767				767
On boats and shore:								
Regular.....	840	134	431	190	3,893	84	29	5,628
Casual.....	683	48			1,073	14	8	2,422
Total.....	1,523	182	431	957	4,966	98	37	8,817
Vessels:								
Motor.....				1				1
Net tonnage.....				9				9
Sail.....				187				187
Net tonnage.....				1,966				1,966
Total vessels.....				188				188
Total net tonnage.....				1,975				1,975
Boats:								
Motor.....	358	130		31	2,477	5		3,721
Other.....	1,262	38	369	50	206	93	37	2,329
Apparatus:								
Number.....	1,523	9,940	956	538	4,962	98		
Yards at mouth.....			956	650				

CATCH: BY GEAR

Species	Haul seines		Gill nets					
			Anchor		Drift		Stake	
	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
Alewives.....	378,424	\$3,369	200	\$4	400	\$9	33,205	\$468
Black bass.....	23,381	2,382						
Bluefish.....	68,106	4,668	4,200	336	8,668	593	4,916	319
Butterfish.....	5,000	200						
Carp.....	101,821	7,761					250	14
Catfish and bullheads.....	61,524	2,235	300	15			3,480	146
Croaker.....	281,930	5,645					7,000	155
Drum, red or redfish.....	500	19						
Eels.....	1,908	107						
Flounders.....	2,520	120						
Gizzard shad.....	800	13						
Mullet.....	641	23					14,112	706
Pike or pickerel.....	13,148	2,026					225	34
Shad.....	52,987	2,785			384,785	30,353	304,208	21,980
Silver perch.....	1,300	39						
Spot.....	3,834	140					1,020	41
Squeteagues or "sea trout":								
Gray.....	82,058	3,808	800	40	800	48	2,350	102
Spotted.....	1,600	176						
Striped bass.....	99,360	13,026	18,750	2,280	77,473	10,167	76,715	10,100
Suckers.....	1,200	38						
White perch.....	80,325	3,171	2,005	128	3,000	171	7,030	431
Yellow perch.....	23,742	1,680			600	36	4,835	274
Crabs, soft.....	151,083	13,459						
Turtles, snapper.....	1,341	40						
Total.....	1,438,533	66,930	26,255	2,803	475,726	41,377	459,346	34,770

Fisheries of Maryland, 1932—Continued

CATCH: BY GEAR—Continued

Species	Lines				Pound nets		Stop nets	
	Hand		Trot with baits or snoods		Pounds	Value	Pounds	Value
	Pounds	Value	Pounds	Value				
Alewives.....					7, 137, 301	\$48, 469		
Black bass.....					3, 187	389		
Bluefish.....	98, 600	\$5, 916			174, 689	8, 740		
Bonito.....	3, 820	161			1, 300	65		
Butterfish.....					985, 424	30, 104		
Cabio or crab eater.....					2, 000	50		
Carp.....					12, 393	693	4, 678	\$414
Catfish and bullheads.....					70, 051	2, 328		
Croaker.....	1, 000	20			1, 026, 611	21, 032		
Drum:								
Black.....					34, 204	344		
Red or redfish.....					13, 170	339		
Eels.....					20, 007	1, 211		
Flournders.....	1, 600	80			93, 670	4, 174		
Gizzard shad.....					13, 539	276		
Harvestfish.....					7, 690	568		
Hickory shad.....					10, 668	492		
King whiting or "kingfish".....					6, 200	248		
Mackerel.....					2, 500	125		
Mullet.....					669	33		
Pike or pickerel.....					686	115		
Pompano.....					490	112		
Scup.....	17, 500	787			18, 400	736		
Sea bass.....	116, 200	3, 486			2, 860	98		
Sea robin.....						475		
Shad.....					925, 292	100, 385		
Silver perch.....					20, 000	400		
Skates.....					1, 225	15		
Spot.....					42, 523	1, 317		
Squeteagues or "sea trout":								
Gray.....	13, 500	405			1, 704, 756	47, 924		
Spotted.....					2, 460	256		
Striped bass.....					160, 600	20, 601		
Sturgeon.....					210	52		
Suckers.....					200	6		
Tautog.....						175		
White perch.....					196, 303	9, 015		
Yellow perch.....					11, 287	624		
Crabs:								
Hard.....			27, 071, 510	\$263, 488				
Soft.....			16, 625	1, 156				
Squid.....					2, 200	66		
Total.....	252, 220	10, 855	27, 088, 135	264, 644	12, 705, 385	301, 411	4, 678	414

Species	Fyke nets		Dip nets		Pots, eel		Scrapes	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	3, 165	\$42						
Black bass.....	7, 009	829						
Bluefish.....	950	77						
Carp.....	3, 938	266						
Catfish and bullheads.....	51, 392	1, 877						
Croaker.....	5, 080	102						
Eels.....	2, 708	195			283, 913	\$18, 034		
Flournders.....	200	12						
Mullet.....	343	21						
Pike or pickerel.....	4, 014	803						
Shad.....	180	32						
Squeteagues or "sea trout",								
gray.....	1, 100	50						
Striped bass.....	913	126						
Suckers.....	100	3						
White perch.....	35, 145	1, 821						
Yellow perch.....	59, 947	4, 121						
Crabs:								
Hard.....			1, 668, 980	\$19, 444			658, 688	\$8, 198
Soft.....			2, 741, 335	178, 187			631, 210	34, 872
Total.....	176, 265	10, 377	4, 410, 315	197, 631	283, 913	18, 034	1, 289, 898	43, 070

Fisheries of Maryland, 1932—Continued

CATCH: BY GEAR—Continued

Species	Dredges, oyster		Tongs		Rakes		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Clams, hard, public.....			13, 528	\$2, 368	10, 800	\$1, 890	2, 720	\$476
Oysters:								
Market, public, spring.....	768, 935	\$56, 061	3, 574, 870	278, 960				
Market, public, fall.....	1, 662, 240	98, 405	6, 100, 500	425, 135				
Market, private, spring.....	151, 472	16, 124	459, 416	43, 153				
Market, private, fall.....	77, 833	8, 352	190, 092	15, 653				
Terrapin, diamond-back.....							3, 378	823
Total.....	2, 660, 480	178, 942	10, 338, 406	765, 269	10, 800	1, 890	6, 098	1, 299

SEED OYSTER FISHERY: BY GEAR

Item	Tongs
OPERATING UNITS	
Fishermen, on boats and shore—Regular.....	Number 126
Boats—Motor.....	58
Apparatus—Number.....	126
CATCH	
Oysters, seed, public, spring.....	Bushels 7, 043
	Value \$1, 056

NOTE.—The seed oyster fishery in Maryland is confined to Kent County. All fishermen, craft, and gear are duplicated among those used in the market oyster fishery or fisheries for other species.

VIRGINIA

Fisheries of Virginia, 1932

OPERATING UNITS: BY GEAR

Item	Purse seines		Haul seines	Gill nets		Lines, trot with baits or snoods	Pound nets
	Men-haden	Other		Drift	Stake		
Fishermen:	Number	Number	Number	Number	Number	Number	Number
On vessels.....	873	7					
On boats and shore:							
Regular.....			214	119	141	922	1, 688
Casual.....			159	591	146	72	470
Total.....	873	7	373	710	287	994	2, 158
Vessels:							
Steam.....	19						
Net tonnage.....	2, 021						
Motor.....	7	1					
Net tonnage.....	627	9					
Total vessels.....	26	1					
Total net tonnage.....	2, 648	9					
Boats:							
Motor.....			71	74	137	734	620
Other.....			103	383	62	260	664
Accessory boats.....	52						
Apparatus:							
Number.....	26	1	91	457	7, 822	994	2, 019
Length, yards.....	7, 860	300	24, 223				
Square yards.....				424, 443	358, 317		
Hooks, baits, or snoods.....						580, 385	

Fisheries of Virginia, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Stop nets	Fyke nets	Dip nets	Otter trawls	Pots, eel	Scrapes
	Number	Number	Number	Number	Number	Number
Fishermen:						
On vessels.....				116		
On boats and shore:						
Regular.....	5	71	343		2	50
Casual.....	4	77	1,006			
Total.....	9	148	1,349	116	2	50
Vessels:						
Motor.....				27		
Net tonnage.....				405		
Boats:						
Motor.....	4	50	162			
Other.....	4	68	988		2	30
Apparatus:						
Number.....	4	600	1,349	27	14	80
Square yards.....	9,450					
Yards at mouth.....				769		80

Item	Dredges			Tongs	Rakes	Picks	By hand	Total, exclusive of duplication
	Crab	Oyster	Scallop					
	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:								
On vessels.....	186	100		10				1,289
On boats and shore:								
Regular.....	21	202	308	4,387	889	746	321	6,613
Casual.....				2,055	24		60	4,227
Total.....	207	302	308	6,452	913	746	381	12,129
Vessels:								
Steam.....								19
Net tonnage.....								2,021
Motor.....	56	16		3				109
Net tonnage.....	484	226		17				1,759
Sail.....		6						6
Net tonnage.....		39						39
Total vessels.....	56	22		3				134
Total net tonnage.....	484	265		17				3,819
Boats:								
Motor.....	7	104	154	3,250	176	72	30	4,495
Other.....		2	117	697	805	695	332	3,685
Accessory boats.....								52
Apparatus:								
Number.....	126	256	610	5,641	894	726		
Yards at mouth.....	251	347	407					

Fisheries of Virginia, 1932—Continued

CATCH: BY GEAR

Species	Purse seines				Haul seines		Gill nets	
	Menhaden		Other		Pounds	Value	Drift	
	Pounds	Value	Pounds	Value			Pounds	Value
Alewives.....					39,605	\$449	9,176	\$141
Bluefish.....			14,824	\$408	58,013	2,482	16,100	813
Butterfish.....			640	8	1,900	76		
Carp.....					145,515	6,577	1,800	72
Catfish and bullheads.....					247,851	7,578		
Croaker.....					576,479	10,425	69,716	1,054
Drum, red or redfish.....					10,390	349		
Eels.....					475	18		
Flounders.....					20,419	817		
Gizzard shad.....					12,865	258	5,636	111
Hickory shad.....					808	21	3,182	64
Menhaden.....	193,920,600	\$648,692						
Mullet.....					2,120	68	59	2
Pigfish.....					16,466	658		
Scup.....			770	19				
Sea bass.....			65	2				
Shad.....					8,053	817	563,863	42,249
Spot.....					128,921	3,861	13,124	394
Squeteagues or "sea trout":								
Gray.....			109,600	2,271	261,488	6,622	1,505	45
Spotted.....					59,167	3,747		
Striped bass.....					94,194	11,137	50,296	7,106
White perch.....					117,192	4,188		
Yellow perch.....					16,820	861		
Total.....	193,920,600	648,692	125,899	2,708	1,818,741	61,009	734,457	52,051

Species	Gill nets—Con.		Lines, trot with baits or snoods		Pounds nets		Stop nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	12,800	\$182			13,768,672	\$63,519		
Bluefish.....	400	24			460,389	21,679		
Bonito.....					50,420	2,321		
Butterfish.....					2,887,760	83,387		
Cabio or crab eater.....						50		
Carp.....					57,582	2,264	19,581	\$793
Catfish and bullheads.....					213,741	6,411	3,084	92
Cod.....					10,664	264		
Croaker.....	28,784	726			12,358,846	201,024		
Drum:								
Black.....					29,362	297		
Red or redfish.....					14,734	469		
Eels.....					15,999	953		
Flounders.....					557,599	22,454		
Gizzard shad.....	15,685	314			32,725	654		
Harvestfish.....					93,988	2,369		
Hickory shad.....	410	8			43,311	865		
King whiting or "kingfish".....					10,215	383		
Mackerel.....					23,517	1,136		
Menhaden.....					1,565,000	3,844		
Mullet.....	19,007	703			4,413	161		
Pigfish.....					13,938	541		
Scup.....					22,084	881		
Sea bass.....					5,394	241		
Shad.....	444,708	34,485			3,818,541	345,492		
Spanish mackerel.....					62,766	3,843		
Spot.....	2,225	79			606,994	17,878		
Squeteagues or "sea trout":								
Gray.....	11,450	458			11,336,817	267,819		
Spotted.....					25,155	1,742		
Striped bass.....	83,366	9,684			327,037	39,159		
Sturgeon.....					4,345	710		
Thimble-eyed mackerel.....					11,619	232		
White perch.....					102,047	3,369		
Yellow perch.....					3,122	181		
Crabs, hard.....			18,302,400	\$181,741	115,000	863		
Squid.....					310,318	6,206		
Total.....	621,835	46,663	18,302,400	181,741	48,966,629	1,103,661	22,665	885

Fisheries of Virginia, 1932—Continued

CATCH: BY GEAR—Continued

Species	Fyke nets		Dip nets		Otter trawls	
	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	22, 200	\$229			40	\$1
Bluefish.....					1, 013	84
Butterfish.....					16, 323	718
Carp.....	15, 668	629				
Catfish and bullheads.....	231, 181	7, 119				
Cod.....					11, 286	257
Croaker.....	65, 256	1, 382			1, 593, 625	36, 928
Drum, red or redfish.....					135	4
Eels.....	6, 370	312			3, 062	66
Flounders.....	10, 610	410			601, 761	24, 704
Gizzard shad.....	23, 823	476				
Haddock.....					460	10
Hake.....					31, 084	574
Hickory shad.....	600	12				
King whiting or "kingfish".....					16, 715	572
Mullet.....	6, 715	262				
Pigfish.....					3, 053	57
Scup.....					1, 688, 966	44, 557
Sea bass.....					835, 405	24, 127
Shad.....	12, 322	1, 273				
Spanish mackerel.....					68	6
Spot.....					2, 054	52
Squeteagues or "sea trout":						
Gray.....	13, 682	503			239, 729	9, 209
Spotted.....					165	12
Striped bass.....	36, 406	4, 369				
Sturgeon.....					487	85
Tautog.....					232	7
White perch.....	97, 897	3, 938			1, 055	21
Yellow perch.....	64, 258	3, 327				
Crabs:						
Hard.....			326, 509	\$3, 767		
Soft.....			1, 372, 838	81, 041		
Shrimp.....					33	6
Scallops, sea.....					18	3
Squid.....					10, 636	181
Total.....	606, 988	24, 241	1, 699, 347	84, 808	5, 057, 405	142, 241

Species	Pots, eel		Scrapes		Dredges	
	Pounds	Value	Pounds	Value	Pounds	Value
Eels.....	420	\$25				
Crabs:						
Hard.....			69, 486	\$869	8, 210, 650	\$103, 581
Soft.....			146, 973	8, 819		
Total.....	420	25	216, 459	9, 688	8, 210, 650	103, 581

Species	Dredges—Continued				Tongs	
	Oyster		Scallop			
	Pounds	Value	Pounds	Value	Pounds	Value
Clams, hard, public.....					1, 032, 272	\$234, 120
Oysters:						
Market, public, spring.....	18, 850	\$1, 375			1, 542, 022	108, 028
Market, public, fall.....	30, 300	1, 810			4, 308, 989	273, 104
Market, private, spring.....	1, 336, 390	104, 075			1, 761, 796	145, 458
Market, private, fall.....	2, 781, 282	201, 541			2, 151, 921	161, 797
Scallops, bay.....			658, 584	\$80, 090		
Total.....	4, 166, 822	308, 801	658, 584	80, 090	10, 807, 000	922, 507

Fisheries of Virginia, 1932—Continued

CATCH: BY GEAR—Continued

Species	Rakes		Picks		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value
Crabs, soft.....					29,250	\$1,950
Clams, hard, public.....	180,224	\$40,709	236,960	\$63,165	35,008	9,653
Oysters:						
Market, public, spring.....	8,976	449			44,826	2,242
Market, public, fall.....	17,478	874			89,652	4,483
Market, private, spring.....	321,916	25,271				
Market, private, fall.....	479,850	43,085				
Total.....	1,008,444	110,388	236,960	63,165	198,736	18,328

SEED OYSTER FISHERY: BY GEAR

Item	Tongs		Rakes		By hand		Total, exclusive of duplication	
	Number	Value	Number	Value	Number	Value	Number	Value
OPERATING UNITS								
Fishermen, on boats and shore:	Number		Number		Number		Number	
Regular.....	1,078		86		10		1,174	
Casual.....	447						447	
Total.....	1,525		86		10		1,621	
Boats:								
Motor.....	674		12		2		688	
Other.....	102		72		10		184	
Apparatus: Number.....	1,265		86				1,351	
CATCH								
Oysters:	Bushels	Value	Bushels	Value	Bushels	Value	Bushels	Value
Seed, public, spring.....	549,962	\$66,879	4,000	\$320	4,000	\$320	557,962	\$67,519
Seed, public, fall.....	876,048	87,605	13,000	780	8,000	640	897,048	89,025
Seed, private, spring.....			13,000	1,040			13,000	1,040
Total.....	1,426,010	154,484	30,000	2,140	12,000	960	1,468,010	157,584

NOTE.—Of the number of persons fishing for seed oysters all are duplicated among those in the market oyster fishery or fisheries for other species, except in the fishery by tongs, 1,387 are duplicated. Similarly all the craft and gear are duplicates except in the fishery by tongs, 620 motor boats, 90 other boats, and 1,165 tongs are duplicated.

SHAD AND ALEWIFE FISHERIES OF THE POTOMAC RIVER

The catch of shad in the Potomac River in 1932 amounted to 352,745 roes and 422,711 bucks, having a combined weight of 2,264,168 pounds and a total value to the fishermen of \$173,353. The catch of alewives for the same season amounted to 17,109,533 in number, with a total weight of 6,844,613 pounds and a value to the fishermen of \$24,041. These figures indicate an increase of 10 percent in the weight and a decrease of 10 percent in the value of shad as compared with 1931 and a decrease of 7 percent in the weight and 57 percent in the value of alewives.

About 47 percent of the shad, in weight, was taken in pound nets, 52 percent in gill nets, and the remainder with haul seines. More than 99 percent of the catch of alewives was made in pound nets.

Shad and alewife fisheries of the Potomac River, 1932

Item	Maryland			Virginia			Total		
	Number	Pounds	Value	Number	Pounds	Value	Number	Pounds	Value
Fishermen on boats and shore:									
Regular.....	71			316			387		
Casual.....	138			178			316		
Total.....	209			494			703		
Boats:									
Motor.....	61			172			233		
Other.....	58			102			160		
Apparatus:									
Pound nets.....	61			305			366		
Gill nets.....	952			905			1,857		
Square yards.....	215,941			244,712			460,653		
Haul seines.....	2						2		
Length, yards.....	950						950		
Shad caught:									
With pound nets.....	23,211	67,001	\$6,949	348,480	986,484	\$89,945	371,691	1,053,485	\$96,894
With gill nets.....	160,614	499,045	31,986	227,234	668,426	42,571	387,848	1,168,371	74,557
With haul seines.....	15,917	42,312	1,902				15,917	42,312	1,902
Total.....	199,742	609,258	40,837	575,714	1,654,910	132,516	775,456	2,264,168	173,353
Alewives caught:									
With pound nets.....	1,111,000	444,400	2,412	15,849,885	6,340,746	21,247	16,960,865	6,785,146	23,659
With gill nets.....				48,668	19,467	282	48,668	19,467	282
With haul seines.....	100,000	40,000	100				100,000	40,000	100
Total.....	1,211,000	484,400	2,512	15,898,533	6,360,213	21,529	17,109,533	6,844,613	24,041

TRADE IN FISHERY PRODUCTS IN WASHINGTON, D.C.⁷

The municipal fish wharf and market in Washington, D.C., is located in the southwestern part of the city on an arm of the Potomac River. At the present time, 16 fishery firms have stalls in the market, 3 firms are in private buildings across the street, and 4 firms have stalls in the new Center Market. Altogether, the 23 above firms employed 113 persons who received \$78,996 in salaries and wages during 1932. Of the total employees, 98 were regularly employed. These firms conduct a wholesale and retail business, chiefly wholesale however.

During the year 1932, the receipts of fresh and frozen fishery products as received at the municipal wharf amounted to 11,434,119 pounds. This is an increase of 23 percent as compared with the year 1931, and an increase of 31 percent as compared with the 5-year average.

During the year 1932, three firms in Washington, D.C., smoked fishery products, which amounted to 271,950 pounds, valued at \$22,847. Of this amount, 238,000 pounds, valued at \$14,280, consisted of herring; 32,900 pounds, valued at \$8,357, were whitefish; while the remainder, 1,050 pounds, valued at \$210, were alewives or "river herring", and eels. There were four firms which shucked oysters mostly for select retail trade. Their production amounted to 8,700 gallons, valued at \$13,530. Most of the smoked fish and shucked oysters were marketed in the city.

⁷ Statistics of fishery products handled at the municipal wharf, Washington, D.C., are reported to the Bureau by agents of the city health department.

*Fishery products received at Municipal Fish Wharf and Market, Washington, D.C.,
1932*

Species	January	February	March	April	May	June	July
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Alewives (river herring)-----	27,750	72,100	124,200	598,500	433,500	-----	-----
Bluefish-----	2,600	4,600	3,200	1,800	10,800	19,300	27,900
Butterfish-----	10,400	3,200	6,200	9,800	100,200	141,426	90,300
Carp-----	13,600	7,000	10,600	23,400	11,200	7,800	1,500
Catfish-----	9,800	15,400	21,800	42,800	8,400	6,700	200
Cod-----	1,000	-----	1,000	200	1,000	300	500
Croaker-----	88,200	36,200	52,200	164,800	191,400	224,800	243,000
Drum, red or redfish-----	-----	-----	650	-----	-----	-----	-----
Eels-----	1,600	2,200	2,150	6,000	1,080	800	200
Flounders-----	29,200	51,000	36,400	15,800	15,600	17,400	26,500
Gizzard shad-----	12,700	5,050	1,800	-----	-----	-----	-----
Haddock-----	31,000	27,300	45,250	34,650	27,650	26,420	23,980
Hake-----	-----	-----	1,800	-----	-----	-----	-----
Halibut-----	15,800	11,050	18,600	9,800	9,266	10,200	5,420
Hickory shad or "jacks"-----	7,850	10,400	3,925	1,600	-----	-----	-----
King whiting or "kingfish"-----	3,000	600	-----	9,400	600	1,600	-----
Mackerel-----	12,400	29,400	19,000	8,000	20,200	25,804	12,400
Mullet-----	400	8,600	1,600	-----	-----	-----	600
Perch-----	9,800	26,200	32,100	68,600	5,600	3,100	1,800
Pike or pickerel-----	600	800	400	400	400	900	800
Pollock-----	400	-----	-----	-----	400	-----	-----
Salmon-----	2,200	3,200	4,400	800	4,400	5,400	3,300
Scup or porgy-----	34,200	17,000	25,800	9,000	8,600	13,600	1,700
Sea bass-----	92,000	72,200	67,200	29,600	6,400	32,402	10,800
Shad-----	17,755	51,585	90,950	1,074,200	500,800	13,400	-----
Smelt-----	2,800	3,200	5,700	-----	-----	-----	-----
Snapper, red-----	800	1,200	100	800	400	700	400
Spot-----	1,000	3,000	1,400	-----	800	1,600	27,400
Squeteagues or "sea trout"-----	60,200	47,800	43,000	97,800	247,900	288,600	204,800
Striped bass-----	5,400	7,000	27,400	35,000	8,200	2,200	2,900
Sturgeon-----	-----	-----	-----	325	300	200	-----
Swordfish-----	-----	-----	375	-----	-----	300	600
Tilefish-----	-----	200	-----	200	-----	-----	-----
Whitefish-----	600	200	-----	-----	200	800	1,300
Whiting-----	500	-----	-----	-----	-----	-----	-----
Crabs:	-----	-----	-----	-----	-----	-----	-----
Hard-----	-----	-----	-----	3,075	34,050	102,675	63,450
Soft-----	-----	-----	-----	2,520	13,365	29,520	10,980
Oyster-----	-----	-----	-----	-----	-----	-----	-----
Meat-----	2,430	3,825	4,525	7,800	19,125	39,350	32,705
Sea crawfish or "spiny lobster":	-----	-----	-----	-----	-----	-----	-----
Alive-----	-----	-----	50	-----	-----	-----	-----
Lobsters:	-----	-----	-----	-----	-----	-----	-----
Alive-----	550	400	700	1,850	950	1,060	440
Meat-----	-----	-----	-----	-----	-----	180	65
Shrimp-----	5,500	11,000	8,250	8,250	8,250	7,875	5,375
Squid-----	2,200	800	600	-----	800	-----	-----
Clams-----	4,352	4,480	5,248	6,016	7,840	8,352	6,304
Oysters:	-----	-----	-----	-----	-----	-----	-----
In the shell (meat)-----	71,400	78,680	52,430	16,100	630	-----	-----
Opened (meat)-----	63,262	77,306	77,744	10,981	-----	-----	-----
Scallops-----	400	1,400	920	1,440	400	1,280	680
Frogs-----	-----	-----	-----	-----	-----	-----	9
Turtles-----	-----	-----	-----	250	-----	160	260
Total-----	645,649	695,576	799,667	2,301,557	1,700,706	1,036,204	808,568

*Fishery products received at Municipal Fish Wharf and Market, Washington, D. C.,
1932—Continued*

Species	August	September	October	November	December	Total
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Alewives (river herring).....						1,256,050
Bluefish.....	26,900	37,500	71,200	39,400	13,800	259,000
Butterfish.....	35,000	23,500	22,800	18,100	2,900	463,826
Carp.....	4,200	12,600	13,200	4,600	8,800	118,500
Catfish.....	600	6,900	30,200	18,700	4,900	166,400
Cod.....	500	300	800	1,000	400	7,000
Croaker.....	270,800	163,300	54,400	83,200	121,000	1,693,300
Drum, red or redbfish.....	800	800	1,600	3,400	10,100	17,350
Eels.....	200	900	2,800	1,200		19,130
Flounders.....	29,700	15,800	18,000	26,500	22,800	304,700
Gizzard shad.....		200	3,600	16,300	11,600	51,250
Haddock.....	22,815	21,390	59,800	28,070	23,780	372,075
Hake.....					3,100	4,900
Halibut.....	5,600	5,800	7,400	3,000	3,800	105,736
Hickory shad or "jacks".....						23,775
Hogfish.....	200	1,600				1,800
King whiting or "kingfish".....		300		900	600	17,000
Mackerel.....	21,300	16,300	21,600	27,600	29,200	243,204
Mullet.....	1,700	9,200	6,200	12,000	3,200	43,500
Perch.....	1,400	2,100	5,500	7,600	4,900	168,700
Pike or pickerel.....	800	3,000	400	900	1,600	11,000
Pollock.....				200	1,600	2,600
Pompano.....	600					600
Salmon.....	3,800	3,300	5,800	5,200	1,600	43,400
Scup or porgy.....	1,400	1,100		17,900	15,200	145,500
Sea bass.....	21,300	4,000	4,600	12,900	11,100	364,502
Shad.....						1,748,690
Sheepshead.....	100	100			300	500
Smelt.....				75	1,050	12,825
Snapper, red.....	200		400	600	700	6,300
Spot.....	8,500	14,600	38,400	14,400	600	111,700
Squeteagues or "sea trout".....	224,400	178,900	189,000	143,600	97,800	1,823,800
Striped bass.....	1,400	5,400	13,500	41,100	17,700	167,200
Sturgeon.....			75	50		950
Swordfish.....	1,100	400		200		2,975
Tilefish.....		200		400	100	1,100
Whitefish.....	1,700	3,000		1,100	600	9,500
Whiting.....					9,200	9,700
Crabs:						
Hard.....	53,550	15,150	6,000			277,950
Soft.....	14,445	19,530	7,110	135		97,605
Oyster.....					5	5
Meat.....	30,830	18,990	13,160	6,485	4,335	183,560
Sea crawfish or "spiny lobster":						
Alive.....	150	100	100	200	200	800
Meat.....	50	125		60	100	335
Lobsters:						
Alive.....	480	400	300	520	2,850	10,500
Meat.....	10	175	75	60	225	790
Shrimp.....	9,000	7,125	4,875	6,375	5,875	87,750
Squid.....				1,500	700	6,600
Clams.....	7,200	6,976	4,768	4,416	4,128	170,080
Oysters:						
In the shell (meat).....		8,974	82,026	51,037	34,475	1395,752
Opened (meat).....		12,276	64,899	85,838	93,879	486,185
Scallops.....	2,520	616	680	1,536	1,616	13,488
Frogs.....	72	6				87
Terrapin.....					64	64
Turtles.....	40	540		960	320	2,530
Total.....	805,362	623,443	755,268	689,317	572,802	11,434,119

¹ 8,760 bushels.

² 58,536 bushels.

³ 55,564 gallons.

⁴ 1,686 bushels.

NOTE.—The clams have been converted to pounds on the basis of 8 pounds of meats to the bushel, the oysters on the basis of 7 pounds of meats to the bushel and 8¾ pounds to the gallon, and the scallops on the basis of 8 pounds of meats to the bushel.

FISHERIES OF THE SOUTH ATLANTIC AND GULF STATES

(South Atlantic, area XXIV; Gulf, area XXV ⁸)

The yield of the commercial fisheries in the South Atlantic and Gulf States (North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas) during 1932 amounted to 299,916,728 pounds, valued at \$6,428,385 to the fishermen, representing an increase of 4 percent in volume but a decrease of 20 percent in value as compared with the catch in the previous year. In addition there was a production of 39,741 bushels of seed oysters, valued at \$8,280. These fisheries gave employment to 21,560 fishermen.

Fisheries of the South Atlantic and Gulf States, 1932

SUMMARY OF CATCH

Product	North Carolina		South Carolina		Georgia	
	Pounds	Value	Pounds	Value	Pounds	Value
Fish.....	82,209,976	\$689,421	593,974	\$37,531	12,097,286	\$75,911
Shellfish, etc.....	4,004,017	137,322	3,942,314	85,860	4,425,709	110,031
Total.....	86,213,993	826,743	4,536,288	123,391	16,522,995	185,942

Product	Florida		Alabama		Mississippi	
	Pounds	Value	Pounds	Value	Pounds	Value
Fish.....	81,108,701	\$1,569,398	1,792,434	\$62,766	1,046,866	\$22,486
Shellfish, etc.....	22,181,520	1,403,986	4,314,053	105,825	19,555,719	474,931
Total.....	103,290,221	2,973,384	6,106,487	168,591	20,602,585	497,417

Product	Louisiana		Texas		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
Fish.....	1,273,961	\$68,092	4,634,327	\$189,456	184,157,525	\$2,715,061
Shellfish, etc.....	47,066,364	1,112,561	10,269,507	282,508	115,759,203	3,713,324
Total.....	48,340,325	1,180,653	14,303,834	472,264	299,916,728	6,428,385

OPERATING UNITS: BY STATES

Item	North Carolina	South Carolina	Georgia	Florida	Alabama	Mississippi	Louisiana	Texas	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Fishermen:									
On vessels.....	758	17	86	638	139	474	154	143	2,409
On boats and shore:									
Regular.....	2,754	615	427	5,988	360	829	1,864	1,223	14,060
Casual.....	1,411	843	539	1,331	90	205	289	383	5,091
Total.....	4,923	1,475	1,052	7,957	589	1,508	2,307	1,749	21,560
Vessels:									
Motor.....	79	4	20	98	31	114	62	33	441
Net tonnage.....	1,234	59	245	2,467	299	1,507	447	388	6,646
Sail.....	53			1		15	2		71
Net tonnage.....	502			64		237	38		841
Total vessels.....	132	4	20	99	31	129	64	33	512
Total net tonnage.....	1,736	59	245	2,531	299	1,744	485	388	7,487

⁸ These are the numbers given to these areas by the North American Council on Fishery Investigations. It should be observed that the persons engaged, gear and craft employed, and catch of the seed oyster fishery are not included among the statistics of the fishery for market oysters and other species but are shown in footnotes or in separate tables in this section.

Fisheries of the South Atlantic and Gulf States, 1932—Continued

OPERATING UNITS: BY STATES—Continued

Item	North Carolina	South Carolina	Georgia	Florida	Alabama	Mississippi	Louisiana	Texas	Total
Boats:	No.	No.	No.	No.	No.	No.	No.	No.	No.
Motor.....	1,154	84	119	2,318	153	268	674	382	5,052
Other.....	1,584	773	523	2,945	151	407	996	418	7,797
Accessory boats.....	70		4	11					85
Apparatus:									
Purse seines:									
Menhaden.....	33		2	5					40
Length, yards.....	8,025		600	1,450					10,075
Other.....	1			1					2
Length, yards.....	175			400					575
Haul seines:									
Common.....	454	20	11	110	5	3	102	54	759
Length, yards.....	66,326	2,780	1,105	34,300	2,900	800	13,434	9,315	130,960
Long.....	56			76					132
Length, yards.....	58,275			59,200					117,475
Gill nets:									
Anchor.....	1,661	324	45	12					2,042
Square yards.....	908,610	154,872	10,625	9,600					1,083,707
Drift.....	227	223	158	146					854
Square yards.....	399,265	284,554	111,863	139,606					935,288
Runaround.....	188	7	10	2,111					2,363
Square yards.....	83,500	1,450	3,170	2,110,492				13,165	2,211,777
Stake.....	5,271		40	5	18				267
Square yards.....	561,965		10,050	1,250	2,880			74,845	650,990
Trammel nets.....				182	53	39	23	61	358
Square yards.....				122,469	17,365	15,775	6,985	22,071	184,665
Lines:									
Hand.....	86	180	43	1,620	149	132	167	467	2,844
Hooks.....	166	550	46	2,573	260	142	172	594	4,503
Troll.....	45			1,190	2			8	1,245
Hooks.....	45			1,485	2			8	1,540
Trot with baits or snoods.....	156	6	31	13	15	36	318	25	600
Baits or snoods.....	119,000	4,500	9,390	2,700	2,336	8,895	60,025	3,175	210,021
Trot with hooks.....	26		40	198	101		3	48	416
Hooks.....	3,200		2,840	85,005	10,370		300	6,915	108,630
Pound nets.....	1,722			13					1,735
Weirs.....	2								2
Wheels.....	21								21
Stop nets.....				7					7
Square yards.....				11,475					11,475
Fyke nets.....	801			278	6				1,085
Dip nets:									
Common.....	204			50					254
Drop.....				54		130	1,520		1,704
Cast nets.....			10	16		60	18		104
Otter trawls:									
Fish.....	2			4					6
Yards at mouth.....	41			109					150
Shrimp.....	51	28	125	376	112	255	476	251	1,674
Yards at mouth.....	1,007	560	2,510	7,135	1,465	3,154	5,942	3,634	25,407
Pots:									
Crab.....			12	1,433					1,445
Eel.....	1,285			40					1,325
Fish.....	465		81	1,515					2,061
Sea crawfish.....				3,190					3,190
Spears.....	50	6		27	30	63		152	328
Dredges:									
Clam.....				1					1
Oyster.....	182			2		328	26	39	577
Yards at mouth.....	182			2		329	26	38	577
Scallop.....	64								64
Yards at mouth.....	64								64
Tongs.....	387	6	120	413	142	245	465	222	2,000
Rakes.....	483		4						487
Forks.....				40					40
Grabs.....		333	60						393
Coquina scoops.....				3					3
Hooks, sponge.....				201					201
Diving apparatus.....				54					54

Fisheries of the South Atlantic and Gulf States, 1932—Continued

CATCH: BY STATES

Species	North Carolina		South Carolina		Georgia	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Alewives.....	6,584,000	\$41,899				
Black bass.....	31,800	3,180				
Bluefish.....	686,597	16,409	4,062	\$325		
Bowfin.....	1,700	17				
Butterfish.....	54,514	786				
Carp.....	128,400	6,640				
Catfish and bullheads.....	524,904	9,600			98,389	\$5,841
Cero.....	13,000	520				
Croaker.....	4,540,356	46,642			8,226	329
Drum, red or redfish.....	87,200	1,744	3,170	108	2,141	107
Eels.....	56,715	1,877			550	22
Flounders.....	789,767	32,797	5,175	284	2,904	88
Gizzard shad.....	19,200	161				
Grunts.....			6,300	220		
Hake.....	1,624	22				
Harvestfish or "starfish".....	1,077,381	11,858				
Hickory shad.....	117,325	4,055	11,066	886	9,841	707
Hogfish.....	992	12				
King whiting or "kingfish".....	300,048	4,033	16,210	610	19,746	617
Menhaden.....	54,476,000	75,135			11,520,000	16,000
Mullet.....	2,472,050	51,655	148,050	6,042	52,627	1,904
Pigfish.....	62,200	627				
Pike or pickerel.....	5,200	393				
Pinfish or sailors choice.....	270,000	1,012				
Pompano.....	150	22				
Scup.....	5,615	172				
Sea bass.....	202,495	6,251	218,750	8,187	32,000	960
Shad.....	924,994	125,926	123,036	15,459	288,145	45,111
Sharks.....			8,000	80		
Sheepshead.....	2,650	53				
Spanish mackerel.....	77,960	3,660				
Spot.....	1,587,555	17,821	10,000	400	9,542	351
Squeteagues or "sea trout":						
Gray.....	3,636,323	64,097	2,460	148	2,000	120
Spotted.....	1,895,700	78,363	14,355	1,048	46,210	3,357
Striped bass.....	506,760	54,516				
Sturgeon.....	1,661	179	23,340	3,734	4,965	397
Suckers.....	450	9				
Sunfish.....	55,250	1,105				
White perch.....	831,600	21,302				
Yellow perch.....	179,900	4,871				
Total	82,209,976	689,421	593,974	37,531	12,097,286	75,911
SHELLFISH, ETC.						
Crabs:						
Hard ¹	1,847,600	18,448	16,000	320	225,492	3,383
Soft.....	308,555	33,921				
Shrimp.....	292,104	9,393	1,500,687	32,529	3,601,564	89,547
Clams, hard, public ²	260,624	17,278	4,800	600	600	75
Oysters: ³						
Market, public, spring.....	626,462	25,067	1,205,886	21,569		
Market, public, fall.....	563,478	25,613	475,704	10,175		
Market, private, spring.....	10,216	559	429,460	9,646	413,121	8,789
Market, private, fall.....	1,200	100	306,791	10,466	175,287	6,881
Scallops, bay.....	91,458	6,560				
Octopus.....			1,200	72		
Squid.....	763	13				
Terrapin, diamond-back.....	1,557	370	1,786	483	9,645	1,356
Total	4,004,017	137,322	3,942,314	85,860	4,425,709	110,031
Grand total	86,213,993	826,743	4,536,288	123,391	16,522,995	185,942

Species	Florida		Alabama		Mississippi	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Alewives.....	79,947	\$437				
Amberjack.....	4,577	122				
Barracuda.....	4,245	180				
Black bass.....	278,477	18,518				
Bluefish.....	1,421,233	60,614	12,401	\$563	4,730	\$86
Blue runner or hardtail.....	162,507	2,311	924	17		
Buffalofish.....			11,829	323		
Butterfish.....	997	47				
Cabio or crab eater.....	5,145	103	550	15	110	2
Catfish and bullheads.....	3,531,636	116,214	60,211	2,736	27,115	493
Cero.....	275	4				
Cigarfish.....	9,350	170				
Cod.....	2,039	43				
Crappie.....	404,926	11,866				

See foot notes at end of table.

Fisheries of the South Atlantic and Gulf States, 1932—Continued

CATCH: BY STATES—Continued

Species	Florida		Alabama		Mississippi	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH—continued						
Crevaille.....	22,751	\$518	259	\$5	990	
Croaker.....	25,775	431	18,111	330	10,835	191
Dolphin.....	12,050	361				
Drum:						
Black.....	48,010	817		14	8,937	115
Red or redfish.....	764,784	11,894	44,292	2,645	75,100	2,062
Eels.....	7,560	153				
Flounders.....	455,131	12,365	21,490	1,668	46,540	2,129
Frigate mackerel.....	2,250	90				
Groupers.....	3,163,878	64,600	99,746	1,998	16,117	322
Grunts.....	44,391	1,297				
Hake.....	8,218	165				
Hickory shad.....	28,147	507				
Hogfish.....	28,430	853				
Jewfish.....	30,290	1,034				
Kingfish or "king mackerel".....	3,294,501	119,544	880	40		
King whiting or "kingfish".....	285,059	6,880	3,718	68	2,728	45
Ladyfish.....	2,622	39				
Menhaden.....	23,349,860	41,220				
Mojarro.....	35,589	514				
Mullet.....	21,141,449	338,254	696,958	10,673	564,970	8,235
Muttonfish.....	203,135	8,811				
Paddlefish or spoonbill cat.....			1,320	60		
Permit.....	2,850	107				
Pigfish.....	66,548	948				
Pinfish or sailors choice.....	24,975	485				
Pompano.....	581,263	80,087	3,144	436	132	12
Porgies.....	25,786	512				
Porkfish.....	363	7				
Scup.....	247,792	5,936				
Sea bass.....	250,995	8,102				
Shad.....	546,086	52,940				
Sharks.....	5,043,000	12,005				
Sheepshead.....	535,330	8,456	4,441	120	23,815	539
Snapper:						
Mangrove.....	95,580	2,407				
Red.....	4,588,265	228,536	681,573	30,263	36,812	1,841
Snook or sergeantfish.....	301,780	6,936				
Spanish mackerel.....	6,337,598	209,836	8,028	292		
Spot.....	68,360	925	401	7		
Squeteagues or "sea trout":						
Gray.....	21,418	676	6,050	110	103,015	1,873
Spotted.....	2,666,525	106,425	103,224	9,392	124,394	4,524
Sturgeon.....	4,379	199	10,742	977		
Sunfish.....	662,494	16,831				
Tenpounder.....	77,845	1,349	1,400	14	350	4
Tripletail.....	890	18			176	4
Tuna or "horse mackerel".....	3,350	134				
Turbot.....	4,125	124				
Yellowtail.....	91,870	4,441				
Total.....	81,108,701	1,569,398	1,792,434	62,766	1,046,866	22,486
SHELLFISH, ETC.						
Crabs:						
Hard ¹	82,182	3,519	70,070	982	320,107	4,665
Soft.....			1,280	236	3,572	893
Stone.....	153,825	8,335				
Sea crawfish or spiny lobster.....	445,547	32,078				
Shrimp.....	18,136,334	535,198	3,381,700	71,910	14,009,720	267,428
Clams:						
Coquina.....	5,400	335				
Hard, public ²	1,120,812	42,742				
Conchs.....	1,500	120				
Oysters: ³						
Market, public, spring.....	542,438	27,493	748,952	27,216	4,472,358	169,783
Market, public, fall.....	659,715	35,668	88,485	3,892	749,962	32,162
Market, private, spring.....	186,558	7,886	3,960	220		
Market, private, fall.....	113,495	6,320	17,820	990		
Scallops, bay.....	61,965	6,885				
Squid.....	7,553	147				
Frogs.....			697	104		
Terrapin, diamond-back.....			1,089	275		
Turtles, soft-shell.....	51,669	336				
Sponges:						
Grass.....	181,367	37,319				
Sheepswool.....	277,087	593,674				
Velvet.....	71	20				
Wire.....	29,466	13,387				
Yellow.....	124,536	52,524				
Total.....	22,181,520	1,403,986	4,314,053	105,825	19,555,719	474,931
Grand total.....	103,290,221	2,973,384	6,106,487	168,591	20,602,585	497,417

See footnotes at end of table.

Fisheries of the South Atlantic and Gulf States, 1932—Continued

CATCH: BY STATES—Continued

Species	Louisiana		Texas		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Alewives					6,663,947	\$42,336
Amberjack					4,577	122
Barracuda					4,245	180
Black bass					310,277	21,698
Bluefish			1,760	\$80	2,130,783	78,077
Blue runner or hardtail					163,431	2,328
Bowfin					1,700	17
Buffalofish					11,829	323
Butterfish					55,511	833
Cabio or crab eater					5,805	120
Carp					128,400	6,640
Catfish and bullheads	44,850	\$1,583	76,825	2,752	4,363,930	139,219
Cero					13,275	524
Cigarfish					9,350	170
Cod					2,039	43
Crappie					404,926	11,866
Crevalle	300	9			24,300	541
Croaker	44,470	1,924	27,025	576	4,674,798	50,423
Dolphin					12,050	361
Drum:						
Black	87,412	2,704	932,091	17,153	1,077,192	20,803
Red or redfish	281,739	14,493	824,819	45,322	2,083,245	78,375
Eels					64,825	2,052
Flounders	4,405	314	70,515	4,614	1,395,927	54,259
Frigate mackerel					2,250	90
Garfish	300	15			300	15
Gizzard shad					19,200	161
Groupers	3,400	68	18,301	380	3,301,442	67,368
Grunts					50,691	1,517
Hake					9,842	187
Harvestfish or "starfish"					1,077,381	11,858
Hickory shad					166,379	6,155
Hogfish					29,422	865
Jewfish	2,400	48	5,750	165	38,440	1,247
Kingfish or "king mackerel"			5,280	162	3,300,661	119,746
King whiting or "kingfish"	16,000	374	8,535	155	652,044	12,782
Ladyfish					2,622	39
Menhaden					89,345,860	132,355
Mojarro					35,589	514
Mullet	6,300	155	4,950	90	25,087,354	417,008
Muttonfish					203,135	8,811
Paddlefish or spoonbill cat					1,320	60
Permit					2,850	107
Pigfish					128,748	1,575
Pike or pickerel					5,200	393
Pinfish or sailors choice					294,975	1,497
Pompano	90	11	5,159	469	589,938	81,037
Porgies					25,786	512
Porkfish					363	7
Scup					253,407	6,108
Sea bass					704,240	23,500
Shad					1,882,261	239,436
Sharks					5,051,000	12,085
Sheepshead	77,673	4,019	29,154	599	673,063	13,786
Snapper:						
Mangrove					95,580	2,407
Red	66,884	4,013	985,291	50,076	6,358,825	314,729
Snook or sergeantfish			20,893	569	322,673	7,505
Spanish mackerel	400	16	41,140	2,616	6,465,066	216,420
Spot	3,450	87			1,679,308	19,591
Squeteagues or "sea trout":						
Gray	220,471	6,603			3,991,737	73,627
Spotted	412,427	31,607	976,344	63,660	6,239,179	298,376
Striped bass			495	18	507,255	54,534
Sturgeon					45,087	5,486
Suckers					450	9
Sunfish					717,744	17,936
Tenpounder					79,595	1,367
Tripletail	990	49			2,056	71
Tuna or "horse mackerel"					3,350	134
Turbot					4,125	124
White perch					831,600	21,302
Yellow perch					179,900	4,871
Yellowtail					91,870	4,441
Total	1,273,961	68,092	4,034,327	189,456	184,157,525	2,715,061

Fisheries of the South Atlantic and Gulf States, 1932—Continued

CATCH: BY STATES—Continued

Species	Louisiana		Texas		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
SHELLFISH, ETC.						
Crabs:						
Hard ¹	5,877,737	\$56,776	44,660	\$669	8,483,848	\$58,762
Soft.....	99,340	25,258	-----	-----	412,747	60,308
Stone.....	-----	-----	-----	-----	153,825	8,335
Sea crawfish or spiny lobster.....	-----	-----	-----	-----	445,547	32,078
Shrimp.....	38,095,780	800,452	9,244,246	229,529	88,262,135	2,035,986
Clams:						
Coquina.....	-----	-----	-----	-----	5,400	335
Hard, public ²	-----	-----	-----	-----	1,386,836	60,695
Conchs.....	-----	-----	-----	-----	1,500	120
Oysters: ³						
Market, public, spring.....	267,672	16,054	442,932	25,591	8,306,700	312,773
Market, public, fall.....	-----	-----	537,669	27,019	3,075,013	134,529
Market, private, spring.....	1,164,853	92,616	-----	-----	2,208,168	119,716
Market, private, fall.....	1,545,536	119,657	-----	-----	2,160,129	144,414
Scallops, bay.....	-----	-----	-----	-----	153,423	13,445
Octopus.....	-----	-----	-----	-----	1,200	72
Squid.....	-----	-----	-----	-----	8,316	160
Frogs.....	-----	-----	-----	-----	697	104
Terrapin, diamond-back.....	8,996	1,619	-----	-----	23,073	4,103
Turtles:						
Loggerhead.....	6,450	129	-----	-----	6,450	129
Soft-shell.....	-----	-----	-----	-----	51,669	336
Sponges:						
Grass.....	-----	-----	-----	-----	181,367	37,319
Sheepswool.....	-----	-----	-----	-----	277,087	593,674
Velvet.....	-----	-----	-----	-----	71	20
Wire.....	-----	-----	-----	-----	29,466	13,387
Yellow.....	-----	-----	-----	-----	124,536	52,524
Total.....	47,066,364	1,112,561	10,269,507	282,808	115,759,203	3,713,324
Grand total.....	48,340,325	1,180,653	14,303,834	472,264	299,916,728	6,428,385

¹ Statistics on hard crabs used in this table are based on yields of 3 pounds per dozen in North Carolina; 6 pounds in South Carolina and Georgia; 7.32 pounds in Florida; 8.25 pounds in Mississippi; 6.98 pounds in Alabama and Texas; and 6.45 pounds in Louisiana.

² Statistics on hard clams used in this table are based on yields of 8 pounds of meats per bushel in all States.

³ Statistics on market oysters used in this table are based on yield of 5.71 pounds of meats per bushel in North Carolina; 4.76 in South Carolina; 5.69 in Georgia; 3.29 in Florida; 2.40 in Alabama; 2.19 in Mississippi; 4.14 in Louisiana; and 5.05 in Texas.

NOTE.—Of the total catch in North Carolina, 268,136 pounds of fishery products, valued at \$5,925, were taken in the winter trawl fishery off Maryland, Virginia, and North Carolina. Of the total catch in Florida, 942,791 pounds of fishery products, valued at \$20,607, were taken in the same fishery. These products consisted principally of scup, sea bass, flounders, croaker, and gray squeteague. The seed oyster fishery was prosecuted in this section only in North Carolina where 12 regular fishermen using 6 motor boats and 12 dredges took 39,741 bushels of seed oysters, valued at \$8,280, from public beds. None of these fishermen, craft, or gear was duplicated among those in the fisheries for market oysters or other species.

PRODUCTION OF CERTAIN SHELLFISH IN NUMBER AND BUSHELS

Product	North Carolina		South Carolina		Georgia	
	Quantity	Value	Quantity	Value	Quantity	Value
Crabs:						
Hard..... number.....	7,390,400	\$18,448	32,000	\$320	450,984	\$3,383
Soft..... do.....	1,120,054	33,921	-----	-----	-----	-----
Clams, hard, public..... bushels.....	32,578	17,278	600	600	75	75
Oysters:						
Market, public, spring..... do.....	109,713	25,067	253,337	21,569	-----	-----
Market, public, fall..... do.....	98,683	25,613	99,938	10,175	-----	-----
Market, private, spring..... do.....	1,789	559	90,223	9,646	72,605	8,789
Market, private, fall..... do.....	210	100	64,452	10,466	30,806	6,881
Scallops, bay..... do.....	16,629	6,560	-----	-----	-----	-----

Fisheries of the South Atlantic and Gulf States, 1932—Continued

PRODUCTION OF CERTAIN SHELLFISH IN NUMBER AND BUSHEL—Continued

Product	Florida		Alabama		Mississippi	
	Quantity	Value	Quantity	Value	Quantity	Value
Crabs:						
Hard.....number.....	134, 778	\$3, 519	120, 520	\$982	614, 605	\$4, 665
Soft.....do.....			3, 840	236	10, 716	893
Clams, hard, public.....bushels.....	140, 101	42, 742				
Oysters:						
Market, public, spring.....do.....	164, 875	27, 493	312, 063	27, 216	2, 042, 173	169, 783
Market, public, fall.....do.....	200, 521	35, 668	36, 869	3, 892	342, 448	32, 162
Market, private, spring.....do.....	56, 705	7, 886	1, 650	220		
Market, private, fall.....do.....	34, 497	6, 320	7, 425	990		
Scallops, bay.....do.....	11, 692	6, 885				

Product	Louisiana		Texas		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
Crabs:						
Hard.....number.....	10, 932, 591	\$56, 776	76, 815	\$669	19, 752, 693	\$88, 762
Soft.....do.....	298, 020	25, 258			1, 432, 630	60, 308
Clams, hard, public.....bushels.....					173, 354	60, 695
Oysters:						
Market, public, spring.....do.....	64, 655	16, 054	87, 709	25, 591	3, 034, 525	312, 773
Market, public, fall.....do.....			106, 469	27, 019	884, 928	134, 52
Market, private, spring.....do.....	281, 365	92, 616			504, 337	119, 716
Market, private, fall.....do.....	373, 318	119, 657			510, 708	144, 414
Scallops, bay.....do.....					28, 321	13, 445

NORTH CAROLINA

Fisheries of North Carolina, 1932

OPERATING UNITS: BY GEAR

Item	Purse seines		Haul seines		Gill nets			
	Men-haden	Other	Com-mon	Long	Anchor	Drift	Run-around	Stake
Fishermen:								
On vessels.....	418		60	120	46	21		
On boats and shore:								
Regular.....	48	7	925	147	298	274	119	281
Casual.....			311	62	72	32	100	86
Total.....	466	7	1, 296	329	416	327	219	367
Vessels:								
Motor.....	27		11	37	15	5		
Net tonnage.....	884		67	257	91	28		
Boats:								
Motor.....	6	1	221	54	160	89	59	184
Other.....	10	2	398	47	100	51	103	109
Accessory boats.....	50		3	17				
Apparatus:								
Number.....	33	1	454	56	1, 661	227	188	5, 271
Length, yards.....	8, 025	175	66, 326	58, 275				
Square yards.....					908, 610	399, 265	83, 500	561, 965

Fisheries of North Carolina, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Lines				Pound nets	Weirs	Wheels
	Hand	Troll	Trot with baits or snoods	Trot with hooks			
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	17						
On boats and shore:							
Regular.....	20	70	105	6	468		8
Casual.....	40	10	74	16	211	1	
Total.....	77	80	179	22	679	1	8
Vessels:							
Motor.....	6						
Net tonnage.....	41						
Boats:							
Motor.....	30	35	86	2	215	1	8
Other.....			58	11	216		10
Apparatus:							
Number.....	86	45	156	26	1,722	2	21
Hooks, baits or snoods.....	166	45	119,000	3,200			

Item	Fyke nets	Dip nets	Otter trawls		Pots		Spears
			Fish	Shrimp	Eel	Fish	
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....			6	14			
On boats and shore:							
Regular.....	43	184		90	24	12	20
Casual.....	12	20			9	14	30
Total.....	55	204	6	104	33	26	50
Vessels:							
Motor.....			2	6			
Net tonnage.....			32	36			
Boats:							
Motor.....	34	10		45	4		
Other.....	24	127			28	19	45
Apparatus:							
Number.....	801	204	2	51	1,285	465	50
Yards at mouth.....			41	1,007			

Item	Dredges		Tongs	Rakes	By hand	Total, exclusive of duplication
	Oyster	Scallop				
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	156					758
On boats and shore:						
Regular.....	56	68	154	198	40	2,754
Casual.....	20		238	285	20	1,411
Total.....	232	68	392	483	60	4,923
Vessels:						
Motor.....						79
Net tonnage.....						1,234
Sail.....	53					53
Net tonnage.....	502					502
Total vessels.....	53					132
Total net tonnage.....	502					1,736
Boats:						
Motor.....	33	34	67	10		1,154
Other.....			262	415	40	1,584
Accessory boats.....						70
Apparatus:						
Number.....	182	64	387	483		
Yards at mouth.....	182	64				

Fisheries of North Carolina, 1932—Continued

CATCH: BY GEAR

Species	Purse seines				Haul seines			
	Menhaden		Other		Common		Long	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives					781,400	\$6,878	550,100	\$4,752
Black bass					26,564	2,656	468	47
Bluefish					151,900	3,513	90,500	2,410
Bowfin					1,200	12		
Butterfish					24,750	445	5,000	50
Carp					66,000	3,625	19,000	1,190
Catfish and bullheads					237,000	3,800	126,504	2,017
Croaker					527,000	5,256	2,202,000	22,020
Drum, red or redfish					31,200	624	15,000	300
Eels							200	5
Flounders					140,850	6,078	16,300	200
Gizzard shad					3,000	25	5,700	31
Harvestfish or "starfish"					87,400	879	10,000	100
Hickory shad					16,000	480		
King whiting or "kingfish"					166,700	2,289	50,000	500
Menhaden	54,378,200	\$75,061			97,800	74		
Mullet					1,712,550	33,625	200	8
Pigfish					12,000	125	50,000	500
Pike or pickerel					4,000	320		
Pinfish or sailors choice	90,000	112			30,000	150	150,000	750
Pompano					150	22		
Sea bass					30,000	1,200		
Shad					19,000	2,580	36,400	4,550
Sheepshead					400	8		
Spanish mackerel					24,900	1,295		
Spot					770,200	9,132	422,000	4,220
Squeteagues or "sea trout":								
Gray					253,400	4,558	337,000	5,540
Spotted					607,000	24,970	1,111,000	45,940
Striped bass			75,000	\$11,250	94,200	8,850	142,400	11,998
Sturgeon					600	60		
Sunfish					34,100	682	16,000	320
White perch					297,500	7,334	165,000	4,575
Yellow perch					106,500	2,987	29,250	855
Crabs, soft					195,591	21,497		
Terrapin, diamond-back					557	120		
Total	54,468,200	75,173	75,000	11,250	6,551,412	156,149	5,550,022	112,878

Species	Gill nets							
	Anchor		Drift		Runaround		Stake	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	140,500	\$1,282	110,000	\$800	1,000	\$5	126,000	\$1,460
Bluefish	4,000	80	78,406	2,840	25,000	500	314,000	6,280
Butterfish	1,250	18					1,000	20
Croaker	377,000	3,820	350,000	3,500	11,500	115	29,000	340
Drum, red or redfish	2,500	50					500	10
Eels	150	3						
Flounders	400	12						
Gizzard shad	3,000	30			500	10		
Harvestfish or "starfish"	2,000	20						
Hickory shad	22,900	837					10,000	250
King whiting or "kingfish"	47,000	665						
Mullet	53,500	1,070	95,000	2,200	429,500	10,585	176,500	3,980
Pigfish							200	2
Sea bass	20,000	600			10,000	300		
Shad	242,000	29,190	66,269	7,952			160,300	25,761
Spanish mackerel	500	15						
Spot	95,800	958	10,000	250	40,500	745	57,555	576
Squeteagues or "sea trout":								
Gray	209,000	6,070	206,000	8,120	2,000	80	115,500	2,110
Spotted			30,000	1,355	2,500	130	120,000	4,860
Striped bass	71,000	8,475					16,200	1,532
Sturgeon			800	80				
White perch	14,000	440						
Total	1,306,500	53,635	946,475	27,097	522,500	12,470	1,126,755	47,181

Fisheries of North Carolina, 1932—Continued

CATCH: BY GEAR—Continued

Species	Lines							
	Hand		Troll		Trot with baits or snoods		Trot with hooks	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bluefish.....	5,700	\$264	3,500	\$70			18,000	\$520
Catfish and bullheads.....			13,000	520				
Cero.....								
Sea bass.....	100,600	3,080						
Spanish mackerel.....	1,000	40	39,000	1,560				
Striped bass.....							11,760	1,171
Crabs, hard.....					1,847,600	\$18,448		
Total.....	107,300	3,384	55,500	2,150	1,847,600	18,448	29,760	1,691

Species	Pound nets		Weirs		Wheels		Fyke nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	4,591,000	\$25,052			263,000	\$1,505	21,000	\$165
Black bass.....							4,768	477
Bluefish.....	13,500	445						
Bowfin.....							500	5
Butterfish.....	21,500	230						
Carp.....	13,300	244	2,000	\$20			28,100	1,561
Catfish and bullheads.....	45,500	1,215					97,900	2,048
Croaker.....	892,000	8,920						
Drum, red or redfish.....	38,000	760						
Eels.....	2,500	100					2,200	48
Flounders.....	527,600	23,220					5,800	229
Gizzard shad.....	4,500	45					3,000	30
Harvestfish or "starfish".....	977,981	10,859						
Hickory shad.....	68,425	2,488						
King whiting or "kingfish".....	4,500	90						
Mullet.....	4,500	175					300	12
Pike or pickere].....							1,200	73
Shad.....	400,525	55,833					500	60
Sheepshead.....	2,250	45						
Spanish mackerel.....	12,500	750						
Spot.....	191,500	1,940						
Squeteagues or "sea trout":								
Gray.....	2,503,000	37,310						
Spotted.....	25,200	1,108						
Striped bass.....	75,200	9,115					21,000	2,125
Suckers.....	300	6					150	3
Sunfish.....							5,150	103
White perch.....	92,600	3,438					45,000	1,165
Yellow perch.....	4,400	132					39,750	897
Total.....	10,512,281	183,520	2,000	20	263,000	1,505	276,318	9,001

Species	Dip nets		Otter trawls				Pots	
			Fish		Shrimp		Eel	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bluefish.....			91	\$7				
Butterfish.....			1,014	23				
Croaker.....			151,856	2,671				
Eels.....			437	9			51,228	\$1,712
Flounders.....			51,317	1,538	24,000	\$520		
Hake.....			1,624	22				
Hogfish.....			992	12				
King whiting or "kingfish".....			1,848	39	30,000	450		
Scup.....			5,615	172				
Sea bass.....			41,895	1,071				
Squeteagues or "sea trout", gray.....			10,423	309				
Sturgeon.....			261	39				
Crabs, soft.....	112,964	\$12,424						
Shrimp.....					292,104	9,393		
Squid.....			763	13				
Total.....	112,964	12,424	268,136	5,925	346,104	10,363	51,228	1,712

Fisheries of North Carolina, 1932—Continued

CATCH: BY GEAR—Continued

Species	Pots—Contd.		Spears		Dredges			
	Fish				Oyster		Scallop	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Flounders.....								
White perch.....	217, 500	\$4, 350	23, 000	\$990				
Oysters:								
Market, public, spring.....					312, 202	\$11, 309		
Market, public, fall.....					275, 952	11, 289		
Market, private, spring.....					2, 600	100		
Scallops, bay.....							27, 006	\$1, 800
Terrapin, diamond-back.....	1, 000	250						
Total.....	218, 500	4, 600	23, 000	990	590, 754	22, 698	27, 006	1, 800

Species	Tongs		Rakes		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value
Clams, hard, public.....	3, 200	\$200	247, 424	\$16, 078	10, 000	\$1, 000
Oysters:						
Market, public, spring.....	283, 756	12, 233			30, 594	1, 525
Market, public, fall.....	267, 382	13, 317			20, 144	1, 007
Market, private, spring.....	7, 616	459				
Market, private, fall.....	1, 200	100				
Scallops, bay.....			64, 452	4, 760		
Total.....	563, 154	26, 309	311, 876	20, 838	60, 648	3, 532

SEED OYSTER FISHERY: BY GEAR

Item	Oyster dredges	
OPERATING UNITS		
Fishermen: On boats and shore—Regular.....	Number	
Boats: Motor.....	12	
Apparatus: Number.....	6	
Yards at mouth.....	12	
	12	
CATCH		
Oysters, seed, public, spring.....	Bushels	Value
	39, 741	\$8, 280

NOTE.—Of the persons and gear employed in the seed oyster fishery all are duplicated among those in the market oyster fishery or fisheries for other species.

SOUTH CAROLINA

Fisheries of South Carolina, 1932

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets			Lines	
		Anchor	Drift	Run-around	Hand	Trot with baits or snoods
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....					10	
On boats and shore:						
Regular.....	10	28	60	12	140	6
Casual.....	138	152	586		30	
Total.....	148	180	646	12	180	6
Vessels, motor.....					2	
Net tonnage.....					20	
Boats:						
Motor.....		22	15	3	14	
Other.....	20	122	308		58	6
Apparatus:						
Number.....	20	334	323	7	180	6
Length, yards.....	2,780					
Square yards.....		154,872	284,554	1,450		
Hooks, baits, or snoods.....					550	4,500

Item	Otter trawls	Spears	Tongs	Grabs	By hand	Total, exclusive of duplication
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	7					17
On boats and shore:						
Regular.....	52	6		323	30	615
Casual.....			6	10	10	843
Total.....	59	6	6	333	40	1,475
Vessels, motor.....	2					4
Net tonnage.....	39					59
Boats:						
Motor.....	26			7		84
Other.....		6	3	311	36	773
Apparatus:						
Number.....	28	6	6	333		
Yards at mouth.....	560					

CATCH: BY GEAR

Species	Haul seines		Gill nets						
			Anchor		Drift		Runaround		
			<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	Value
Drum, red or redfish.....	3,170	\$108							
Flounders.....	1,575	79							
Hickory shad.....			5,172	\$414	5,894	\$472			
King whiting or "kingfish".....	3,810	190					2,000	\$100	
Mullet.....	134,050	5,512					14,000	530	
Shad.....			61,541	7,670	61,495	7,789			
Spot.....	8,000	320					2,000	80	
Squeteagues or "sea trout":									
Gray.....	960	58							
Spotted.....	1,855	148							
Sturgeon.....			19,590	3,134	3,750	600			
Terrapin, diamond-back.....	712	182							
Total.....	154,132	6,597	86,303	11,218	71,139	8,861	18,000	710	

Fisheries of South Carolina, 1932—Continued

CATCH: BY GEAR—Continued

Species	Lines				Otter trawls		Spears	
	Hand		Trot with baits or snoods					
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bluefish.....	4,062	\$325						
Flounders.....	850	48			750	\$37	2,000	\$120
Grunts.....	6,300	220						
King whiting or "kingfish".....	5,400	195			5,000	125		
Sea bass.....	218,750	8,187						
Sharks.....	8,000	80						
Squeteagues or "sea trout":								
Gray.....	1,500	90						
Spotted.....	12,500	900						
Crabs, hard.....			16,000	\$320				
Shrimp.....					1,500,687	32,529		
Octopus.....	1,200	72						
Total.....	258,562	10,117	16,000	320	1,506,437	32,691	2,000	120

Species	Tongs		Grabs		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value
Clams, hard, public.....					4,800	\$600
Oysters:						
Market, public, spring.....			1,205,281	\$21,547	605	22
Market, public, fall.....			475,299	10,157	405	18
Market, private, spring.....	22,808	\$702	404,852	8,884	1,800	60
Market, private, fall.....	6,669	296	298,962	10,112	1,160	58
Terrapin, diamond-back.....					1,074	301
Total.....	29,477	998	2,384,394	50,700	9,844	1,059

GEORGIA

Fisheries of Georgia, 1932

OPERATING UNITS: BY GEAR

Item	Purse seines, men-haden	Haul seines	Gill nets				Lines		
			Anchor	Drift	Run-around	Stake	Hand	Trot with baits or snoods	Trot with hooks
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number	Number
On vessels.....	50								
On boats and shore:									
Regular.....		28	50	316	18	4	3	30	
Casual.....						40	40	1	40
Total.....	50	28	50	316	18	44	43	31	40
Vessels, motor.....	2								
Net tonnage.....	108								
Boats:									
Motor.....				3	10		1		
Other.....		14	45	158	8	20	10	31	40
Accessory boats.....	4								
Apparatus:									
Number.....	2	11	45	158	10	40	43	31	40
Length, yards.....	600	1,105							
Square yards.....			10,625	111,863	3,170	10,050			
Hooks, baits, or snoods.....							46	9,390	2,840

Fisheries of Georgia, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Cast nets	Otter trawls	Pots		Tongs	Rakes	Grabs	By hand	Total, exclusive of duplication
			Crab	Fish					
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....		36							86
On boats and shore:									
Regular.....	4	214	12		84		60	62	427
Casual.....	6			22	42	4		36	539
Total.....	10	250	12	22	126	4	60	98	1,052
Vessels, motor.....		18							20
Net tonnage.....		137							245
Boats:									
Motor.....		107							119
Other.....	4		12	11	111	4	60	92	523
Accessory boats.....									4
Apparatus:									
Number.....	10	125	12	81	120	4	60		
Yards at mouth.....		2,510							

CATCH: BY GEAR

Species	Purse seines, menhaden		Haul seines		Gill nets			
	Pounds	Value	Pounds	Value	Anchor		Drift	
Hickory shad.....					791	\$47	6,899	\$488
Menhaden.....	11,520,000	\$16,000						
Shad.....					45,708	6,969	229,972	36,272
Squeteagues or "sea trout":								
Gray.....					2,000	120		
Spotted.....					16,000	1,120		
Sturgeon.....							4,965	397
Terrapin, diamond-back.....			9,645	\$1,356				
Total.....	11,520,000	16,000	9,645	1,356	64,499	8,256	241,836	37,157

Species	Gill nets—Continued				Lines			
	Runaround		Stake		Hand		Trot with baits or snoods	
	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
Croaker.....	8,226	\$329						
Drum, red or redfish.....	2,141	107						
Eels.....							550	\$22
Flounders.....	2,455	74						
Hickory shad.....			2,151	\$172				
King whiting or "kingfish".....	8,646	284			2,142	\$64		
Mullet.....	20,165	930						
Sea bass.....					32,600	960		
Shad.....			12,465	1,870				
Spot.....	9,542	351						
Squeteagues or "sea trout" spotted.....	15,514	1,181			2,696	216		
Crabs, hard.....							170,467	2,558
Total.....	66,689	3,256	14,616	2,042	36,838	1,240	171,017	2,580

Fisheries of Georgia, 1932—Continued

CATCH: BY GEAR—Continued

Species	Lines—Cont.		Cast nets		Otter trawls		Pots			
	Trot with hooks						Crabs		Fish	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Catfish and bullheads	29,667	\$1,718							68,722	\$4,123
Flounders					449	\$14				
King whiting or "kingfish"					8,958	269				
Mullet			32,462	\$974						
Squeteagues or "sea trout", spotted			12,000	840						
Crabs, hard							55,025	\$825		
Shrimp					3,601,564	89,547				
Total	29,667	1,718	44,462	1,814	3,610,971	89,830	55,025	825	68,722	4,123

Species	Tongs		Rakes		Grabs		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Clams, hard, public			600	\$75				
Oysters:								
Market, private, spring	76,467	\$2,264			283,090	\$4,927	53,564	\$1,598
Market, private, fall	101,687	4,056			25,670	906	47,930	1,919
Total	178,154	6,320	600	75	308,760	5,833	101,494	3,517

FLORIDA

Fisheries of Florida, 1932

OPERATING UNITS: BY GEAR

Item	Purse seines		Haul seines		Gill nets				Trammel nets
	Men-haden	Other	Common	Long	Anchor	Drift	Run-around	Stake	
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels	128	10							
On boats and shore:									
Regular			495	239	6	103	2,212		241
Casual			67			98	249	5	18
Total	128	10	562	239	6	201	2,461	5	259
Vessels:									
Motor	5	1							
Net tonnage	29	11							
Boats:									
Motor			97	82	2	53	993		108
Other			73	168		76	1,590	5	132
Accessory boats	4								
Apparatus:									
Number	5	1	110	76	12	146	2,111	5	182
Length, yards	1,450	400	34,300	59,200					
Square yards					9,600	139,606	2,110,492	1,250	122,469

Fisheries of Florida, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Lines				Pound nets	Stop nets	Fyke nets	Dip nets	
	Hand	Troll	Trot with baits or snoods	Trot with hooks				Common	Drop
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number	Number
On vessels.....	400								
On boats and shore:									
Regular.....	739	778	14	197	16	52	18	35	30
Casual.....	484	359		5			8	15	21
Total.....	1,623	1,137	14	202	16	52	26	50	51
Vessels:									
Motor.....	53								
Net tonnage.....	1,773								
Sail.....	1								
Net tonnage.....	64								
Total vessels.....	54								
Total net tonnage.....	1,837								
Boats:									
Motor.....	352	552	4	28	6	12		24	30
Other.....	430	70	10	140	7	29	26	34	12
Accessory boats.....	7								
Apparatus:									
Number.....	1,620	1,190	13	198	13	7	278	50	54
Square yards.....						11,475			
Hooks, baits, or snoods.....	2,373	1,485	2,700	85,005					

Item	Cast nets	Otter trawls			Pots			Spears
		Fish	Shrimp	Crab	Eel	Fish	Sea crawfish	
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number
On vessels.....		10	107					
On boats and shore:								
Regular.....	6		795	42	2	36	44	5
Casual.....	10		8	2			24	22
Total.....	16	10	910	44	2	36	68	27
Vessels:								
Motor.....		4	41					
Net tonnage.....		109	433					
Boats:								
Motor.....	3		335	24	2	12	42	
Other.....	7		14			17	19	
Apparatus:								
Number.....	16	4	376	1,433	40	1,515	3,190	27
Yards at mouth.....		109	7,135					

Fisheries of Florida, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Dredges		Tongs	Forks	Co-quina scoops	Hooks, sponge	Diving outfits	By-hand	Total, exclusive of duplication
	Clam	Oyster							
	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:									
On vessels.....		4							638
On boats and shore:									
Regular.....	12		356	34		402	404	55	5,988
Casual.....			48	6	4			164	1,331
Total.....	12	4	404	40	4	402	404	219	7,957
Vessels:									
Motor.....		1							98
Net tonnage.....		7							2,467
Sail.....									1
Net tonnage.....									64
Total vessels.....		1							99
Total net tonnage.....		7							2,531
Boats:									
Motor.....			123				54		2,318
Other.....			175	4		325		34	2,945
Accessory boats.....									11
Apparatus:									
Number.....	1	2	413	40	3	201	54		
Yards at mouth.....									

CATCH: BY GEAR

Species	Purse seines				Haul seines			
	Menhaden		Other		Common		Long	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....							72,661	\$364
Black bass.....					10,000	\$600	243,007	16,359
Bluefish.....			8,000	\$320	141,416	3,090		
Blue runner or hardtail.....					20,868	204		
Catfish and bullheads.....					6,923	178	2,412,065	74,487
Cigarfish.....					9,350	170		
Crappie.....					12,000	360	386,596	11,379
Crevalle.....					1,320	15		
Croaker.....					3,685	44		
Drum:								
Black.....					9,620	187		
Red or redfish.....					81,233	1,237		
Flounders.....					10,275	297		
Hickory shad.....							20,887	217
Kingfish or "king mackerel".....					17,440	317		
King whiting or "kingfish".....					16,436	318		
Ladyfish.....					2,622	39		
Menhaden.....	23,328,960	\$40,931			20,900	289		
Mojarro.....					1,820	25		
Mullet.....			209,061	5,249	3,006,193	49,919	1,899	45
Permit.....					1,450	23		
Pigfish.....					5,358	62		
Pinfish or sailors choice.....					5,775	148		
Pompano.....					44,629	5,772		
Shad.....					124,650	9,970	203,327	16,266
Sheepshead.....					36,011	522		
Snapper, mangrove.....					6,016	82		
Snook or sergeantfish.....					41,805	545		
Spanish mackerel.....			362,027	14,481	376,113	10,339		
Spot.....					3,560	51		
Squeteagues or "sea trout":								
Gray.....					6,611	77		
Spotted.....					189,301	7,184		
Sunfish.....					6,500	130	651,854	16,577
Tenpounder.....					76,200	1,324		
Turtles, soft-shell.....					235	5	43,730	247
Total.....	23,328,960	40,931	579,088	20,050	4,296,315	93,524	4,036,026	135,941

Fisheries of Florida, 1932—Continued

CATCH: BY GEAR—Continued

Species	Gill nets							
	Anchor		Drift		Runaround		Stake	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bluefish			17,280	\$829	965,489	\$41,986		
Blue runner or hardtail					128,256	1,744		
Catfish and bullheads					7,330	169		
Crevalle					18,985	437		
Croaker					14,460	285		
Drum:								
Black					34,000	530		
Red or redfish					502,930	8,164		
Flounders					36,217	921		
Groupers					33,630	653		
Hickory shad			7,260	200				
King whiting or "kingfish"			8,220	164	34,770	925		
Mojarro					23,491	349		
Mullet			135,000	2,700	16,471,235	258,588		
Muttonfish					82,340	2,628		
Piefish					58,560	854		
Pinfish or sailors choice					19,200	337		
Pompano			940	141	303,668	46,341		
Shad			212,684	25,890			5,425	\$814
Sharks	5,040,000	\$12,000						
Sheepshead					367,559	6,029		
Snapper:								
Mangrove					40,461	775		
Red					17,000	425		
Snook or sergeantfish					127,845	2,204		
Spanish mackerel			74,575	2,237	5,385,248	177,204		
Spot					63,700	859		
Squeteagues or "sea trout", spotted			4,000	200	1,750,240	68,720		
Sturgeon			4,379	199				
Tenpounder					1,045	25		
Total	5,040,000	12,000	464,344	32,450	26,489,849	621,152	5,425	814

Species	Lines							
	Trammel nets		Hand		Troll		Trot with baits or snoods	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Amberjack			4,577	\$122				
Barracuda			4,245	180				
Black bass			18,050	1,040				
Bluefish			117,977	6,107	152,637	\$7,623		
Blue runner or hardtail			6,321	235				
Cabio or crab eater			4,300	86				
Catfish and bullheads			476,096	19,043				
Cero					275	4		
Crevalle			2,061	62				
Dolphin			300	9	11,750	352		
Drum:								
Black	165	\$3	2,990	93				
Red or redfish	16,750	302	134,303	1,766				
Flounders	365	12						
Groupers			3,108,523	63,302				
Grunts			19,750	567				
Hogfish			20,000	600				
Jewfish			29,080	1,012				
Kingfish or "king mackerel"					3,276,281	119,204		
King whiting or "kingfish"			2,000	100				
Mullet	581,397	11,330						
Muttonfish			102,570	5,271				
Pompano	211,058	24,520	12,121	2,374				
Porgies			25,636	509				
Porkfish			363	7				
Sea bass			43,200	1,964	2,521	101		
Sharks			3,000	5				
Sheepshead	7,530	135	100,027	1,413				
Snapper:								
Mangrove	990	18	33,906	918				
Red			4,557,015	227,321				
Snook or sergeantfish			111,420	3,567				
Spanish mackerel			11,750	344	99,885	4,391		
Squeteagues or "sea trout":								
Gray	880	16	2,860	38				
Spotted	131,093	5,690	489,851	20,751				

Fisheries of Florida, 1932—Continued

CATCH: BY GEAR—Continued

Species	Trammel nets		Lines								
			Hand		Troll		Trot with baits or snoods				
			Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	
Tripletail.....			890	\$18							
Tuna or "horse mackerel".....					3,350	\$134					
Wahoo.....					2,250	90					
Yellowtail.....			84,580	4,004							
Crabs, hard.....								62,220	\$3,025		
Turtles, soft-shell.....			7,050	70							
Total	950,228	\$42,026	9,536,812	362,898	3,548,949	131,899		62,220	3,025		

Species	Lines—Cont'd.		Pound nets		Stop nets		Fyke nets	
	Trot with hooks		Pounds	Value	Pounds	Value	Pounds	Value
	Pounds	Value						
Alewives.....			7,286	\$73				
Bluefish.....			17,211	782	440	\$16		
Blue runner or hardtail.....			7,062	128				
Cabio or crab eater.....			845	17				
Catfish and bullheads.....	275,730	\$12,272	159,910	4,389			57,432	\$1,149
Crevalle.....					385	4		
Croaker.....					3,960	45		
Drum:								
Black.....					275	4		
Red or redfish.....			6,820	124	22,748	301		
Flounders.....					6,950	142		
Groupers.....			350	7				
Jewfish.....			1,210	22				
Kingfish or "king mackerel".....			780	23				
King whiting or "kingfish".....					3,300	37		
Mojarro.....					9,053	103		
Mullet.....					710,939	9,828		
Permit.....					1,400	84		
Pigfish.....					2,600	32		
Pompano.....			167	17	8,680	922		
Porgies.....			150	3				
Sheepshead.....			1,320	24	22,883	333		
Snapper, mangrove.....			352	6	2,300	30		
Snook or sergeantfish.....					10,725	121		
Spanish mackerel.....			28,000	840				
Spot.....					1,100	15		
Squeteagues or "sea trout":								
Gray.....					715	8		
Spotted.....			18,700	850	83,340	3,030		
Turtles, soft-shell.....			654	14				
Total	275,730	12,272	250,817	7,319	891,793	15,055	57,432	1,149

Species	Dip nets				Cast nets		Otter trawls	
	Common		Drop		Pounds	Value	Fish	
	Pounds	Value	Pounds	Value			Pounds	Value
Bluefish.....							777	\$61
Butterfish.....							997	47
Cod.....							2,039	43
Croaker.....							3,670	57
Eels.....							1,260	27
Flounders.....							306,726	8,580
Hake.....							8,218	165
King whiting or "kingfish".....							133	5
Mojarro.....					1,225	\$37		
Mullet.....					25,725	595		
Scup.....							247,792	5,936
Sea bass.....							205,274	6,037
Squeteagues or "sea trout", gray.....							10,352	537
Crabs, hard.....			3,675	\$63				
Sea crawfish or spiny lobster.....	76,380	\$4,583	93,007	7,441				
Squid.....							7,553	147
Total	76,380	4,583	96,682	7,504	26,950	632	794,791	21,642

Fisheries of Florida, 1932—Continued

CATCH: BY GEAR—Continued

Species	Otter trawls— Continued		Pots					
			Crab		Eel		Fish	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Black bass							7,420	\$519
Catfish and bullheads							135,550	4,527
Croaker							6,330	127
Eels					6,300	\$126		
Flounders	74,000	\$1,400					21,000	630
Groupers	375	8					24,641	730
Grunt							8,430	253
Highfin								
King whiting or "kingfish"	220,200	5,330						
Muttonfish							18,225	912
Spottails								
Manatee							11,555	578
Eel	1,250	10					13,009	780
Snook or spear snout fish							9,985	499
Sunfish							4,140	124
Turbot							4,125	124
Yellowtail							7,250	437
Crabs								
Hard			16,287	\$131				
Soft			154,825	8,345				
Shrimps	18,400,331	2,298						
Total	18,422,100	342,006	170,112	8,796	6,300	126	271,691	10,240

Species	Pots—Continued				Dredges			
	Sea crawfish		Spears		Clam		Oyster	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Flounder— sea crawfish or spiny lobster	276,160	\$20,054	20,598	\$923				
Clams, hard, public					844,264	\$31,660		
Oysters								
Market, private, spring							28,186	\$1,244
Market, private, fall							1,275	56
Total	276,160	20,054	20,598	923	844,264	31,660	29,461	1,300

Species	Tongs		Forks		Coquina scoops	
	Pounds	Value	Pounds	Value	Pounds	Value
Clams:						
Coquina					5,400	\$335
Hard, public			275,940	\$11,021		
Oysters:						
Market, public, spring	527,738	\$26,758				
Market, public, fall	592,137	34,070				
Market, private, spring	44,132	1,833				
Market, private, fall	31,040	1,558				
Total	1,195,047	64,219	275,940	11,021	5,400	335

Species	Hooks, sponge		Diving outfits		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value
Conchs	1,300	\$120			608	\$61
Oysters:						
Market, public, spring					14,700	735
Market, public, fall					67,578	1,598
Market, private, spring					114,240	4,809
Market, private, fall					81,180	4,706
scallops, bay					61,965	6,885
Sponges:						
Grass	168,432	34,392	12,935	\$2,927		
Sheepswool	117,877	185,544	159,210	408,130		
Velvet	71	20				
Wire	277	97	29,189	13,200		
Yellow	47,046	14,794	77,490	37,730		
Total	335,203	234,967	278,824	462,077	340,271	18,794

Fisheries of Florida, 1932—Continued

CATCH: BY DISTRICTS

Species	East coast		West coast		Lake Okkechobee	
	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	79,947	\$437				
Amberjack	3,077	92	1,500	\$30		
Barracuda	4,245	180				
Black bass	103,869	7,006			174,608	\$11,512
Bluefish	906,711	44,652	514,522	15,962		
Blue runner or hardtail	41,216	861	121,291	1,450		
Butterfish	997	47				
Cabio or crab eater			5,145	103		
Catfish and bullheads	2,713,184	80,851	89,478	1,840	728,974	33,523
Cero			275	4		
Cigarfish			9,350	170		
Cod	2,039	43				
Crappie	234,418	8,455			170,508	3,411
Crevalle	20,166	491	2,585	27		
Croaker	17,195	323	8,580	103		
Dolphin	12,050	361				
Drum:						
Black	43,500	751	4,510	66		
Red or redfish	45,880	1,246	718,904	10,648		
Eels	7,560	153				
Flounders	392,726	10,390	62,405	1,975		
Groupers	136,465	3,758	3,027,413	60,842		
Grunts	32,891	977	11,500	320		
Hake	8,218	165				
Hickory shad	28,147	507				
Hogfish	28,430	853				
Jewfish	20,000	800	10,290	234		
Kingfish or "king mackerel"	2,705,775	105,159	588,726	14,355		
King whiting or "kingfish"	279,873	6,815	5,186	65		
Ladyfish			2,622	39		
Menhaden	11,179,680	13,319	12,170,180	27,901		
Mojarro	6,225	137	29,364	377		
Mullet	2,278,890	42,682	18,862,559	295,572		
Muttonfish	195,585	3,596	7,550	215		
Permit			2,850	107		
Pigfish	42,740	662	23,808	286		
Pinfish or sailors choice	23,525	467	1,450	18		
Pompano	253,978	42,850	327,285	37,237		
Forgies	661	20	25,125	492		
Porkfish			363	7		
Scup	247,792	5,936				
Sea bass	247,795	8,038	3,200	64		
Shad	546,086	52,940				
Sharks			5,043,000	12,005		
Sheepshead		1,941	455,310	6,515		
Snapper:						
Mangrove	28,254	1,290	67,326	1,117		
Red	48,800	2,006	4,539,465	226,530		
Snook or sergeantfish	134,152	4,911	167,628	2,025		
Spanish mackerel	3,452,550	135,989	2,885,048	73,847		
Spot	65,120	879	3,240	46		
Squeteagues or "sea trout":						
Gray	10,352	537	11,066	139		
Spotted	527,345	24,497	2,139,180	81,928		
Sturgeon			4,379	199		
Sunfish	404,314	9,575			258,180	7,256
Tenpounder			77,845	1,349		
Tripletail			890	18		
Turbot	4,125	124				
Tuna or "horse mackerel"	3,350	134				
Wahoo	2,250	90				
Yellowtail	42,290	2,537	49,580	1,904		
Crabs:						
Hard	78,507	3,456	3,675	63		
Stone	42,155	2,951	111,670	5,384		
Sea crawfish or spiny lobster	347,207	26,177	98,340	5,901		
Shrimp	17,068,073	503,925	1,068,261	31,273		
Clams:						
Coquina	4,200	35	1,200	300		
Hard, public	12,000	750	1,108,812	41,992		
Conchs			1,500	120		
Oysters:						
Market, public, spring	43,666	3,237	498,772	24,256		
Market, public, fall	79,111	2,329	580,604	33,339		
Market, private, spring	158,372	6,642	28,186	1,244		
Market, private, fall	112,220	6,264	1,275	56		
Scallops, bay			61,965	6,885		
Squid	7,553	147				
Turtles, soft-shell	12,827	128	889	19	37,953	189

Fisheries of Florida, 1932—Continued

CATCH: BY DISTRICTS—Continued

Species	East coast		West coast		Lake Okeechobee	
	Pounds	Value	Pounds	Value	Pounds	Value
Sponges:						
Grass.....			181,367	\$37,319		
Sheepswool.....			277,087	593,674		
Velvet.....			71	20		
Wire.....			29,466	13,387		
Yellow.....			124,536	52,524		
Total.....	45,660,349	\$1,191,576	56,250,649	1,725,017	1,370,223	\$55,891

Sponge fishery of Florida, 1932

OPERATING UNITS: BY GEAR

Item	Sponge hooks	Diving outfits	Total
	Number	Number	Number
Fishermen, on boats and shore, regular.....	402	404	806
Boats			
Motor.....		54	54
Other.....	325		325
Apparatus.....	201	51	

CATCH: BY GEAR

Sponges	Sponge hooks		Diving outfits		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
Grass.....	168,432	\$34,392	12,935	\$2,927	181,367	\$37,319
Sheepswool.....	117,877	185,541	159,210	408,136	277,087	593,674
Velvet.....	71	20			71	20
Wire.....	277	97	29,189	13,290	29,466	13,387
Yellow.....	47,046	14,794	77,490	37,730	124,536	52,524
Total.....	333,703	234,847	278,824	462,077	612,527	696,924

SPONGES SOLD AT THE EXCHANGE, TARPON SPRINGS, FLA.

During 1932 sponges handled on the exchange at Tarpon Springs, Fla., amounted to 418,923 pounds, valued at \$517,655. This is an increase of 12 percent in quantity but a decrease of 15 percent in value as compared with the quantity and value of the transactions on the exchange during 1931. Of the total sponges sold on the exchange in 1932, 109,810 pounds, valued at \$312,318, were large wool; 60,429 pounds, valued at \$118,336, were medium, small, and rag wool; 90,144 pounds, valued at \$44,437, were yellow; 129,352 pounds, valued at \$29,273, were grass; and 29,188 pounds, valued at \$13,291, were wire. It is estimated that sponges valued at \$60,000 were sold outside of the exchange.

ALABAMA

Fisheries of Alabama, 1932

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets, stake	Trammel nets	Lines			
				Hand	Troll	Trot with bait or snoods	Trot with hooks
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....				99			
On boats and shore:							
Regular.....	30	4	60	14	2	6	18
Casual.....			9	36		13	6
Total.....	30	4	69	149	2	19	24
Vessels, motor.....				11			
Net tonnage.....				132			
Boats:							
Motor.....	6	1	23	3	1		3
Other.....	3	4	54	18		13	24
Apparatus:							
Number.....	5	18	53	149	2	15	101
Length, yards.....	2,900						
Square yards.....		2,880	17,365				
Hooks, baits, or snoods.....				260	2	2,336	10,370

Item	Fyke nets	Otter trawls	Spears	Tongs	By hand	Total, exclusive of duplication
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....		34		22		139
On boats and shore:						
Regular.....	1	190	4	115	6	360
Casual.....			26	5	28	90
Total.....	1	224	30	142	34	589
Vessels, motor.....		17		11		31
Net tonnage.....		145		82		299
Boats:						
Motor.....	1	95		42		153
Other.....				38		151
Apparatus:						
Number.....	6	112	30	142		
Yards at mouth.....		1,465				

CATCH: BY GEAR

Species	Haul seines		Gill nets, stake		Trammel nets		Lines	
							Hand	
	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
Bluefish.....	9,486	\$431			2,915	\$132		
Blue runner or hardtail.....	924	17						
Catfish and bullheads.....					1,006	45	1,980	\$90
Crevaille.....	259	5						
Croaker.....	8,706	159			9,185	167	220	4
Drum:								
Black.....	302	6			440	8		
Red or redfish.....	5,326	340			32,080	1,906	6,886	399
Flounders.....	110	8			3,890	271		
Groupers.....							99,746	1,998
King whiting or "kingfish".....	3,031	55			632	12	55	1
Mullet.....	164,614	2,470			532,344	8,203		
Pompano.....	5	1			3,139	435		
Sheepshead.....	344	9			2,942	80	1,155	31
Snapper, red.....							681,573	30,263
Spanish mackerel.....	493	18			7,535	274		
Spot.....	165	3			236	4		
Squeteagues or "sea trout":								
Gray.....	660	12			3,685	67	1,705	31
Spotted.....	9,337	849			84,804	7,710	9,083	533
Sturgeon.....			10,742	\$977				
Tenpounder.....	1,400	14						
Total.....	205,162	4,397	10,742	977	684,833	19,314	802,403	33,650

Fisheries of Alabama, 1932—Continued

CATCH BY GEAR—Continued

Species	Lines—Continued						Fyke nets	
	Troll		Trot with baits or snoods		Trot with hooks			
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Buffalofish.....					10,509	\$287	1,320	\$36
Cable or crab eater.....	550	\$15						
Catfish and bullheads.....					46,775	2,126	10,450	475
Kingfish or "king mackerel".....	880	40						
Paddlefish or spoonbill cat.....					1,320	60		
Crabs, hard.....			70,070	\$982				
Total.....	1,430	55	70,070	982	58,604	2,473	11,770	511

Species	Otter trawls		Spears		Tongs		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Flounders.....			17,490	\$1,389				
Crabs, soft.....							1,280	\$236
Shrimp.....	3,381,700	\$71,910						
Oysters:								
Market, public, spring.....					748,952	\$27,216		
Market, public, fall.....					88,485	3,892		
Market, private, spring.....					3,960	220		
Market, private, fall.....					17,820	990		
Terrapin, diamond-back.....							1,089	275
Frogs.....							697	104
Total.....	3,381,700	71,910	17,490	1,389	859,217	32,318	3,066	615

MISSISSIPPI

Fisheries of Mississippi, 1932

OPERATING UNITS: BY GEAR

Item	Haul seines	Trammel nets	Lines		Dip nets, drop	Cast nets
			Hand	Trot with baits or snoods		
Fishermen:						
On vessels.....						
On boats and shore:						
Regular.....	18	64	12	23		
Casual.....		2	114	13	35	60
Total.....	18	66	132	36	35	60
Vessels:						
Motor.....			1			
Net tonnage.....			8			
Boats:						
Motor.....	3	25	8	3		
Other.....	3	43	108	34	16	
Apparatus:						
Number.....	3	39	132	36	130	60
Length, yards.....	800					
Square yards.....		15,775				
Hooks, baits, or snoods.....			142	8,895		

Fisheries of Mississippi, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Otter trawls	Spears	Dredges, oyster	Tongs	By hand	Total, exclusive of duplication
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	60		424			474
On boats and shore:						
Regular.....	450	2	236	240		829
Casual.....		61		5	33	205
Total	510	63	660	245	33	1,508
Vessels:						
Motor.....	30		91			114
Net tonnage.....	276		1,300			1,507
Sail.....			15			15
Net tonnage.....			237			237
Total vessels	30		106			129
Total net tonnage	276		1,537			1,744
Boats:						
Motor.....	225		53	9		268
Other.....			5	231		407
Apparatus:						
Number.....	255	63	328	245		
Yards at mouth.....	3,154		329			

CATCH: BY GEAR

Species	Haul seines		Trammel nets		Lines			
	Pounds	Value	Pounds	Value	Hand		Trot with buits or snoods	
Bluefish.....	1,320	\$24	3,410	\$62				
Cabio or crab eater.....					110	\$2		
Catfish and bullheads.....			12,705	231	14,410	262		
Crevalle.....	660	6	110	1	220	2		
Croaker.....			5,775	99	4,620	84		
Drum:								
Black.....	440	4	7,425	97	1,072	14		
Red or redfish.....	6,600	180	60,910	1,672	7,590	210		
Flounders.....			9,080	350				
Groupers.....					16,117	322		
King whiting or "kingfish".....			2,068	33				
Mullet.....	60,000	600	483,720	7,210				
Pompano.....			132	12				
Sheepshead.....	6,600	150	15,400	355	1,815	34		
Snapper, red.....					36,812	1,841		
Squeteagues or "sea trout":								
Gray.....	10,450	190	50,600	920	41,965	763		
Spotted.....	11,000	400	69,108	2,513	44,286	1,611		
Tenpounder.....	350	4						
Tripletail.....					176	4		
Crabs, hard.....							261,895	\$3,833
Shrimp.....	7,560	144						
Total	104,980	1,702	720,443	13,555	169,193	5,149	261,895	3,833

Species	Dip nets, drop		Cast nets		Otter trawls		Spears	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Croaker.....					440	\$8		
Flounders.....					8,600	344	28,860	\$1,435
King whiting or "kingfish".....					660	12		
Mullet.....			21,250	\$425				
Crabs, hard.....	58,212	\$832						
Shrimp.....			9,000	900	13,993,160	266,384		
Total	58,212	832	30,250	1,325	14,002,860	266,748	28,860	1,435

Fisheries of Mississippi, 1932—Continued

CATCH: BY GEAR—Continued

Species	Dredges, oyster		Tongs		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value
Crabs, soft.....					3, 572	\$893
Oysters:						
Market, public, spring.....	4, 376, 770	\$164, 001	95, 588	\$5, 182		
Market, public, fall.....	601, 770	24, 140	148, 192	8, 022		
Total.....	4, 978, 540	188, 741	243, 780	13, 204	3, 572	893

LOUISIANA

Fisheries of Louisiana, 1932

OPERATING UNITS: BY GEAR

Item	Haul seines	Trammel nets	Lines			Dip nets, drop
			Hand	Trot with baits or snoods	Trot with hooks	
Fishermen:						
On boats and shore:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Regular.....	412	48	46	183	3	8
Casual.....	4		121	135		24
Total.....	416	48	167	318	3	32
Boats:						
Motor.....	99	22	21	22	3	10
Other.....	102	22	125	279		26
Apparatus:						
Number.....	102	23	167	318	3	1, 520
Length, yards.....	13, 434					
Square yards.....		6, 985				
Hooks, baits, or snoods.....			172	60, 025	300	
Item	Cast nets	Otter trawls	Dredges, oyster	Tongs	By hand	Total, exclusive of duplication
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....		108	50			154
On boats and shore:						
Regular.....	3	844	8	463	68	1, 864
Casual.....	15			2	106	289
Total.....	18	952	58	465	174	2, 307
Vessels:						
Motor.....		54	10			62
Net tonnage.....		372	93			447
Sail.....			2			2
Net tonnage.....			38			38
Total vessels.....		54	12			64
Total net tonnage.....		372	131			485
Boats:						
Motor.....		422	2	3		574
Other.....				462		996
Apparatus:						
Number.....	18	476	26	465		
Yards at mouth.....		5, 942	26			

Fisheries of Louisiana, 1932—Continued

CATCH: BY GEAR

Species	Haul seines		Trammel nets		Lines			
	Pounds	Value	Pounds	Value	Hand		Trot with baits or snoods	
Catfish and bullheads.....	10,900	\$361	13,050	\$430	18,450	\$694		
Crevalle.....	200	6	100	3				
Croaker.....	26,550	1,204	11,820	486	6,100	234		
Drum:								
Black.....	25,450	837	34,662	1,049	27,300	818		
Red or redfish.....	88,650	4,761	87,009	4,428	106,080	5,304		
Flounders.....	1,030	72	3,375	242				
Garfish.....			300	15				
Grouper.....					3,400	68		
Jewfish.....					2,400	48		
King whiting or "kingfish".....	7,850	196	8,150	178				
Mullet.....	2,600	78	300	9				
Pompano.....	90	11						
Sheepshead.....	28,150	1,487	33,023	1,707	16,500	825		
Snapper, red.....					66,884	4,013		
Spanish mackerel.....					400	16		
Spot.....	1,850	44	1,600	43				
Squeteagues or "sea trout":								
Gray.....	59,080	1,763	84,361	2,529	77,030	2,311		
Spotted.....	122,057	9,477	134,318	10,561	156,052	11,569		
Tripletail.....			890	45	100	4		
Crabs, hard.....							5,730,587	\$54,904
Shrimp.....	2,590,040	54,553						
Turtles, loggerhead.....	6,450	129						
Total.....	2,970,947	74,979	412,958	21,725	480,696	25,904	5,730,587	54,904

Species	Lines—Cont'd		Dip nets, drop		Cast nets		Otter trawl	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Catfish and bullheads.....	2,450	\$98						
Mullet.....					3,400	\$68		
Crabs, hard.....			147,150	\$1,872				
Shrimp.....					3,870	155	35,501,870	\$745,744
Total.....	2,450	98	147,150	1,872	7,270	223	35,501,870	745,744

Species	Dredges, oyster		Tongs		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value
Crabs, soft.....					99,340	\$25,278
Oysters:						
Market, public, spring.....	258,315	\$15,396	9,357	\$658		
Market, private, spring.....	22,928	1,760	1,141,925	90,856		
Market, private, fall.....	96,116	6,758	1,449,420	112,899		
Terrapin, diamond-back.....					8,996	1,619
Total.....	377,359	23,914	2,600,702	204,413	108,336	26,877

TEXAS

Fisheries of Texas, 1932

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets		Trammel nets	Lines			
		Run-around	Stake		Hand	Troll	Trot with baits or snoods	Trot with hooks
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number
On vessels					101			
On boats and shore:								
Regular	90	54	225	118	148	6	8	34
Casual	72				218		7	
Total	162	54	225	118	467	6	15	34
Vessels, motor					15			
Net tonnage					253			
Boats:								
Motor	7	14	32	40	55	4	1	5
Other	8	30	63	38	163		13	26
Apparatus:								
Number	54	47	267	61	467	8	25	48
Length, yards	9,315							
Square yards		13,165	74,945	22,071				
Hooks, baits or snoods					594	8	3,175	6,915

Item	Otter trawls	Spears	Dredges, oyster	Tongs	By hand	Total, exclusive of duplication
Fishermen:						
On vessels						40
On boats and shore:						
Regular		462	47	90	208	60
Casual			105		14	42
Total		502	152	108	222	102
Vessels, motor		20		6		33
Net tonnage		157		51		388
Boats:						
Motor		231		33	41	382
Other					153	418
Apparatus:						
Number		251	152	39	222	
Yards at mouth		3,634		38		

CATCH: BY GEAR

Species	Haul seines		Gill nets				Trammel nets	
			Runaround		Stake			
			Pounds	Value	Pounds	Value		
Bluefish			1,760	\$80				
Catfish and bullheads	21,450	\$780	4,015	146	9,735	\$354	5,610	\$204
Croaker	8,800	214	5,390	98	1,540	28	8,215	177
Drum:								
Black	41,140	790	100,782	1,832	699,794	12,625	49,565	1,134
Red or redfish	73,560	4,046	44,568	2,431	366,503	19,991	127,965	7,029
Flounders	4,460	291	770	49			1,430	95
King whiting or "kingfish"	5,170	94	1,715	31			1,650	30
Mullet	4,950	90						
Pompano	3,740	340	352	32			1,067	97
Sheepshead	5,390	117	1,865	34	5,042	92	5,775	126
Snook or sergeantfish	6,875	187	1,210	33	12,258	334	110	3
Spanish mackerel	2,640	168	2,860	182			880	55
Squeteagues or "sea trout", spotted	118,926	8,038	83,336	5,303	318,136	20,244	188,545	12,467
Striped bass							495	18
Total	297,101	15,155	248,623	10,251	1,413,008	53,668	391,327	21,435

Fisheries of Texas, 1932—Continued

CATCH: BY GEAR—Continued

Species	Lines								Otter trawls	
	Hand		Troll		Trot with baits or snoods		Trot with hooks			
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Catfish and bullheads.....	19,965	\$712					16,050	\$556		
Croaker.....	3,080	59								
Drum:										
Black.....	29,260	562					11,550	210		
Red or redfish.....	166,883	9,303					45,320	2,522		
Groupers.....	18,301	380								
Jewfish.....	5,750	165								
Kingfish or "king mackerel".....			5,280	\$162						
Sheepshead.....	10,972	228					110	2		
Snapper, red.....	985,291	50,076								
Snook or sergeantfish.....	440	12								
Spanish mackerel.....	30,250	1,924	4,510	287						
Squeteagues or "sea trout", spotted.....	257,281	16,961					10,120	647		
Crabs, hard.....					44,660	\$669				
Shrimp.....									9,244,246	\$229,529
Total.....	1,527,473	80,382	9,790	449	44,660	669	83,150	3,937	9,244,246	229,529

Species	Spears		Dredges, oyster		Tongs		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Flounders.....	63,855	\$4,179						
Oysters:								
Market, public, spring.....			230,484	\$13,204	180,788	\$10,419	31,660	\$1,968
Market, public, fall.....			295,650	14,030	199,417	10,383	42,602	2,606
Total.....	63,855	4,179	526,134	27,234	380,205	20,802	74,262	4,574

FISHERIES OF THE PACIFIC COAST STATES⁹

The commercial yield of fishery products in the Pacific Coast States (Washington, Oregon, and California) during 1932 amounted to 560,828,471 pounds, valued at \$9,484,314 to the fishermen. This is a decrease of 6 percent in quantity and 30 percent in the value of the catch as compared with the quantity and value in 1931. Of the total catch in 1932, 542,858,774 pounds, valued at \$8,416,313, were fish; 17,032,597 pounds, valued at \$1,051,736, were shellfish; and 937,100 pounds, valued at \$16,265, were whale products. These fisheries gave employment to 17,882 fishermen, or 7 percent less than in 1931. Of the total number of fishermen employed in 1932, 6,132 were employed on vessels and 11,750 in the boat and shore fisheries.

⁹ Data on the operating units and catch of the fisheries of the Pacific Coast States have been taken largely from statistics collected by the various State agencies. Supplementary surveys, compilations, and analyses have been made by agents of this Bureau in order that the figures may be presented in a manner comparable with those of other sections. While statistics of the fisheries of California are for the calendar year, those for Oregon and Washington are for the fiscal year ending Mar. 31, except that statistics of the halibut fishery in these latter States are for the calendar year.

Fisheries of the Pacific Coast States, 1932

SUMMARY OF CATCH

Product	Washington		Oregon	
	Pounds	Value	Pounds	Value
Fish.....	90,180,518	\$2,922,754	21,874,361	\$675,933
Shellfish, etc.....	4,779,108	455,211	1,111,299	52,785
Total.....	94,959,626	3,377,965	22,985,660	728,718

Product	California		Total	
	Pounds	Value	Pounds	Value
Fish.....	430,803,895	\$4,817,626	542,858,774	\$8,416,313
Shellfish, etc.....	11,142,190	543,740	17,032,597	1,051,736
Whale products.....	937,100	16,265	937,100	16,265
Total.....	442,883,185	5,377,631	560,828,471	9,484,314

OPERATING UNITS: BY STATES

Item	Washington				Oregon		
	Puget Sound district	Coastal district	Columbia River district	Total	Columbia River district	Coastal district	Total
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	2,776	48	9	2,833	55	29	84
On boats and shore.....	1,478	3,477	1,014	5,969	1,728	1,131	2,859
Total.....	4,254	3,525	1,023	8,802	1,783	1,160	2,943
Vessels:							
Steam.....	2			2			
Net tonnage.....	65			65			
Motor.....	479	24	4	507	27	9	36
Net tonnage.....	9,909	212	38	10,159	239	90	329
Sail.....	2			2			
Net tonnage.....	983			983			
Total vessels.....	483	24	4	511	27	9	36
Total net tonnage.....	10,957	212	38	11,207	239	90	329
Boats:							
Motor.....	750	400	585	1,735	1,018	818	1,836
Other.....	373	143	111	627	48	95	143
Apparatus:							
Purse seines:							
Salmon.....	203			203			
Length, yards.....	124,845			124,845			
Haul seines.....	56		27	83	22	1	23
Length, yards.....	5,320		8,466	13,786	16,795	166	16,961
Gull nets:							
Drift:							
Salmon.....	287	64	454	805	772	339	1,111
Square yards.....	336,679	114,089	1,162,240	1,613,008	2,422,536	421,716	2,844,252
Set:							
Salmon.....	2	173	146	321	114	439	553
Square yards.....	716	52,576	35,770	89,062	29,868	73,752	103,620
Lines:							
Trawl, set and hand.....	26,950		133	27,083	297	840	1,137
Hooks.....	558,703		5,225	563,928	9,525	17,500	27,025
Troll.....	1,760	680	58	2,498	816	510	1,326
Hooks.....	7,920	3,060	261	11,241	3,672	2,295	5,967
Pound nets.....	49	69	173	291	34		34
Brush weirs.....	5			5			
Fish wheels.....				29			
Dip nets.....	5	45	95	145	166		166
Drag bag nets.....	32	6		38			
Length, yards.....	2,794	400		3,194			
Reef nets.....	4			4			
Beam trawls.....	33			33			
Yards at mouth.....	224			224			
Otter trawls.....						2	2
Yards at mouth.....						40	40
Traps:							
Crab.....	2,730	2,964		5,694		7,560	7,560
Crawfish.....					396		396
Tongs, rakes, and shovels.....	435	3,042		3,477		227	227
Spears.....		10		10			
Dredges, oyster.....		4		4			
Yards at mouth.....		4		4			

Fisheries of the Pacific Coast States, 1932—Continued

OPERATING UNITS: BY STATES—Continued

Item	California						Grand total
	North- ern dis- trict	San Fran- cisco dis- trict	Mon- terey dis- trict	San Pedro dis- trict	San Diego dis- trict	Total	
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	18	306	526	1,623	742	3,215	6,132
On boats and shore.....	418	1,035	627	641	201	2,922	11,750
Total.....	436	1,341	1,153	2,264	943	6,137	17,882
Vessels:							
Steam.....		2				2	4
Net tonnage.....		41				41	106
Motor.....	8	32	53	199	93	385	928
Net tonnage.....	60	384	1,197	6,930	5,160	13,731	24,219
Sail.....		3				3	5
Net tonnage.....		1,124				1,124	2,107
Total vessels.....	8	37	53	199	93	390	937
Total net tonnage.....	60	1,549	1,197	6,930	5,160	14,896	24,432
Boats:							
Motor.....	195	573	219	351	119	1,457	5,028
Other.....	111	67	24	25	4	231	1,001
Apparatus:							
Purse seines:							
Barracuda.....				24		24	24
Length, yards.....				10,581		10,581	10,581
Salmon.....							124,845
Length, yards.....							78
Sardine.....			22	56		78	78
Length, yards.....			7,960	21,726		29,686	29,686
Tuna.....				59		59	59
Length, yards.....				32,718		32,718	32,718
Lampara nets:							
Mackerel.....				33		33	33
Length, yards.....				13,651		13,651	13,651
Sardine.....		20	38	21	10	89	89
Length, yards.....		5,678	12,150	9,652	2,380	29,860	29,860
Squid.....			55			55	55
Length, yards.....			11,080			11,080	11,080
Other.....				7		7	7
Length, yards.....				2,220		2,220	2,220
Haul seines.....	25	3		1		29	135
Length, yards.....	1,971	660		214		2,845	33,592
Gill nets:							
Drift:							
Barracuda.....				37	18	55	55
Square yards.....				361,280	182,010	543,290	543,290
Salmon.....	105	192				297	2,213
Square yards.....	96,600	571,392				667,992	5,125,252
Sea bass.....		8	18			26	26
Square yards.....		15,091	48,600			63,691	63,691
Shad.....		186				186	186
Square yards.....		507,854				507,854	507,854
Set:							
"California halibut".....			24			24	24
Square yards.....			55,920			55,920	55,920
Salmon.....							874
Square yards.....							192,682
Sea bass.....				41	14	55	55
Square yards.....				180,072	79,981	260,053	260,053
Miscellaneous.....	6	88	105	25	14	238	238
Square yards.....	5,472	133,545	242,207	25,995	13,290	420,509	420,509
Trammel nets.....				37	13	50	50
Square yards.....				281,163	227,624	508,787	508,787
Lines:							
Trawl, set and hand.....	197	864	1,043	1,730	1,298	5,132	33,352
Hooks.....	34,916	59,456	147,269	282,729	87,265	611,635	1,202,588
Troll.....	829	573	1,575	410	170	3,557	7,381
Hooks.....	3,881	3,289	3,433	430	170	11,203	28,411
Pound nets.....							325
Brush weirs.....							5
Fish wheels.....							29
Fyke nets.....		2,268				2,268	2,268
Dip nets.....	43	10				53	364

Fisheries of the Pacific Coast States, 1932—Continued

OPERATING UNITS: BY STATES—Continued

Item	California						Grand total
	North- ern dis- trict	San Fran- cisco dis- trict	Mon- terey dis- trict	San Pedro dis- trict	San Diego dis- trict	Total	
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Bag nets, shrimp.....		13				13	13
Length, yards.....		8,768				8,768	8,768
Drag bag nets.....							38
Length, yards.....							2,194
Reef nets.....							4
Paranzella nets.....		9	2	10		21	21
Yards at mouth.....		150	33	167		350	350
Beam trawls.....		27				27	60
Yards at mouth.....		180				180	404
Otter trawls.....							2
Yards at mouth.....							40
Traps:							
Crab.....	414	4,160				4,874	18,128
Crawfish.....							396
Lobster.....				4,291	1,938	6,229	6,229
Octopus.....	5		119			124	124
Harpoons:							
Swordfish and turtles.....				40	24	64	64
Whales.....		2				2	2
Tongs, rakes, and shovels.....	8	99	41	58		206	3,910
Abalone outfits.....		1	14	3		18	18
Spears.....							10
Dredges, oyster.....							4
Yards at mouth.....							4

CATCH: BY STATES

Species	Washington		Oregon	
	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
FISH			10,000	\$200
Carp.....	53,912	\$1,078		
Cod ²	7,327,590	73,950		
Flounders:				
" Sole.....	217,567	5,086	54,542	1,320
Other.....	64,349	1,154	52,240	681
Halibut.....	23,817,570	1,068,099	307,983	13,704
Herring.....	766,726	11,501	16,968	148
" Lingcod".....	522,662	15,411	105,663	2,011
Perch.....	38,195	1,069	8,344	121
Rockfishes.....	297,190	8,810	33,303	559
Sablefish.....	1,679,744	41,478	78,633	1,600
Salmon.....	52,238,357	1,622,289	19,150,594	609,232
Shad.....	100,627	2,013	615,308	9,329
Smelt.....	1,698,132	37,440	236,540	5,001
Steelhead trout.....	1,317,315	31,353	1,142,167	29,900
Striped bass.....			18,139	976
Sturgeon.....	32,370	836	43,937	1,151
Other fish.....	17,212	1,187		
Total.....	90,180,518	2,922,754	21,874,361	675,933
SHELLFISH, ETC.				
Crabs.....	1,403,092	59,522	982,749	37,970
Crawfish.....			80,000	6,000
Shrimp.....	46,236	3,269		
Clams:				
Hard.....	406,431	19,921		
Razor.....	526,331	108,190	31,282	6,343
Mixed.....			14,759	1,506
Octopus.....	37,351	1,076	33	2
Oysters:				
Eastern, market.....	2,400	1,370		
Japanese, market.....	2,093,945	126,999		
Native, market.....	256,731	133,005	2,476	964
Scallops.....	6,591	1,859		
Total.....	4,779,108	455,211	1,111,299	52,785
Grand total.....	94,959,626	3,377,965	22,985,660	728,718

² The cod were taken off Alaska.

Fisheries of the Pacific Coast States, 1932—Continued

CATCH: BY STATES—Continued

Species	California ¹		Total	
	Pounds	Value	Pounds	Value
FISH				
Anchovies.....	299,217	\$3,374	299,217	\$3,374
Barracuda.....	2,926,775	156,398	2,926,775	156,398
Cabrilla.....	340,008	11,898	340,008	11,898
Carp.....	29,500	438	93,412	1,716
Catfish.....	254,027	27,570	254,027	27,570
Cod ²	4,418,539	53,590	11,746,129	127,540
Corbina.....	2,469	99	2,469	99
Eels.....	242	9	242	9
Flounders:				
"California halibut".....	933,927	73,206	933,927	73,206
" Sole".....	8,888,942	310,691	9,161,051	317,097
Other.....	1,234,465	42,604	1,351,054	44,439
Flyingfish.....	40,535	1,366	40,535	1,366
Grayfish.....	850,888	13,252	850,888	13,252
Groupers.....	18,689	646	18,689	646
Hake.....	28,751	407	28,751	407
Halibut.....	661,603	29,788	24,787,156	1,111,591
Hardhead.....	110,557	8,040	110,557	8,040
Herring.....	765,724	4,985	1,549,418	16,634
Horse mackerel.....	536,409	14,497	536,409	14,497
Kingfish.....	447,531	10,903	447,531	10,903
"Lingcod".....	899,912	24,959	1,528,237	42,381
Mackerel.....	12,473,746	94,661	12,473,746	94,661
Marlin.....	24,676	981	24,676	981
Mullet.....	22,690	1,076	22,690	1,076
Perch.....	206,477	9,169	253,016	10,359
Pilchard or sardine.....	312,171,716	825,349	312,171,716	825,349
Pompano.....	9,633	2,580	9,633	2,580
Rock bass.....	436,564	21,483	436,564	21,483
Rockfishes.....	5,636,309	171,274	5,966,802	180,643
Rudderfish.....	36,826	1,936	36,826	1,936
Sablefish.....	975,373	20,203	2,724,750	63,281
Salmon.....	4,699,120	161,740	76,088,071	2,393,261
Sculpin.....	90,181	5,873	90,181	5,873
Sea bass:				
Black.....	473,394	16,560	473,394	16,560
White.....	806,504	60,818	806,504	60,818
Shad.....	1,173,471	29,342	1,889,406	40,684
Sheepshead.....	89,591	2,328	89,591	2,328
Skates.....	292,412	4,622	292,412	4,622
Smelt.....	894,096	33,472	2,828,768	75,913
Spanish mackerel.....	10,822	567	10,822	567
Splittail.....	24,420	650	24,420	650
Squawfish.....	2,004	99	2,004	99
Steelhead trout.....	-----	-----	2,459,482	61,253
Striped bass.....	537,376	45,883	555,515	46,859
Sturgeon.....	-----	-----	76,307	1,987
Suckers.....	6,525	52	6,525	52
Swordfish.....	662,705	58,465	662,705	58,465
Tomcod.....	4,271	171	4,271	171
Tuna and tunalike fishes:				
Albacore.....	619,694	31,062	619,694	31,062
Bluefin.....	1,071,206	50,637	1,071,206	50,637
Bonito.....	2,862,286	53,465	2,862,286	53,465
Skipjack or striped tuna.....	21,636,577	751,499	21,636,577	751,499
Yellowfin.....	36,923,410	1,504,812	36,923,410	1,504,812
Whitebait.....	133,746	6,406	133,746	6,406
Whitefish.....	162,027	8,053	162,027	8,053
Yellowtail.....	1,796,364	51,161	1,796,364	51,161
Other fish.....	148,973	2,457	166,185	3,644
Total.....	430,803,895	4,817,626	542,858,774	8,416,313
SHELLFISH, ETC.				
Crabs.....	2,434,132	201,733	4,819,973	299,225
Crawfish.....	-----	-----	80,000	6,000
Sea crawfish or spiny lobster.....	1,018,647	142,398	1,018,647	142,398
Shrimp.....	2,682,789	40,512	2,729,025	43,781
Abalone.....	563,469	77,386	563,469	77,386
Clams:				
Cockle.....	36,722	8,636	36,722	8,636
Hard.....	-----	-----	406,431	19,921
Pismo.....	27,576	7,297	27,576	7,297
Razor.....	1,307	380	558,920	114,913
Soft.....	61,410	13,978	61,410	13,978
Mixed.....	158	45	14,917	1,551
Mussels, sea.....	23	13	23	13
Octopus.....	21,187	1,472	58,571	2,550

¹ Taken off the Pacific coast including Latin America.² The cod were taken off Alaska.

Fisheries of the Pacific Coast States, 1932—Continued

CATCH: BY STATES—Continued

Species	California		Total	
	Pounds	Value	Pounds	Value
SHELLFISH, ETC.—continued				
Oysters:				
Eastern, market.....	39, 227	\$12, 258	41, 627	\$13, 628
Japanese, market.....	9, 142	2, 286	2, 103, 087	129, 285
Native, market.....	10, 930	4, 544	270, 137	138, 513
Scallops.....			6, 591	1, 859
Squid.....	4, 229, 743	30, 514	4, 229, 743	30, 514
Turtles.....	5, 728	288	5, 728	288
Total.....	11, 142, 190	543, 740	17, 032, 597	1, 051, 736
WHALE PRODUCTS				
Whale meat.....	434, 000	9, 765	434, 000	9, 765
Whale oil.....	503, 100	6, 500	503, 100	6, 500
Total.....	937, 100	16, 265	937, 100	16, 265
Grand total.....	442, 883, 185	5, 377, 631	560, 828, 471	9, 484, 314

WASHINGTON

Fisheries of Washington, 1932

CATCH: BY DISTRICTS

Species	Puget Sound district		Coastal district		Columbia River district	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Carp.....					53, 912	\$1, 078
Cod ¹	7, 327, 590	\$73, 950				
Flounders:						
" Sole ".....	217, 567	5, 086				
Other.....	64, 349	1, 154				
Halibut.....	23, 746, 928	1, 064, 591	1, 752	\$53	68, 890	3, 455
Herring.....	766, 726	11, 501				
" Lingcod ".....	477, 996	14, 696	17, 854	179	26, 812	536
Perch.....	38, 195	1, 069				
Rockfishes.....	282, 484	8, 593	5, 978	60	8, 728	157
Sablefish.....	1, 661, 972	41, 281			8, 772	197
Salmon:						
Blueback, red or sockeye.....	5, 867, 099	343, 224	852, 120	42, 606	93, 761	5, 626
Chinook or king.....	7, 925, 196	403, 719	2, 612, 937	89, 616	7, 197, 214	291, 001
Chum or keta.....	11, 302, 705	114, 438	3, 208, 332	8, 021	686, 269	1, 716
Humpback or pink.....	68, 600	686				
Silver or coho.....	8, 539, 150	227, 465	3, 196, 520	75, 312	688, 454	18, 859
Shad.....					100, 627	2, 013
Smelt.....	130, 264	4, 664	106, 090	3, 183	1, 461, 778	29, 593
Steelhead trout.....	68, 325	4, 092	114, 015	4, 561	1, 134, 975	22, 700
Sturgeon.....	504	35	900	27	30, 966	774
Other fish.....	17, 212	1, 187				
Total.....	68, 502, 862	2, 321, 431	10, 116, 498	223, 618	11, 561, 158	377, 705
SHELLFISH						
Crabs.....	387, 552	15, 854	1, 015, 540	43, 668		
Shrimp.....	46, 236	3, 269				
Clams:						
Hard:						
Butter.....	112, 027	5, 489				
Little neck.....	293, 899	14, 401				
Other.....			505	31		
Razor.....			526, 331	108, 190		
Octopus.....	37, 351	1, 076				
Oysters:						
Eastern, market.....			2, 400	1, 370		
Japanese, market.....	567, 444	35, 465	1, 526, 501	91, 534		
Native, market.....	223, 341	120, 628	33, 390	12, 377		
Scallops.....	6, 591	1, 859				
Total.....	1, 674, 441	198, 041	3, 104, 667	257, 170		
Grand total.....	70, 177, 303	2, 519, 472	13, 221, 165	480, 788	11, 561, 158	377, 705

¹ The cod were taken off Alaska.

Fisheries of the Puget Sound district of Washington, 1932

OPERATING UNITS: BY GEAR

Item	Purse seines, salmon	Haul seines	Gill nets		Lines		Pound nets	Brush weirs
			Drift, salmon	Set, salmon	Trawl, set, and hand	Troll		
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	1, 494	15			1, 079	216	14	
On boats and shore.....		149	295	2	64	310	119	10
Total.....	1, 494	164	295	2	1, 143	526	133	10
Vessels:								
Steam							1	
Net tonnage.....							42	
Motor	203	4			145	122	3	
Net tonnage.....	4, 856	31			4, 046	997	101	
Sail					2			
Net tonnage.....					983			
Total vessels.....	203	4			147	122	4	
Total net tonnage.....	4, 856	31			5, 029	997	143	
Boats:								
Motor.....		30	276	2	66	230		
Other.....		24	11		167			5
Apparatus:								
Number.....	203	56	287	2	26, 950	1, 760	49	5
Length, yards.....	124, 845	5, 320						
Square yards.....			336, 679	716				
Hooks.....					558, 703	7, 920		

Item	Dip nets	Drag bag nets	Reef nets	Beam trawls	Traps, crab	Tongs and rakes	Shovels	Total, exclusive of duplication
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....				65		4		2, 776
On boats and shore.....	5	93	16	21	130	107	314	1, 478
Total.....	5	93	16	86	130	111	314	4, 254
Vessels:								
Steam				1				2
Net tonnage.....				23				65
Motor				23				479
Net tonnage.....				309				9, 909
Sail								2
Net tonnage.....								983
Total vessels.....				24				483
Total net tonnage.....				332				10, 957
Boats:								
Motor.....		27	4	9	124	24		750
Other.....	5	9	8		6	142		373
Apparatus:								
Number.....	5	32	4	33	2, 730	121	314	
Length, yards.....		2, 794						
Yards at mouth.....				224				

Fisheries of the Puget Sound district of Washington, 1932—Continued

CATCH: BY GEAR

Species	Purse seines		Haul seines		Gill nets			
	Pounds	Value	Pounds	Value	Drift		Set	
FISH					Pounds	Value	Pounds	Value
Flounders:								
" Sole ".....			1, 210	\$28				
Other.....			685	12				
Herring.....	732	\$11	40, 376	606				
" Lingcod ".....	104	3	337	10			1, 355	\$41
Perch.....			28, 937	810				
Rockfishes.....			6, 130	210			823	28
Salmon:								
Blueback, red or sockeye.....	2, 613, 996	152, 919			17, 143	\$1, 003		
Chinook or king.....	606, 474	12, 918			526, 988	30, 302		
Chum or keta.....	10, 357, 105	103, 571			440, 630	5, 067		
Humpback or pink.....	50, 000	500			15			
Silver or coho.....	5, 174, 840	121, 609	13, 067	394	235, 312	8, 471	3, 410	122
Smelt.....	1, 567	56	82, 531	2, 955				
Steelhead trout.....	10, 404	624			12, 021	714		
Other fish.....			400	8				
Total.....	18, 815, 222	392, 211	173, 673	5, 033	1, 232, 109	45, 557	5, 588	191

Species	Lines				Pound nets		Brush weirs	
	Trawl, set, and hand		Troll		Pounds	Value	Pounds	Value
FISH	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod.....	7, 327, 590	\$73, 950						
Flounders:								
" Sole ".....					500	\$7		
Other.....					1, 328	20		
Halibut.....	23, 690, 776	1, 062, 345	55, 475	\$2, 219	648	26	723, 190	\$10, 848
Herring.....								
" Lingcod ".....	440, 354	13, 557	19, 223	577	1, 855	56		
Perch.....					15			
Rockfishes.....	242, 875	7, 236	450	14				
Sablefish.....	1, 661, 972	41, 281						
Salmon:								
Blueback, red or sockeye.....			119	6	3, 227, 973	188, 836		
Chinook or king.....			3, 733, 888	184, 673	3, 057, 318	175, 796		
Chum or keta.....					500, 170	5, 752		
Humpback or pink.....			55	1	18, 440	184		
Silver or coho.....			2, 281, 145	66, 940	821, 816	29, 585		
Steelhead trout.....					45, 900	2, 754		
Sturgeon.....					504	35		
Other fish.....	120	2			364	7		
Total.....	33, 363, 687	1, 198, 371	6, 090, 355	254, 430	7, 676, 831	403, 058	723, 190	10, 848
SHELLFISH								
Octopus.....	36, 486	1, 051			85	2		
Grand total.....	33, 400, 173	1, 199, 422	6, 090, 355	254, 430	7, 676, 916	403, 060	723, 190	10, 848

Fisheries of the Puget Sound district of Washington, 1932—Continued

CATCH: BY GEAR—Continued

Species	Dip nets		Drag bag nets		Reef nets		Beam trawls	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Flounders:								
" Sole ".....							215, 857	\$5, 051
Other.....							62, 336	1, 122
Halibut.....							29	1
Herring.....	2, 228	\$33	200	\$3				
" Lingcod ".....							14, 768	452
Perch.....			8, 841	248			402	11
Rockfishes.....							32, 206	1, 105
Salmon:								
Blueback, red or sockeye.....					7, 868	\$460		
Chinook or king.....					528	30		
Chum or keta.....					4, 800	48		
Humpback or pink.....					90	1		
Silver or coho.....					9, 560	344		
Smelt.....			46, 166	1, 653				
Other fish.....			5, 171	181			11, 157	989
Total.....	2, 228	33	60, 378	2, 085	22, 846	883	336, 755	8, 731
SHELLFISH								
Shrimp.....							46, 236	3, 269
Octopus.....			760	22			20	1
Scallops.....							6, 591	1, 859
Total.....			760	22			52, 847	5, 129
Grand total.....	2, 228	33	61, 138	2, 107	22, 846	883	389, 602	13, 860

Species	Traps		Tongs and rakes		Shovels	
	Pounds	Value	Pounds	Value	Pounds	Value
SHELLFISH						
Crabs.....	387, 552	\$15, 854				
Clams:						
Hard:						
Butter.....					112, 027	\$5, 489
Little neck.....					293, 899	14, 401
Oysters:						
Japanese, market.....			567, 444	\$35, 465		
Native, market.....			223, 341	120, 628		
Total.....	387, 552	15, 854	790, 785	156, 093	405, 926	19, 890

NOTE.—The catch of sea cucumbers is included with "Other fish" under beam trawls.

Fisheries of the coastal district of Washington, 1932

OPERATING UNITS: BY GEAR

Item	Gill nets		Lines, troll	Pound nets	Dip nets	Drag bag nets
	Drift, salmon	Set, salmon				
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....			25			
On boats and shore.....	75	147	170	41	45	40
Total.....	75	147	195	41	45	40
Vessels:						
Motor.....			14			
Net tonnage.....			125			
Boats:						
Motor.....	64	94	126	30		
Other.....		58		22		6
Apparatus:						
Number.....	64	173	680	69	45	6
Length, yards.....						400
Square yards.....	114, 089	52, 576				
Hooks.....			3, 060			

Fisheries of the coastal district of Washington, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Traps, crab	Tongs and rakes	Shovels	Spears	Dredges	Total, exclusive of dupli- cation
	Number	Number	Number	Number	Number	Number
Fishermen:						
On vessels	15					48
On boats and shore	81	71	2,967	10		3,477
Total	96	71	2,967	10	8	3,525
Vessels:						
Motor	8				2	24
Net tonnage	74				13	212
Boats:						
Motor	73	19				400
Other	8	51				143
Apparatus:						
Number	2,964	75	2,967	10	4	
Yards at mouth					4	

CATCH BY GEAR

Species	Gill nets				Lines, troll	
	Drift		Set		Pounds	Value
	Pounds	Value	Pounds	Value		
FISH						
Halibut					1,752	\$53
"Lingcod"					17,854	179
Rockfishes					5,978	60
Salmon:						
Blueback, red or sockeye			852,120	\$42,606		
Chinook or king	356,109	\$7,834	242,754	5,341	1,785,109	71,404
Chum or keta	296,616	742	1,176,420	2,941		
Silver or coho	254,480	5,599	864,484	19,019	1,691,626	42,798
Steelhead trout	190	8	109,695	4,388		
Sturgeon	210	6				
Total	907,605	14,189	3,245,473	74,295	3,502,319	114,494

Species	Pound nets		Dip nets		Drag bag nets	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Salmon:						
Chinook or king	228,965	\$5,037				
Chum or keta	1,735,296	4,338				
Silver or coho	385,930	7,896				
Smelt			26,090	\$783	80,000	\$2,400
Steelhead trout	4,130	165				
Sturgeon	690	21				
Total	2,355,011	17,457	26,090	783	80,000	2,400

Species	Traps		Dredges, tongs, and rakes		Shovels	
	Pounds	Value	Pounds	Value	Pounds	Value
SHELLFISH						
Crabs	1,015,540	\$43,668				
Clams:						
Hard					505	\$31
Razor					526,331	108,190
Oysters:						
Eastern, market			2,400	\$1,370		
Japanese, market			1,526,501	91,534		
Native, market			33,390	12,377		
Total	1,015,540	43,668	1,562,291	105,281	526,836	108,221

¹ Includes catch by spears.

Fisheries of the Columbia River district of Washington, 1932

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets		Lines		Pound nets	Fish wheels	Dip nets	Total, exclusive of duplication
		Drift, salmon	Set, salmon	Trawl and set	Troll				
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....				4	5				9
On boats and shore.....	238	571	57	10	13	104	18	95	1,014
Total.....	238	571	57	14	18	104	18	95	1,023
Vessels:									
Motor.....				1	3				4
Net tonnage.....				15	23				38
Boats:									
Motor.....	17	454	36	8	10	76		50	585
Other.....	25		21	2		54		15	111
Apparatus:									
Number.....	27	454	146	133	58	173	29	95	
Length, yards.....	8,466								
Square yards.....		1,162,240	35,770						
Hooks.....				5,225	261				

CATCH: BY GEAR

Species	Haul seines		Gill nets				Lines, trawl and set	
			Drift		Set			
			Pounds	Value	Pounds	Value		
Carp.....	53,912	\$1,078						
Halibut.....							68,890	\$3,455
"Lingcod".....							26,812	536
Rockfishes.....							8,728	157
Sablefish.....							8,772	197
Salmon:								
Blueback, red or sockeye.....	7,283	437	12,010	\$721	1,008	\$61		
Chinook or king.....	1,137,295	45,492	3,331,798	135,271	23,595	958		
Chum or keta.....	1,120	3	368,686	922				
Silver or coho.....	24,140	645	141,141	3,769	1,563	42		
Shad.....	23,126	463	59,845	1,197	477	10		
Smelt.....			357,243	7,502				
Steelhead trout.....	147,831	2,957	368,450	7,369	7,487	150		
Sturgeon.....	358	9	11,619	290	2,901	72	4,716	118
Total.....	1,395,065	51,084	4,650,812	157,041	37,031	1,293	117,918	4,463

Species	Lines, troll		Pound nets		Fish wheels		Dip nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Salmon:								
Blueback, red or sockeye.....			49,122	\$2,947	23,151	\$1,389	1,187	\$71
Chinook or king.....	21,274	\$851	2,143,838	87,040	449,631	17,798	89,783	3,591
Chum or keta.....			316,463	791				
Silver or coho.....	176,984	5,203	340,685	9,096	54	1	3,867	103
Shad.....			7,770	155	9,409	188		
Smelt.....							1,104,535	22,091
Steelhead trout.....			559,856	11,197	39,510	790	11,841	237
Sturgeon.....			4,105	103	7,267	182		
Total.....	198,258	6,054	3,421,839	111,329	529,022	20,349	1,211,213	26,093

Fisheries of the Columbia River district of Oregon, 1932—Continued

CATCH: BY GEAR

Species	Haul seines		Gill nets		Lines			
	Pounds	Value	Pounds	Value	Trawl and set		Troll	
FISH	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Carp.....	10,000							
Flounders:								
" Sole".....					2,913	\$73		
Other.....					1,002	20		
Hallbut.....					157,400	7,759		
" Lingcod".....					20,478	410		
Rockfishes.....					12,911	226		
Sablefish.....					27,749	624		
Salmon:								
Blueback, red, or sockeye.....	16,843	1,011	39,786	\$2,387				
Chinook or king.....	1,019,283	40,771	7,275,704	295,394			188,401	\$7,689
Chum or keta.....	29,441	74	490,646	1,227				
Silver or coho.....	3,861	103	212,538	5,675			2,578,244	75,675
Shad.....	59,542	1,191	158,438	3,169				
Smelt.....			233,143	4,896				
Steelhead trout.....	359,811	7,196	451,570	9,041				
Sturgeon.....	365	10	29,852	756	7,147	191		
Total.....	1,499,146	50,556	8,891,677	322,535	229,600	9,303	2,766,645	83,364

Species	Pound nets		Dip nets		Traps	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Salmon:						
Blueback, red, or sockeye.....	32,980	\$1,979	1,406	\$84		
Chinook or king.....	252,253	10,243	109,365	4,375		
Chum or keta.....	30,775	77				
Silver or coho.....	77,909	2,080	4,286	114		
Shad.....	309	6				
Steelhead trout.....	144,868	2,897	9,459	189		
Sturgeon.....	744	14	2,358	71		
Total.....	539,838	17,296	126,874	4,833		
SHELLFISH						
Crawfish.....					80,000	\$6,000
Grand total.....	539,838	17,296	126,874	4,833	80,000	6,000

Fisheries of the coastal district of Oregon, 1932

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets		Lines		Otter trawls	Traps, crab	Tongs	Shovels	Total, exclusive of duplication
		Drift	Set, salmon	Trawl and set	Troll					
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Fishermen:										
On vessels.....				19	6	8				29
On boats and shore.....	2	428	175	6	158		240	1	236	1,131
Total.....	2	428	175	25	164	8	240	1	236	1,160
Vessels:										
Motor.....				5	3	2				9
Net tonnage.....				60	22	29				111
Boats:										
Motor.....	1	406	112	2	119		219	1		448
Other.....	1	22	59				21	1		24
Apparatus:										
Number.....	1	339	439	840	510	2	7,560	1	28	10,200
Length, yards.....	166									
Square yards.....		421,716	73,752							
Yards at mouth.....						40				
Hooks.....				17,500	2,295					

Fisheries of the coastal district of Oregon, 1932—Continued

CATCH: BY GEAR

Species	Haul seines		Gill nets		Lines			
					Trawl and set		Troll	
FISH	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Flounders:								
" Sole "			996	\$17	6,908	\$114		
Other	2,934	\$57	21,583	272	2,304	25	2,401	\$119
Halibut	12,850	106	4,118	42	146,062	5,744		
" Lingcod "					52,911	946	25,307	509
Perch	5,473	76	2,612	42				
Rockfishes					16,486	272		
Sablefish					50,894	976		
Salmon:								
Chinook or king			1,737,737	43,443			76,401	2,323
Chum or keta			97,893	245				
Silver or coho			3,151,404	55,150			1,722,728	59,090
Shad			397,019	4,963				
Smelt	492	20	2,905	85				
Steelhead trout			176,425	10,585			34	2
Striped bass			17,997	974				
Sturgeon			3,352	101				
Total	21,749	259	5,617,041	115,919	275,555	8,077	1,826,871	62,041
SHELLFISH								
Octopus					33	2		
Grand total	21,749	259	5,617,041	115,919	275,588	8,079	1,826,871	62,041

Species	Otter trawls		Traps		Tongs		Shovels	
					Pounds	Value	Pounds	Value
FISH	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Flounders:								
" Sole "	43,725	\$1,116						
Other	21,417	307						
Halibut	2,120	82						
" Lingcod "	6,967	148						
Perch	259	3						
Rockfishes	3,906	61						
Salmon, silver or coho	710	23						
Striped bass	142	2						
Sturgeon	119	8						
Total	79,365	1,750						
SHELLFISH								
Crabs			982,749	\$37,970				
Clams:								
Razor							31,282	\$6,343
Mixed							14,759	1,506
Oysters, native, market					2,476	\$964		
Total			982,749	37,970	2,476	964	46,041	7,849
Grand total	79,365	1,750	982,749	37,970	2,476	964	46,041	7,849

CALIFORNIA

Fisheries of California, 1932

CATCH: BY DISTRICTS

Species	Northern district		San Francisco district		Monterey district	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Anchovies.....			147,627	\$1,476	120,043	\$1,269
Barracuda.....					2,968	193
Carp.....			29,500	438		
Catfish.....			254,027	27,570		
Cod.....			4,418,539	53,590		
Eels.....			208	8		
Flounders:						
"California halibut".....			389	27	50,407	3,591
" Sole".....	5,082,583	\$177,890	3,095,571	108,345	410,795	15,205
Other.....	404,667	14,870	728,071	23,131	92,920	2,925
Grayfish.....	5,140	51	216,234	2,163	8,263	74
Hake.....	10,143	152	13,291	200	4,893	49
Halibut.....	645,828	28,603	15,775	1,185		
Hardhead.....			110,557	8,040		
Herring.....	8,699	191	726,925	4,399	18,136	185
Horse mackerel.....					119,268	5,339
Kingfish.....	945	38	4,914	172	140,455	4,963
"Lingcod".....	465,434	9,414	302,227	10,578	130,268	4,900
Mackerel.....			3,056	122	665,919	13,318
Perch.....	18,613	567	74,866	2,937	59,485	2,253
Pilchard or sardine.....	140	2	29,357,768	73,824	168,284,301	422,204
Pompano.....					240	47
Rockfishes.....	389,895	7,771	663,194	21,618	2,071,152	55,375
Sablefish.....	618,532	11,280	45,223	1,244	229,806	4,702
Salmon.....	3,128,939	103,572	1,489,281	52,474	80,884	5,692
Sculpin.....	46	1	3,561	178	912	11
Sea bass:						
Black.....					81	3
White.....			9,212	896	25,632	1,965
Shad.....			1,173,355	29,338	29	1
Skates.....	27,108	407	205,272	3,079	29,176	544
Smelt.....	65,553	2,221	288,468	13,164	188,461	7,106
Splittail.....			24,420	650		
Squawfish.....			2,004	99		
Striped bass.....			537,376	45,883		
Suckers.....			6,525	52		
Tomcod.....	2,619	105	1,652	66		
Tuna and tunalike fishes:						
Albacore.....	21	3			606,313	30,211
Bluefin.....					38	3
Bonito.....					31	2
Whitebait.....	91,325	3,396	28,317	2,237	14,104	773
Other fish.....	119,696	1,784	17,880	272	4,453	133
Total.....	11,085,926	362,318	43,995,285	489,455	173,359,433	583,036
SHELLFISH						
Crabs.....	116,458	9,165	2,290,131	190,873	27,398	1,686
Shrimp.....			2,681,807	40,227	982	285
A balone.....			25	5	427,075	63,884
Clams:						
Cockle.....	74	13	29,736	7,122	13	2
Pismo.....					6,289	1,443
Soft.....	7,948	1,284	53,462	12,694		
Mixed.....			154	44	4	1
Mussels.....	18	12				
Octopus.....	1,732	112	1,649	115	17,554	1,217
Oysters, market:						
Eastern.....			39,227	12,258		
Japanese.....					9,142	2,286
Native.....	647	260	10,283	4,284		
Squid.....					4,087,621	27,261
Total.....	126,877	10,846	5,106,474	267,622	4,576,078	98,065
WHALE PRODUCTS						
Whale meat.....			434,000	9,765		
Whale oil.....			503,100	6,500		
Total.....			937,100	16,265		
Grand total.....	11,212,803	373,164	50,038,859	773,342	177,935,511	681,101

Fisheries of California, 1932—Continued

CATCH: BY DISTRICTS—Continued

Species	San Pedro district					
	Off California		Off Latin America		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Anchovies.....	31,547	\$629			31,547	\$629
Barracuda.....	2,033,875	97,718	372,005	\$31,348	2,405,880	129,066
Cabrilla.....			102,989	3,458	102,989	3,458
Corbina.....			2,469	99	2,469	99
Eels.....	34	1			34	1
Flounders:						
"California halibut".....	802,841	62,915	1,528	97	804,369	63,012
"Sole".....	298,376	9,100			298,376	9,100
Other.....	8,794	1,677			8,794	1,677
Flyingfish.....	40,535	1,366			40,535	1,366
Grayfish.....	482,776	10,359			482,776	10,359
Groupers.....			3,774	113	3,774	113
Hake.....	424	6			424	6
Herring.....	103	5			103	5
Horse mackerel.....	417,141	9,158			417,141	9,158
Kingfish.....	298,913	5,672			298,913	5,672
"Lingcod".....	1,971	66			1,971	66
Mackerel.....	11,626,356	78,309			11,626,356	78,309
Marlin.....	20,071	791			20,071	791
Mullet.....	3,657	205			3,657	205
Perch.....	52,646	3,394			52,646	3,394
Pilchard or sardine.....	113,984,444	325,246			113,984,444	325,246
Pompano.....	5,317	2,020	3,728	485	9,045	2,505
Rock bass.....	248,022	13,469	3,522	200	251,544	13,669
Rockfishes.....	1,843,284	62,783			1,843,284	62,783
Rudderfish.....	35,611	1,881			35,611	1,881
Sablefish.....	81,812	2,977			81,812	2,977
Salmon.....	16	2			16	2
Sculpin.....	72,101	4,883			72,101	4,883
Sea bass:						
Black.....	70,999	2,793	150,257	6,181	221,256	8,974
White.....	542,906	42,117	79,401	6,049	622,307	48,166
Shad.....	87	3			87	3
Sheepshead.....	79,754	2,028	41	1	79,795	2,029
Skates.....	30,477	587			30,477	587
Smelt.....	320,746	10,291			320,746	10,291
Spanish mackerel.....			3,209	192	3,209	192
Swordfish.....	446,350	37,730	8,485	787	454,835	38,517
Tuna and tunalike fishes:						
Albacore.....	13,360	848			13,360	848
Bluefin.....	437,287	25,057	608,170	24,328	1,045,457	49,385
Bonito.....	965,554	17,756	1,139,808	22,559	2,105,362	40,315
Skipjack or striped tuna.....	27,459	961	8,267,392	288,196	8,294,851	289,157
Yellowfin.....	4,494	299	16,072,041	657,767	16,076,535	658,066
Whitefish.....	61,697	3,618	2,274	132	63,971	3,750
Yellowtail.....	763,781	20,951	524,645	15,744	1,288,426	36,695
Other fish.....	6,922	267			6,922	267
Total.....	136,162,540	859,938	27,345,738	1,057,736	163,508,278	1,917,674
SHELLFISH						
Crabs.....	145	9			145	9
Sea crawfish or spiny lobster.....	254,659	35,914	25,066	4,086	279,725	40,000
Abalone.....	136,369	13,497			136,369	13,497
Clams:						
Cockle.....	6,899	1,499			6,899	1,499
Pismo.....	21,287	5,854			21,287	5,854
Razor.....	1,307	380			1,307	380
Mussels.....	5	1			5	1
Octopus.....	183	20			183	20
Squid.....	142,007	3,244			142,007	3,244
Total.....	562,861	60,418	25,066	4,086	587,927	64,504
Grand total.....	136,725,401	920,356	27,370,804	1,061,822	164,096,205	1,982,178

Fisheries of California, 1932—Continued

CATCH: BY DISTRICTS—Continued

Species	San Diego district					
	Off California		Off Latin America		Total	
FISH	Pounds	Value	Pound	Value	Pounds	Value
Barracuda	468,258	\$22,877	49,669	\$4,262	517,927	\$27,139
Cabrilla			237,019	8,440	237,019	8,440
Flounders:						
"California halibut"	69,589	5,604	9,173	972	78,762	6,576
"Sole"	1,617	151			1,617	151
Other	13	1			13	1
Grayfish	138,357	604	118	1	138,475	605
Groupers			14,915	533	14,915	533
Herring	11,861	205			11,861	205
Kingfish	2,304	58			2,304	58
"Lingcod"	12	1			12	1
Mackerel	178,415	2,912			178,415	2,912
Marlin	4,320	181	285	9	4,605	190
Mullet	16,278	746	2,755	125	19,033	871
Perch	867	18			867	18
Pilchard or sardine	544,997	4,072	66	1	545,063	4,073
Pompano			348	28	348	28
Rock bass	183,746	7,740	1,274	74	185,020	7,814
Rockfishes	658,015	23,267	10,769	460	668,784	23,727
Rudderfish	1,215	55			1,215	55
Sculpin	13,561	800			13,561	800
Sea bass:						
Black	160,004	4,909	92,053	2,674	252,057	7,583
White	91,321	5,640	58,032	4,151	149,353	9,791
Sheepshead	9,591	293	205	6	9,796	299
Skates	379	5			379	5
Smelt	30,868	690			30,868	690
Spanish mackerel			7,613	375	7,613	375
Swordfish	205,668	19,701	2,202	247	207,870	19,948
Tuna and tunalike fishes:						
Bluefin	22,719	1,069	2,992	180	25,711	1,249
Bonito	745,837	12,934	11,056	214	756,893	13,148
Skipjack or striped tuna	347,583	9,388	12,994,143	452,954	13,341,726	462,342
Yellowfin	160,829	6,667	20,686,046	840,079	20,846,875	846,746
Whitefish	87,794	3,781	10,262	522	98,056	4,303
Yellowtail	260,305	6,457	247,633	8,009	507,938	14,466
Other fish	22	1			22	1
Total	4,416,345	140,827	34,438,628	1,324,316	38,854,973	1,465,143
SHELLFISH						
Sea crawfish or spiny lobster	64,648	9,147	674,274	93,251	738,922	102,398
Octopus	69	8			69	8
Squid	115	9			115	9
Turtles			5,728	288	5,728	288
Total	64,832	9,164	680,002	93,539	744,834	102,703
Grand total	4,481,177	149,991	35,118,630	1,417,855	39,599,807	1,567,846

Fisheries of California, 1932—Continued

CATCH: BY WATERS

Species	Off California ¹		Off Latin America	
	Pounds	Value	Pounds	Value
FISH				
Anchovies	299, 217	\$3, 374		
Barracuda	2, 505, 101	120, 788	421, 674	\$35, 610
Cabrilla			340, 008	11, 896
Carp	29, 500	438		
Catfish	254, 027	27, 570		
Cod	4, 418, 539	53, 590		
Corbina			2, 469	99
Eels	242	9		
Flounders:				
"California halibut"	923, 226	72, 137	10, 701	1, 069
"Sole"	8, 888, 942	310, 691		
Other	1, 234, 465	42, 604		
Flyingfish	40, 535	1, 366		
Grayfish	850, 770	13, 251	118	1
Groupers			18, 689	646
Hake	28, 751	407		
Halibut	661, 603	29, 788		
Hardhead	110, 557	8, 040		
Herring	765, 724	4, 985		
Horse mackerel	536, 409	14, 497		
Kingfish	447, 531	10, 903		
"Lingcod"	869, 912	24, 959		
Mackerel	12, 473, 746	94, 601		
Marlin	24, 391	972	285	9
Mullet	19, 935	951	2, 775	125
Perch	206, 477	9, 169		
Pilchard or sardine	312, 171, 650	825, 348	66	1
Pompano	5, 557	2, 067	4, 076	513
Rock bass	431, 768	21, 209	4, 796	274
Rockfish	5, 625, 540	170, 814	10, 769	460
Rudderfish	36, 823	1, 936		
Sablefish	975, 373	20, 203		
Salmon	4, 699, 120	161, 740		
Sculpin	90, 181	5, 873		
Sea bass:				
Black	231, 084	7, 705	242, 310	8, 855
White	669, 071	50, 618	137, 433	10, 200
Shad	1, 173, 471	29, 342		
Sheepshead	89, 345	2, 321	246	7
Skates	292, 412	4, 622		
Smelt	864, 096	33, 472		
Spanish mackerel			10, 822	567
Splittail	24, 420	650		
Squawfish	2, 004	99		
Striped bass	537, 376	45, 883		
Suckers	6, 525	52		
Swordfish	652, 018	57, 431	10, 687	1, 084
Tomcod	4, 271	171		
Tuna and tunalike fishes:				
Albacore	619, 694	31, 062		
Bluefin	460, 044	26, 129	611, 162	24, 506
Bonito	1, 711, 422	30, 692	1, 150, 864	22, 773
Skipjack or striped tuna	375, 042	10, 349	21, 261, 535	741, 150
Yellowfin	165, 323	6, 966	36, 758, 087	1, 497, 846
Whitebait	133, 746	6, 406		
Whitefish	149, 491	7, 399	12, 536	654
Yellowtail	1, 024, 086	27, 408	772, 278	23, 753
Other fish	148, 973	2, 457		
Total	369, 019, 529	2, 435, 574	61, 784, 366	2, 382, 052
SHELLFISH				
Crabs	2, 434, 132	201, 733		
Sea crawfish or spiny lobster	319, 307	45, 061	699, 340	97, 337
Shrimp	2, 682, 789	40, 512		
Abalone	563, 469	77, 386		
Clams:				
Cockle	36, 722	8, 636		
Pismo	27, 576	7, 297		
Razor	1, 307	380		
Soft	61, 410	13, 978		
Mixed	158	45		
Mussels	23	13		
Octopus	21, 187	1, 472		
Oysters, market:				
Eastern	39, 227	12, 258		
Japanese	9, 142	2, 286		
Native	10, 930	4, 544		

¹ The catch of cod was taken in Alaska waters.

Fisheries of California, 1932—Continued

CATCH: BY WATERS—Continued

Species	Off California		Off Latin America	
	Pounds	Value	Pounds	Value
Squid.....	4, 229, 743	\$30, 514		
Turtles.....			5, 728	\$288
Total.....	10, 437, 122	446, 115	705, 068	97, 625
WHALE PRODUCTS				
Whale meat.....	434, 000	9, 765		
Whale oil.....	503, 100	6, 500		
Total.....	937, 100	16, 265		
Grand total.....	380, 393, 751	2, 897, 954	62, 489, 434	2, 479, 677

Fisheries of the northern district of California, 1932

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets		Lines		Dip nets	Traps		Shovels and rakes	Total, exclusive of duplication
		Drift, salmon	Other	Set and hand	Troll		Crab	Octopus		
Fishermen:										
On vessels.....				14	13					18
On boats and shore.....	47	159	8	55	216	43	25	1	8	418
Total.....	47	159	8	69	229	43	25	1	8	436
Vessels: Motor.....				6	6					8
Net tonnage.....				46	43					60
Boats:										
Motor.....	14		5	31	187		22	1		195
Other.....	11	105	1							111
Apparatus:										
Number.....	25	105	6	197	829	43	414	5	8	
Length, yards.....	1, 971									
Square yards.....		96, 600	5, 472							
Hooks.....				34, 916	3, 881					

CATCH: BY GEAR

Species	Haul seines		Gill nets		Lines				
	Pounds	Value	Pounds	Value	Set and hand		Troll		
FISH									
Flounders:									
" Sole ".....					105	\$3			
Other.....	11, 854	\$448			513	10			
Halibut.....					519, 028	22, 928	3, 057		\$119
Herring.....	8, 699	191							
" Lingcod ".....	102	2			116, 808	2, 587	21, 620		287
Perch.....	18, 361	556							
Pilchard or sardine.....	140	2							
Rockfishes.....					88, 966	1, 753	266		5
Sablefish.....					576, 181	10, 433			
Salmon.....	37, 554	993	592, 445	\$11, 207			2, 498, 940		91, 372
Sculpin.....					46	1			
Smelt.....	43, 137	1, 670	4, 800	187					
Tomcod.....	28	1							
Tuna, and tunalike fishes, albacore.....								21	3
Whitebait.....	748	28	33	1					
Other fish.....					41, 921	617	106		2
Total.....	120, 623	3, 891	597, 278	11, 395	1, 343, 568	38, 332	2, 524, 010		91, 788
SHELLFISH									
Octopus.....					120	5			
Grand total.....	120, 623	3, 891	597, 278	11, 395	1, 343, 688	38, 337	2, 524, 010		91, 788

Fisheries of the northern district of California, 1932—Continued

CATCH: BY GEAR—Continued

Species	Dip nets		Paranzella nets		Traps		Rakes and shovels	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Flounders:			5,082,478	\$177,887				
" Sole "			392,300	14,412				
Other								
Grayfish			5,140	51				
Hake			10,143	152				
Halibut			123,743	5,556				
Kingfish			945	38				
" Lingcod "			328,904	6,538				
Perch	102	\$4	150	7				
Rockfishes			300,663	6,013				
Sablefish			42,351	847				
Skates			27,108	407				
Smelt	17,616	364						
Toucod			2,591	104				
Whitebait	90,544	3,367						
Other fish			77,689	1,165				
Total	108,262	3,735	6,392,185	213,177				
SHELLFISH								
Crabs					116,458	\$9,165		
Clams:								
Cockle							74	\$13
Soft							7,948	1,234
Mussels							18	12
Octopus			15	1	1,597	106		
Oysters, market, native							647	260
Total			15	1	118,055	9,271	8,687	1,569
Grand total	108,262	3,735	6,392,200	213,178	118,055	9,271	8,687	1,569

NOTE.—The catch by paranzella nets was made entirely by fishermen from the San Francisco district.

Fisheries of the San Francisco district of California, 1932

OPERATING UNITS: BY GEAR

Item	Lampara nets, sardine	Haul seines	Gill nets			
			Drift, salmon	Drift, sea bass	Drift, shad	Other
Fishermen:						
On vessels	Number 79	Number	Number	Number	Number	Number 2
On boats and shore	84	7	363	15	348	88
Total	163	7	363	15	348	90
Vessels:						
Motor	8					1
Net tonnage	91					7
Boats:						
Motor	12	2	186	8	181	49
Other		2	6		5	4
Apparatus:						
Number	20	3	192	8	186	88
Length, yards	5,678	660				
Square yards			571,392	15,091	507,854	133,545

Fisheries of the San Francisco district of California, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Lines		Fyke nets	Bag nets, shrimp	Paran-zella nets	Dip nets
	Set and hand	Troll				
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	127	41		28	88	
On boats and shore.....	322	179	90	24		10
Total	449	220	90	52	88	10
Vessels:						
Motor.....	6	18		6	18	
Net tonnage.....	64	257		37	263	
Sail.....	3					
Net tonnage.....	1,124					
Total vessels	9	18		6	18	
Total net tonnage	1,188	257		37	263	
Boats:						
Motor.....	160	178	37	7		
Other.....	19		33			
Apparatus:						
Number.....	864	573	2,268	13	9	10
Length, yards.....				8,768		
Yards at mouth.....					150	
Hooks.....	59,456	3,289				

Item	Beam trawls	Traps, crab	Har-poons, whaling	Tongs	Shovels	Abalone outfits	Total, exclu-sive of dupli-cation
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....			16				306
On boats and shore.....	27	229		21	78	2	1,035
Total	27	229	16	21	78	2	1,341
Vessels:							
Steam.....			2				2
Net tonnage.....			41				41
Motor.....							32
Net tonnage.....							384
Sail.....							3
Net tonnage.....							1,124
Total vessels			2				37
Total net tonnage			41				1,549
Boats:							
Motor.....	27	226		8		1	573
Other.....				12			67
Apparatus:							
Number.....	27	4,460	2	21	78	1	
Yards at mouth.....	180						

Fisheries of the San Francisco district of California, 1932—Continued

CATCH: BY GEAR

Species	Purse seines		Lampara nets		Haul seines		Gill nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Anchovies			147,545	\$1,475	82	\$1		
Carp					19,643	236	5,258	\$108
Flounders:								
"California halibut"							78	4
Other			94	3	44	2	340	12
Gray fish			94	1				
Halibut			86	6				
Hardhead					106,277	7,667		
Herring			62,047	422	310,660	1,553	354,218	2,424
Kingfish			4,321	151			52	2
"Lingcod"			15	1			75	2
Mackerel			2,491	100			35	1
Perch			21,594	848	15,389	605	35,959	1,408
Pilchard or sardine	1,120,350	\$1,961	28,233,448	71,823			3,970	40
Rockfishes					102	4		
Salmon							1,269,700	43,524
Sea bass, white			305	30	1,113	108	7,727	752
Shad							1,173,355	29,338
Smelt			31,693	1,427	37,619	1,706	217,400	9,674
Spittail					10,700	214		
Squawfish							166	8
Striped bass							269,808	18,599
Suckers					6,210	45		
Tomcod			20	1			50	2
Whitebait			20,352	1,628	1,672	134	2,281	182
Other fish			14	1			679	12
Total	1,120,350	1,961	28,524,109	77,917	509,511	12,275	3,341,146	106,292

Species	Lines				Fyke nets		Bag nets	
	Set and hand		Troll		Pounds	Value	Pounds	Value
FISH								
Carp	321	\$7			4,278	\$87		
Catfish	110	12			253,917	27,558		
Cod	4,418,539	53,590						
Eels	208	8						
Flounders:								
"Sole"	5,025	176						
Other	3,596	180						
Gray fish	25,775	258	70	\$1				
Hake	80	1						
Halibut	1,099	83						
Hardhead	18	1			4,262	372		
"Lingcod"	219,735	7,691	2,004	70				
Mackerel	530	21						
Perch	1,864	73						
Rockfishes	462,819	14,611	106	3				
Sablefish	41,427	1,139						
Salmon			219,581	8,950				
Sculpin	3,561	178						
Sea bass, white			67	6				
Smelt	20	1						
Spittail					13,720	436		
Squawfish	310	15			1,528	76		
Striped bass	267,573	27,284						
Suckers					315	7		
Other fish	2,329	35			33	2		
Total	5,454,939	105,364	221,828	9,030	278,053	28,558		
SHELLFISH								
Shrimp							1,300,416	\$19,506
Octopus	1,649	115						
Total	1,649	115					1,300,416	19,506
Grand total	5,456,588	105,479	221,828	9,030	278,053	28,558	1,300,416	19,506

NOTE.—The catch by purse seines was made entirely by fishermen from the Monterey and San Pedro districts.

Fisheries of the San Francisco district of California, 1932—Continued

CATCH: BY GEAR—Continued

Species	Dip nets		Paranzella nets		Beam trawls		Traps	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Flounders:								
"California halibut"			311	\$23				
"Sole"			3,090,546	108,169				
Other			723,997	22,934				
Grayfish			190,295	1,903				
Hake			13,211	199				
Halibut			14,590	1,096				
Kingfish			541	19				
"Lingcod"			80,398	2,814				
Perch	70	\$3						
Rockfishes			200,167	7,000				
Sablefish			3,796	105				
Skates			205,272	3,079				
Smelt	1,736	156						
Tomcod			1,582	63				
Whitebait	4,012	293						
Other fish			14,825	222				
Total	5,818	452	4,539,531	147,626				
SHELLFISH								
Crabs			14,970	1,248			2,275,161	\$189,625
Shrimp					1,381,391	\$20,721		
Total			14,970	1,248	1,381,391	20,721	2,275,161	189,625
Grand total	5,818	452	4,554,501	148,874	1,381,391	20,721	2,275,161	189,625

Species	Harpoons		Tongs		Shovels		Abalone outfits	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
SHELLFISH								
Abalone							25	\$5
Clams:								
Cockle					29,736	\$7,122		
Soft					53,462	12,694		
Mixed					154	44		
Oysters, market:								
Eastern			39,227	\$12,258				
Native			10,283	4,284				
Total			49,510	16,542	83,352	19,860	25	5
WHALE PRODUCTS								
Whalemeat	434,000	\$9,765						
Whale oil	503,100	6,500						
Total	937,100	16,265						
Grand total	937,100	16,265	49,510	16,542	83,352	19,860	25	5

Fisheries of the Monterey district of California, 1932

OPERATING UNITS: BY GEAR

Item	Purse seines, sardine	Lampara nets		Gill nets		
		Sardine	Squid	Drift, sea bass	Set, "California halibut"	Other
Fishermen:						
On vessels	233	254	90		2	
On boats and shore		211	232	29	37	97
Total	233	465	322	29	39	97
Vessels: Motor						
Net tonnage	22	21	14		1	
	915	238	140		7	
Boats:						
Motor		17	41	18	23	66
Other						7
Apparatus:						
Number	22	38	55	18	24	105
Length, yards	7,960	12,150	11,080			
Square yards				48,600	55,920	242,207

Fisheries of the Monterey district of California, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Lines		Paran- zella nets	Traps	Rakes and shovels	Abalone outfits	Total, exclusive of dupli- cation
	Set and hand	Troll					
	Number	Number	Number	Number	Number	Number	Number
Fishermen:							
On vessels.....	1	16	6			60	526
On boats and shore.....	190	198	12	7	41	10	627
Total.....	191	214	18	7	41	70	1,153
Vessels: Motor.....	1	10	1			12	53
Net tonnage.....	7	122	6			96	1,197
Boats:							
Motor.....	158	185	3	6		2	219
Other.....	23						24
Apparatus:							
Number.....	1,043	1,575	2	119	41	14	
Yards at mouth.....			33				
Hooks.....	147,269	3,433					

CATCH: BY GEAR

Species	Purse seines		Lampara nets		Gill nets	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Anchovies.....			118,628	\$1,254	1,415	\$15
Barracuda.....			25	2	2,943	191
Flounders:						
"California halibut".....			1,019	73	42,849	3,053
" Sole".....			183	7	6,244	231
Other.....			119	5	16,751	508
Grayfish.....			703	7	5,140	40
Herring.....			1,315	14	16,821	171
Horse mackerel.....	535	\$24	104,325	4,670	10,856	486
Kingfish.....			57,045	2,016	63,536	2,245
"Lingcod".....			309	12	3,814	143
Mackerel.....	1,006	20	218,700	4,374	4,281	6
Perch.....			40,676	1,545	13,976	531
Pilchard or sardine.....	128,162,280	308,082	40,110,326	114,005	11,695	117
Pompano.....			220	43	20	4
Rockfishes.....			1,609	52	679	21
Sculpin.....					669	8
Sea bass:						
Black.....					81	3
White.....			2,353	180	23,024	1,765
Shad.....					29	1
Skates.....			600	11	3,081	57
Smelt.....	810	30	29,915	1,128	127,843	4,818
Tuna and tunalike fishes:						
Bluefin.....					38	3
Bonito.....			10	1	21	1
Whitebait.....			7,935	435	6,156	337
Other fish.....			134	5	39	1
Total.....	128,164,631	308,156	40,696,149	129,839	357,998	14,756
SHELLFISH						
Crabs.....			42	2	27,266	1,679
Squid.....			4,075,262	26,994	12,359	267
Total.....			4,075,304	26,996	39,625	1,946
Grand total.....	128,164,631	308,156	44,771,453	156,835	397,623	16,702

Fisheries of the Monterey district of California, 1932—Continued

CATCH: BY GEAR—Continued

Species	Lines				Paranzella nets	
	Set and hand		Troll			
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Flounders:						
"California halibut".....	2,802	\$199	15	\$1	3,722	\$265
"Sole".....	47,081	1,742			357,287	13,225
Other.....	16,989	544			59,061	1,868
Grayfish.....	100	4			2,320	23
Hake.....					4,893	49
Horse mackerel.....	3,552	159				
Kingfish.....	15,064	532			4,810	170
"Lingcod".....	107,643	4,049	192	7	18,310	689
Mackerel.....	445,871	8,917	61	1		
Perch.....	4,130	150			703	27
Rockfishes.....	2,046,924	54,514			21,940	788
Sablefish.....	218,853	4,478			10,953	224
Salmon.....			80,884	5,692		
Sculpin.....	246	3				
Sea bass, white.....	255	20				
Skates.....	7,256	136			18,239	340
Smelt.....	29,893	1,130				
Tuna and tunalike fishes, albacore.....			606,313	30,211		
Whitebait.....	13	1				
Other fish.....	2,943	100			1,337	27
Total.....	2,949,615	76,678	687,465	35,912	503,575	17,695
SHELLFISH						
Crabs.....					90	5
Octopus.....	1,724	120				
Total.....	1,724	120			90	5
Grand total.....	2,951,339	76,798	687,465	35,912	503,665	17,700

Species	Traps		Rakes and shovels		Abalone outfits	
	Pounds	Value	Pounds	Value	Pounds	Value
SHELLFISH						
Shrimp.....	982	\$285				
Abalone.....					427,075	\$63,884
Clams:						
Cockle.....			13	\$2		
Pismo.....			6,289	1,443		
Mixed.....			4	1		
Octopus.....	15,830	1,097				
Oysters, Japanese, market.....			9,142	2,286		
Total.....	16,812	1,382	15,448	3,732	427,075	63,884

Fisheries of the San Pedro district of California, 1932

OPERATING UNITS: BY GEAR

Item	Purse seines			Lampara nets			Haul seines
	Barra-cuda	Sardine	Tuna	Mack-erel	Sardine	Other	
Fishermen:							
On vessels.....	Number 224	Number 571	Number 594	Number 291	Number 228	Number 5	Number
On boats and shore.....				16		26	2
Total.....	224	571	594	307	228	31	2
Vessels: Motor							
Net tonnage.....	24	56	59	31	21	1	
	718	2,425	2,616	365	479	7	
Boats:							
Motor.....				2		6	
Other.....							1
Apparatus:							
Number.....	24	56	59	33	21	7	1
Length, yards.....	10,581	21,726	32,718	13,651	9,652	2,220	214

Fisheries of the San Pedro district of California, 1932—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Gill nets			Trammel nets	Lines	
	Drift, baracuda	Set, sea bass	Other		Set and hand	Troll
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	23	21	5	23	570	6
On boats and shore.....	75	80	31	71	353	102
Total.....	98	101	36	94	923	108
Vessels: Motor.....	8	7	2	8	90	3
Net tonnage.....	46	74	14	51	3,573	47
Boats:						
Motor.....	29	33	17	27	240	83
Other.....		1	5	2	18	
Apparatus:						
Number.....	37	41	25	37	1,730	410
Square yards.....	361,280	180,072	25,995	281,163		
Hooks.....					282,729	430

Item	Paran-zella nets	Traps, lobster	Harpoons, swordfish	Shovels and rakes	Abalone, outfits	Total, exclusive of duplication
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	14	22	41		10	1,623
On boats and shore.....	16	162	64	58	1	641
Total.....	30	184	105	58	11	2,264
Vessels: Motor.....	4	10	12		2	199
Net tonnage.....	57	68	163		14	6,930
Boats:						
Motor.....	6	107	28		1	351
Other.....		9				25
Apparatus:						
Number.....	10	4,291	40	58	3	
Yards at mouth.....	167					

CATCH OFF CALIFORNIA: BY GEAR

Species	Purse seines		Lampara nets		Haul seines		Gill nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Anchovies.....			31,547	\$629				
Barracuda.....	521,486	\$34,677	199,115	12,215			282,108	\$13,718
Flounders:								
"California halibut".....	45	3	432	35			229	15
"Sole".....			13	1			50	3
Other.....							19	1
Flyingfish.....	135	4	419	13			39,981	1,349
Grayfish.....	3,740	119	1,975	43			51,251	1,018
Herring.....							103	5
Horse mackerel.....	29,737	660	384,668	8,414			1,494	56
Kingfish.....			158,276	3,002			50	1
Mackerel.....	132,800	649	10,085,448	50,143			38,600	781
Mullet.....			1,047	59	144	\$7	2,466	139
Perch.....	727	44	42,787	2,796			6,749	409
Pilchard or sardine.....	75,892,770	216,983	38,091,176	108,256	60	1	438	6
Pompano.....	14	6	5,303	2,014				
Rock bass.....	6,212	325	21,906	1,047			4,233	237
Rockfishes.....	63	30	1,124	40			114	5
Rudderfish.....	2,110	104	11,322	533			20,641	1,164
Sculpin.....	100	5					10†	8
Sea bass:								
Black.....	294	12	2,003	74			8,517	324
White.....	141,276	9,240	47,145	4,362			338,508	27,203
Shad.....			87	3				
Sheepshead.....	30	1					1,412	35
Smelt.....	605	17	208,032	6,636	36,225	684	74,315	2,890

Fisheries of the San Pedro district of California, 1932—Continued

CATCH OFF CALIFORNIA: BY GEAR—Continued

Species	Purse seines		Lampara nets		Haul seines		Gill nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH—continued								
Tuna and tunalike fishes:								
Bluefin.....	375,824	\$21,407	61,408	\$3,646			33	\$3
Bonito.....	513,039	9,547	399,488	7,368			4,720	80
Yellowfin.....	21	1	23	2				
Whitefish.....	57	2	63	4			368	17
Yellowtail.....	366,815	10,769	279,846	6,566			7,415	236
Other fish.....	60	2	737	29			601	18
Total.....	77,988,532	304,607	50,035,390	217,930	36,429	\$692	884,516	49,721
SHELLFISH								
Sea crawfish or spiny lobster.....	14	3					4	1
Squid.....	6,053	241	135,946	3,002				
Total.....	6,067	244	135,946	3,002			4	1
Grand total.....	77,994,599	304,851	50,171,336	220,932	36,429	692	884,520	49,722

Species	Trammel nets		Lines				Paranzella nets	
			Set and hand		Troll			
			Pounds	Value	Pounds	Value		
FISH								
Barracuda.....			784,670	\$28,201	246,496	\$8,907		
Eels.....			34	1				
Flounders:								
"California halibut".....	439,662	\$35,950	23,083	1,711			339,390	\$25,201
"Sole".....	11,583	469	2,550	98			284,180	8,529
Other.....	237	12	7,918	1,631			620	33
Grayfish.....	48,957	1,045	368,025	7,944	1,581	31	7,247	159
Hake.....			424	6				
Horse mackerel.....			1,242	28				
Kingfish.....			140,450	2,666				
"Lingcod".....	14	1	1,957	65				
Mackerel.....			1,369,367	26,733	141	3		
Marlin.....			2,724	92				
Perch.....			2,249	137				
Rock bass.....	394	26	166,353	9,216	479	25	863	70
Rockfishes.....	126	5	1,837,733	62,552			3,368	145
Rudderfish.....			1,538	80				
Sablefish.....			81,543	2,966			269	11
Salmon.....					16	2		
Sculpin.....	80	5	71,270	4,823			171	14
Sea bass:								
Black.....	2,173	88	57,624	2,280			388	15
White.....	555	47	15,368	1,261	47	3	7	1
Sheepshead.....	5,470	138	26,756	690				
Skates.....	5,359	103	6,678	125			18,418	358
Smelt.....			1,569	64				
Swordfish.....			2,766	235				
Tuna, and tunalike fishes:								
Albacore.....			4,801	304	8,559	544		
Bluefin.....	22	1						
Bonito.....			46,236	730	2,071	31		
Skipjack or striped tuna.....			27,278	955	181	6		
Yellowfin.....			4,450	296				
Whitefish.....	112	6	60,224	3,539				
Yellowtail.....	424	12	101,497	3,146	7,784	222		
Other fish.....	199	6	5,313	211				
Total.....	515,367	37,914	5,223,690	162,786	267,355	9,774	654,921	34,536
SHELLFISH								
Sea crawfish or spiny lobster.....	8,788	1,379					346	41
Octopus.....	5	1	32	4				
Squid.....	8	1						
Total.....	8,801	1,381	32	4			346	41
Grand total.....	524,168	39,295	5,223,722	162,790	267,355	9,774	655,267	34,577

Fisheries of the San Pedro district of California, 1932—Continued

CATCH OFF CALIFORNIA: BY GEAR—Continued

Species	Traps		Harpoons		Shovels and rakes		Abalone outfits	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Kingfish.....	137	\$3						
Marlin.....			17,347	\$699				
Perch.....	134	8						
Rock bass.....	47,582	2,523						
Rockfishes.....	184	6						
Sculpin.....	379	28						
Sheepshead.....	46,086	1,164						
Skates.....	22	1						
Swordfish.....			443,584	37,405				
Whitefish.....	873	50						
Other fish.....	12	1						
Total.....	95,409	3,784	460,931	38,194				
SHELLFISH								
Crabs.....	145	9						
Sea craw fish or spiny lobster.....	245,507	34,490						
Abalone.....							136,369	\$13,497
Clams:								
Cockle.....					6,899	\$1,499		
Pismo.....					21,287	5,854		
Razor.....					1,307	380		
Mussels.....					5	1		
Octopus.....	146	15						
Total.....	245,798	34,514			29,498	7,734	136,369	13,497
Grand total.....	341,207	38,298	460,931	38,194	29,498	7,734	136,369	13,497

CATCH OFF LATIN AMERICA: BY GEAR

Species	Purse seines		Haul seines		Gill nets	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Barracuda.....	370,551	\$31,226			845	\$65
Cabrilla.....	1,317	52				
Flounders, "California halibut".....	1,190	84			338	13
Pompano.....	488	64	3,240	\$421		
Rock bass.....	998	51			135	7
Sea bass:						
Black.....	20,856	752			2,980	81
White.....	45,948	3,155			25,253	2,099
Tuna and tunalike fishes:						
Bluefin.....	608,170	24,328				
Bonito.....	1,139,808	22,559				
Skipjack or striped tuna.....	2,028,316	70,992				
Yellowfin.....	7,028,351	289,648				
Whitefish.....	509	31				
Yellowtail.....	349,635	9,011			548	18
Total.....	11,596,137	451,953	3,240	421	30,099	2,283

Species	Lines, set and hand		Traps		Harpoons	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Barracuda.....	609	\$57				
Cabrilla.....	101,672	3,406				
Corbina.....	2,469	99				
Groupers.....	3,774	113				
Rock bass.....	2,389	142				
Sea bass:						
Black.....	126,421	5,348				
White.....	8,200	795				
Sheepshead.....	41	1				
Spanish mackerel.....	3,209	192				
Swordfish.....					8,485	\$787
Tuna and tunalike fishes:						
Skipjack or striped tuna.....	6,239,076	217,204				
Yellowfin.....	9,043,690	368,119				
Whitefish.....	1,765	101				
Yellowtail.....	174,462	6,715				
Total.....	5,707,777	602,292			8,485	787
SHELLFISH						
Sea crawfish or spiny lobster.....			25,066	\$4,086		
Grand total.....	5,707,777	602,292	25,066	4,086	8,485	787

Fisheries of the San Diego district of California, 1932

OPERATING UNITS: BY GEAR

Item	Lampara nets, sardine	Gill nets			Trammel nets	Lines		Traps, lobster	Harpoons, swordfish and turtle	Total, exclusive of duplication
		Drift, barracuda	Set, sea bass	Other		Set and hand	Troll			
Fishermen:	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
On vessels.....	33	6	6	3	12	734	3	23	50	742
On boats and shore.....	21	40	26	11	23	147	34	63	29	201
Total	54	46	32	14	35	881	37	86	79	943
Vessels: Motor	6	2	2	1	4	90	1	7	11	93
Net tonnage.....	57	12	12	13	34	5,138	5	70	175	5,160
Boats:										
Motor.....	4	16	12	9	9	76	30	47	13	119
Other.....				1		2		2		4
Apparatus:										
Number.....	10	18	14	14	13	1,298	170	1,938	24	
Length, yards.....	2,380									
Square yards.....		182,010	79,981	13,290	227,624					
Hooks.....						87,265	170			

CATCH OFF CALIFORNIA: BY GEAR

Species	Purse seines		Lampara nets		Gill nets		Trammel nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH					118,586	\$7,793		
Barracuda								
Flounders:								
“California halibut”.....					29	2	67,355	\$5,468
“Sole”.....							38	4
Grayfish					48,228	188	61,439	271
Herring					11,861	205		
Kingfish					213	5		
“Lingcod”							12	1
Mackerel					9,774	269		
Mullet			158	\$7	16,120	739		
Perch			867	18				
Pilchard or sardine			544,932	4,071	65	1		
Rock bass					712	19	58	3
Rockfishes					155	6	69	3
Rudderfish					1,215	55		
Sculpin					125	8		
Sea bass:								
Black.....					2,092	65	480	22
White.....					73,140	4,475	1,030	91
Sheepshead							127	4
Skates							257	3
Smelt			622	32	30,246	658		
Tuna and tunalike fishes:								
Bluefin.....	11,922	\$529	10,797	540				
Bonito.....					10,322	259		
Yellowtail.....					4,270	234		
Total	11,922	529	557,376	4,668	327,153	14,981	130,865	5,870
SHELLFISH								
Sea crawfish or spiny lobster							1,918	271
Squid			115	9				
Total			115	9			1,918	271
Grand total	11,922	529	557,491	4,677	327,153	14,981	132,783	6,141

NOTE.—The catch by purse seines was made entirely by fishermen from the San Pedro district.

Fisheries of the San Diego district of California, 1932—Continued

CATCH OFF CALIFORNIA: BY GEAR—Continued

Species	Lines				Traps		Harpoons	
	Set and hand		Troll		Pounds	Value	Pounds	Value
FISH	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
Barracuda.....	305,601	\$12,278	44,071	\$2,806				
Flounders:								
"California halibut".....	2,205	134						
"Sole".....	1,531	143			48	\$4		
Other.....	13	1						
Grayfish.....	28,690	145						
Kingfish.....	874	22			1,217	31		
Mackerel.....	168,641	2,643						
Marlin.....							4,320	\$181
Rock bass.....	50,163	1,567	51	3	132,762	6,148		
Rockfishes.....	653,435	23,084			4,356	174		
Sculpin.....	12,966	762			470	30		
Sea bass:								
Black.....	157,432	4,822						
White.....	16,779	1,039	372	35				
Sheepshead.....	1,066	33			8,398	256		
Skates.....	62	1			60	1		
Swordfish.....							205,668	19,701
Tuna and tunalike fishes:								
Bonito.....	728,155	12,529	7,360	146				
Skipjack or striped tuna.....	347,448	9,384	135	4				
Yellowfin.....	159,716	6,621	1,113	46				
Whitefish.....	87,794	3,781						
Yellowtail.....	251,421	6,085	4,614	138				
Other fish.....	22	1						
Total.....	2,974,014	85,075	57,716	3,178	147,311	6,644	209,988	19,882
SHELLFISH								
Sea crawfish or spiny lobster.....					62,730	8,876		
Octopus.....	69	8						
Total.....	69	8			62,730	8,876		
Grand total.....	2,974,083	85,083	57,716	3,178	210,041	15,520	209,988	19,882

CATCH OFF LATIN AMERICA: BY GEAR

Species	Purse seines		Lampara nets		Gill nets		Trammel nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Barracuda.....					3,004	\$240		
Flounders, "California halibut".....					26	2	9,055	\$963
Grayfish.....					118	1		
Mullet.....			1,665	\$70	1,090	55		
Pilchard or sardine.....			66	1				
Pompano.....			348	28				
Rockfishes.....					186	4		
Sea bass:								
Black.....					4,259	167	2,361	113
White.....					45,016	3,250		
Tuna and tunalike fishes:								
Bluefin.....			2,992	180				
Bonito.....			1,210	24	17	1		
Skipjack or striped tuna.....	1,905	\$67						
Yellowfin.....	371,287	15,637						
Whitefish.....					85	3		
Yellowtail.....	17,557	702			1,633	38		
Total.....	390,749	16,406	6,281	303	55,434	3,761	11,416	1,076

NOTE.—The catch by purse seines was made entirely by fishermen from the San Pedro district.

Fisheries of the San Diego district of California, 1932—Continued

CATCH OFF LATIN AMERICA: BY GEAR—Continued

Species	Lines				Traps		Harpoons	
	Set and hand		Troll		Pounds	Value	Pounds	Value
FISH	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>				
Barracuda.....	28, 144	\$2, 178	18, 521	\$1, 844				
Cabrilla.....	237, 019	8, 440						
Flounders, "California halibut".....	92	7						
Grouper.....	14, 915	533						
Marlin.....							285	\$7
Rock bass.....	1, 194	68	80	6				
Rockfishes.....	10, 583	456						
Sea bass:								
Black.....	85, 433	2, 394						
White.....	12, 763	876	253	25				
Sheepshead.....	205	6						
Spanish mackerel.....	7, 613	375						
Swordfish.....							2, 202	247
Tuna and tunalike fishes:								
Bonito.....	9, 829	189						
Skipjack or striped tuna.....	12, 902, 238	452, 887						
Yellowfin.....	20, 309, 024	824, 213	5, 735	229				
Whitefish.....	10, 177	519						
Yellowtail.....	226, 339	7, 132	2, 104	137				
Total.....	33, 945, 568	1, 300, 273	26, 693	2, 241			2, 487	296
SHELLFISH								
Sea crawfish or spiny lobster.....					674, 274	\$93, 251		
Turtles.....							5, 728	288
Total.....					674, 274	93, 251	5, 728	288
Grand total.....	33, 945, 568	1, 300, 273	26, 693	2, 241	674, 274	93, 251	8, 215	584

HALIBUT FISHERY OF THE PACIFIC COAST¹⁰

The halibut fishery of the Pacific coast, which is prosecuted by United States (including Alaska) and Canadian vessels, ranks as one of the foremost fisheries of that section. During 1932, the total catch by vessels of both nationalities amounted to 43,458,000 pounds, valued at \$1,740,000. This is an increase of 1 percent in amount, but a decrease of 39 percent in value as compared with the catch and its value in 1931. Of the total catch in 1932, 85 percent was taken by United States craft and 15 percent by Canadian craft. Considered according to ports of landing, 39 percent was landed at Canadian ports, 50 percent at ports in the State of Washington, and 11 percent at ports in Alaska.

¹⁰ These statistics were compiled from data collected by the International Fisheries Commission for Washington and British Columbia, and by Bureau agents for Alaska. The data for the Washington and Alaska landings as well as those landings made by United States craft in British Columbia are based on actual weight of the fares. In previous data "hailing-fares" were used for British Columbia.

Halibut fishery of the Pacific coast, 1932

UNITED STATES OPERATING UNITS: By FLEET CLASSIFICATION

Item	Washington fleet	Alaska fleet	Total
Regular halibut vessels:			
Number.....	125	78	203
Net tonnage.....	3,814	1,490	5,104
Crew.....	920	405	1,325
Dories.....	146	78	224
Skates of lines.....	3,978	1,978	5,956
Vessels in other fisheries but landing one or more fares of halibut:			
Number.....	18	28	46
Net tonnage.....	287	400	667
Crew.....	83	111	194
Dories.....	15	24	39
Skates of lines.....	405	620	1,025
Regular halibut boats:			
Number.....		19	19
Crew.....		47	47
Skates of lines.....		340	340
Boats in other fisheries but landing one or more fares of halibut:			
Number.....	5	88	93
Crew.....	8	142	150
Skates of lines.....	30	572	602

CATCH OF ALL SPECIES: BY UNITED STATES VESSELS AND BOATS

Fleet classification	Landed in—						Total	
	Washington		British Columbia		Alaska		Pounds	Value
WASHINGTON FLEET								
Regular vessels:								
Halibut.....	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Halibut.....	19,891,191	\$911,831	3,022,197	\$120,655	206,687	\$6,671	23,120,075	\$1,039,157
Sablefish.....	1,631,729	40,721					1,631,729	40,721
"Lingcod".....	326,622	9,695					326,622	9,695
Rockfishes.....	212,534	6,359					212,534	6,359
Total.....	22,062,076	968,606	3,022,197	120,655	206,687	6,671	25,290,960	1,095,932
Other vessels and boats:								
Halibut.....	376,256	16,289					376,256	16,289
Sablefish.....	24,753	466					24,753	466
"Lingcod".....	47,627	1,211					47,627	1,211
Rockfishes.....	13,144	502					13,144	502
Total.....	461,780	18,468					461,780	18,468
ALASKA FLEET								
Regular vessels:								
Halibut.....	1,480,900	64,626	7,159,773	279,921	2,892,001	83,736	11,532,674	428,263
Sablefish.....	34,923	835			3,357	63	38,280	898
"Lingcod".....	4,703	89					4,703	89
Rockfishes.....	4,971	95			3,469	69	8,440	164
Total.....	1,525,497	65,645	7,159,773	279,921	2,898,827	83,868	11,584,097	429,434
Other vessels and boats:								
Halibut.....	92,601	2,888	462,721	17,636	1,464,300	44,245	2,019,622	64,769
Sablefish.....					1,035	21	1,035	21
Total.....	92,601	2,888	462,721	17,636	1,465,335	44,266	2,020,657	64,790
COMBINED FLEETS								
Regular vessels:								
Halibut.....	21,372,091	976,457	10,181,970	400,576	3,098,688	90,407	34,652,749	1,467,440
Sablefish.....	1,666,652	41,556			3,357	63	1,670,009	41,619
"Lingcod".....	331,325	9,784					331,325	9,784
Rockfishes.....	217,505	6,454			3,469	69	220,974	6,523
Total.....	23,587,573	1,034,251	10,181,970	400,576	3,105,514	90,539	36,875,057	1,525,366

Halibut fishery of the Pacific coast, 1932—Continued

CATCH OF ALL SPECIES: BY UNITED STATES VESSELS AND BOATS—Continued

Fleet classification	Landed in—						Total	
	Washington		British Columbia		Alaska			
COMBINED FLEETS—con.								
Other vessels and boats:	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
Halibut.....	468, 857	\$19, 177	462, 721	\$17, 636	1, 464, 300	\$44, 245	2, 395, 878	\$81, 058
Sablefish.....	24, 753	466	-----	-----	1, 035	21	25, 788	487
"Lingcod".....	47, 627	1, 211	-----	-----	-----	-----	47, 627	1, 211
Rockfishes.....	13, 144	502	-----	-----	-----	-----	13, 144	502
Total.....	554, 381	21, 356	462, 721	17, 636	1, 465, 335	44, 266	2, 482, 437	83, 258
All vessels and boats:								
Halibut.....	21, 840, 948	995, 634	10, 644, 691	418, 212	4, 562, 988	134, 652	37, 048, 627	1, 548, 498
Sablefish.....	1, 691, 405	42, 022	-----	-----	4, 392	84	1, 695, 797	42, 106
"Lingcod".....	378, 952	10, 995	-----	-----	-----	-----	378, 952	10, 995
Rockfishes.....	230, 649	6, 956	-----	-----	3, 469	69	234, 118	7, 025
Grand total.....	24, 141, 954	1, 055, 607	10, 644, 691	418, 212	4, 570, 849	134, 805	39, 357, 494	1, 608, 624

CATCH OF HALIBUT: BY UNITED STATES AND CANADIAN VESSELS AND BOATS

[Expressed in thousands of pounds and thousands of dollars; that is, 000 omitted]

Fleet classification	Landed in—						Total	
	Washington		British Columbia		Alaska			
WASHINGTON FLEET	<i>Quantity</i>	<i>Value</i>	<i>Quantity</i>	<i>Value</i>	<i>Quantity</i>	<i>Value</i>	<i>Quantity</i>	<i>Value</i>
Regular halibut vessels.....	19, 891	912	3, 022	120	207	7	23, 120	1, 039
Other vessels and boats.....	376	16	-----	-----	-----	-----	376	16
Total.....	20, 267	928	3, 022	120	207	7	23, 496	1, 055
ALASKA FLEET								
Regular halibut vessels.....	1, 481	64	7, 160	280	2, 892	84	11, 533	428
Other vessels and boats.....	93	3	463	18	1, 464	44	2, 020	65
Total.....	1, 574	67	7, 623	298	4, 356	128	13, 553	493
COMBINED FLEET								
Regular halibut vessels.....	21, 372	976	10, 182	400	3, 099	91	34, 653	1, 467
Other vessels and boats.....	469	19	463	18	1, 464	44	2, 396	81
Total.....	21, 841	995	10, 645	418	4, 563	135	37, 049	1, 548
British Columbia fleet.....	-----	-----	6, 409	192	-----	-----	6, 409	192
Grand total.....	21, 841	995	17, 054	610	4, 563	135	43, 458	1, 740

¹ Estimated.

NOTE.—In addition to the above it is estimated that about 500,000 pounds of halibut livers, valued at about \$60,000 were landed at Pacific coast ports during 1932.

VESSEL FISHERIES AT SEATTLE, WASH.

A total of 42,266,096 pounds of fishery products, valued at \$1,797,-611, were handled by Seattle wholesale dealers, exclusive of quantities received by transporting vessels or by rail from Alaska or Canada. This represents an increase of 4 percent in quantity, but a decrease of 22 percent in value as compared with the quantity of products handled and its value for the previous year. Of the total quantity handled, 24,141,954 pounds, valued at \$1,055,607, were landed by

fishing vessels, an increase of 40 percent in quantity but a decrease of 10 percent in value as compared with the previous year. Receipts by wholesale dealers from sources other than Alaska or Canada or from vessels in the halibut fleet, amounted to 18,124,142 pounds, valued at \$742,004, which was a decrease of 23 percent in quantity and 35 percent in value as compared with the previous year.

*Fishery products landed by United States vessels at Seattle, Wash., 1932*¹

BY FISHING GROUNDS

Fishing grounds	Trips	Halibut				Sablefish	
		No. 1		No. 2		Pounds	Value
	Number	Pounds	Value	Pounds	Value		
West of Cape Spencer.....	382	7,306,517	\$409,454	5,626,290	\$185,293	15,693	\$300
South of Cape Spencer.....	814	2,989,426	199,029	5,918,715	201,858	1,675,712	41,722
Total.....	1,196	10,295,943	608,483	11,545,005	387,151	1,691,405	42,022

Fishing grounds	"Lingcod"		Rockfishes		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
West of Cape Spencer.....	4,636	\$68	5,457	\$113	12,958,593	\$595,228
South of Cape Spencer.....	374,316	10,927	225,192	6,843	11,183,361	460,379
Total.....	378,952	10,995	230,649	6,956	24,141,954	1,055,607

¹ Halibut fleet.

BY MONTHS

Months	Trips	Halibut				Sablefish	
		No. 1		No. 2		Pounds	Value
	Number	Pounds	Value	Pounds	Value		
January.....	9						
February.....	28	181,987	\$19,856	85,141	\$6,800	3,571	\$132
March.....	146	1,568,627	88,369	1,004,273	30,790	19,340	535
April.....	149	1,238,369	81,732	1,255,860	49,481	17,469	652
May.....	159	1,266,356	67,244	1,680,630	51,595	58,363	2,238
June.....	142	1,219,566	67,929	1,450,513	42,935	234,715	7,616
July.....	104	906,650	51,316	1,109,971	35,852	238,062	6,086
August.....	121	1,167,319	59,767	1,774,882	50,229	147,141	3,721
September.....	129	991,887	61,799	1,223,285	44,291	408,976	9,894
October.....	156	1,201,929	72,879	1,509,487	53,450	460,566	9,271
November.....	45	553,253	37,592	450,963	21,728	103,202	1,877
December.....	8						
Total.....	1,196	10,295,943	608,483	11,545,005	387,151	1,691,405	42,022

Months	"Lingcod"		Rockfishes		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
January.....	28,900	\$1,849	17,270	\$1,138	46,170	\$2,987
February.....	64,760	2,141	28,690	1,259	364,149	30,188
March.....	18,694	527	9,367	341	2,620,301	120,562
April.....	44,395	835	15,452	494	2,571,545	133,194
May.....	37,488	648	26,523	542	3,069,360	122,267
June.....	24,872	648	12,967	274	2,942,633	119,222
July.....	12,311	234	19,536	380	2,286,530	93,868
August.....	17,964	310	23,678	470	3,130,984	114,497
September.....	24,682	501	21,525	427	2,670,355	116,912
October.....	29,461	589	26,290	538	3,227,733	136,727
November.....	19,674	574	6,411	195	1,133,503	61,966
December.....	55,751	2,319	22,940	898	78,691	3,217
Total.....	378,952	10,995	230,649	6,956	24,141,954	1,055,607

Fishery products received by Seattle wholesale dealers, 1932¹

BY MONTHS

Species	January		February		March		April		May	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Flounders:										
" Sole "	82,721	\$628	55,528	\$1,386	45,900	\$1,196	23,471	\$512	22,190	\$476
Other	7,473	117	4,000	50	2,938	80	1,200	15	635	6
Halibut					85	3	3,411	170	5,742	226
Herring	500	5			10,000	50				
"Lingcod"	5,073	233	13,190	404	2,961	77	12,373	249	6,939	132
Perch	4,336	173	5,090	197	5,109	179	7,141	125	3,228	93
Rockfishes	6,812	281	21,896	837	4,092	126	10,450	224	8,067	240
Salmon:										
Blueback, red or sockeye									1,029	71
Chinook or king			1,391	195	56,098	7,407	239,072	21,351	1,285,586	69,957
Chum or keta									76	1
Silver or coho									23,379	909
Smelt	4,716	292	10,950	110	10,606	318			5,687	445
Steelhead trout	5,113	511	10,617	1,274	1,992	199			14,137	766
Sturgeon	238	29	79	10	184	20			95	12
Crabs	67,038	3,215	77,616	4,143	70,588	3,744	80,260	4,497	125,571	7,021
Octopus	5,968	233	5,172	155	3,349	86	6,894	248	5,757	105
Total	139,983	5,717	205,529	8,761	213,872	13,485	384,272	27,391	1,508,118	80,453

Species	June		July		August		September	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Flounders:								
" Sole "	22,225	\$439	12,025	\$285	5,870	\$148	15,530	\$294
Other	220	1					140	1
Halibut	22,683	900	33,628	1,315	56,307	1,761	2,210	128
"Lingcod"	8,712	114	7,277	96	2,181	31	1,318	21
Perch	129	4	1,034	39	2,732	72	5,889	120
Rockfishes	5,660	110	7,561	252	3,622	109	3,863	95
Sablefish	635	20						
Salmon:								
Blueback, red or sockeye	8,860	532	4,828	245	6,720	403	1,264	76
Chinook or king	2,202,345	126,475	2,083,147	110,633	1,528,587	87,515	347,742	18,227
Chum or keta	253	3	450	9	30,454	456	141,002	2,098
Humpback or pink			105	3	6,585	66	440	5
Silver or coho	192,512	8,255	529,418	21,009	1,111,877	44,474	967,258	30,098
Smelt	14,589	460	27,850	910	23,930	661	42,689	1,328
Steelhead trout	13,310	567	9,117	457	15,267	452	12,018	459
Sturgeon	443	44			1,193	60	515	26
Crabs	58,544	3,414	51,198	3,047	29,922	1,641	8,348	557
Octopus	3,727	112	3,309	100	852	26	5,429	109
Total	2,554,847	141,450	2,770,947	138,400	2,826,099	137,875	1,555,675	53,642

Species	October		November		December		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Flounders:								
" Sole "	25,371	\$633	26,656	\$587	48,739	\$1,311	336,246	\$7,895
Other			490	5	4,102	58	21,198	333
Halibut	1,227	75	290	18			125,583	4,595
Herring			10,490	157	9,153	171	30,143	383
"Lingcod"	1,626	39	2,532	51	16,921	1,041	81,103	2,488
Perch	3,397	68	4,470	112	4,326	134	46,881	1,316
Rockfishes	6,879	207	3,958	116	22,000	1,000	104,860	3,597
Sablefish	4,605	138					5,240	158
Salmon:								
Blueback, red or sockeye							22,701	1,327
Chinook or king	68,884	3,507	11,522	507			7,824,374	445,768
Chum or keta	2,283,525	31,908	1,216,485	10,900	1,730	107	3,673,975	45,482
Humpback or pink							7,130	74
Silver or coho	1,495,141	50,539	206,906	6,207	74,317	3,902	4,600,808	165,393
Smelt	21,912	736	18,770	872	9,635	498	191,334	6,630
Steelhead trout	1,962	65	14,159	708	15,742	945	113,434	6,403
Sturgeon	175	11			30	2	2,952	214
Crabs	102,964	4,741	90,400	4,872	113,520	7,326	875,939	48,218
Octopus	5,050	51	6,674	133	8,065	372	60,241	1,730
Total	4,022,718	92,718	1,613,802	25,245	328,280	16,867	18,124,142	742,004

¹ This tabulation does not include fish received from Alaska or Canada or vessels in the halibut fleet.
² 41,663 dozen.

LAKE FISHERIES ¹¹

The yield of the United States fisheries of the Great Lakes including the international lakes of northern Minnesota during 1932, amounted to 83,744,389 pounds, valued at \$4,331,776 to the fishermen, representing a decrease of 9 percent in quantity and 28 percent in value as compared with the catch in the previous year. These fisheries gave employment to 6,932 fishermen or 1 percent more than in 1931.

Lake fisheries of the United States and Canada, 1932

CATCH: BY LAKES

Species	Lake Ontario			Lake Erie		
	United States	Canada	Total	United States	Canada	Total
Blue pike.....	Pounds 80,785	Pounds 91,000	Pounds 172,685	Pounds 9,866,679	Pounds 3,962,100	Pounds 13,828,779
Bowfin.....				184	(1)	184
Burbot.....	20,343	(1)	20,343	251,521	(1)	251,521
Carp.....	54,457	49,900	104,357	2,878,130	510,800	3,388,930
Catfish and bullheads.....	66,137	201,400	267,537	622,293	83,300	705,593
Cisco.....				160,215	851,200	1,011,415
Eels.....	43,536	50,100	93,636			
Goldfish.....				48,533	(1)	48,533
Lake herring.....	72,793	651,400	724,193			
Lake trout.....	18,286	301,600	319,886	9,740	1,800	11,540
Mooneye.....				15,684	(1)	15,684
Pike or pickerel (jacks).....	14,853	170,200	185,053	7,603	55,200	62,803
Rock bass.....	1,092	(1)	1,092	5,890	(1)	5,890
Sauger.....				3,142,213	(1)	3,142,213
Sheepshead.....				2,144,323	(1)	2,144,323
Sturgeon.....	11,627	2,530	14,157	16,901	28,142	45,043
Sucker "mullet".....	35,585	(1)	35,585	1,325,253	(1)	1,325,253
Sunfish.....	8,084	(1)	8,084			
White bass.....				252,695	(1)	252,695
Whitefish, common.....	54,635	418,300	472,935	1,168,570	912,200	2,080,770
Yellow perch.....	27,044	98,100	125,144	9,733,201	5,029,000	14,762,201
Yellow pike.....	12,022	16,000	28,022	2,020,057	296,900	2,316,957
Miscellaneous.....		204,700	204,700		1,003,000	1,003,000
Total.....	521,279	2,256,130	2,777,409	33,669,685	12,733,642	46,403,327

¹ Where there has been a Canadian catch of these species it is included under Miscellaneous.

¹¹ The statistics of the catch presented herewith were obtained principally from the records of the various State fishery agencies and from the Dominion Bureau of Statistics, Ottawa, Canada. The data for the operating units (fishermen, vessels, boats, and gear) of the United States were obtained largely by Bureau agents in a special canvass; although State records in several instances were very helpful in this work. In all cases the statistics collected are for the calendar year, except for Lake of the Woods, Rainy Lake, and Lake Namakan in Minnesota, which are for 2 seasons. For Lake of the Woods the seasons are from June 1 to Nov. 1 and Dec. 1 to Apr. 1 and for Rainy and Namakan Lakes from May 15 to Nov. 1 and Dec. 1 to Apr. 1. The catches for these 2 seasons, in the order named, have been combined to constitute a year. The quantity of fish taken in these lakes between Jan. 1 and Apr. 1 is estimated at less than 3 percent of the total catch.

Lake fisheries of the United States and Canada, 1932—Continued

CATCH: BY LAKES—Continued

Species	Lake Huron			Lake Michigan	Lake Superior		
	United States	Canada	Total	United States	United States	Canada	Total
	<i>Pounds</i>	<i>Pounds</i> 2,000	<i>Pounds</i> 2,000	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Blue pike.....							
Bowfin.....	2,764	(1)	2,764				
Buffalofish.....				1,910			
Burbot.....	692	(1)	692	55,154	3,361	(1)	3,361
Carp.....	1,055,068	55,800	1,110,868	283,895	5,149	1,100	6,249
Catfish and bullheads.....	80,166	6,700	86,866	55,356			
Chubs.....	507,121	1,421,900	1,929,021	3,129,108	392,413	205,000	597,413
Lake herring.....	2,646,662	3,366,400	3,013,062	2,941,084	6,025,835	757,100	6,782,935
Lake trout.....	2,220,624	2,968,400	5,189,024	5,491,780	2,920,594	1,123,700	4,044,294
Pike or pickerel (jacks).....	33,194	189,900	223,094	33,387	63,933	15,100	79,033
Rock bass.....	8,455	(1)	8,455	2,063			
Sauger.....	67,878	(1)	67,878	16,015	5,575	(1)	5,575
Sheepshead.....	1,925	(1)	1,925	12,245	11	(1)	11
Smelt.....				97,807			
Steelhead trout.....				5,050			
Sturgeon.....		17,331	17,331			2,800	2,800
Sucker "mullet".....	2,592,791	(1)	2,592,791	1,909,402	208,458	(1)	208,458
Whitefish:.....							
Common.....	4,332,874	1,582,000	5,914,874	3,557,604	450,569	(1)	450,569
Menominee.....	30,006	(1)	30,006	127,187	75,481	(1)	75,481
Yellow perch.....	700,094	39,800	739,894	953,609	16,922	(1)	16,922
Yellow pike.....	1,568,044	406,000	1,974,044	105,107	4,890	116,900	121,790
Crawfish.....				19,677			
Mussel shells.....				1,894,914			
Miscellaneous.....		423,000	423,000			72,700	72,700
Total.....	15,848,358	7,479,231	23,327,589	20,692,354	10,173,191	2,294,400	12,467,591

Species	Namakan Lake			Rainy Lake		
	United States	Canada	Total	United States	Canada	Total
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Chubs.....	18,437	(1)	18,437	9,433	4,625	14,058
Crappie.....	781	(1)	781			
Pike or pickerel (jacks).....	31,200	1,070	32,270	37,822	135,683	173,505
Sturgeon.....		1,070	1,070	502	1,168	1,670
Sucker "mullet".....	1,929	(1)	1,929	224	(1)	224
Tullibee.....				200		200
Whitefish, common.....	24,345	10,275	34,620	124,549	19,331	143,880
Yellow perch.....	1,414	(1)	1,414	3,743	6,270	10,013
Yellow pike.....	27,657	7,835	35,492	77,912	192,930	270,842
Miscellaneous.....					5,408	5,408
Total.....	105,763	20,250	126,013	254,385	365,415	619,800

Species	Lake of the Woods			Total, all lakes		
	United States	Canada	Total	United States	Canada	Total
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Blue pike.....		1,195	1,195	9,947,464	4,057,195	14,004,659
Bowfin.....				2,948	(1)	2,948
Buffalofish.....				1,910	(1)	1,910
Burbot.....	45	(1)	45	331,116	(1)	331,116
Carp.....	6,870	1,691	8,561	4,283,569	619,291	4,902,860
Catfish and bullheads.....	9,412	2,069	11,481	833,364	293,469	1,126,833
Chubs.....				4,056,512	1,631,525	5,688,037
Cisco.....				160,215	851,200	1,011,415
Crappie.....	237	(1)	237	1,018	(1)	1,018
Eels.....				43,536	50,100	93,636
Goldfish.....				48,533	(1)	48,533
Lake herring.....				11,686,374	1,774,900	13,461,274
Lake trout.....	688	25,575	26,263	10,661,712	4,421,075	15,082,787
Mooneye.....				15,684	(1)	15,684
Pike or pickerel (jacks).....	150,564	482,220	632,784	372,556	1,049,373	1,421,929

1 Where there has been a Canadian catch of these species it is included under Miscellaneous.

Lake fisheries of the United States and Canada, 1932—Continued

CATCH: BY LAKES—Continued

Species	Lake of the Woods			Total, all lakes		
	United States	Canada	Total	United States	Canada	Total
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Rock bass.....				17, 500	(1)	17, 500
Sauger.....	215, 898	(1)	215, 898	3, 447, 579	(1)	3, 447, 579
Sheepshead.....				2, 158, 504	(1)	2, 158, 504
Smelt.....				97, 807	(1)	97, 807
Steelhead trout.....				5, 050	(1)	5, 050
Sturgeon.....	882	475	1, 357	29, 912	53, 516	83, 428
Sucker "mullet".....	118, 718	(1)	118, 718	6, 192, 360	(1)	6, 192, 360
Sunfish.....				8, 084	(1)	8, 084
Tullibee.....	1, 296, 468	14, 080	1, 310, 548	1, 296, 668	14, 080	1, 310, 748
White bass.....				252, 695	(1)	252, 695
Whitefish:						
Common.....	17, 358	479, 248	496, 606	9, 730, 504	3, 421, 354	13, 151, 858
Menominee.....				232, 674	(1)	232, 674
Yellow perch.....	36, 473	4, 660	41, 133	11, 472, 500	5, 177, 830	16, 650, 330
Yellow pike.....	625, 761	696, 803	1, 322, 564	4, 441, 450	1, 733, 368	6, 174, 818
Crawfish.....				19, 677	(1)	19, 677
Mussel shells.....				1, 894, 914	(1)	1, 894, 914
Miscellaneous.....		73, 670	73, 670		1, 782, 478	1, 782, 478
Total.....	2, 479, 374	1, 781, 686	4, 261, 060	83, 744, 389	26, 930, 754	110, 675, 143

¹ Where there has been a Canadian catch of these species it is included under Miscellaneous.

Lake fisheries of the United States, 1932

OPERATING UNITS: BY LAKES

Item	Lake Ontario	Lake Erie	Lake Huron	Lake Michigan	Lake Superior	Lake of the Woods, Rainy Lake, and Namanagan Lake	Total
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	2	293	246	1, 029	135		1, 705
On boats and shore:							
Regular.....	78	823	756	834	473	95	3, 059
Casual.....	55	363	226	1, 064	459	1	2, 168
Total.....	135	1, 479	1, 228	2, 927	1, 067	96	6, 932
Vessels:							
Steam.....		24	16	59	7		106
Net tonnage.....		647	319	1, 244	154		2, 364
Motor.....	1	33	50	271	37		392
Net tonnage.....	12	314	541	2, 892	296		4, 055
Total vessels.....	1	57	66	330	44		498
Total net tonnage.....	12	961	860	4, 136	450		6, 419
Boats:							
Motor.....	51	305	341	569	285	73	1, 624
Other.....	59	422	115	580	359		1, 535
Apparatus:							
Haul seines.....	5	197	69	53	8		332
Length, yards.....	1, 165	89, 323	30, 004	17, 479	1, 125		139, 096
Gill nets:							
"Bull", 3 to 3½ inches.....		584					584
Square yards.....		233, 600					233, 600
"Shoal", 2¼ to 3¾ inches.....	688	11, 945	1, 793	16, 996	6, 687		38, 109
Square yards.....	131, 791	1, 856, 075	572, 563	1, 174, 411	2, 062, 662		8, 797, 502
"Shoal", 4 to 5¾ inches.....	451	6, 685	6, 311	42, 090	8, 411	249	64, 197
Square yards.....	78, 884	1, 412, 759	2, 260, 612	11, 563, 102	3, 124, 189	99, 102	18, 538, 648
"Shoal", 6 to 9¾ inches.....	142			414			556
Square yards.....	26, 464			54, 449			80, 913
"Shoal", 10 to 14 inches.....	12	60					72
Square yards.....	6, 630	10, 170					16, 800

Lake fisheries of the United States, 1932—Continued

OPERATING UNITS: BY LAKES—Continued

Item	Lake Ontario	Lake Erie	Lake Huron	Lake Michigan	Lake Superior	Lake of the Woods, Rainy Lake, and Namakan Lake	Total
	Number	Number	Number	Number	Number	Number	Number
Trammel nets.....		222		4			226
Square yards.....		9,324		413			9,737
Lines:							
Hand.....		1			5		6
Hooks.....		2			5		7
Troll.....			5	7	29		41
Hooks.....			10	7	29		46
Trot.....	24	45	95	687	2,198		3,049
Hooks.....	7,560	9,990	147,700	380,000	415,210		960,460
Pound nets.....		63	747	814	136	73	1,833
Trap nets.....	152	4,073	2,636	441	124		7,426
Fyke nets.....	131	1,114	398	791	24	116	2,574
Crawfish pots.....				2,910			2,910
Crowfoot bars.....				360			360
Picks.....				126			126

OPERATING UNITS: BY STATES AND LAKES

Item	New York			Pennsylvania	Ohio
	Lake Ontario	Lake Erie	Total	Lake Erie	Lake Erie
	Number	Number	Number	Number	Number
Fishermen:					
On vessels.....	2	83	85	112	96
On boats and shore:					
Regular.....	78	20	98	24	601
Casual.....	55	75	130		249
Total.....	135	178	313	136	946
Vessels:					
Steam.....		5	5	12	7
Net tonnage.....		122	122	298	227
Motor.....	1	11	12	9	12
Net tonnage.....	12	75	87	95	138
Total vessels.....	1	16	17	21	19
Total net tonnage.....	12	197	209	393	365
Boats:					
Motor.....	51	20	71	7	251
Other.....	59	56	115	10	300
Apparatus:					
Haul seines.....	5	13	18		123
Length, yards.....	1,165	1,025	2,190		70,485
Gill nets:					
"Bull", 3 to 3 $\frac{1}{4}$ inches.....		584	584		
Square yards.....		233,600	233,600		
"Shoal", 2 $\frac{1}{4}$ to 3 $\frac{7}{8}$ inches.....	688	1,321	2,009	4,494	6,001
Square yards.....	131,791	183,122	314,913	741,840	919,050
"Shoal", 4 to 5 $\frac{3}{4}$ inches.....	451	2,300	2,751	3,684	563
Square yards.....	78,884	376,804	455,688	933,104	84,450
"Shoal", 6 to 9 $\frac{3}{4}$ inches.....	142		142		
Square yards.....	26,464		26,464		
"Shoal", 10 to 14 inches.....	12	60	72		
Square yards.....	6,630	10,170	16,800		
Trammel nets.....					222
Square yards.....					9,324
Lines:					
Trot.....	24	38	62		
Hooks.....	7,560	6,490	14,050		
Pound nets.....				45	18
Trap nets.....	152	21	173	8	3,875
Fyke nets.....	131		131		633

Lake fisheries of the United States, 1932—Continued

OPERATING UNITS: BY STATES AND LAKES—Continued

Item	Michigan					Indiana
	Lake Erie	Lake Huron	Lake Michigan	Lake Superior	Total	Lake Michigan
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	2	246	490	86	824	15
On boats and shore:						
Regular.....	178	756	510	260	1,704	10
Casual.....	39	226	497	108	870	49
Total.....	219	1,228	1,497	454	3,398	74
Vessels:						
Steam.....		16	28	7	51	1
Net tonnage.....		310	453	154	928	22
Motor.....	1	50	120	18	189	3
Net tonnage.....	6	541	1,146	125	1,818	41
Total vessels.....	1	66	148	25	240	4
Total net tonnage.....	6	860	1,599	279	2,744	63
Boats:						
Motor.....	27	341	348	163	879	51
Other.....	56	115	364	20	555	33
Apparatus:						
Haul seines.....	61	69	3	8	141	
Length, yards.....	17,813	30,004	650	1,125	49,592	
Gill nets:						
"Shoal", 2¼ to 3⅞ inches.....	129	1,793	5,699	1,815	9,436	361
Square yards.....	12,063	572,563	1,224,695	351,286	2,160,607	105,750
"Shoal", 4 to 5¾ inches.....	138	6,311	27,317	5,887	39,453	440
Square yards.....	18,401	2,260,612	6,911,198	2,173,068	11,363,279	129,167
"Shoal", 6 to 9¾ inches.....			344		344	30
Square yards.....			41,549		41,549	6,300
Lines:						
Hand.....	1			5	6	
Hooks.....	2			5	7	
Troll.....		5	7	29	41	
Hooks.....		10	7	29	46	
Trot.....	7	95	142	1,519	1,763	
Hooks.....	3,500	147,700	204,350	315,080	670,630	
Pound nets.....		747	576	72	1,395	7
Trap nets.....	169	2,636	441	119	3,365	
Fyke nets.....	481	398	48	8	935	
Crowfoot bars.....			315		315	40
Picks.....			124		124	

Item	Illinois	Wisconsin			Minnesota		Total
	Lake Michigan	Lake Michigan	Lake Superior	Total	Lake Superior	Lake of the Woods, Rainy Lake, and Namakan Lake	
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	48	476	49	525			
On boats and shore:							
Regular.....	2	312	56	368	157	95	252
Casual.....	10	508	130	638	221	1	222
Total.....	60	1,296	235	1,531	378	96	474
Vessels:							
Steam.....	1	29		29			
Net tonnage.....	13	756		756			
Motor.....	13	135	19	154			
Net tonnage.....	183	1,522	171	1,693			
Total vessels.....	14	164	19	183			
Total net tonnage.....	196	2,278	171	2,449			

Lake fisheries of the United States, 1932—Continued

OPERATING UNITS: BY STATES AND LAKES—Continued

Item	Illinois		Wisconsin		Minnesota		
	Lake Michigan	Lake Michigan	Lake Superior	Total	Lake Superior	Lake of the Woods, Rainy Lake, and Namakan Lake	Total
Boats:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Motor.....	7	183	81	244	41	73	114
Other.....		183	35	218	304		304
Apparatus:							
Haul seines.....		50		50			
Length, yards.....		16,829		16,829			
Gill nets:							
"Shoal", 2¼ to 3¾ inches.....	1,380	9,556	1,258	10,814	3,614		3,614
Square yards.....	288,640	2,555,326	514,973	3,070,299	1,196,403		1,196,403
"Shoal", 4 to 5¾ inches.....	1,122	13,211	1,155	14,366	1,569	249	1,818
Square yards.....	338,668	4,184,069	364,798	4,548,867	586,323	99,102	685,425
"Shoal", 6 to 9¾ inches.....		40		40			
Square yards.....		6,600		6,600			
Trammel nets.....		4		4			
Square yards.....		413		413			
Lines:							
Trot.....	5	540	276	816	403		403
Hooks.....	500	175,150	61,200	236,350	38,930		38,930
Pound nets.....	1	230	64	294		73	73
Trap nets.....							
Fyke nets.....		743	16	759		110	110
Crawfish pots.....		2,910		2,910			
Crowfoot bars.....		5		5			
Picks.....		2		2			

OPERATING UNITS OF LAKE ONTARIO: BY GEAR

Item	Haul seines	Gill nets				Trot lines	Trap nets	Fyke nets	Total, exclusive of duplication
		"Shoal", 2¼ to 3¾ inches	"Shoal", 4 to 6 inches	"Shoal", 6 to 10 inches	"Shoal", 10 to 14 inches				
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....		2							2
On boats and shore:									
Regular.....	8	41	29	16	2	3	31	17	78
Casual.....	6	17	6	4	4	20	5		52
Total.....	14	60	35	20	6	23	36	17	135
Vessels, motor.....	1								1
Net tonnage.....	12								12
Boats:									
Motor.....	1	31	19	9	2	6	17	6	71
Other.....	5	13	8	6	3	17	20	11	55
Apparatus:									
Number.....	5	688	451	142	12	24	172	133	1,427
Length, yards.....	1,165								
Square yards.....		131,791	78,884	29,464	6,630				246,769
Hooks.....						7,560			7,560

1 Includes Niagara River below the Falls and the St. Lawrence River

Lake fisheries of the United States, 1932—Continued

OPERATING UNITS OF LAKE ERIE: BY GEAR

Item	Haul seines	Gill nets				Trammel nets
		"Bull", 3 to 3½ inches	"Shoal", 2¼ to 3¾ inches	"Shoal", 4 to 6 inches	"Shoal", 10 to 14 inches	
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....		56	268	215		
On boats and shore:						
Regular.....	251		36	33	2	14
Casual.....	247		31	10	2	9
Total.....	498	56	335	258	4	23
Vessels:						
Steam.....		2	21	19		
Net tonnage.....		38	563	469		
Motor.....		9	31	22		
Net tonnage.....		64	298	194		
Total vessels.....		11	52	41		
Total net tonnage.....		102	861	663		
Boats:						
Motor.....	68		35	16	3	11
Other.....	173		13	15		2
Apparatus:						
Number.....	197	584	11,945	6,685	60	222
Length, yards.....	89,323					
Square yards.....		233,600	1,856,075	1,412,759	10,170	9,324
Item	Lines		Pound nets	Trap nets	Fyke nets	Total, ex- clusive of dupli- cation
	Hand	Trot				
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....						293
On boats and shore:						
Regular.....		8	26	513	121	823
Casual.....	1	44		14	24	363
Total.....	1	52	26	527	145	1,479
Vessels:						
Steam.....						24
Net tonnage.....						647
Motor.....						33
Net tonnage.....						314
Total vessels.....						57
Total net tonnage.....						961
Boats:						
Motor.....		1	8	178	43	305
Other.....	1	44	11	177	45	422
Apparatus:						
Number.....	1	45	63	4,073	1,114	
Hooks.....	2	9,990				

¹ Includes Niagara River above the Falls.

Lake fisheries of the United States, 1932—Continued

OPERATING UNITS OF LAKE HURON: BY GEAR

Item	Haul seines	Gill nets		Lines	
		"Shoal", 2¼ to 3¾ inches	"Shoal", 4 to 6 inches	Troll	Trot
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....		69	149		80
On boats and shore:					
Regular.....	110	144	160		62
Casual.....	59	62	67	5	14
Total	169	275	376	5	156
Vessels:					
Steam.....		6	12		7
Net tonnage.....		135	235		154
Motor.....		9	25		8
Net tonnage.....		131	305		171
Total vessels		15	37		15
Total net tonnage		266	540		325
Boats:					
Motor.....	212	76	88	1	31
Other.....	17	30	26	4	5
Apparatus:					
Number.....	69	1,793	6,311	5	95
Length, yards.....	30,004				
Square yards.....		572,563	2,260,612		
Hooks.....				10	147,700

Item	Pound nets	Trap nets	Fyke nets	Total, exclusive of duplication
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	27	75		246
On boats and shore:				
Regular.....	258	472	52	756
Casual.....	16	75	17	226
Total	301	622	69	1,228
Vessels:				
Steam.....	1	1		16
Net tonnage.....	5	9		319
Motor.....	8	26		50
Net tonnage.....	52	223		541
Total vessels	9	27		66
Total net tonnage	57	232		860
Boats:				
Motor.....	95	188	21	341
Other.....	25	59	13	115
Apparatus:				
Number.....	747	2,636	398	

Lake fisheries of the United States, 1932—Continued

OPERATING UNITS OF LAKE MICHIGAN:¹ BY GEAR

Item	Haul seines	Gill nets			Trammel nets	Lines	
		"Shoal", 2¼ to 3¾ inches	"Shoal", 4 to 6 inches	"Shoal", 6 to 10 inches		Troll	Trot
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	12	555	966	5			252
On boats and shore:							
Regular.....	75	264	480	14			38
Casual.....	31	208	363	4	6	7	51
Total	118	1,027	1,809	23	6	7	341
Vessels:							
Steam.....		29	50				22
Net tonnage.....		591	987				480
Motor.....	5	154	255	2			51
Net tonnage.....	37	1,782	2,695	13			594
Total vessels	5	183	305	2			73
Total net tonnage	37	2,373	3,682	13			1,074
Boats:							
Motor.....	8	162	238	8		7	32
Other.....	43	74	74	2	4		29
Apparatus:							
Number.....	53	16,996	42,090	414	4	7	687
Length, yards.....	17,479						
Square yards.....		4,174,411	11,563,102	54,449	413		
Hooks.....						7	380,000

Item	Pound nets	Trap nets	Fyke nets	Craw-fish pots	Crow-foot bars	Picks	By hand	Total, exclusive of duplication
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	92	59	56	2				1,029
On boats and shore:								
Regular.....	425	142	128	7		1		834
Casual.....	16	4	32	16	285	125	142	1,064
Total	533	205	216	25	285	126	142	2,927
Vessels:								
Steam.....		2						59
Net tonnage.....		42						1,244
Motor.....	36	15	23	1				271
Net tonnage.....	262	167	172	7				2,892
Total vessels	36	17	23	1				330
Total net tonnage	262	209	172	7				4,136
Boats:								
Motor.....	171	54	62		135			569
Other.....	129	31	39	23	151	89	49	580
Apparatus:								
Number.....	814	441	791	2,910	360	126		

¹ Includes operating units used in the mussel fisheries of streams tributary to Lakes Michigan, Huron, and Erie. Those used in Lakes Erie and Huron are included herein to avoid disclosure of private enterprise.

Lake fisheries of the United States, 1932—Continued

OPERATING UNITS OF LAKE SUPERIOR: BY GEAR

Item	Haul seines	Gill nets		Lines			Pound nets	Trap nets	Fyke nets	Total, exclusive of duplication
		"Shoal", 2¼ to 3½ inches	"Shoal", 4 to 6 inches	Hand	Troll	Trot				
Fishermen:	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
On vessels.....		82	99	3		70	26	2	5	135
On boats and shore:										
Regular.....	6	435	443		4	243	52	39	10	473
Casual.....	12	407	414		3	79	10		4	459
Total	18	924	956	3	7	392	88	41	19	1,067
Vessels:										
Motor.....		3	7			4				
Net tonnage.....		71	154			86				154
Motor.....		26	23	1		17	9	1	2	37
Net tonnage.....		213	187	7		119	86	9	11	296
Total vessels		29	30	1		21	9	1	2	44
Total net tonnage		284	341	7		205	86	9	11	450
Boats:										
Motor.....	3	247	254		7	131	26	18	7	285
Other.....	7	348	348			58	3		1	359
Apparatus:										
Number.....	8	6,687	8,411	5	29	2,198	136	124	24	
Length, yards.....	1,125									
Square yards.....		2,062,662	3,124,189							
Hooks.....				5	29	415,210				

OPERATING UNITS OF LAKE OF THE WOODS, RAINY LAKE, AND NAMAKAN LAKE: BY GEAR

Item	Gill nets, "shoal", 4 to 6 inches	Pound nets	Fyke nets	Total, exclusive of duplication
Fishermen, on boats and shore:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Regular.....	57	44	38	95
Casual.....	1			1
Total	58	44	38	96
Boats: Motor	58	18	33	73
Apparatus:				
Number.....	249	73	116	
Square yards.....	99,102			

CATCH: BY GEAR

Species	New York							
	Haul seines		Gill nets		Trot lines		Fyke nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike.....			537,372	\$25,814			1,045	\$73
Burbot.....			16,183	606	102	\$6	5,258	157
Carp.....	58,558	\$2,839	14,753	741			1,084	38
Catfish and bullheads.....	3,046	138	996	86			24,898	1,350
Cisco.....			27,464	2,746				
Eels.....	28	1					8,470	254
Lake herring.....			63,608	4,699			265	21
Lake trout.....			22,871	2,971				
Pike or pickerel (jacks).....	2,376	190	270	25			2,017	161
Rock bass.....			116	6				
Sturgeon.....			3,670	751	21,659	4,556		
Sucker "mullet".....	50,499	2,496	24,934	784			12,344	396
Sunfish.....							2,178	65
White bass.....			2,840	113				
Whitefish, common.....			210,941	37,692			40	6
Yellow perch.....	111	6	73,958	4,745			4,962	248
Yellow pike.....			10,963	1,249				
Total	114,618	5,670	1,010,939	83,028	21,761	4,562	62,561	2,769

Lake fisheries of the United States, 1932—Continued

CATCH: BY GEAR—Continued

Species	New York—Continued				Pennsylvania			
	Trap nets		Total		Gill nets		Pound nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike.....	17,635	\$1,249	556,052	\$27,136	1,472,641	\$66,269	101,225	\$4,554
Burbot.....	1,215	13	22,768	782	1,588	16		
Carp.....	3,703	129	78,098	3,747	4,946	247	2,161	59
Catfish and bullheads.....	38,716	1,607	67,656	3,181			2,528	170
Cisco.....			27,464	2,746	81,387	8,138	1,449	145
Eels.....	35,038	1,051	43,536	1,306				
Lake herring.....	8,920	726	72,793	5,446				
Lake trout.....	4,104	482	26,975	3,453	1,046	125	6	1
Mooneye.....							500	5
Pike or pickerel (jacks).....	10,190	826	14,853	1,202				
Rock bass.....	1,092	33	1,208	39				
Sheepshead.....							12,789	297
Sturgeon.....	2,592	518	27,921	5,825			607	101
Sucker "mullet".....	20,690	653	108,467	4,329	5,780	114	6,344	127
Sunfish.....	5,906	191	8,084	256				
White bass.....			2,840	113	1,667	67	7,444	297
Whitefish, common.....	39,139	5,883	250,120	43,581	421,087	6,365	25,701	3,855
Yellow perch.....	23,265	1,557	102,296	6,556	248,259	11,171	77,542	4,291
Yellow pike.....	12,391	1,259	23,354	2,508	278	28	15,875	1,586
Total.....	224,596	16,177	1,434,475	112,206	2,239,279	92,540	254,165	15,488

Species	Pennsylvania—Continued				Ohio			
	Trap nets		Total		Haul seines		Gill nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike.....	33,059	\$1,488	1,606,925	\$72,311	2,541	\$102	319,934	\$12,797
Burbot.....	251	3	1,839	19	470	4	3,780	38
Carp.....	96	3	7,203	309	1,438,863	28,776	7,860	158
Catfish and bullheads.....	300	21	2,823	191	100,469	3,989	1,983	98
Cisco.....			82,836	8,283			48,259	5,791
Goldfish.....					34,708	348		
Lake trout.....			1,051	126				
Mooneye.....			500	5				
Pike or pickerel (jacks).....					12,383	123	87	1
Sauger.....					1,355	106		
Sheepshead.....	1,070	31	13,859	328	16,962	678	738,083	29,523
Sturgeon.....			607	101	413,885	8,277	6,245	125
Sucker "mullet".....	1,700	34	13,824	275	36,564	731	28,773	576
White bass.....	141	5	9,252	369	19,421	777	2,108	83
Whitefish, common.....			447,388	10,220	109	16	66,318	9,947
Yellow perch.....	3,875	232	329,676	15,694	8,952	321	3,115,265	109,057
Yellow pike.....	1,324	132	17,477	1,746	17,907	1,673	25,432	2,525
Total.....	41,816	1,949	2,535,260	109,977	2,104,589	45,921	4,364,137	170,719

Species	Ohio—Continued							
	Trammel nets		Pound nets		Trap nets		Fyke nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike.....					7,457,295	\$298,575	4,717	\$186
Burbot.....					241,738	2,422	108	
Carp.....	104,426	\$3,888	6,525	\$130	87,950	1,758	54,108	1,082
Catfish and bullheads.....	623	31	15,520	465	262,317	11,629	63,890	2,222
Cisco.....	25	3			1,631	196		
Goldfish.....	380	4	2,995	30	3,097	30	2,833	29
Mooneye.....			1,150	11	85	1	1,479	14
Sauger.....			405	16	2,213,507	87,338	119,916	4,796
Sheepshead.....	5,404	108			1,497,334	29,954	146,571	2,931
Sucker "mullet".....	495	10	8,710	174	904,288	18,084	115,962	2,318
White bass.....			1,200	48	175,808	6,738	42,066	1,682
Whitefish, common.....					429,312	64,396	11,345	1,701
Yellow perch.....			460	16	5,950,056	215,004	164,325	6,601
Yellow pike.....			2,835	255	1,616,251	158,644	237,961	21,423
Total.....	201,353	4,044	39,800	1,145	20,840,669	894,769	965,281	43,986

Lake fisheries of the United States, 1932—Continued

CATCH: BY GEAR—Continued

Species	Ohio—Continued		Michigan					
	Total		Haul seines		Gill nets		Troll lines	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike.....	7,784,487	\$311,660						
Burbot.....	246,096	2,465	114	\$2	12,668	\$128		
Carp.....	1,789,732	35,792	1,726,381	56,488	1,524	35		
Catfish and bullheads.....	444,802	18,434	32,396	2,535	166	7		
Chubs.....					940,044	67,914		
Cisco.....	49,915	5,990						
Goldfish.....	44,013	441	750	15				
Lake herring.....			23,901	478	636,780	12,354		
Lake trout.....					4,600,878	425,933	36,752	\$3,124
Mooneye.....	15,184	150						
Pike or pickerel (jacks).....	1,355	106	617	50	2,732	205		
Rock bass.....			1,944	94	95	3		
Sauger.....	3,088,883	122,351	1,525	71	30,738	1,366		
Sheepshead.....	2,069,439	41,395	10,250	308				
Smelt.....					22,004	660		
Sucker "mullet".....	1,094,792	21,893	212,910	4,895	264,187	6,500		
White bass.....	240,603	9,328						
Whitefish:								
Common.....	507,084	76,060			2,123,734	226,839		
Menominee.....					127,999	12,591		
Yellow perch.....	9,239,058	329,999	23,256	1,611	214,494	13,736		
Yellow pike.....	1,900,386	184,520	48,006	5,806	194,738	23,418	863	104
Total.....	28,515,829	1,160,584	2,082,050	72,353	9,172,781	791,689	37,615	3,228

Species	Michigan—Continued							
	Trot lines		Pound nets		Trap nets		Fyke nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin.....			158	\$3	2,657	\$53	133	\$3
Burbot.....	3,426	\$45	152	2	1,071	21	2,144	43
Carp.....	1,006	50	29,726	703	155,370	4,564	227,432	10,366
Catfish and bullheads.....	1,761	141	1,426	85	87,337	6,537	135,329	10,713
Chubs.....	427	48	457	22	5,285	527	216	20
Goldfish.....					805	16	2,965	59
Lake herring.....			2,446,350	64,381	302,275	8,110	33,154	776
Lake trout.....	1,502,126	137,901	238,857	22,427	433,180	40,869	1,317	107
Pike or pickerel (jacks).....			4,168	310	39,560	3,199	13,507	1,049
Rock bass.....	145	4	124	4	9,866	334	4,118	166
Sauger.....	10	1	7,795	446	69,720	3,197	33,010	1,624
Sheepshead.....	416	12	12,527	381	20,262	608	31,584	948
Sucker "mullet".....	1,564	35	395,359	9,186	2,671,843	58,158	264,198	6,432
Whitefish:								
Common.....	418	42	2,091,424	214,811	3,557,225	422,550	15,060	1,508
Menominee.....	2,175	196	5,418	522	5,886	575	120	11
Yellow perch.....	12,825	864	35,089	2,385	589,903	39,385	130,757	7,974
Yellow pike.....	223	29	354,448	43,251	1,019,985	123,463	140,845	17,403
Total.....	1,526,522	139,368	5,623,478	358,919	8,972,230	712,166	1,035,889	59,202

Species	Michigan—Continued							
	Crowfoot bars		Picks		By hand		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin.....							2,948	\$59
Burbot.....							19,575	241
Carp.....							2,141,439	72,206
Catfish and bullheads.....							258,415	20,018
Chubs.....							946,429	68,531
Goldfish.....							4,520	90
Lake herring.....							3,442,460	86,099
Lake trout.....							6,813,110	630,361
Pike or pickerel (jacks).....							60,584	4,813
Rock bass.....							16,292	605
Sauger.....							142,798	6,705
Sheepshead.....							75,039	2,257
Smelt.....							22,004	660
Sucker "mullet".....							3,810,061	85,206
Whitefish:								
Common.....							7,787,861	865,750
Menominee.....							141,598	13,895
Yellow perch.....							1,006,324	65,955
Yellow pike.....							1,759,108	213,474
Mussel shells.....	1,315,500	\$18,180	237,966	\$3,279	125,518	\$1,722	1,678,984	23,181
Pearls and slugs.....		877		283		294		1,454
Total.....	1,315,500	19,057	237,966	3,562	125,518	2,016	30,129,549	2,161,560

Lake fisheries of the United States, 1932—Continued

CATCH: BY GEAR—Continued

Species	Indiana									
	Gill nets		Pound nets		Crowfoot bars		By hand		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Buffalofish.....	10	\$1	1,900	\$99					1,910	\$100
Burbot.....	3,887	217	75	3					3,962	220
Carp.....			3,320	119					3,320	119
Chubs.....	184,698	16,473							184,698	16,473
Lake herring.....	94,795	4,146	28,255	930					123,050	5,076
Lake trout.....	98,266	8,289	125	18					98,391	8,307
Steelhead trout.....	4,100	650							4,100	650
Sucker "mullet".....	825	41	1,205	44					2,030	85
Whitefish, common.....	3,000	325	6,210	533					9,210	858
Yellow perch.....	15,928	1,341	7,310	490					23,238	1,831
Yellow pike.....	3,000	450	3,430	343					6,430	793
Mussel shells.....					140,000	\$1,820	30,000	\$390	170,000	2,210
Pearls and slugs.....						140		30		170
Total.....	408,509	31,933	51,830	2,579	140,000	1,960	30,000	420	630,339	36,892

Species	Illinois							
	Gill nets		Trot lines		Pound nets		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Carp.....					200	\$4	200	\$4
Chubs.....	466,365	\$28,674			1,080	30	467,445	28,704
Lake herring.....	76,860	3,324			8,720	120	85,580	3,444
Lake trout.....	279,893	21,805	598	\$60	114	12	280,605	21,877
Whitefish, common.....					3,240	360	3,240	360
Yellow perch.....	46,215	3,543			1,500	30	47,715	3,573
Total.....	869,333	57,346	598	60	14,854	556	884,785	57,962

Species	Wisconsin							
	Haul seines		Gill nets		Trammel nets		Trot lines	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Burbot.....	60	\$1	26,114	\$392			4,886	\$73
Carp.....	217,871	4,902	7,826	189	3,660	\$82		
Catfish and bullheads.....	3,825	268	4,248	297				
Chubs.....			2,404,753	132,568			306	17
Lake herring.....			1,343,486	12,141	15	1		
Lake trout.....			2,038,086	144,574			614,526	44,348
Pike or pickerel (jacks).....	17	1	40,383	2,307			366	26
Smelt.....			40,643	1,422				
Sucker "mullet".....	11,228	281	598,178	14,472	517	13		
Whitefish:								
Common.....	4,297	481	247,647	26,836				
Menominee.....			70,584	2,447				
Yellow perch.....	61	4	101,043	6,162			535	33
Yellow pike.....			914	128				
Total.....	237,359	5,938	6,923,905	343,935	4,192	96	620,619	44,497

Species	Wisconsin—Continued							
	Pound nets		Trap nets		Fyke nets		Crawfish pots	
	Pounds*	Value	Pounds	Value	Pounds	Value	Pounds	Value
Burbot.....	1,965	\$30	211	\$3	3,605	\$54		
Carp.....	1,674	38			25,676	578		
Catfish and bullheads.....	775	54			41,408	2,909		
Chubs.....	12,536	684	12,475	745				
Lake herring.....	1,484,164	14,695	312	2	11,079	102		
Lake trout.....	255,092	19,173	255	16	1,154	74		
Pike or pickerel (jacks).....	21,603	1,541	2,413	141	11,396	774		
Sheepshead.....			11	1		5		
Smelt.....	20,666	723			14,494	508		
Steelhead trout.....	950	124						
Sucker "mullet".....	178,793	3,019	2,569	23	251,030	6,190		
Whitefish:								
Common.....	295,547	8,917	734	47	514	33		
Menominee.....	18,453	770			71	2		
Yellow perch.....	52,303	3,189			528,621	32,245		
Yellow pike.....	639	90			1,812	254		
Crawfish.....							19,677	\$984
Total.....	2,345,160	53,047	18,980	978	891,016	43,728	19,677	984

Lake fisheries of the United States, 1932—Continued

CATCH: BY GEAR—Continued

Species	Wisconsin—Continued							
	Crowfoot bars		Picks		By hand		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Burbot.....							36,841	\$553
Carp.....							256,707	5,789
Catfish and bullheads.....							50,256	3,528
Chubs.....							2,430,070	134,014
Lake herring.....							2,839,056	26,941
Lake trout.....							2,909,113	208,185
Pike or pickerel (jacks).....							76,178	4,790
Sheepshead.....							167	6
Smelt.....							75,803	2,653
Steelhead trout.....							950	124
Sucker "mullet".....							1,042,315	23,998
Whitefish:								
Common.....							548,739	36,314
Menominee.....							89,108	3,219
Yellow perch.....							682,563	41,633
Yellow pike.....							3,365	472
Crawfish.....							19,677	984
Mussel shells.....	12,930	\$54	9,000	\$85	24,000	\$100	45,930	239
Total.....	12,930	54	9,000	85	24,000	100	11,106,838	493,442

Species	Minnesota					
	Gill nets		Trot lines		Pound nets	
	Pounds	Value	Pounds	Value	Pounds	Value
Carp.....					6,526	\$125
Chubs.....	25,083	\$495			2,787	55
Crappie.....	51	10				
Lake herring.....	5,123,435	54,251				
Lake trout.....	431,413	32,559	100,366	\$14,642	688	81
Pike or pickerel (jacks).....	166,581	4,104			26,502	654
Sauger.....	107,949	3,082			107,949	3,081
Sturgeon.....					1,384	355
Sucker "mullet".....	48,259	586			48,483	590
Tullibee.....	648,234	3,050			324,217	4,027
Whitefish:						
Common.....	109,879	6,952			51,415	3,329
Menominee.....	1,968	89				
Yellow perch.....	31,784	1,280			374	22
Yellow pike.....	362,902	26,523			308,363	22,888
Total.....	7,057,538	137,981	100,366	14,642	878,688	35,207

Species	Minnesota—Continued			
	Fyke nets		Total	
	Pounds	Value	Pounds	Value
Burbot.....	45	\$1	45	\$1
Carp.....	344	7	6,870	132
Catfish and bullheads.....	9,412	455	9,412	455
Chubs.....			27,870	550
Crappie.....	967	183	1,018	193
Lake herring.....			5,123,435	54,251
Lake trout.....			532,467	47,282
Pike or pickerel (jacks).....	26,503	655	219,586	5,413
Sauger.....			215,898	6,163
Sturgeon.....			1,384	355
Sucker "mullet".....	24,129	294	120,871	1,470
Tullibee.....	324,217	4,027	1,296,668	16,104
Whitefish:				
Common.....	15,568	933	176,862	11,214
Menominee.....			1,968	89
Yellow perch.....	9,472	359	41,630	1,661
Yellow pike.....	60,065	4,409	731,330	53,820
Total.....	470,722	11,323	8,507,314	199,153

Lake fisheries of the United States, 1932—Continued

CATCH: BY LAKES

Species	Lake Ontario		Lake Erie					
	New York		New York		Pennsylvania		Ohio	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike.....	80,785	\$5,080	475,267	\$22,056	1,606,925	\$72,311	7,784,487	\$311,660
Burbot.....	20,343	757	2,415	25	1,839	19	246,096	2,465
Carp.....	54,457	2,531	23,641	1,216	7,203	309	1,789,732	35,792
Catfish and bullheads.....	66,137	3,064	1,519	117	2,823	191	444,802	18,434
Cisco.....			27,464	2,746	82,836	8,283	49,915	5,990
Eels.....	43,536	1,306						
Goldfish.....							44,013	441
Lake herring.....	72,793	5,446						
Lake trout.....	18,286	2,410	8,689	1,043	1,051	126		
Mooneye.....					500	5	15,184	150
Pike or pickerel (jacks).....	14,853	1,202					1,355	106
Rock bass.....	1,092	33	116	6				
Sauger.....							3,088,883	122,351
Sheepshead.....					13,859	328	2,069,439	41,395
Sturgeon.....	11,627	2,556	16,294	3,269	607	101		
Sucker "mullet".....	35,585	1,182	72,882	3,147	13,824	275	1,094,792	21,893
Sunfish.....	8,084	256						
White bass.....			2,840	113	9,252	369	240,603	9,328
Whitefish, common.....	54,635	8,416	195,485	35,165	447,888	10,220	507,084	76,060
Yellow perch.....	27,044	1,648	75,252	4,908	329,676	15,694	9,239,058	329,999
Yellow pike.....	12,022	1,213	11,332	1,295	17,477	1,746	1,900,386	184,520
Total.....	521,279	37,100	913,196	75,106	2,535,260	109,977	28,515,829	1,160,584

Species	Lake Erie—Continued				Lake Huron		Lake Michigan	
	Michigan		Total		Michigan		Michigan	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike.....			9,866,679	\$406,027				
Bowfin.....	184	\$4	184	4	2,764	\$55		
Burbot.....	1,171	24	251,521	2,533	692	14	15,133	\$152
Carp.....	1,057,554	52,877	2,878,130	90,194	1,055,068	18,464	28,755	863
Catfish and bullheads.....	173,149	13,852	622,293	32,594	80,166	6,012	5,100	154
Chubs.....					507,121	50,717	334,333	8,358
Cisco.....			160,215	17,019				
Goldfish.....	4,520	90	48,533	531				
Lake herring.....					2,646,662	71,460	255,563	3,834
Lake trout.....			9,740	1,169	2,220,624	207,597	2,767,914	276,790
Mooneye.....			15,684	155				
Pike or pickerel (jacks).....	6,248	500	7,603	606	33,194	2,756	15,357	1,152
Rock bass.....	5,774	289	5,890	295	8,455	254	2,063	62
Sauger.....	53,330	2,667	3,142,213	125,018	67,878	2,715	16,015	961
Sheepshead.....	61,025	1,831	2,144,323	43,554	1,925	63	12,089	363
Smelt.....							22,004	660
Sturgeon.....			16,901	3,370				
Sucker "mullet".....	143,755	4,313	1,325,253	29,628	2,592,791	54,457	992,939	24,824
White bass.....			252,695	9,810				
Whitefish:								
Common.....	18,613	1,861	1,168,570	123,306	4,332,874	487,802	3,053,548	335,890
Menominee.....					30,006	2,880	97,236	9,723
Yellow perch.....	89,215	4,461	9,733,201	355,062	700,094	48,306	200,381	12,023
Yellow pike.....	90,862	10,903	2,020,057	198,464	1,568,044	189,543	95,312	12,391
Mussels shells ³							1,678,984	23,181
Pearls and slugs ³								1,454
Total.....	1,705,400	93,672	33,669,685	1,439,339	15,848,358	1,143,095	9,592,726	712,835

³ From streams tributary to Lakes Michigan, Huron, and Erie. The mussel shells taken in streams tributary to Lakes Huron and Erie, which were inconsiderable, have been included with those taken in Lake Michigan, State of Michigan, to avoid disclosure of private enterprise.

Lake fisheries of the United States, 1932—Continued

CATCH: BY LAKES—Continued

Species	Lake Michigan—Continued							
	Indiana		Illinois		Wisconsin		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Buffalofish.....	1,910	\$100					1,910	\$100
Burbot.....	3,962	220			36,059	\$541	55,154	913
Carp.....	3,320	119	200	\$4	251,620	5,662	283,895	6,648
Catfish and bullheads.....					50,256	3,528	55,356	3,682
Chubs.....	184,698	16,473	467,445	28,704	2,142,632	117,835	3,129,108	171,370
Lake herring.....	123,050	5,076	85,580	3,444	2,476,891	24,770	2,941,084	37,124
Lake trout.....	98,391	8,307	280,605	21,877	2,344,870	172,074	5,491,780	479,048
Pike or pickerel (jacks).....					18,030	1,261	33,387	2,413
Rock bass.....							2,063	62
Sauger.....							16,015	961
Sheepshead.....					156	5	12,245	368
Smelt.....					75,803	2,653	97,807	3,313
Steelhead trout.....	4,100	650			950	124	5,050	774
Sucker "mullet".....	2,030	85			914,433	22,861	1,909,402	47,770
Whitefish:								
Common.....	9,210	858	3,240	360	491,606	32,658	3,557,604	369,766
Menominee.....					29,951	1,326	127,187	11,049
Yellow perch.....	23,238	1,831	47,715	3,573	682,275	41,620	953,609	59,047
Yellow pike.....	6,430	793			3,365	472	105,107	13,656
Crawfish.....					19,677	984	19,677	984
Mussel shells ³	170,000	2,210			45,930	239	1,894,914	25,630
Pearls and slugs ³		170						1,624
Total.....	630,339	36,892	884,785	57,962	9,584,504	428,613	20,692,354	1,236,302

Species	Lake Superior					
	Michigan		Wisconsin		Minnesota	
	Pounds	Value	Pounds	Value	Pounds	Value
Burbot.....	2,579	\$51	782	\$12		
Carp.....	62	2	5,087	127		
Chubs.....	104,975	9,456	287,438	16,179		
Lake herring.....	540,235	10,805	362,165	2,171	5,123,435	\$54,251
Lake trout.....	1,824,572	145,974	564,243	36,111	531,779	47,201
Pike or pickerel (jacks).....	5,785	405	58,148	3,529		
Sauger.....	5,575	362				
Sheepshead.....			11	1		
Sucker "mullet".....	80,576	1,612	127,882	1,137		
Whitefish:						
Common.....	382,826	40,197	57,133	3,656	10,610	936
Menominee.....	14,356	1,292	59,157	1,893	1,968	89
Yellow perch.....	16,634	1,165	288	13		
Yellow pike.....	4,890	637				
Total.....	2,983,065	211,958	1,522,334	64,829	5,667,792	102,477

³ From streams tributary to Lakes Michigan, Huron, and Erie. The mussel shells taken in streams tributary to Lakes Huron and Erie, which were inconsiderable, have been included with those taken in Lake Michigan, State of Michigan, to avoid disclosure of private enterprise.

Lake fisheries of the United States, 1932—Continued

CATCH: BY LAKES—Continued

Species	Lake Superior—Con.		Lake of the Woods, Rainy Lake, and Namakan Lake		Total, all lakes	
	Total		Minnesota			
	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike.....					9,947,464	\$411,107
Bowfin.....					2,948	59
Buffalofish.....					1,910	100
Burbot.....	3,361	\$63	45	\$1	331,116	4,281
Carp.....	5,149	129	6,870	132	4,283,569	118,098
Catfish and bullheads.....			9,412	455	833,364	45,807
Chubs.....	392,413	25,635	27,870	550	4,056,512	248,272
Cisco.....					160,215	17,019
Crappie.....			1,018	193	1,018	193
Eels.....					43,536	1,306
Goldfish.....					48,533	531
Lake herring.....	6,025,835	67,227			11,686,374	181,257
Lake trout.....	2,920,594	229,286	688	81	10,661,712	919,591
Mooneye.....					15,684	155
Pike or pickerel (jacks).....	63,933	3,934	219,586	5,413	372,556	16,324
Rock bass.....					17,500	644
Sauger.....	5,575	362	215,898	6,163	3,447,579	135,219
Sheepshead.....	11	1			2,158,504	43,986
Smelt.....					97,807	3,313
Steelhead trout.....					5,050	774
Sturgeon.....			1,384	355	29,912	6,281
Sucker "mullet".....	208,458	2,740	120,871	1,470	6,192,360	137,256
Sunfish.....					8,084	256
Tullibees.....			1,296,668	16,104	1,296,668	16,104
White bass.....					252,695	9,810
Whitefish:						
Common.....	450,569	44,789	166,252	10,278	9,730,504	1,044,357
Menominee.....	75,481	3,274			232,674	17,203
Yellow perch.....	16,922	1,178	41,630	1,661	11,472,500	466,902
Yellow pike.....	4,890	637	731,330	53,820	4,441,450	457,333
Crawfish.....					19,677	984
Mussel shells ³					1,894,914	25,630
Pearls and slugs ³						1,624
Total.....	10,173,191	379,264	2,839,522	96,676	83,744,389	4,331,776

³ From streams tributary to Lakes Michigan, Huron, and Erie. The mussel shells taken in streams tributary to Lakes Huron and Erie, which were inconsiderable, have been included with those taken in Lake Michigan, State of Michigan, to avoid disclosure of private enterprise.

FISHERIES OF THE MISSISSIPPI RIVER AND TRIBUTARIES

The most recent complete catch statistics of the fisheries of the Mississippi River and tributaries are those collected for the year 1931, a summary of which follows:

The yield of fishery products in that year amounted to 82,382,523 pounds, valued at \$2,897,357, which was a decrease of 22 percent in the catch and 36 percent in its value as compared with the catch and its value in 1922 when the most recent preceding survey was made. Detailed statistics of the fisheries of the Mississippi River and tributaries appear in "Fishery Industries of the United States, 1932" by R. H. Fiedler, Appendix III to Report of Commissioner of Fisheries for the fiscal year 1933.

Following the summary of the fisheries of the Mississippi River and tributaries for 1931 are statistics of the fisheries of Lakes Pepin and Keokuk and the Mississippi River between these two lakes for 1932.

Catch of the fisheries of the Mississippi River and tributaries, 1931

Species	Pounds	Value	Species	Pounds	Value
FISH			SHELLFISH, ETC.		
Black bass.....	14, 000	\$1, 680	Crawfish.....	29, 248	\$292
Bowfin.....	428, 316	9, 299	Shrimp.....	48, 503	3, 923
Buffalofish.....	15, 772, 451	687, 288	Mussel shells.....	37, 254, 697	421, 611
Carp.....	11, 891, 761	455, 398	Pearls.....		11, 436
Catfish and bullheads.....	10, 266, 847	877, 798	Slugs.....		68, 216
Crappie.....	41, 141	2, 959	Frogs.....	874, 901	130, 882
Eels.....	6, 978	441	Terrapin.....	19, 170	391
Garfish.....	72, 450	791	Turtles:		
Minnnows.....	525	209	Snapper.....	75, 190	3, 008
Mooneye.....	3, 090	153	Soft-shell.....	19, 100	394
Paddlefish or spoonbill cat.....	951, 452	43, 134			
Pike or pickerel.....	4, 700	470	Total.....	38, 320, 809	640, 153
Quillback or "American carp".....	268, 438	11, 286			
Sauger.....	2, 365	451	Grand total.....	82, 382, 523	2, 897, 357
Sheepshead.....	3, 904, 844	142, 938			
Sturgeon, shovelnose.....	87, 426	8, 163			
Sucker "mullet".....	314, 835	12, 682			
Sunfish.....	21, 850	1, 094			
Whitebass.....	3, 300	198			
Yellow pike.....	4, 945	771			
Total.....	44, 061, 714	2, 257, 204			

LAKE PEPIN

Fisheries of Lake Pepin, 1932

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets	Pound nets	Fyke nets	Spears	Total, exclusive of duplication
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Regular.....	2		5	10		13
Casual.....	40	10	5	20	7	42
Total.....	42	10	10	30	7	55
Boats:						
Motor.....	16	8	8	18	4	24
Other.....	16			11	3	20
Apparatus:						
Number.....	39	8	30	277	7	
Length, yards.....	7, 501					
Square yards.....		533				

CATCH: BY GEAR

Species	Haul seines		Gill nets		Pound nets		Fyke nets		Spears		Total	
	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value	Lb.	Value
Bowfin.....	2, 600	\$78					350	\$10			2, 950	\$88
Buffalofish.....	5, 350	214	3, 000	\$120	8, 000	\$320	6, 900	276	300	\$12	23, 550	942
Carp.....	293, 300	8, 799	10, 000	300	26, 000	780	117, 300	3, 519	5, 300	159	451, 900	13, 557
Catfish and bullheads.....	3, 800	373			13, 000	1, 300	11, 500	1, 132			28, 300	2, 805
Sheepshead.....	10, 600	394	2, 000	80	10, 000	400	4, 400	176	700	28	27, 700	1, 078
Sucker "mullet".....	80, 000	1, 600	1, 000	20	10, 000	200	2, 750	55			93, 750	1, 875
Turtles.....	2, 350	47									2, 350	47
Total.....	398, 000	11, 505	16, 000	520	67, 000	3, 000	143, 200	5, 168	6, 300	199	630, 500	20, 392

Fisheries of the Mississippi River between Lake Pepin and Lake Keokuk, 1932—
Continued

CATCH: BY GEAR

Species	Haul seines		Gill nets		Lines		Dip nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin.....	166,900	\$4,974						
Buffalo fish.....	329,300	13,178	3,000	\$120			15,500	\$620
Carp.....	1,316,200	39,128	1,000	30	30,200	\$908	17,000	510
Catfish and bullheads.....	33,400	3,340	500	50	32,700	3,090	500	50
Gizzard shad.....	1,800	36						
Mooneye.....	3,500	90						
Paddlefish or spoonbill cat.....	3,600	390					1,700	170
Pike or pickerel.....	11,600	1,120						
Sheepshead.....	376,900	15,085	3,000	120	17,250	679	24,000	960
Sturgeon, shovelnose.....	20,750	2,075			4,400	440	7,200	720
Sucker "mullet".....	140,600	2,812	700	14			5,000	100
Turtles:								
Snapper.....	12,350	271						
Soft-shell.....	2,600	52						
Total.....	2,419,500	82,547	8,200	334	84,550	5,115	70,900	3,130

Species	Fyke nets		Pound nets		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin.....	500	\$10	7,000	\$210	174,400	\$5,194
Buffalo fish.....	784,450	31,289	17,500	700	1,149,750	45,885
Carp.....	942,500	28,255	66,000	1,980	2,372,900	70,807
Catfish and bullheads.....	577,950	57,555	1,700	170	646,750	64,255
Eels.....	1,000	80			1,000	80
Gizzard shad.....					1,800	36
Mooneye.....					3,500	90
Paddlefish or spoonbill cat.....					5,300	560
Pike or pickerel.....			500	50	12,100	1,170
Sheepshead.....	298,800	11,702	11,000	440	730,950	28,986
Sturgeon, shovelnose.....	8,025	802	750	75	41,125	4,112
Sucker "mullet".....	46,400	928	7,000	140	199,700	3,994
Turtles:						
Snapper.....	700	14			13,050	285
Soft-shell.....					2,600	52
Total.....	2,660,325	130,615	111,450	3,765	5,354,925	225,506

OPERATING UNITS: BY STATES

Item	Illinois	Iowa	Minnesota	Wisconsin	Total
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Regular.....	39	113	12	65	229
Casual.....	159	215	53	136	563
Total.....	198	328	65	201	792
Boats:					
Motor.....	74	144	31	87	336
Other.....	108	153	43	92	396
Apparatus:					
Haul seines.....	42	83	21	63	209
Length, yards.....	6,998	18,168	4,667	13,834	43,667
Gill nets.....				1	1
Square yards.....				250	250
Lines.....	49	57	34	27	167
Hooks.....	6,400	8,900	3,400	575	19,275
Dip nets.....		40			40
Fyke nets.....	1,470	3,178	485	1,840	6,973
Pound nets.....		31			31

Fisheries of the Mississippi River between Lake Pepin and Lake Keokuk, 1932—
Continued

CATCH: BY STATES

Species	Illinois		Iowa		Minnesota	
	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin	700	\$14	78,450	\$2,328	4,250	\$127
Buffalo fish	183,100	7,324	519,300	20,747	52,700	2,108
Carp	456,500	13,695	913,700	27,391	216,800	6,144
Catfish and bullheads	148,700	14,870	339,300	33,750	38,100	3,570
Eels			1,000	80		
Gizzard shad						
Mooneye			3,500	90		
Paddlefish or spoonbill cat	500	50	4,300	460		
Pike or pickerel			12,100	1,170		
Sheepshead	139,500	5,580	247,200	9,636	67,050	2,682
Sturgeon, shovelnose	2,400	240	36,225	3,622	1,100	110
Sucker "mullet"	7,000	140	51,700	1,034	47,600	952
Turtles:						
Snapper	500	10	7,400	172	1,300	26
Soft-shell			350	7		
Total	938,900	41,923	2,214,525	100,487	428,900	15,719

Species	Wisconsin		Total	
	Pounds	Value	Pounds	Value
Bowfin	91,000	\$2,725	174,400	\$5,194
Buffalo fish	394,650	15,706	1,149,750	45,885
Carp	785,900	23,577	2,372,900	70,807
Catfish and bullheads	120,650	12,065	646,750	64,255
Eels			1,000	80
Gizzard shad	1,800	36	1,800	36
Mooneye			3,500	90
Paddlefish or spoonbill cat	500	50	5,300	560
Pike or pickerel			12,100	1,170
Sheepshead	277,200	11,088	730,950	28,986
Sturgeon, shovelnose	1,400	140	41,125	4,112
Sucker "mullet"	93,400	1,868	199,700	3,994
Turtles:				
Snapper	3,850	77	13,050	285
Soft-shell	2,250	45	2,600	52
Total	1,772,600	67,377	5,354,925	225,506

FISHERIES OF ALASKA¹²

The catch of fishery products in Alaska during 1932 amounted to 598,855,651 pounds, valued at \$6,971,324 which is an increase of less than one-half of one percent in volume but a decrease of 31 percent in value as compared with the previous year. Of the total catch in 1932, 452,536,052 pounds, valued at \$5,765,501, consisted of salmon; 143,406,896 pounds, valued at \$1,048,045, other fish; and 2,912,703 pounds, valued at \$157,778, shellfish. In addition 270 whales were taken. These fisheries gave employment to 8,059 fishermen, 1,261 persons on transporting vessels, and 10,802 persons in the wholesale and manufacturing industries—a total of 20,122 persons which is a decrease of 11 percent as compared with the number employed during 1931.

¹² Statistics for the fisheries of Alaska are collected and compiled by the Alaska Division of this Bureau. A summary of these statistics appears in this section. For detailed figures the reader is referred to "Alaska Fisheries and Fur-Seal Industries in 1932" by Ward T. Bower, App. I to the Report of Commissioner of Fisheries for the fiscal year 1933.

Fisheries of Alaska, 1932

SUMMARY: BY DISTRICTS

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Number	Value	Number	Value	Number	Value	Number	Value
PERSONS ENGAGED								
In fishing.....	3,097		2,210		2,752		8,059	
In transporting.....	408		478		375		1,261	
In wholesale and manufacturing industries.....	4,010		3,037		3,755		10,802	
Total.....	7,515		5,725		6,882		20,122	
CRAFT EMPLOYED								
Vessels fishing.....	300		48		8		446	
Boats fishing.....	1,558		1,267		1,313		4,138	
Vessels transporting.....	98		120		77		295	
Scows, houseboats, pile drivers, etc.....	206		232		161		599	
Total.....	2,252		1,667		1,559		5,478	
FISH: CATCH								
Fish:	<i>Pounds</i>		<i>Pounds</i>		<i>Pounds</i>		<i>Pounds</i>	
Salmon.....	174,728,919	\$2,041,040	132,993,478	\$1,728,252	144,813,655	\$1,996,209	452,536,052	\$5,765,501
Other.....	105,180,340	854,196	34,470,645	174,984	3,755,911	18,865	143,406,896	1,048,045
Shellfish.....	774,135	38,894	2,138,568	118,884			2,912,703	157,778
Total.....	280,683,394	2,934,130	169,602,691	2,022,120	148,569,566	2,015,074	598,855,651	6,971,324
Whales.....	<i>Number</i>		<i>Number</i>		<i>Number</i>		<i>Number</i>	
			270				270	
WHOLESALE AND MANUFACTURING								
Establishments.....	77		80		44		201	
PRODUCTS AS PREPARED FOR MARKET								
Salmon.....	118,282,518	8,004,080	78,606,428	6,777,459	70,987,135	7,828,272	267,876,081	22,609,811
Herring.....	38,906,732	563,600	16,615,555	499,297	2,338,620	110,261	57,840,907	1,173,158
Halibut.....	13,530,363	491,647	21,933	1,605			13,552,296	493,052
Cod.....			114,213	3,552	83,050	2,031	197,263	5,683
Trout.....	2,664	178	9,682	764			12,346	942
Sablefish.....	86,719	2,378					86,719	2,378
Smelt.....			5,100	357			5,100	357
Rockfish.....	2,762	48					2,762	48
Clam.....	240	130	878,388	447,238			878,628	447,368
Shrimp.....	299,586	113,851	2,200	285			301,786	114,136
Crab.....	124,198	32,197	194,721	58,757			318,919	90,364
Whale.....			7,664,143	91,133			7,664,143	91,133
Total.....	171,235,782	9,208,009	104,112,363	7,880,347	73,408,805	7,940,564	348,756,950	26,028,920

OPERATING UNITS: BY DISTRICTS

Item	Southeast Alaska	Central Alaska	Western Alaska	Total	Item	Southeast Alaska	Central Alaska	Western Alaska	Total
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	Apparatus—continued	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Fishermen.....	3,097	2,210	2,752	8,059	Gill nets.....	158	1,499	1,994	3,651
Vessels fishing:					Yards.....	24,250	126,210	250,492	400,952
Steam.....		4		4	Beam trawls.....	11	1		12
Net tonnage.....		276		276	Wheels.....			283	283
Motor.....	390	44	8	442	Lines:				
Net tonnage.....	5,129	765	194	6,088	Hand lines (cod fishery).....		27	22	49
Boats fishing:					Trawl lines (cod fishery).....		5	1	6
Motor.....	702	336	45	1,083	Troll lines (salmon fishery).....	3,047			3,047
Other.....	856	931	1,268	3,055	Skates of lines (halibut fishery).....	2,318			2,318
Apparatus:					Crab pots.....	500	400		900
Traps.....	193	149	1	343	Crab nets.....		50		50
Purse seines.....	223	66	3	292	Herring pounds.....	3	17		20
Yards.....	78,974	15,234	1,350	95,558	Pound seines.....	15	11		26
Haul seines.....	4	85	1	90					
Yards.....	800	20,990	200	21,990					

CATCH: BY DISTRICTS

[Estimated round weight and value to fishermen]

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
FISH								
Salmon:								
Blueback, red or sockeye.....	11,564,455	\$203,113	57,606,360	\$938,386	119,123,123	\$1,872,431	188,293,938	\$3,013,930
Chinook or king.....	11,283,210	181,218	2,557,700	50,403	2,551,800	21,988	16,392,710	253,609
Chum or keta.....	50,343,606	413,380	13,592,286	104,272	22,238,820	92,964	86,174,712	610,616
Humpback or pink.....	90,422,400	1,114,073	53,658,244	572,677	861,888	8,338	144,942,532	1,695,088
Silver or coho.....	11,115,248	129,256	5,578,888	62,514	38,024	488	16,732,160	192,258
Herring.....	90,011,137	360,045	34,076,470	170,382	3,490,478	17,453	127,578,085	547,880
Halibut.....	15,033,737	491,547	24,370	1,505			15,058,107	493,052
Cod.....			350,053	1,976	265,433	1,412	615,486	3,888
Trout:								
Dolly Varden.....	1,027	54	12,102	764			13,129	818
Steelhead.....	2,662	124					2,662	124
Sablefish.....	127,528	2,378					127,528	2,378
Smelt.....			7,650	357			7,650	357
Rockfishes.....	4,249	48					4,249	48
Total.....	279,909,259	2,895,236	167,464,123	1,903,236	148,569,566	2,015,074	595,942,948	6,813,546

Fisheries of Alaska, 1932—Continued

CATCH: BY DISTRICTS—Continued

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
SHELLFISH								
Crabs.....	229,894	\$16,098	379,014	\$29,379			608,908	\$45,477
Shrimp.....	543,761	22,770	3,018	57			546,779	22,827
Clams:								
Butter.....	480	26	1,824	46			2,304	72
Razor.....			1,754,712	89,402			1,754,712	89,402
Total.....	774,135	38,894	2,138,568	118,884			2,912,703	157,778
Grand total.....	280,683,394	2,934,130	169,602,691	2,022,120	148,569,566	\$2,015,074	598,855,651	6,971,324

NOTE.—In addition to the above, 270 whales were taken in Alaskan waters. The round weight and value to the fishermen cannot be determined, but the products amount to 7,664,143 pounds, valued at \$91,133.

Industries related to the fisheries of Alaska, 1932

TRANSPORTING

Item	Southeast Alaska	Central Alaska	Western Alaska	Total	Item	Southeast Alaska	Central Alaska	Western Alaska	Total
	Number	Number	Number	Number		Number	Number	Number	Number
Persons engaged.....	408	478	375	1,261	Vessels transporting—continued				
Vessels transporting:					Motor.....	98	120	64	282
Steam.....			13	13	Net tonnage.....	2,680	5,050	1,989	9,719
Net tonnage.....			21,991	21,991	Scows, houseboats, pile drivers, etc.....	206	232	161	599

WHOLESALE AND MANUFACTURING

Item	Southeast Alaska	Central Alaska	Western Alaska	Total
	Number	Number	Number	Number
Persons engaged.....	4,010	3,037	3,755	10,802
Establishments:				
Handling fresh and frozen fish.....	43	9		52
Curing fish.....	28	32	28	88
Canning fish.....	34	47	24	105
Manufacturing byproducts.....	6	5		11
Total (exclusive of duplication).....	77	80	44	201

PRODUCTS AS PREPARED FOR MARKET

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FRESH								
Salmon (for food)	1,095,913	\$70,574					1,095,913	\$70,574
Salmon (for bait)	108,900	330	7,600	\$38			116,500	368
Herring (for bait)	2,806,210	25,490	993,000	7,956			3,799,210	33,446
Halibut	11,478,568	427,181	13,933	945			11,492,501	428,126
Trout			4,582	458			4,582	458
Sablefish	43,705	1,281					43,705	1,281
Smelt			5,100	357			5,100	357
Rockfishes	762	18					762	18
Crabs:								
Meat	37,968	10,450	28,485	6,294			66,453	16,744
Whole in shell	18,550	579	10,380	519			28,930	1,098
Clams, whole in shell			240	50			240	50
Shrimp:								
Meat	298,436	113,678	1,000	225			299,436	113,903
Whole in shell	1,150	173	1,200	60			2,350	233
Total	15,890,162	649,754	1,065,520	16,902			16,955,682	666,656
FROZEN								
Salmon (for food)	6,116,921	226,204					6,116,921	226,204
Salmon (for bait)	50,000	200					50,000	200
Herring (for bait)	2,687,605	14,496					2,687,605	14,496
Halibut	2,051,795	64,366	8,000	560			2,059,795	64,926
Trout	1,416	61	5,100	306			6,516	367
Sablefish	12,240	192					12,240	192
Rockfishes	2,000	30					2,000	30XX
Total	10,921,977	305,549	13,100	866			10,935,077	306,415
CURED								
Salmon:								
Mild-cured	4,241,600	446,035	17,600	660	175,200	\$14,809	4,434,400	461,504
Pickled	16,200	940	117,275	7,909	171,935	11,780	305,410	20,629
Dried and smoked				85	2,390,000	96,258	2,390,770	96,343
Herring:								
Pickled (for food) Scotch cure	2,680,825	127,698	8,342,150	400,532	1,770,250	90,650	12,793,225	618,880
Roused					422,900	14,520	422,900	14,520
Spiced	1,200	200					1,200	200
Dry-salted					145,470	5,091	145,470	5,091
Cod:								
Dry-salted			74,345	1,746	72,000	1,725	146,345	3,471
Stockfish			17,100	1,087	2,500	56	19,600	1,143
Pickled			22,468	674	8,550	250	31,018	924
Tongues			300	45			300	45
Sablefish, pickled	30,774	905					30,774	905
Total	6,970,599	575,778	8,592,008	412,738	5,158,805	235,139	20,721,412	1,223,655

Industries related to the fisheries of Alaska, 1932—Continued

PRODUCTS AS PREPARED FOR MARKET—Continued

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
CANNED								
Salmon:								
Blueback, red or sockeye.....	6,669,216	\$795,250	31,687,728	\$3,670,428	62,590,944	\$7,334,191	100,947,888	\$11,799,869
Chinook or king.....	1,133,952	13,907	1,550,496	196,736	652,800	68,665	3,337,248	379,308
Chum or keta.....	27,813,261	1,612,295	7,075,680	408,523	4,497,744	267,629	39,386,688	2,288,447
Humpback or pink.....	66,192,288	4,363,653	34,754,448	2,240,681	484,224	32,628	101,430,960	6,636,962
Silver or coho.....	4,177,824	365,144	2,912,352	244,189	22,224	1,882	7,112,400	611,215
Trout.....	1,248	117					1,248	117
Miscellaneous fish.....	1,440	288	1,536	640	2,064	430	5,040	1,358
Clams.....	240	130	878,148	447,188			878,388	447,318
Crabs.....	67,680	21,168	155,856	51,944			223,636	73,112
Total.....	106,057,152	7,271,952	79,016,244	7,260,329	68,250,000	7,705,425	253,323,396	22,237,706
BYPRODUCTS								
Fertilizer:								
Salmon.....	500,000	7,500	347,285	3,560			847,285	11,060
Whale.....			2,090,000	13,870			2,090,000	13,870
Meal, herring.....	15,298,179	183,898	3,920,300	46,008			19,218,479	229,906
Oil:								
Salmon.....	165,000	1,760	133,658	4,010			298,658	5,770
Herring.....	15,432,713	211,818	3,360,105	44,801			18,792,818	256,619
Whale.....			5,520,083	76,379			5,520,083	76,379
Sperm.....			54,000	884			54,000	884
Total.....	31,395,892	404,976	15,425,491	189,512			46,821,383	594,488
Grand total.....	171,235,782	9,208,009	104,112,363	7,880,347	73,408,805	7,940,564	348,756,950	25,028,920

NOTE.—Halibut products include all taken by the Alaska fleet, some of which were landed at other than Alaska ports. The total landings in Alaska in 1932 amounted to 4,562,988 pounds, valued at \$134,652, as compared with 9,626,118 pounds, valued at \$608,480, in 1931.

Supplementary table showing the pack of canned products in "standard cases" 1

80255-31-15

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
Salmon:								
Blueback, red or sockeye	138,942	\$795,250	660,161	\$3,670,428	1,303,978	\$7,334,191	2,103,081	\$11,799,869
Chinook or king	23,624	113,907	32,302	196,736	13,600	68,665	69,526	379,308
Chum or keta	579,443	1,612,295	147,410	408,523	93,703	267,629	820,556	2,288,447
Humpback or pink	1,379,006	4,363,653	724,051	2,240,681	10,088	32,628	2,113,145	6,636,962
Silver or coho	87,038	365,144	60,674	244,189	463	1,882	148,175	611,215
Trout	26	117					26	117
Miscellaneous fish	30	288	32	640	43	430	105	1,358
Clams	16	130	58,543	447,188			58,559	447,318
Crabs	1,410	21,168	3,247	51,944			4,657	73,112
Total	2,209,535	7,271,952	1,686,420	7,260,329	1,421,875	7,705,425	5,317,830	22,237,706

1 The pack of salmon, trout, miscellaneous fish, and crabs has been converted to "standard cases" of 48 1-pound cans, and clams to "standard cases" of 48 No. 1 5-ounce cans.

Supplementary table showing the output of byproducts in tons and gallons

Item	Southeast Alaska		Central Alaska		Total		
	Quantity	Value	Quantity	Value	Quantity	Value	
Fertilizer:							
Salmon	250 tons	\$7,500	174	\$3,560	424	\$11,060	
Whale	do		1,045	13,870	1,045	13,870	
Meal, herring	do	7,649	183,898	1,960	46,008	9,609	229,906
Oil:							
Salmon	gallons	22,000	1,760	17,821	4,010	39,821	5,770
Herring	do	2,057,695	211,818	448,014	44,801	2,505,709	256,619
Whale	do			736,011	76,379	736,011	76,379
Sperm	do			7,208	884	7,208	884
Total			404,976		189,512		594,488

COMMON AND SCIENTIFIC NAMES OF FISHERY PRODUCTS

In order to prevent misunderstanding from the use of common names employed in the tables and discussions, the following list of common and scientific names is given:

Common and scientific names of the commercial fishery products caught in the United States and Alaska

Common name as shown in Bureau reports	Other common names	Scientific names
Albacore	{ Longfin tuna False albacore	<i>Germo alalunga</i> (Pacific coast). <i>Euthynnus alleteratus</i> (Atlantic coast).
Alewives	{ Branch herring, wall-eyed or big-eyed herring. Blueback, glut herring	<i>Pomolobus pseudoharengus</i> .
Amberjack		<i>Pomolobus æstivalis</i> . <i>Seriola</i> species.
Anchovies		{ <i>Engraulis mordax</i> . <i>Anchoviella delicatissima</i> . <i>Anchoviella compressa</i> .
Angelfish		<i>Pomacanthus arcuatus</i> . <i>Angelichtys isabelita</i> .
Barracuda		{ <i>Sphyræna argentea</i> (Pacific coast). <i>Sphyræna barracuda</i> (Atlantic coast).
Black bass	{ Smallmouth bass Largemouth bass	<i>Micropterus dolomieu</i> . <i>Micropterus salmoides</i> .
Bluefish	Tailor	<i>Pomatomus saltatrix</i> .
Blue pike	Pike perch, blue pickerel (Canada).	<i>Stizostedion glaucum</i> .
Blue runner or hard-tail.	Runner	<i>Caranx crysos</i> .
Bonito		{ <i>Sarda sarda</i> . <i>Sarda chiliensis</i> .
Bowfin		<i>Amia calva</i> .
Buffalofish		<i>Ictiobus</i> species.
Bullhead		<i>Ameiurus</i> species.
Butterfish	Dollarfish	<i>Poronotus triacanthus</i> .
Burbot	Lawyer, ling	<i>Lota maculosa</i> .
Cabio	Coalfish, crab eater, cobia.	<i>Rachycentron canadus</i> .
Cabrilla	Rock bass	<i>Paralabrax</i> species.
Carp (German)		<i>Cyprinus carpio</i> .
Catfish		<i>Siluridæ</i> species.
Cero		<i>Scomberomorus regalis</i> .
Chubs	Tullibee in Canada; long-jaws, bluefin, blackfin in United States.	All <i>Leucichthys</i> except <i>artedi</i> (in Great Lakes).
Cigarfish	Scad	<i>Decapterus</i> species.
Cisco	Herring in Canada	<i>Leucichthys artedi</i> (Lake Erie only).
Cod	Codfish	{ <i>Gadus macrocephalus</i> (Pacific coast). <i>Gadus callarias</i> (Atlantic coast).
Corbina	Orange mouth corbina	<i>Cynoscion zanthulum</i> .
Cowfish	Trunkfish, chapin	<i>Ostracion</i> species.
Crappie	{ White crappie Black crappie, strawberry bass, calico bass.	<i>Pomoxis annularis</i> . <i>Pomoxis sparoides</i> .

Common and scientific names of the commercial fishery products caught in the United States and Alaska—Continued

Common name as shown in Bureau reports	Other common names	Scientific names
Crevalle		<i>Caranx hippos.</i>
Croaker	Crocus, hardhead	<i>Micropogon undulatus.</i>
Cunner	Chogset, blue perch, bergall.	<i>Tautoglabrus adspersus.</i>
Cusk		<i>Brosmius brosme.</i>
Dolly Varden trout	Salmon trout, bull trout	<i>Salvelinus parkei.</i>
Dolphin		<i>Coryphaena hippurus.</i>
Drum, black		<i>Pogonias cromis.</i>
Drum, red	Channel bass, redfish, spotted bass.	<i>Sciænopis ocellatus.</i>
Eels		{ <i>Anguilla rostrata.</i> <i>Leptocephalus conger.</i> <i>Gymnothorax mordax.</i> <i>Gymnothorax moringua.</i> <i>Thaleichthys pacificus.</i> Pleuronectidae species.
Eulachon	Candlefish	
Flounders	Dabs, blackbacks, lemon sole, winter flounder, summer flounder.	
Flyingfish		<i>Cysilurus californicus.</i>
Frigate mackerel	"Wahoo"	<i>Auxis thazard.</i>
Garfish	{ Billfish, poundfish (salt-water species).	{ <i>Tylosurus</i> species. <i>Ablennes</i> species.
Gizzard shad	Nanny shad, mud shad	<i>Dorosoma cepedianum.</i>
Goldeye		<i>Hiodon</i> species.
Goldfish	Sand perch	<i>Carassius auratus.</i>
Goosefish		<i>Lophius piscatorius.</i>
Grayfish	{ Dogfish Spiny dog Smooth dog	<i>Squalus sucklii</i> (Pacific coast). <i>Squalus acanthias.</i> <i>Mustelus mustelus.</i>
Groupers	"Sea bass"	{ <i>Epinephelus</i> species. <i>Mycteroperca</i> species.
Grunts	Margatefish, sailors choice (Key West).	<i>Hæmulon</i> species.
Haddock		<i>Melanogrammus æglefinus.</i>
Hagfish	Slimetfish	<i>Myxine glutinosa.</i>
Hake	{ Squirrel hake, Boston hake, ling, black hake, mud hake. Merluccio	<i>Urophycis</i> species (Atlantic coast). <i>Merluccius productus</i> (Pacific coast).
Halibut		<i>Hippoglossus hippoglossus.</i>
Halibut, "California"		<i>Paralichthys californicus.</i>
Hardhead		<i>Orthodon microlepidotus.</i>
Harvestfish	Starfish, pappyfish; butterflyfish (N.C.).	<i>Pepirus alepidotus.</i>
Herring:		
Lake	Herring	<i>Leucichthys artedi</i> (Great Lakes, except Erie).
Sea		{ <i>Clupea harengus</i> (Atlantic coast). <i>Clupea pallasii</i> (Pacific coast).
Herring smelt	Sea smelt	<i>Argentina silus.</i>
Hickory shad	Tailor shad	<i>Pomolobus mediocris.</i>
Hog-choker		<i>Achirus fasciatus.</i>
Hogfish	Capitaine, perro perro	<i>Lachnolaimus maximus</i> (Florida).
Horse mackerel		<i>Trachurus symmetricus</i> (Pacific coast).
Jewfish		<i>Promicrops itaiara.</i>
Kingfish		<i>Scomberomorus cavalla.</i>

Common and scientific names of the commercial fishery products caught in the United States and Alaska—Continued

Common name as shown in Bureau reports	Other common names	Scientific names
Kingfish (California) .. King whiting	Little roncador, croaker .. Northern whiting, king- fish, seamink.	<i>Genyonemus lineatus</i> . Menticirrhus species.
Ladyfish	Bonefish, bananafish	<i>Albula vulpes</i> .
Lake trout		<i>Cristivomer namaycush</i> .
Launce	Sand eel, lant, sand launce.	<i>Ammodytes americanus</i> .
"Lingcod"	Cultus cod, blue cod, buffalo cod, ling.	<i>Ophiodon elongatus</i> .
Mackerel		{ <i>Scomber scombrus</i> (Atlantic coast). <i>Scomber diego</i> (Pacific coast)..
Menhaden	Mossbunker, poggy	<i>Brevoortia tyrannus</i> .
Minnnows		Cyprinidae species.
Mojarro		<i>Eucinostomus</i> species.
Mooneye	Toothed herring	<i>Hiodon</i> species.
Moonfish		{ <i>Vomer setipinnis</i> . <i>Selene vomer</i> .
Mullet	Jumping mullet	Mugil species.
Mummichog	Mayfish, killifish	<i>Fundulus</i> species.
Muttonfish		<i>Lutianus analis</i> .
Paddlefish	Spoonbill cat	<i>Polyodon spathula</i> .
Parrotfish		Scaridae species.
Perch (California)	(See surffishes.)	
Permit	Great pompano	<i>Trachinotus goodei</i> .
Pigfish	Hogfish (N.C.)	<i>Orthopristis chrysopterus</i> .
Pike or pickerel	Great Lakes pike	{ <i>Esox reticulatus</i> . <i>Esox lucius</i> .
Pilchard	Sardine	<i>Sardinia cærulea</i> .
Pilotfish		{ <i>Naucrates ductor</i> . <i>Serirole zonata</i> .
Pinfish	Bream, salt-water bream	<i>Lagodon rhomboides</i> .
Pollock		<i>Pollachius virens</i> .
Pompano		{ <i>Trachinotus</i> species (Atlantic coast). <i>Palometa simillima</i> (Pacific coast).
Porgies	Porgee	<i>Calamus</i> species.
Porkfish	Sisi	<i>Anisotremus virginicus</i> .
Quillback	Spearfish or skimfish	<i>Carpiodes</i> species.
Roach	Shiner	<i>Notemigonus crysoleucas</i> .
Rock bass	Redeye, goggle-eye	<i>Ambloplites rupestris</i> (Missis- sippi River and tributaries).
Rockfishes	Rock cod	<i>Sebastes</i> species (Pacific coast).
Rosefish		<i>Sebastes marinus</i> .
Rudderfish	{ Blue bass, Green Fish	<i>Girella nigricans</i> .
Sablefish	{ Halfmoon	<i>Medialuna californiensis</i> .
Salmon:	Black cod	<i>Anaplopoma fimbria</i> .
Atlantic		<i>Salmo salar</i> (Atlantic coast)..
Pacific—		
Blueback, red or sockeye		<i>Oncorhynchus nerka</i> .
Chinook or king	Tyee, Columbia, Sacra- mento, spring.	<i>Oncorhynchus tshawytscha</i> .
Chum or keta	Dog salmon	<i>Oncorhynchus keta</i> .
Humpback or pink		<i>Oncorhynchus gorbuscha</i> .
Silver or coho		<i>Oncorhynchus kisutch</i> .
Steelhead		(See steelhead trout.)

Common and scientific names of the commercial fishery products caught in the United States and Alaska—Continued

Common name as shown in Bureau reports	Other common names	Scientific names
Sauger pike	Sand pike	<i>Stizostedion canadense</i> .
Sawfish		<i>Pristis pectinatus</i> .
Scamp		<i>Mycteroperca phenax</i> .
Sculpin		Cottidae species.
Scup	Paugy or porgy, fair maid.	<i>Stenotomus</i> species.
Sea bass	{ Black jewfish or black sea bass.	<i>Stereolepis gigas</i> (Pacific coast.)
	{ Black sea bass	<i>Centropristes striatus</i> (Atlantic coast).
Sea bass, white (California).		<i>Cynoscion nobilis</i> (Pacific coast).
Sea gar	Needlefish, billfish, houndfish.	<i>Tylosurus</i> species.
Sea robin		<i>Prionotus</i> species.
Shad	American shad	<i>Alosa sapidissima</i> .
Sharks		<i>Carcharodon</i> species; <i>Mustelus</i> species; <i>Carcharhinus</i> species; <i>Sphyrna</i> species.
Sheepshead (salt-water).		<i>Archosargus probatocephalus</i> .
Sheepshead (fresh-water).	Drum, fresh-water	<i>Aplodinotus grunniens</i> .
Sheepshead (Pacific coast).	Redfish, flat head	<i>Pimelometopon pulcher</i> .
Silversides	Spearing	<i>Menidia</i> species.
Silver perch	Sand perch	<i>Bairdiella chrysura</i> .
Skates		<i>Raja</i> species.
Skipper	"Billfish"	<i>Scomberesox saurus</i> .
Smelt		{ <i>Osmerus mordax</i> (Atlantic coast).
		{ <i>Argentiniidæ</i> species (Pacific coast).
Snapper, Mangrove	Gray snapper	<i>Lutianus griseus</i> .
Snapper, red		<i>Lutianus blackfordii</i> .
Snook	Robalo, sergeantfish	<i>Centropomus undecimalis</i> .
Sole		<i>Psettichthys melanostictus</i> (Pacific coast).
Spadefish		<i>Chaetodipterus faber</i> .
Spanish mackerel		<i>Scomberomorus maculatus</i> .
Spearfish	{	<i>Tetrapturus imperator</i> .
	{ Marlin	<i>Tetrapturus mitsukurii</i> (Pacific coast).
Splittail		<i>Pogonichthys macrolepidotus</i> .
Spot	Lafayette, goody	<i>Leiostomus xanthurus</i> .
Squawfish	Sacramento pike	<i>Ptychocheilus grandis</i> .
Squeteague (gray)	Gray trout, weakfish, trout.	<i>Cynoscion regalis</i> .
Squeteague (spotted)	Spotted weakfish, spotted trout.	<i>Cynoscion nebulosus</i> .
Squirrelfish		<i>Diplectrum formosum</i> .
Steelhead trout	Salmon trout	<i>Salmo gairdneri</i> .
Stingray		<i>Dasyatis</i> species.
Striped bass	Rockfish, rock	<i>Roccus lineatus</i> .
Sturgeon		<i>Acipenser</i> species.
Sturgeon, shovelnose		<i>Scaphirhynchus platyrhynchus</i> .
Sucker	Fresh-water mullet	<i>Catostomidæ</i> species.
Sunfish		{ <i>Lepomis</i> species.
		{ <i>Centrarchidæ</i> species.
Surf fishes		<i>Embiotocidæ</i> species.

Common and scientific names of the commercial fishery products caught in the United States and Alaska—Continued

Common name as shown in Bureau reports	Other common names	Scientific names
Swellfish	Puffer, swell toad, balloonfish, globefish.	<i>Spheroides maculatus</i> .
Swordfish		<i>Xiphias gladius</i> .
Tang		Hepatus species.
Tarpon	Silver king	<i>Tarpon atlanticus</i> .
Tautog	Blackfish, oystersh	<i>Tautoga onitis</i> .
Tenpounder	Elops	<i>Elops saurus</i> .
Thimble-eyed mackerel.	Bullseye	<i>Scomber colias</i> .
Tilefish		<i>Lopholatilus chamæleonticeps</i> .
Tomcod		{ <i>Microgadus tomcod</i> (Atlantic coast).
		{ <i>Microgadus proximus</i> (Pacific coast).
Tripletail		<i>Lobotes surinamensis</i> .
Tuna and tunalike fishes:		
Albacore	Longfin tuna	<i>Germo alalunga</i> .
Bluefin tuna	{Tuna, leaping tuna, (Pacific coast). "Horse mackerel" (Atlantic coast).	{ <i>Thunnus thynnus</i> .
Bonito		{ <i>Sarda sarda</i> (Atlantic coast). <i>Sarda chiliensis</i> (Pacific coast).
Skipjack	Striped tuna	<i>Euthynnus pelayms</i> .
Yellowfin tuna		<i>Neothunnus macropterus</i> .
Tullibee	(See chubs.)	
Turbot	Greenland halibut, American turbot.	{ <i>Reinhardtius hippoglossoides</i> . <i>Balistes carolinensis</i> .
White bass	White lake bass	<i>Roccus chrysops</i> .
Whitebait		Small fry of any fish.
Whitefish		{ <i>Coregonus clupeiformis</i> (Great Lakes). <i>Caulolatilus princeps</i> (Pacific coast).
Whitefish (Menominee).		<i>Coregonus clupeaformis</i> .
White perch		<i>Morone americana</i> (Atlantic coast).
Whiting	Silver hake	<i>Merluccius bilinearis</i> .
Wolfish		<i>Anarhichas lupus</i> .
Yellow bass		<i>Morone interrupta</i> .
Yellow perch		<i>Perca flavescens</i> .
Yellow pike	Wall-eyed pike, pike perch, dore.	<i>Stizostedion vitreum</i> .
Yellowtail		{ <i>Ocyurus chrysurus</i> (Atlantic coast). <i>Seriola dorsalis</i> (Pacific coast).
Wahoo		<i>Acanthocybium solandri</i> .
Abalone		Halotis species.
Clams:		
Hard	Round clam, cherry-stone, quahog, little neck.	{ <i>Tivela stultorum</i> (Pacific coast). <i>Venus mercenaria</i> (Atlantic coast).
Cockle		{ <i>Venus mortoni</i> (Florida coast). <i>Cardium corbis</i> .
Soft	Sand clam, soft-shelled clam, nannynose, maninose.	<i>Mya arenaria</i> .

Common and scientific names of the commercial fishery products caught in the United States and Alaska—Continued

Common name as shown in Bureau reports	Other common names	Scientific names
Clams—Continued.		
Surf	Skimmer	<i>Mactra solidissima</i> .
Razor (Atlantic)		<i>Siliqua</i> species; Tagelus species.
Razor (Pacific)		<i>Siliqua patula</i> .
Pismo		<i>Tivela stultorum</i> (Pacific coast).
Conchs		{ <i>Strombus</i> species. <i>Busycon</i> species.
Crabs:		
Stone		<i>Menippi mercenaria</i> .
Soft	Soft-shelled crab, blue crab.	<i>Callinectes sapidus</i> .
Hard	{Hard-shell crab, blue crab. Dungeness crab Rock crab, hard crab	Do. <i>Cancer magister</i> (Pacific coast). <i>Cancer irroratus</i> (Atlantic coast).
King	Horseshoe crab	<i>Limulus</i> .
Spider	Toad crab	<i>Hyas coarctatus</i> .
Crawfish	Crayfish	{ <i>Cambarus</i> species (Atlantic coast). <i>Astacus</i> species (Pacific coast).
Lobsters:		
Common		<i>Homarus americanus</i> (Atlantic coast).
Spiny	Rock lobster, crayfish	{ <i>Panulirus interruptus</i> (Pacific coast). <i>Panulirus argus</i> (Atlantic coast).
Mussels:		
Sea		{ <i>Mytilus californianus</i> (Pacific coast). <i>Mytilus edulis</i> . <i>Quadrula</i> species. <i>Lampsilis</i> species. <i>Symphynota</i> species. <i>Unio</i> species.
Freshwater		<i>Octopus punctatus</i> (Pacific coast).
Octopus		
Oysters:		
Eastern		<i>Ostrea elongata</i> .
Western	Olympia	<i>Ostrea lurida</i> (Pacific coast).
Japanese (introduced).		<i>Ostrea gigas</i> .
Periwinkles		<i>Littorina</i> species.
Scallops:		
Sea		<i>Pecten magellanicus</i> .
Bay		{ <i>Pecten irradians</i> (Atlantic coast). <i>Pecten æquisulcatus</i> (Pacific coast). <i>Peneus setiferus</i> . <i>Peneus brasiliensis</i> (Atlantic and Gulf coasts). <i>Pandalus</i> species (Pacific coast). <i>Pandalopsis</i> species (Pacific coast). <i>Crangon</i> species (Pacific coast).
Shrimp		

Common and scientific names of the commercial fishery products caught in the United States and Alaska—Continued

Common name as shown in Bureau reports	Other common names	Scientific names
Snails.....	.....	Gastropoda species.
Squid.....	.....	{ <i>Loligo opalescens</i> (Pacific coast). <i>Loligo pealei</i> (Atlantic coast).
Turtles:		
Green.....	.....	<i>Chelonia mydas</i> .
Loggerhead.....	.....	<i>Thalassochelys caretta</i> .
Hawksbill.....	.....	<i>Chelonia inbricata</i> .
Snapping.....	Mud turtle, mossback.....	<i>Chelydra serpentina</i> .
Terrapin.....	Diamond-back terrapin.....	<i>Malaclemmys</i> species.
Frogs.....	.....	<i>Rana</i> species.
Irish moss.....	.....	<i>Chondrus crispus</i> .
Kelp.....	.....	<i>Macrocystis</i> species; <i>Nereocystis</i> species; <i>Pelagophycus</i> species; <i>Alaria</i> species.
Sponges:		
Glove.....	.....	<i>Spongia graminea</i> (Hyatt) <i>Euspongia officinalis</i> (L.).
Grass.....	.....	<i>Hippospongia equina cerebri-formis</i> .
Sheepswool.....	.....	<i>Hippospongia canaliculata gossypina</i> .
Yellow.....	.....	<i>Hippospongia equina elastica</i> .
Trepang.....	Sea cucumber.....	<i>Cucumaris frondosa</i> ; <i>Thyone briareus</i> .

STATISTICAL SURVEY PROCEDURE

METHODS OF COLLECTION

In order that persons using the statistics in this report may judge as to their completeness and authenticity, there follows an outline of the methods employed by the Bureau in collecting fishery statistics. It will be noted that several methods are used. Each method has been carefully studied to obtain the best results with the available personnel.

General fishery statistics.—In the collection of general fishery statistics, data are usually obtained on the catch of fishery products and its value as landed by the fishermen, the quantity or number of each kind of gear used, the number of fishing boats, the number and net tonnage of fishing and transporting vessels, the number of wholesale establishments, the amount of wages and salaries paid in these establishments, the quantity and value of products prepared, and the number of persons engaged in each phase of the industry.

The scope of the coastal surveys includes the commercial fisheries of the oceans, bays, and coastal rivers as far inland as commercial fishing is important. This usually coincides with the range of commercial fishing for anadromous species. Statistics of the fisheries of the Mississippi River include the fisheries of the Mississippi River proper, as well as all tributaries wherein commercial fishing for either fish, crustaceans, or mollusks is prosecuted. Statistics of the lake fisheries include those prosecuted in the Great Lakes, adjacent bays, and the international lakes of northern Minnesota, as well as certain rivers having outlets into these waters.

Beginning in 1929 general fishery statistics have been collected on an annual basis for all of the marine and lake sections of the United States and Alaska, except that wholesale data were omitted for 1932.

In conducting these surveys it is the custom of the Bureau to dispatch agents to the districts to be surveyed early in the calendar year. (It should be noted that statistics on the catch of oysters for 1930 and subsequent years cover the calendar year. In previous years statistics for this mollusk were for the oyster season.) They obtain statistics on operations during the previous year. The agents conducting these surveys are trained men or recruits working under the close supervision of trained men. Recruits are permitted to work individually only after proving a satisfactory aptitude for the work during their training period. While it is impossible for the few agents available to interview each fisherman in a given locality, the more important ones are visited and a sufficient number of those of lesser importance are interviewed to obtain reliable information on their production. In practice, virtually all wholesale firms are visited, as well as captains of fishing vessels (those of 5 net tons or over) and also all the more important shore fishermen and representative small producers.

As an aid in locating fishermen, lists of vessels and motor-boat owners are obtained from local customhouses. It is also often possible to obtain the names of licensed commercial fishermen and occasionally some statistics of the catch from the various State fishery agencies. In the Great Lakes and Pacific Coast States such exceptional cooperation has been obtained from the State agencies in recent years that only fragmentary surveys are made by the Bureau to supplement missing data. Virginia and Maryland have recently adopted very complete statistical systems.

For the Great Lakes and international lakes of northern Minnesota the Bureau obtains most of the catch statistics and usually the value of the catch direct from the State records. To obtain data on the fishermen, boats, vessels, and gear the Bureau conducts such personal surveys among the fishermen as may be necessary to supplement the State records. Annual catch statistics are available since 1913.

Agents are stationed at Seattle, Wash., and Terminal Island, Calif., who survey each of the Pacific Coast States annually to supplement data that are missing from the State records. In most cases the value of the catch is derived from dealers' records and from estimates of prices. In Washington and Oregon the offshore fisheries are surveyed separately for units of operation, catch, and value of the catch. In almost all other respects the statistics are as collected by the States. Statistics of the wholesale industry for this section are obtained largely by personal interview.

The fisheries of Alaska are conducted primarily by large operators and sworn statements are required from these operators concerning their operations. These are collected and compiled by the Alaska Division of this Bureau.

Statistics on the catch of fish collected in the above general canvasses are shown in this report on the basis of round weight, that is, the weight of the fish as caught, except in the Pacific Coast States, where "as landed" weights are shown. In general in the Pacific Coast States halibut is landed heads on but eviscerated; swordfish may be

landed headless and eviscerated; some salmon, especially that caught by troll lines, may be eviscerated; "lingcod", rockfishes, and sablefish may be landed eviscerated. The weight of cod caught off Alaska and shown in the Pacific coast tables has been converted to the basis of round weight.

Bulletins containing statistics for each section are released following the survey.

Landings at certain important United States ports.—Statistics of the landings at the principal New England ports (Boston and Gloucester, Mass., and Portland, Maine) are similarly obtained. An agent is permanently stationed at each of these ports. His duties include the obtaining of data on the quantity of fish landed each day by each fishing vessel, the value of such fish landed, information concerning the date of departure and arrival of the vessel, and he also indicates the grounds from which the fish were taken and the gear used in their capture. These data are forwarded to the Bureau, where compilations are made. Monthly statistical bulletins are issued for these landings as well as annual bulletins summarizing the year's activities.

Statistics of the landings of fish at Seattle, Wash., are collected by the Bureau's agent in that city. Landings are classified as those made by American fishing vessels and those received by Seattle wholesale dealers. The landings credited to United States fishing vessels are made by vessels operating distinctly as primary fishing units, usually in the offshore fisheries, while those credited as received by wholesale dealers are usually products of the shore fisheries collected mainly from points in Puget Sound and do not include fish received from Alaska or Canada, or landings made by the halibut fleet. Monthly statistical bulletins are issued for these landings as well as annual bulletins summarizing the year's activities.

Statistics on the landings of fish at New York City are obtained from J. H. Matthews, executive secretary of the Middle Atlantic Fisheries Association, while those for Groton, Conn., are obtained by the Bureau's agents. Statements of these landings are forwarded to the Bureau, where they are compiled. These statistics have not included the value of the catch. Monthly bulletins including these data are not issued; however, a summary is published in this document.

Statistics of the fishery products handled at the municipal wharf, Washington, D.C., are reported to the Bureau by agents of the city health department. They are not published in bulletin form, but a summary of the year's activities is published in the annual report of this Division.

Atlantic mackerel fishery.—Statistics on the catch by the Atlantic mackerel fleet are obtained by combining the figures of mackerel landed at Boston and Gloucester, Mass., and Portland, Maine, with those obtained by agents who in recent years have been stationed at other Atlantic ports where mackerel are landed. These agents obtain data on the fares of mackerel landed, similar to the data obtained on the landings by fishing vessels at the three New England ports. The figures include only the catches made by purse seine and drift gill net craft and are not complete for these gears for craft under 5 net tons capacity. Statistics of this fishery appear only in the annual reports of this Division, although the landings at the principal New England ports appear in the monthly and annual bulletins published for those ports.

Shad and alewife fisheries.—Owing to the importance of the Hudson and Potomac Rivers in the production of shad, surveys for statistics of the catch, value of the catch, and operating units are made annually. On the Potomac River similar statistics also are obtained for the alewife fishery. The surveys are conducted by agents in a manner similar to that employed in the collection of general fishery statistics, except that probably more fishermen are interviewed, as great care is exercised to make these canvasses as accurate as possible.

The State of New York obtains statistics for the fisheries of the Hudson River that closely parallel those desired by the Bureau for this fishery, which alleviates the work on this river.

Statistics of the shad and alewife fisheries are not published separately in bulletin form, but a summary of the year's activities is published in the annual report of this Division.

Sponge market, Tarpon Springs.—A large proportion of the total output of sponges in Florida is handled through the sponge exchange at Tarpon Springs. In view of this, the Bureau has obtained from a representative of the exchange annual statistics of the quantity and value of the sponges, by variety classification, handled through it annually. Statistics of the quantity of sponges handled through the exchange are not published in bulletin form, but a summary of the year's activities is published in the annual reports of this division.

Pacific halibut fishery.—Statistics of the Pacific halibut fishery are obtained by the Bureau's agent in Seattle, aided by Bureau representatives in Alaska, and the International Fisheries Commission. The fleet classification has been arbitrarily applied by including in the "Washington fleet" all United States and Alaska vessels that land more than half of their catch in that State. All other United States and Alaska vessels of the halibut fleet are included in the "Alaska fleet." Monthly and annual statistical bulletins are available on this fishery, being published along with the statistics of the landings of fishery products at Seattle, Wash.

Canned fishery products and by-products.—Beginning in 1921, the Bureau has made annual surveys for statistics of the canned fishery products and by-products industries. These are begun the first week in January of each year for statistics of the production in the preceding year. The surveys usually occupy 6 to 9 weeks' time. During this period agents visit each plant in the United States where there is a production of canned fishery products or by-products. They obtain statistics of the production and value of the production for each commodity. In some instances, where plants are not easily reached by regular transportation facilities, returns are obtained by mail.

The value shown for canned products constitutes the gross amount received by the packer at the production point, no deductions being made for commission or expenses.

Statistics of the canned fishery products and by-products produced in Alaska are received on the same sworn statements that include statistics of the general fisheries. An annual statistical bulletin is issued on this trade.

Manufactured fishery products.—Statistics were obtained for 1930 for the first time on the total production of the many fishery products manufactured in the marine and lakes sections of the United States. In 1931 these statistics were expanded to include the Mississippi River and tributaries, but because of curtailed appropriations none of

this material was obtained for 1932, except that made available through the canned fishery products and by-products, and packaged fish products surveys.

Packaged-fish trade.—Complete statistics of the annual production and value of fish packaged in the United States are obtained as a part of the survey for statistics of the canned fishery products and by-products industries. These statistics are published in bulletin form annually.

Cold-storage holdings of fish.—An arrangement has been made with the Bureau of Agricultural Economics, Department of Agriculture whereby statistics of the cold-storage holdings of the various species of fish, by sections of the United States, are furnished to this Bureau monthly. Included with statistics of the holdings are statements of the quantity of the various species of fish frozen and also the holdings of certain cured fish. Bulletins showing these statistics are issued monthly as well as annually.

Foreign fishery trade.—Statistics on the foreign fishery trade are obtained from compilations made by the Bureau of Foreign and Domestic Commerce. Statistics of all known fishery products imported or exported are assembled in one table and published annually in the report of this Division.

COMPILATION PRACTICES AND TERMS

Certain practices and terms of importance used in the compilation of fishery statistics are explained below.

Days absent.—In computing "days absent" for vessels landing fares at the various ports, the day of departure and the day of arrival are included; thus, a vessel leaving port on the 8th of the month and returning on the 15th of the month will be shown as being absent 8 days.

Operating units.—Operating units as referred to in this document include persons engaged and fishing craft and gear employed.

Vessel.—The term "vessel" refers to a craft having a capacity of 5 net tons or more.

Boat.—The term "boat" refers to a craft having a capacity of less than 5 net tons capacity.

Incidental catch.—The term "incidental catch" refers to the catch of certain species by a type of gear which ordinarily does not take appreciable amounts, if any, of such species.

Percentages.—Percentages are usually shown as whole numbers. Fractions of percents are dropped if less than five tenths, and the percentage is raised to the next higher integer if the fraction is greater than five tenths. If the fraction is exactly five tenths, the integer is raised or lowered to make it an even number.

Converting.—Many of the figures shown in the statistical tables published herewith have been reduced to thousands of pounds or dollars. In making these conversions the largest number from which a group of items is computed is raised or lowered to the nearest thousands place. If the number ends in an even 500, the thousands integer is raised or lowered to make it an even number. The individual items are changed to conform to the total thus obtained.

CONVERSION FACTORS

It is the policy of the Bureau to show the detailed catch figures of all products in pounds for the sake of uniformity and for purposes of comparison. Following such a policy presents very definite problems. In the case of fish there is little difficulty since in very rare instances are such products reported in units of measure other than pounds. For shellfish, however, the units of measure may be bushels, sacks, barrels, or thousands of shellfish, gallons of meat, etc. These many units make standardization difficult, but when coupled with the wide variation in the requirements or definition of some of these units in the various States the problem becomes even more complex.

All bivalve mollusks are reported in pounds of meats in the detailed catch tables presented in this report. In addition there is presented a supplementary table for each section on the production in bushels. These supplementary tables also give the production of certain other shellfish, such as crabs, in number.

Oysters.—Probably the greatest problem in presentation of fishery statistics in uniform units of measure is in the case of oysters. Usually the production of oysters on the Atlantic and Gulf coasts is reported to Bureau agents in bushels and prior to the data obtained for the year 1930 conversion from bushels to pounds of meats was effected on the basis of a uniform yield of 7 pounds of meat to the bushel. There follows a table which gives the results of a study of the measures used for oysters in the various States and of the average yields per bushel. This table presents the factors that have been used in the oyster statistics given in this report.

Measures and yields of oysters, 1932

State	Capacity of State bushel	Variation from United States standard bushel		Market oysters	
				Yield per State bushel	Yield per standard bushel
				Pounds of meat	Pounds of meat
	<i>Cubic inches</i>	<i>Cubic inches</i>	<i>Percent</i>		
Massachusetts.....	2, 150. 4			6. 56	6. 56
Rhode Island.....	2, 150. 4			6. 50	6. 50
Connecticut.....	2, 150. 4			6. 75	6. 75
New York.....	2, 150. 4			7. 00	7. 00
New Jersey.....	2, 257. 3	+106. 9	+5. 0	8. 98	8. 55
Delaware.....	2, 257. 3	+106. 9	+5. 0	6. 15	5. 86
Maryland.....	2, 801. 5	+650. 1	+30. 2	6. 66	5. 11
Virginia.....	3, 003. 4	+853. 0	+39. 7	6. 51	4. 66
North Carolina.....	2, 801. 9	+651. 5	+30. 3	5. 71	4. 38
South Carolina.....	4, 071. 5	+1, 921. 1	+89. 3	4. 76	2. 51
Georgia.....	2, 753. 4	+603. 0	+28. 0	5. 69	4. 45
Florida.....	3, 214. 1	+1, 063. 7	+49. 4	3. 29	2. 20
Alabama.....	2, 826. 2	+675. 8	+31. 4	2. 40	1. 83
Mississippi.....	2, 826. 2	+675. 8	+31. 4	2. 19	1. 67
Louisiana.....	2, 148. 4	-2. 0	-0. 1	4. 14	4. 14
Texas.....	2, 700. 0	+549. 6	+25. 6	5. 05	4. 02

Other mollusks.—The following table shows the conversion factors for various mollusks other than oysters used in this report.

Average yields of certain mollusks in pounds of meats per bushel, 1932

State	Clams, hard		Clams, soft		Clams, surf	Clams, razor	Mus-sels, sea	Peri-winkles	Scal-lops, bay	Scal-lops, sea	Conchs	Cock-les
	Pub-lic	Pri-vate	Pub-lic	Pri-vate								
Maine.....	11	-----	15	-----	-----	-----	10	20	-----	6.75	-----	-----
Massachusetts.....	11	-----	16.09	-----	18	32	10	18	6.75	6.75	-----	18
Rhode Island.....	11	11	15.61	-----	-----	-----	-----	-----	6.75	-----	-----	18
Connecticut.....	10	-----	14	-----	-----	-----	-----	20	-----	6.75	-----	-----
New York.....	8	8	16	16	12	32	10	-----	5	6	18	-----
New Jersey.....	8.89	9.34	20	20	12.5	-----	10	-----	-----	6	-----	-----
Delaware.....	10	-----	-----	-----	-----	-----	13	-----	-----	-----	-----	-----
Maryland.....	8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Virginia.....	8	-----	-----	-----	-----	-----	-----	-----	6	6	-----	-----
North Carolina.....	8	-----	-----	-----	-----	-----	-----	-----	5.5	-----	-----	-----
South Carolina.....	8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Georgia.....	8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Florida.....	8	-----	-----	-----	-----	-----	-----	-----	5.3	-----	-----	-----

Other conversion factors.—The principal other conversion factors that have been used in this report are as follows:

Alewives.....	To convert number of fish to weight in pounds, multiply by 0.4.
Cod, large, salted.....	To convert to fresh-gutted weight, multiply by 1.90.
Cod, market, salted.....	To convert to fresh-gutted weight, multiply by 1.94.
Cod, scrod, salted.....	To convert to fresh-gutted weight, multiply by 1.98.
Crustaceans:	
Crabs, soft (Connecticut, New York, Virginia, and Maryland).	To convert number of crabs to weight in pounds, divide by 4.
Crabs, soft (North Carolina).....	To convert number of crabs to weight in pounds, divide by 3.63.
Crabs, soft (other States).....	To convert number of crabs to weight in pounds, divide by 3.
Crabs, hard (North Carolina).....	To convert number of crabs to weight in pounds, divide by 4.
Crabs, hard (South Carolina and Georgia).	To convert number of crabs to weight in pounds, divide by 2.
Crabs, hard (Florida).....	To convert number of crabs to weight in pounds, divide by 1.64.
Crabs, hard (Alabama and Texas).....	To convert number of crabs to weight in pounds, divide by 1.72.
Crabs, hard (Mississippi).....	To convert number of crabs to weight in pounds, divide by 1.92.
Crabs, hard (Louisiana).....	To convert number of crabs to weight in pounds, divide by 1.86.
Crabs, hard (other States).....	To convert number of crabs to weight in pounds, divide by 3.
Crabs, king.....	To convert number of crabs to weight in pounds, multiply by 3.75.
Crabs, rock.....	To convert number of crabs to weight in pounds, divide by 3.
Crabs, stone.....	To convert number of crabs to weight in pounds, multiply by 1.33.
Cusk, salted.....	To convert to fresh-gutted weight, multiply by 1.90.
Haddock, large, salted.....	To convert to fresh-gutted weight, multiply by 2.06.
Haddock, scrod, salted.....	To convert to fresh-gutted weight, multiply by 2.10.
Hake, large, salted.....	To convert to fresh-gutted weight, multiply by 1.90.

Hake, small, salted.....	To convert to fresh-gutted weight, multiply by 1.98.
Halibut, salted.....	To convert to fresh-gutted weight, multiply by 2.
Herring, salted.....	To convert to round weight, multiply by 1.50.
Mackerel, salted.....	To convert to round weight, multiply by 1.35.
Menhaden.....	To convert number of fish to weight in pounds, multiply by 0.6.
Oil (east coast).....	To convert gallons to pounds, multiply by 7.74.
Oil (west coast).....	To convert gallons to pounds, multiply by 7.5
Pollock, salted.....	To convert to fresh-gutted weight, multiply by 1.90.
Sponges, dried (Florida):	
Large wool.....	To convert number of bunches of sponges to weight in pounds, multiply by 2.5.
Small wool.....	To convert number of bunches of sponges to weight in pounds, multiply by 1.
Glove.....	To convert number of bunches of sponges to weight in pounds, multiply by 1.5.
Grass.....	To convert number of bunches of sponges to weight in pounds, multiply by 2.5.
Wire.....	To convert number of bunches of sponges to weight in pounds, multiply by 1.5.
Yellow.....	To convert number of bunches of sponges to weight in pounds, multiply by 1.5.