

**U. S. DEPARTMENT OF COMMERCE
BUREAU OF FISHERIES**

**FISHERY INDUSTRIES
OF THE UNITED STATES
1936**

By R. H. FIEDLER

ADMINISTRATIVE REPORT No. 27

U. S. DEPARTMENT OF COMMERCE

DANIEL C. ROPER, Secretary

BUREAU OF FISHERIES

FRANK T. BELL, Commissioner

Administrative Report No. 27

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OF THE UNITED STATES**
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APPENDIX I TO REPORT OF COMMISSIONER OF FISHERIES
FOR THE FISCAL YEAR 1937



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ADMINISTRATIVE REPORT SERIES

Since the beginning of the Administrative Report Series, considerable confusion has arisen concerning the system of numbering the separates composing it. Inasmuch as the Reports of the Divisions vary in order from year to year, many have found their designations as "Appendix No. I, II, III, or IV" very confusing. To relieve this, it has been decided to number them as "Administrative Report No. —." Inasmuch as 20 separates had already been printed in this series before starting the numbers, it was deemed advisable to begin the numbering with Administrative Report No. 21. Of course, numbers cannot be printed on those already off the press, but for the information of those who wish to know what the first 20 were, they are numbered for filing purposes as follows:

- No. 1. Report, Commissioner of Fisheries, 1931.
- No. 2. Alaska Fishery and Fur-Seal Industries, 1930.
- No. 3. Fishery Industries of the United States, 1930.
- No. 4. Progress in Biological Inquiries, 1930.
- No. 5. Propagation and Distribution of Food Fishes, 1931.
- No. 6. Report, Commissioner of Fisheries, 1932.
- No. 7. Alaska Fishery and Fur-Seal Industries, 1931.
- No. 8. Fishery Industries of the United States, 1931.
- No. 9. Progress in Biological Inquiries, 1931.
- No. 10. Propagation and Distribution of Food Fishes, 1932.
- No. 11. Alaska Fishery and Fur-Seal Industries, 1932.
- No. 12. Progress in Biological Inquiries, 1932.
- No. 13. Fishery Industries of the United States, 1932.
- No. 14. Propagation and Distribution of Food Fishes, 1933.
- No. 15. Fishery Industries of the United States, 1933.
- No. 16. Alaska Fishery and Fur-Seal Industries, 1933.
- No. 17. Progress in Biological Inquiries, 1933.
- No. 18. Propagation and Distribution of Food Fishes, 1934.
- No. 19. Alaska Fishery and Fur-Seal Industries, 1934.
- No. 20. Fishery Industries of the United States, 1934.

Note that the last Commissioner's Report was for 1932. Since then its place has been taken by a reprint from the Report of the Secretary of Commerce under the title "Bureau of Fisheries." Inasmuch as it is no longer a Bureau publication, it is not numbered; but it will be supplied, if available, to any who request the Report of the Commissioner for any year since 1932.

FISHERY INDUSTRIES OF THE UNITED STATES, 1936¹

By R. H. FIEDLER, *Chief, Division of Fishery Industries*

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¹ Administrative Report No. 27, Appendix I to the Report of the U. S. Commissioner of Fisheries, 1937. Approved for publication, June 21, 1937.

FOREWORD

This report constitutes a summary of the activities of the Division of Fishery Industries as well as an annual review of fishery statistics. As its name indicates, this Division of the Bureau is concerned with the activities and welfare of the commercial fishery and fishery industries, 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 all the detailed statistical information that has become available since the issuance of the previous report,² 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.

Part I. OPERATIONS OF THE DIVISION COOPERATION WITH OTHER FEDERAL AGENCIES

As in 1935, various members of the Division's technological, economic, and statistical staff assisted other Federal agencies where the work and studies of such agencies required information or advice concerning the fishery industries.

During the past year, our technologists engaged in a cooperative investigation with the Bureau of Chemistry and Soils and the Food and Drug Administration of the United States Department of Agriculture for the development of standards for halibut-liver oil essential in the administration of the Federal Food and Drug Act and for other purposes. This cooperative project will be described in detail elsewhere in this report. In addition, various members of our technological staff, both in our Washington, D. C., laboratories and in our field laboratories, cooperated with the scientists of other Federal Government organizations wherever helpful information of mutual interest could be exchanged and whenever cooperative assistance could be extended.

For a few months in the summer of 1936, Dr. Francis P. Griffiths, of our technological staff, conducted some practical studies in the freezing of oysters in the Seattle laboratory of the Bureau of Chemistry and Soils, United States Department of Agriculture.

The National Bureau of Standards also cooperated with our technological staff in the development of net measuring devices for experimental use in the Great Lakes' fisheries.

Our technologists, in the Bureau's Washington laboratories, gave courses in canning fishery products to State Extension Service workers at the request of the State Extension Service, of the United States Department of Agriculture.

Cooperation was had with the Bureau of Foreign and Domestic Commerce in obtaining data on the extent of the cooperative move-

² Fishery Industries of the United States, 1935, by R. H. Fiedler: Appendix II to the Report of the U. S. Commissioner of Fisheries for 1936, pp. 73-348.

ment among fishermen, as well as information on the grading and standardization of fish in many foreign countries.

In the conduct of several phases of economic and technological work the Division had the cooperation of the International Fisheries Commission at Seattle, Wash. This included a study of the variation of the fat content of halibut made by technologists of the Division at the request of the Commission and cooperation of the Commission in the collection of economic and statistical data on the North Pacific halibut fishery.

The Bureau also has cooperated with various Federal agencies in obtaining statistical data on our fisheries. The Bureau had the cooperation of the Bureau of Agricultural Economics, Department of Agriculture, in the collection of statistics on the volume of cold-storage holdings of fish, and of the health authorities in Washington, D. C., in obtaining the volume of fish handled at the Municipal Fish Wharf and Market in this city. In another instance the Bureau obtained figures on the volume of the quarterly production and holdings of fish oils for the Bureau of the Census.

COOPERATION WITH STATE AGENCIES

The Bureau of Fisheries long ago began establishing cooperative relations with the States in fields of mutual interest and endeavor and, in succeeding years, has constantly encouraged, fostered, and expanded this cooperative plan of work. By working closely, whenever possible, with the members of the scientific staffs of various State laboratories and institutions, we have been able to increase the productivity of our relatively small technological staff and have been able to carry out cooperative investigations at considerably less cost. During 1936, the following cooperative investigations were conducted in the State institutions listed:

A member of our technological staff was stationed in the laboratories of the State Medical College, Charleston, S. C., until September 1936, where members of the staff of the State Medical College gave valuable cooperation in chemical, biochemical, and pharmacological studies of the mineral content of fishery products. Dr. Roe E. Remington and Dr. Kenneth M. Lynch participated in these investigations.

At George Washington University, Washington, D. C., Dr. Leland W. Parr, associate professor of bacteriology in the school of medicine, assisted in the supervision of one of our cooperative investigations on the development of disinfectants for sponges.

At Washington State College, Pullman, Wash., our Seattle technological laboratory staff cooperated with Dr. J. S. Carver in carrying on tests with poultry in the feeding of salmon oils and meals.

Dr. Earl Norris, Department of Biochemistry, University of Washington, Seattle, Wash., cooperated with members of our Seattle technological staff in various fishery products investigations. The University of Washington also placed space at the disposal of members of our Seattle technological laboratory for the conduct of certain by-products investigations, until the Bureau could erect a suitable building for this purpose, which is now under construction.

The University of Maryland and the Maryland State Agricultural Experiment Station, College Park, Md., have rendered excellent cooperative services to our technological staff. Free space for the Bureau's laboratories in two of its buildings (discussed elsewhere in this report)

has been provided by the University of Maryland, and both the University and the Maryland State Agricultural Experiment Station are conducting in their various laboratories and departments of animal husbandry cooperative studies of the feeding value of fishery by-products. The members of the staffs of these two institutions engaged in these cooperative investigations are Dr. L. B. Broughton, Dr. W. C. Supplee, L. E. Bopst, and M. H. Berry.

Prof. Samuel B. Schofield, head of the chemistry department, Western Maryland College, Westminster, Md., conducted and assisted in the supervision of a cooperative study of the chemistry of fish protein in the college laboratories with the aid of student assistants.

There was continued in Massachusetts, during the past year, by our fish cookery and home economics worker in cooperation with the Massachusetts State Department of Agriculture, a project covering lectures and practical demonstrations in fish cookery at various schools, women's clubs, and other gatherings. This educational program was conducted by Miss Agnes I. Webster of our staff and R. H. Sullivan, of the State Department of Conservation.

These cooperative investigations in the above mentioned State universities and institutions are described in greater detail elsewhere in this report.

In the conduct of its statistical research work, the Bureau also obtains unusual cooperation from various States. The surveys of the fisheries in the various States bordering on the Great Lakes, in the Pacific Coast States, and in Maryland and Virginia, have been greatly facilitated by special cooperation obtained from the State fishery agencies in these States. With this aid, it is now only necessary for the Bureau to conduct partial surveys in these States to supplement the data available from the fishery agencies.

In addition, in nearly every other State where commercial fishing is prosecuted, some type of cooperation on its statistical work is rendered the Bureau by the State fishery or other agencies. This makes it possible for the Bureau to make statistical surveys of a greater portion of our fishery industries than otherwise would be possible.

EXHIBITS AT EXPOSITIONS

During 1936 the Division, under the direction of the writer, supervised the construction and maintenance of the Bureau's exhibits at the Texas Centennial Central Exposition at Dallas, Tex., and the Great Lakes Exposition at Cleveland, Ohio, and the maintenance and dismantling of the exhibit at the California Pacific International Exposition at San Diego, Calif.

TEXAS CENTENNIAL CENTRAL EXPOSITION

The main feature of the exhibit at the exposition in Dallas consisted of a painted mountain and lake background, incorporating a miniature falls in the distance, over which water ran into a pool stocked with bass, crappie, and other warm-water fishes. The foreground was built up with rocks, trees, bushes, and other vegetation. A mechanically-operated model of an angler fishing in the pool near a miniature electrically-operated campfire gave a realistic appearance to the display. The entire exhibit was lighted to give the effect of sunrise to sunset at regular intervals, and during the dark period there was an illusion of clouds floating through the sky.

Another part of the display consisted of a series of dioramas in "illuvision," depicting the oyster and shrimp fisheries of Texas, panels describing the life history of the oyster and the mussel-shell fishery and manufacturing of pearl buttons from mussel shells, and a series of colored transparencies depicting the various activities of the Bureau's divisions.

The exhibit which was erected in the Federal Building occupied a space of about 420 square feet, with an 11-foot ceiling. The Bureau was allotted \$5,500 for its construction and maintenance. The exhibit was very popular with the visitors, and on some days up to 8,000 people viewed it.

This exhibit will remain on display during 1937 as the exposition is being continued another season.

GREAT LAKES EXPOSITION

The main feature of the exhibit at this exposition in Cleveland consisted of a mechanically-operated diorama in a case (2 feet wide, 7 feet long, 7 feet high), depicting the effect of thermal conditions in Lake Erie on the commercial capture of fish. Enclosed in other cases of approximately the same size as the above were displays showing the many uses to which fishery products are put in the arts and industries, methods for catching Great Lakes' fish, culture of fish, preservation of textile fishing gear, food value of fish, the Alaska fur-seal industry. A framework above the cases mounted a series of colored transparencies of Bureau activities.

The entire exhibit which was erected in the Hall of Progress occupied a space of about 300 square feet, with a 17-foot ceiling. The Bureau was allotted \$2,000 for its construction and maintenance. As with the Dallas exhibit, it was most popular with the visitors. On some days in excess of 5,000 people viewed it.

This exhibit will remain on display in 1937 as the exposition will continue another season.

CALIFORNIA PACIFIC INTERNATIONAL EXPOSITION

At the close (after two seasons) of the California Pacific International Exposition at San Diego, Calif., in the fall of the year, members of the Division dismantled the Bureau's exhibit on display there and shipped the material to storage in Washington, D. C., and elsewhere.

This exhibit, which was erected in the Federal Building, occupied a space of about 225 square feet and the Bureau was allotted \$2,500 for its construction and maintenance. A brief description of the exhibit is given in the report of this Division for the year 1935. We are informed that this display received very favorable comment from visitors, even though it was placed in rather crowded quarters.

ECONOMIC AND MARKETING INVESTIGATIONS

There is a recognized need for economic and marketing studies as aids to the industry in merchandizing its commodity. Such studies have been made by the Division in the past and are being continued now as far as possible with the limited funds available; however, they have not been on a scale commensurate with so important an industry, and one which is in such obvious need of these services.

The need for information along economic and marketing lines long has been realized by the fishery industry. Therefore, it endorsed,

through the Fishery Advisory Committee of the Secretary of Commerce, H. R. 8055, a bill introduced in the Congress by Hon. S. O. Bland of Virginia. The bill, however, which had for its purpose the conduct of fishery economic research and market news and extension services by the Bureau of Fisheries, failed to become law.

FISHERY TRADE IN SAN FRANCISCO BAY AREA

This study conducted by Dr. Barton DeLoach, assistant fishery economist of the Bureau, was made for the purpose of providing market information on the supply of fresh and frozen fishery products in the San Francisco Bay area, marketing channels, nature of the consuming market, and on trade practices and problems.

The survey revealed, among other things, that about 40,000,000 pounds of fresh and frozen fish (round weight) are consumed in the area annually, making a per capita consumption of about 31 pounds or about 20 pounds in the edible portion or dressed weight. If the residents here consumed canned and cured fish at the rate of the average per capita of the United States—about 5 pounds (edible portion)—the total per capita consumption of all kinds of fishery products in the area then would be about 25 pounds. The average per capita in the United States of all kinds of fishery products is about 13.3 pounds.

The consumers' demand for fish by species is principally for fillet of "sole", halibut, salmon, and certain species of rockfishes. About two-thirds of the trade is done in these varieties.

About 90 percent of the fish handled in the area originates along the California coast, much of it being assembled in the branch houses of the various San Francisco wholesale firms located at several of the important fishing ports of the State. Only a very small amount of the fish handled is marketed to out-of-State points.

From time to time quantities of certain fish are frozen and placed in cold storage pending sale when these fish are out of season or to preserve surplus supplies. The survey revealed that the average monthly cold-storage holdings of frozen fish in the Bay area equalled about 20 percent of the average monthly supply of fresh fish entering the market.

As to the location of the wholesale markets, the investigator found them well situated with respect to the landings of fish by vessels and the area to be served.

There is some evidence that as local fishing grounds for certain popular species have become less productive, fishing activities for these fishes have been conducted farther and farther from port. This has tended to increase costs of production. In order to relieve this situation, it was suggested that attention be directed toward finding a market for some of the lesser-known species found nearer the San Francisco Bay area.

The retailing of fish is done by exclusive fish dealers, meat markets, chain stores, and peddlers. Except for the exclusive retail fish dealers there is a tendency for the retailers to handle only a few well-known varieties. This has had a tendency to restrict consumption of fish in the area.

Consumers in the area seem to prefer a white-meated fish with a mild flavor. They also desire to purchase filleted or steaked fish—free from excess bones and other inedible portions. This probably accounts for the large demand for fillet of "sole", halibut, and salmon.

The sale of fish by restaurants is rather large in the downtown areas, but in the outlying districts offerings are somewhat restricted. It has also been found that the use of fish by public institutions in the area is not large.

Considerable quantities of crabs are marketed in the area. Most are produced by a cooperative crab fishermen's organization with headquarters in San Francisco.

MARKETING SHAD ON THE ATLANTIC COAST

At the organization meeting of the Atlantic Coast States Shad Conference in February 1937, at Atlantic City, N. J., it was indicated by various State fishery officials present that the popularity of shad is waning and that this is adversely affecting the income of shad fishermen. In order to determine what steps might be taken to improve the situation, the Conference requested the Bureau to conduct a study of the marketing of shad along the Atlantic Seaboard. In compliance with the request, the Bureau undertook the study, assigning Fred F. Johnson, Assistant Chief of the Division, to the work.

In his report on the study, Mr. Johnson shows that the annual supplies of Atlantic coast shad have consistently decreased for the past 40 years. The most recent data, which are represented by composite statistics for the years 1934 and 1935, show a catch of about 8,200,000 pounds. This is about one-sixth of the catch of 40 years ago. Thus, one of the important problems in connection with this species is that of increasing the supply. To accomplish this, studies to alleviate the effects of stream pollution and obstruction and intensive programs of artificial propagation should be primary objectives of interested agencies.

In addition to stressing the need for augmenting present supplies of this species, the report includes, among other data, information on the natural history and culture of the shad, the wholesale trade, shad products, recipes, and boning methods. It also includes the results of a study conducted among operators of 95 retail stores, operators of 71 public eating houses, and 342 housewife consumers located in several Eastern cities. This latter study was designed to develop a comparison of the current popularity of shad with that of former years; the importance of the consumption of shad through retail stores and public eating houses; the factors adversely affecting the consumption of shad; the purchasing and dietary habits of consumers with respect to fish but with particular reference to shad; and allied considerations.

The study brought out a number of interesting facts which include the following: (1) As the shad season progresses and supplies increase, the price fluctuates downward rapidly from the early season high prices, with some recovery in prices toward the end of the season; (2) the sale of shad is uniformly reported as increasing by public eating houses serving "absolutely boned" shad. Public eating houses serving shad in other forms usually report increases; (3) decreased sales by retail stores more than offset increases in public eating houses; (4) while many retail stores will sell half shad or shad fillets, the practice is seldom advertised and unknown to most housewife consumers; (5) in many cities boned shad are practically unknown, and in all cities the sale is limited; (6) where retail dealers bone shad, the methods are usually so slow that the cost is prohibitive of any considerable sales; (7) shad can be completely and quickly boned with

probably no more loss of flesh than is left by the average person consuming unboned shad; (8) the whole roe shad generally is too large for economical use by small families of two and three persons; and (9) families of two and three persons comprise nearly half of the families of this country.

FROZEN-FISH SITUATION

It is customary for the amount of frozen fish held in cold storage to reach a minimum around April of each year. Thereafter the prosecution of our commercial fisheries becomes more intensive, and much of the surplus of the species of fish which are customarily marketed fresh is frozen and stored for later consumption. From April until November quantities of fish frozen usually exceed withdrawals. In November, fishing operations usually decrease, and the margin of withdrawals over quantities frozen again results in minimum holdings by April.

During 1936 this customary trend was apparent insofar as April being the month of minimum holdings was concerned; also surpluses from fishing operations represented by quantities frozen exceeded withdrawals following April. However, the margins of quantities frozen over withdrawals were much larger than in preceding years, and where holdings normally begin to decrease in December, an increase was shown during this month in 1936.

By February 15, 1937, the total holdings of frozen fish reached about 70 million pounds as compared with 45 million pounds on the same date in the previous year. According to the trade this situation developed because of the mild open winter of 1936-37. This allowed almost continuous fishing operations and also resulted in a slackening of demand for frozen fish. The flood conditions in the Middle West during the winter also had an effect in retarding consumption in an area which normally consumes large quantities of frozen fish at this season of the year.

Realizing that these huge stocks of surplus frozen fish were hindering the normal conduct of the trade, appropriate legislation was introduced at the first session of the Federal Congress, and enacted into law to authorize the Federal Surplus Commodities Corporation to purchase up to 1 million dollars worth of surplus fish over a period of 90 days from the approval of the act, the fish purchased to be distributed to relief clients.

Statistics collected and/or published by the Bureau and statistical analyses prepared by members of the Division on the frozen-fish trade were most valuable to members of the trade and to Congress in showing the condition and trend of the frozen-fish industry. The demand on the Bureau for certain statistical bulletins exhausted the regular supply on hand, and reprints had to be made. This is additional concrete evidence that statistics showing conditions and trends are useful to the fishery industry.

The buying program instituted by the Federal Surplus Commodities Corporation under the terms of the legislation, has resulted in great good to the industry in general. Fishing operations were resumed on a more normal basis and a greater demand has been created for fish in some areas that normally were not large users of this food product.

RETAIL SALE OF FISHERY PRODUCTS

A study was made during the year by Fred F. Johnson, Assistant Chief of the Division, to determine the order of importance of the six species of fish or shellfish leading in the retail sales of about 60 cities of this country. The study was based on replies to questionnaires which were forwarded to retail and wholesale dealers in fishery products, fishery associations, State fishery agencies, Chambers of Commerce, and field representatives of the Bureau of Foreign and Domestic Commerce, and the Bureau of Fisheries. The survey was designed primarily to develop basic information on the varieties of fish and shellfish predominating in retail sales in important centers of population throughout the country, in order that the feasibility of inaugurating a service for the current collection of retail prices of these commodities might be investigated. This study is now under way.

Apart from its value in connection with the development of a system for the collection of retail prices, the study was most interesting in showing the geographical variation in preferences for the several species. In general it was brought out that the most important of the six species predominating in the retail sales of cities close to important producing waters, are usually the species taken in abundance in these waters; but in cities located farther inland the number of sources increases. However, such species as haddock, halibut, salmon, shrimp, and oysters appeared among the six species leading in retail sales in many inland cities as well as in those close to their natural habitats.

NORTH PACIFIC HALIBUT FISHERY

With an alarming decline in the productivity of the North Pacific halibut grounds, fished in common by vessels of Canada and the United States, steps were taken by treaty between the two Governments to conserve and sustain this valuable fishery resource. Under the terms of the treaty the International Fisheries Commission (Halibut Commission) of the United States and Canada was formed, with authority, among other things, to regulate the amount of halibut that can be taken from any fishing grounds or banks in convention waters of the North Pacific which extend westerly from the United States and Canada. This measure was adopted to allow natural spawning and reproduction of the halibut to replete the fishery.

During the past few years the Commission has set the limit on the take by fishermen of both countries at around 46,000,000 pounds, and the landings have about equaled this figure each year. Even though this is somewhat less than the annual landings in many of the years during the heyday of the fishery (around 65,000,000 pounds were taken from area 2 alone in 1 year), the industry has had some difficulty in marketing at a profit the fish landed. In fact disputes between the fishermen and buyers, from time to time, over price ex-vessel has resulted in curtailing fishing operations with consequent lowering of incomes to the fishermen who depend upon this fishery for a livelihood.

It is anticipated that as the reserve brood stock of halibut is restored on the banks, the Commission may set a higher limit on the annual take. If this is done new marketing problems may be faced by the industry.

In order to aid the industry at this time in disposing of the present catch of halibut and to assemble data which may be useful to the industry in expanding the markets for halibut, should a higher limit

be set on the take, the Commission suggested that the Bureau make an economic study of the factors involved in the production and marketing of Pacific coast halibut. Believing that such a study would be timely and worth-while, the Bureau undertook the investigation, detailing George Roger Chute, assistant fishery economist to conduct the work.

The investigation is now in progress. One of its important phases is an analysis of the distribution of halibut during 1935. This is revealing the places of concentrated market and the areas of minimum consumption. Another phase is covering the competitive standing of halibut with other species of fish selling at a lower price, and the effect this has had in curtailing the markets for Pacific coast halibut in certain areas, formerly using large quantities of this fish.

The investigation also is covering a study of halibut vessel operation, transportation, warehousing, merchandizing practices, consumer attitude toward halibut, and a chronology of the fishery from its inception on the North Pacific. Parts of the latter material are vivid and novel, and will be admirable for use in connection with a radio campaign to acquaint the public with halibut and halibut fishing.

COOPERATIVE MARKETING

During the past year the work of the cooperative marketing unit, in charge of L. C. Salter, fishery economist, charged with the administration of Public, No. 464 of the Seventy-third Congress, second session, an act authorizing associations of producers of aquatic products, has consisted of (1) conducting research in the field of cooperative activity among fishermen and assembling data and other information relative to the cooperative marketing of fish and fishery products, to learn whether existing fishery cooperatives were operating under the terms of the act; (2) making studies and analyses of the organic structure and operations of fishery associations with the view to furnishing advice and counsel to associations and groups of fishermen contemplating the organization and operation of associations; and (3) assembling literature on cooperative enterprises, and preparing articles and other publications pertaining to this general subject. During the year there have been no complaints, nor other occasions or reasons to warrant any legal action being taken under the provisions of the act.

The above types of work have been of considerable value to existing fishery groups in effectuating the most efficient operation of cooperative associations as well as to groups of fishermen contemplating the organization and operation of cooperative associations. One important fact revealed by this work is that no legislation has been enacted by any of the States specifically providing for the organization and operation of fishery cooperative marketing associations, and in no instance was it found that State departments were engaged in encouraging or assisting fishermen to organize and operate marketing associations.

During the year the fishery associations known to be in existence in 1936 were circularized by questionnaire with the intent of gaining information as to their official location, cooperative status, and nature of their operations. In all, the questionnaire was mailed to about 100 fishery organizations located throughout the commercial fish-producing States. Answers were received from 38 associations. They indicated that 14 were engaged in the cooperative marketing of fishery

products or the cooperative purchasing of fishery equipment and supplies, and that 6 were performing semicommercial functions. The remainder of those replying, or 18, were engaged primarily in activities pertaining to fishery conservation and legislation, and promotional or protectional activities in the interests of fishermen. With but few exceptions, the associations restricted membership to persons engaged in the fisheries and provided for voting on the basis of membership rather than by stock or membership capital held in the association. The exceptions were among those classed as semicommercial and non-commercial in character.

In order to determine further the cooperative status of commercial and semicommercial fishery organizations and the nature and extent of their activities, a rather broad, personal investigation is in progress. To date this has included visits to associations located on the Pacific coast and in the North Atlantic States. On this work, particular attention is being given to learning the functional activities of the associations and how the Bureau might be of service in connection with their operations. The study is being continued to cover associations located in the South Atlantic and Gulf States and in those States around the Great Lakes. The survey so far has permitted detailed study of more than 60 associations and has revealed that 23 of these are engaged in commercial functions such as the marketing of fish or fishery products, or the purchasing of supplies and equipment, and the remaining 37 are engaged in functions relating to the general welfare of their members. Many of the associations in the latter group are contemplating engaging in commercial activities on a cooperative basis.

Another study in progress and being conducted along with the above-mentioned investigation relates to financing the fishing enterprise. Its purpose is to obtain information on the relationship between present methods for financing this type of enterprise and its effect on the freedom of fishermen to market their catch to the best advantage. This study will be made in the major commercial fish-producing areas of the United States.

In order to aid the Bureau in its general administrative work of the Cooperative Marketing Act, a study of cooperative activity among fishermen in foreign countries also is in progress. The Bureau of Foreign and Domestic Commerce of the Department of Commerce is aiding materially in this study by collecting basic data on conditions in most of the important countries of the world; and, also, by placing at our disposal files on this subject located in Washington, D. C. Information obtained on this study covers (1) the nature and extent of fishery cooperative marketing, a list of such associations, and their aims and purposes; and (2) the extent to which governments aid or assist fishery cooperatives by subsidies, credit, and departmental or institutional aid. In connection with this study information also is being obtained from the same countries relative to grades and standards for fish and fishery products marketed in the various foreign countries, and governmental regulation pertaining thereto.

Cooperative marketing is a practice of long standing in many of the countries studied. Although most of the historical accounts date back as far as the latter part of the nineteenth century, fishermen in some countries have been conducting associations in various capacities for a number of years for which there are no definite records. Beginning with the early part of 1900 and to a greater extent just prior to and

following the World War, various countries enacted legislation pertaining to the fisheries and fishermen's associations. During the post-war period efforts were intensified to further encourage and assist marketing and other activities by fishermen's associations through governmental aid. Practically all of the countries studied now provide aid to fishermen's associations in the form of loans, grants-in-aid, and institutional services of an educational character. The associations are also recipients of various forms of subsidies provided for the fishery industries generally in various countries. The purposes of the associations are for the most part to perform cooperatively the functions necessary in the processing and merchandising of fish and fishery products, and to act in a protective capacity for the benefit of members.

It is deemed advisable to relate at this point that existing fishery cooperative associations in this country usually were formed on the initiative of fishermen and apparently without advice and counsel from other agencies. For this reason, some of these associations are lacking in the proper organization structure, and in others the operating policies and procedures are not conducive to obtaining the maximum or most desirable results. In most instances, however, the management and boards of directors of these associations are conscious that improvements might be made toward better organization and are anxious for assistance. Some have applied to the Bureau for such assistance, and insofar as time and facilities permit, we have made studies and analyses of the respective associations with the view to offering advice and counsel pertaining to the general organic structure of fishery cooperative associations, management, operating policies, and merchandising. During the past year service of this character was rendered to the following associations: Fishermen's Cooperative Association, Seattle, Wash.; Fishermen's Packing Corporation, Everett, Wash.; LaConner Fishermen's Cooperative Association, LaConner, Wash.; Willapa Oyster Growers' Cooperative Association, Seattle, Wash.; Pacific Coast Oyster Growers' Association, Olympia, Wash.; Union Fishermen's Cooperative Packing Co., Astoria, Oreg.; Sunset Fish Company Cooperative, Wheeler, Oreg.; Santa Cruz Fisheries, Inc., Santa Cruz, Calif.; Fishermen's Cooperative Association, San Pedro, Calif.; San Diego Fishermen's Association, San Diego, Calif.; North Carolina Fisheries, Inc., Morehead City, N. C.; The Great Atlantic Fish Exchange, Willis Wharf, Va.; United Commercial Fishermen's Associations of New Jersey, Wildwood, N. J.; Bivalve Cooperative Company, Inc., Bivalve, N. J.; O. K. Fishery Cooperative Association, Wildwood, N. J.; Independent Fish Company, Inc., Barnegat City, N. J.; Federated Scallop Producers Cooperative Association, Brooklyn, N. Y.; Southern New England Fishermen's Association, Mystic, Conn.; New England Oyster Growers' Exchange, Inc., Warren, R. I.; and the Fisherman's Relief Corporation, Portland, Maine, in connection with associations in Maine sponsored by it, including Frenchmen's Bay Cooperative Association, South Gouldsboro; Beals Cooperative Association, Beals Island; and Central Eastern Cooperative Association, Portland.

Some requests have come to the Bureau for direct assistance in forming fishery cooperative associations. For the most part, all available information was supplied by correspondence or with prepared literature. In two instances, however, direct assistance was made available to groups of fishermen interested in organizing

associations. One of these consisted of a group of oyster planters near Bay City, Oreg., that contemplated an association for the mutual planting, cultivating, and harvesting of oysters; the cooperative purchasing of oyster seed, supplies, and equipment; and the cooperative processing and marketing of oysters. The second consisted of a group of sponge fishermen at Key West, Fla. that has been planning the organization of a sponge cooperative covering the functions of production and marketing. At this writing neither of these groups has perfected its organization set-up.

From the number and nature of written requests forwarded to the Bureau for information on cooperative marketing, and from impressions gained in personal contact with fishermen and others in the field, it appears that there is widespread interest in forming and operating fishery cooperative marketing or purchasing associations. Further, this interest has been accelerated to such an extent that during the past year members of existing fishery cooperative associations made definite steps looking forward to the development of fishery cooperative councils. It is their belief that through these councils they might be able to coordinate their efforts, advance the cooperative marketing of fishery products, develop a source of information on the subject, and in general improve conditions for their mutual welfare.

The increased activity among fishermen ultimately may result in additional requests to the Bureau for information and assistance. In order to comply with such requests, it appears that the rendering of such aid in the near future will comprise a major activity of the cooperative marketing unit.

FISHERY COMMITTEE FORMED WITHIN NATIONAL ASSOCIATION OF MARKETING OFFICIALS

For a number of years the National Association of Marketing Officials has been interested in various aspects of the marketing of fishery products. This association is composed of State officials engaged in work relating to the marketing and handling of agricultural products and with this wide experience the association is in a position to materially aid in improving marketing conditions in the fishery industry.

From time to time members of the Division's staff, at the request of the Association, have addressed its annual meetings. In December 1932 the writer addressed the group at a meeting in Washington, D. C., placing before it the problems surrounding the marketing of fishery products. In December 1933, J. R. Manning, senior technologist of the division, addressed the group at a meeting in Washington, D. C., on the standardization of fishery products. In October 1936 L. C. Salter, economist of the division, addressed the group at a meeting in Nashville, Tenn., on the cooperative marketing of fishery products.

During the past year the fishery problems placed before the association became of sufficient importance to warrant the creation of a special committee to study and report on matters pertaining to the marketing, standards, and grades for fishery products. The committee was appointed at the Nashville meeting. Its members are: J. H. Meek, Director, Division of Markets, Virginia, chairman; Charles M. White, Chief, Division of Markets, Maine; and L. M. Rhodes, Commissioner of Markets, Florida. Members of the Division's staff are cooperating in the work of the committee.

STATISTICAL INVESTIGATIONS

Fishery statistics are collected by the Bureau to serve two principal purposes - first, biological, and second, economic. For this reason the Bureau must plan its statistical surveys to obtain comprehensive data for furnishing a complete and reliable picture of the condition and trend of the fisheries. The collection and compilation of the great mass of data necessary, involves many problems. The fisheries are broad in scope, including over 160 varieties of aquatic products which enter into commercial production. These, many of which are migratory, are taken by a great variety of types of gear in areas along our seacoast and in our interior lakes and streams. If the biological aspect is to be served, complete annual statistics are needed on each of these phases in every section. If the economic aspect is to be served, statistics are needed not only on the phases listed above relative to the biological aspect, but also on the price structure, the processing function, and on marketing and distributing.

Statistics on these latter phases of the industry should be collected and published as soon as possible after the close of the business transactions in order to be of maximum value to the industry and others interested in the fisheries. However, because of limited funds and personnel it has not been possible to collect and publish these figures as currently as desired. For the same reason it has not been possible to collect statistics on the fisheries of the entire United States on an annual basis.

BIOLOGICAL ASPECT

The biological aspect must consider two problems—the conservation and sustained supply of the resource, and the prediction of future trends or yield. Since our fisheries are usually prosecuted in areas not under private ownership, the problem of the conservation of these fisheries is of national concern. It, therefore, is important that close watch be kept of the condition of the various fisheries to detect depletion so that remedial measures can be promulgated timely and wisely. For this reason it is imperative that current statistical data be obtained on the yield of our fisheries.

These statistics then furnish the biologist with the background upon which to base his prediction of future trends and yields. This he does by coupling the statistical data with studies of the life history of the species. Difficulty is experienced in making these predictions because the supply (or population) of the species cannot be seen, as is the case with farm animals or crops. The more complete and more reliable the statistics on yield are, the better foundation the biologist has for conducting his studies. The Bureau, therefore, aims to obtain a complete picture of each individual fishery to further these biological studies.

ECONOMIC ASPECT

When the fishery has been conserved and trends and yields of the fishery have been predicted, the problem still remains of supplying the fishery trade with the information so essential to the conduct of its business activities. In these days of increased competition the very existence of the fishery industry must depend upon reliable economic statistical information. Such material has been especially valuable during the past few years, when it has been used in national planning. The Bureau, therefore, aims to make its statistical surveys

so complete that the industry and the various governmental organizations may turn to it for reliable fishery statistics.

SURVEYS CONDUCTED

The statistical surveys during 1936 were conducted under the immediate supervision of Edward A. Power, assistant statistician, and the general direction of Fred F. Johnson, Assistant Chief of the Division. These surveys included the collection and dissemination of statistics of the commercial catch and its value, operating units, and employment in the fisheries. In addition, data were collected on employment and compensation of those engaged in the fisheries as well as products of fishery wholesale and manufacturing establishments.

As previously mentioned, limited funds made it impossible to cover all the fishing areas of the country during the past year for 1935. However, the following areas were surveyed: New England States, Middle Atlantic States, Chesapeake States, and Pacific Coast States. Statistics of the fisheries of Alaska also were collected by the Alaska Division of the Bureau. Summaries of the production in those sections which were not surveyed during the year are included for the most recent years available in part 2 of this report.

In addition to the above, statistics were collected on the following special phases: The landings of fish by American fishing vessels at the ports of Boston and Gloucester, Mass., Portland, Maine, and Seattle, Wash. (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.

The following statistical and marketing agents assisted in the collection and compilation of the statistical data: H. F. Brown (deceased), F. F. Dimick, W. H. Dumont, R. L. Greer, V. E. Heffelfinger, H. J. Kumin, B. E. Lindgren, W. H. Rich (retired), C. J. Robbins, V. J. Samson, and C. B. Tendick.

The reader is especially referred to the section in the latter part of this report entitled "Statistical survey procedure", which gives in detail the methods employed in the collection of fishery statistics and other pertinent information.

COLLECTING STATISTICS OF THE ANGLERS' CATCH

The need for the collection of statistics of the anglers' catch was stressed in a paper prepared during the year by Fred F. Johnson, Assistant Chief of the Division, and read over the Rod and Stream Program of Radio Station WMAL in Washington, D. C. The paper brought out the importance of closely observing the various fisheries on which both sport and commercial fishermen depend, not only in order

to detect depletion so that remedial measures can be taken before a fishery has been destroyed, but also to avoid unduly penalizing fishermen by the enactment of unwise and unnecessary restrictive legislation. These observations depend largely upon the availability of adequate and current statistics of yield, since such data furnish to the biologist the background upon which to base his estimate of the supply or population, and predictions of future trends and yields. This he does by correlating statistical data of yield with studies of the movements, mortality, and reproductive habits of each species. Fishery statistics not only furnish the basic information for determining depletion and consequently make wise and timely legislation possible, but they have another most important value to the angler and commercial fisherman alike, in that they indicate the need for the planting of fish and following such planting the extent to which these operations have been successful.

While surveys for statistics of commercial catches have been conducted by State fishery agencies and this Bureau in programs of varying degrees of adequacy for many years, data on the sportsmen's catch have been rarely collected. To obtain this information from the angler the cooperation of the anglers themselves is required in recording and transmitting through suitable means to proper officials the records of their catches; such records to include among other things, data on species, size, number taken, and location of fishing. Considerable educational work would no doubt have to precede any entirely voluntary plan to obtain catch records of anglers.

Several attempts have been made by State agencies to collect statistics of the anglers' catches for specific streams or lakes. Various degrees of success have been reported, depending on the methods used. In one instance a State passed a law setting aside certain "test waters." To fish in these waters anglers were required to take out a permit, issued without charge, and were further required, under penalty of fine, to report their catches daily on cards provided for the purpose. A large sign was placed near these waters, giving necessary instructions for filling in the cards, and conspicuously painted boxes were provided at intervals along the stream to receive the completed cards. This project was initiated and the records analyzed by the staff of the Division of Scientific Inquiry as a part of its program of research on fishery management in interior waters. Excellent results were reported in this test. Another set of satisfactory records was obtained through the efforts of State wardens. No attempt was made by these wardens to obtain catch reports from all anglers on a specific stream, but instead they contacted and obtained the cooperation of a few conscientious fishermen in supplying information on their catches. In another instance very complete statistics were obtained on the anglers' catch by enlisting the aid of the personnel of a Civilian Conservation Corps Camp. These men were equipped with printed questionnaires which provided for the listing of the necessary information, which was obtained from the fishermen upon the completion of each day's fishing.

It is suggested that individuals and organizations interested in the conservation of our fisheries would do well to give careful consideration to sponsoring some method for recording the sportsmen's catches, such records to form the basis for maintaining the balance between the catch and the supply.

TECHNOLOGICAL INVESTIGATIONS

Food technology is becoming more and more important each year. With ever-increasing recognition, on the part of public health authorities and others concerned, of the vital role played by diet in the maintenance of the general health and well-being of the people, the science of food manufacture, preservation, and handling in wholesale and retail marketing channels has assumed a place of paramount significance. A generation ago applied science had little part in our food industries. Today we make use of the sciences of chemistry, bacteriology, pharmacology, engineering, and general food technology in the fishery industries to provide better food for man; and to utilize the byproducts of the fisheries as food of vastly improved quality for domestic animals.

LABORATORIES

During 1936 the Division carried on its technological studies under the direction of Dr. J. R. Manning, senior technologist, at its laboratories located in Washington, D. C., College Park, Md., and Seattle, Wash. In addition, certain cooperative investigations were conducted by members of our technological staff in the laboratories of the State Medical College at Charleston, S. C.; George Washington University, Washington, D. C.; University of Maryland and Maryland State Agricultural Experiment Station at College Park, Md.; Western Maryland College, Westminster, Md.; Bureau of Chemistry and Soils, United States Department of Agriculture, Seattle, Wash.; and the University of Washington, Seattle, Wash. In December 1936, the Bureau began the construction, on the same grounds as its main laboratory building in Seattle, of a new technological byproducts laboratory building. This building will be completed and ready for occupancy early in 1937.

Because of the lack of suitable laboratory facilities it was not possible in 1936 to continue our studies on the smoking of fish. In general, inadequate laboratory facilities are hampering or preventing the conduct of several other types of technological research. At present we are conducting this research in cramped quarters.

PRESERVATION OF FISHERY PRODUCTS FOR FOOD

Experimental work during 1936 in the preservation of fishery products for food was conducted in the Bureau's laboratories at College Park, Md., Washington, D. C., Seattle, Wash., and in the Seattle laboratory of the Bureau of Chemistry and Soils, United States Department of Agriculture. The investigations in the College Park laboratory were carried on under the supervision of James M. Lemon, associate technologist in charge, assisted by W. T. Conn, assistant technologist; Dr. Francis P. Griffiths, junior bacteriologist (part of the year); S. R. Pottinger, junior technologist; M. E. Stansby, junior chemist; Joseph E. Puncochar, junior bacteriologist; W. J. Hart, Willis H. Baldwin, William B. Lanham, Jr., and Hillman C. Harris, research associates and student assistants; in the Seattle laboratory under the supervision of R. W. Harrison, associate technologist in charge, assisted by Leslie Lowen, Richard Crosby, and Robert Rucker, research associates and student assistants; and in the Washington laboratory by Norman D. Jarvis, assistant technologist in charge of experimental canning investigations, and Agnes I. Webster, fish cookery expert.

The project on freezing oysters in the Bureau's Seattle laboratory and in the Seattle laboratory of the Bureau of Chemistry and Soils was carried on by Dr. Francis P. Griffiths, junior bacteriologist, under the supervision of Roger W. Harrison, associate technologist in charge, with the assistance of H. C. Diehl, in charge of the Bureau of Chemistry and Soils laboratory.

ELECTROMETRIC TESTS FOR THE FRESHNESS OF FISH

During the early summer months of 1936 one of the large firms packing frozen fish became interested in the possibilities of the commercial application of the electrometric method for determining the relative freshness of haddock, cod, and pollock developed by M. E. Stansby and J. M. Lemon of our staff. This method has been described in detail in previous annual reports of this Division and was originally published in a separate report.³ This firm is interested in making use of this method for determining quality or relative freshness in its purchases of the above-mentioned species of fish and requested the Bureau to send one of its technologists to give its chemists a practical demonstration of the usefulness of the method. M. E. Stansby was assigned to this demonstration for a period of 2 weeks. During this time he instructed one of the chemists in the employ of the company in the method of making these tests. Several modifications of the method were developed which show considerable promise for application in large-scale operations for classifying fish as to quality or relative freshness. In the commercial test fish were selected on the basis of the test, frozen, and placed in cold storage, and samples later were examined from time to time to determine the keeping qualities of the various grades as shown by the electrometric test. This demonstration indicated that it is possible to use this test commercially to determine the quality of fish and further emphasized the fact that only first-quality fish should be frozen if it is to remain in cold storage for any length of time.

STUDIES OF RANCIDITY IN FISH

In this field attention was concentrated on the development of methods for retarding oxidation or rancidity of the oils in fatty fish. Boston mackerel was used in the experimental work. In commercial practice oxidation of the body oil of this fish makes it difficult to keep it in first-class condition when held in cold storage.

In this study it was observed that considerable variation occurs in the quantity of oil contained in individual mackerel taken at a certain season. There is also a variation with the season. Seasonal variations, however, occur to a greater extent in the larger fish, while there seems to be a fair degree of consistency in the oil content of the smaller fish of this species throughout the season. This may be illustrated by one set of the samples examined at the beginning of the season in April. The large size fish had an oil content of only 2 percent in the flesh. As the season progressed the oil content of other fish examined increased and by the latter part of August it mounted to approximately 20 percent. It then began to decline until it had gone down to approximately 8 percent at the end of the season in December.

³ "An electrometric method for detection of relative freshness of haddock", by Maurice E. Stansby and James M. Lemon, U. S. Bureau of Fisheries, Gloucester, Mass. Reprinted from Analytical Edition, Industrial and Engineering Chemistry, vol. 5, p. 208, May 15, 1933.

During this same period the smaller fish of this species (approximately two-thirds the size of those mentioned above) showed an oil content of 9 percent at the beginning of the season, 11 percent in the middle of the season, and 9 percent at the end of the season. While the above figures represent composite results, there was considerable variation in the oil content of individual fish in both groups. The extremes of individual variation were from 2 to 30 percent while the average individual variation was 6 to 22 percent.

Samples of the oil from the flesh of Boston mackerel were stored at different temperatures to determine, if possible, the temperature at which the least rancidity developed. This study to date indicates that the lower the temperature the slower the development of rancidity. It was observed that the oil stored at temperatures below zero degrees centigrade showed very little evidence of rancidity, but another type of odor and flavor, entirely foreign from fresh oil, resulted, somewhat similar to a burnt odor or flavor. Simultaneously with the development of this odor the oil definitely changed from a clear amber to a reddish color.

As described in last year's annual report of this Division, the Bureau established a cooperative research program with the Musher Foundation, Inc., New York City, whereby chemists or technologists employed by this organization would work on the problem of oxidation or rancidity in fishery products in the Bureau's laboratories, and under the supervision of the Bureau's technologists. In connection with the preservation of Boston mackerel, the Musher Foundation had prepared in New England, under the supervision of S. R. Pottinger of the Bureau's technological staff, a series of samples of salt mackerel packed in barrels and pails. Since our cooperative problem with this organization involves the testing of cereal flours as inhibitors or antioxidants, two sets of samples were prepared, one set containing oat flour and the other packed in accordance with commercial practice, without the oat flour. The percentage of oat flour added to these samples varied between 2½ and 30 percent. In tests of these samples at the College Park laboratory for quality, the oat flour appeared to have a considerable antioxidant effect. However, it was found that in repacking the mackerel from barrels to pails no additional advantage was obtained by using the oat flour in the brine used in the pails.

The brine solution used in these packs interfered with accurate chemical tests to indicate the exact preservative effect of the oat flour. However, in actual cooking tests the results thus far indicate that the samples of salt mackerel treated with oat flour have a very palatable flavor. There was little difference in the appearance of the two sets of samples. In other words, the oat flour did not detract in any way from the pleasing appearance of the treated fish.

VARIATION IN THE FAT CONTENT OF HALIBUT

As mentioned in our report for 1935, the reason the bellies of some halibut turn bluish and mottled in color when frozen is because of a lack of fat storage under the skin. This makes the belly skin more or less transparent when the fish is in a frozen condition. Extreme variation in fat content of halibut results in marketing losses and may have relation to the biological work of the International Fisheries Commission in its study and regulation of the halibut fishery. In an effort to determine whether this lack of fatness, which might be

attributed to undernourishment, was characteristic of any particular fishing locality, samples of small, medium, and large halibut were obtained by the Commission and analyzed in our Seattle laboratory. Samples were taken periodically over the fishing season from area no. 2 where the halibut tend toward localization and area no. 3 where the halibut are known to be migratory. To date chemical analyses have been made of the fat content of the halibut taken from area no. 3. These failed to disclose any consistent relation between fat content and locality of capture.

It was found that the fat content of large halibut was in general higher than that of medium halibut and medium halibut likewise had a higher fat content than small halibut. There were, however, quite wide variations in fat content in each size group.

USE OF ANTIOXIDANTS IN PRESERVING FOOD-FISH PRODUCTS

As a part of the studies being carried on by the research associate of the Musher Foundation in our Seattle laboratory, a series of samples of frozen salmon and halibut, mild-cured salmon, kippered salmon, canned salmon, and Alaska salt herring were prepared in which cereal flours or cereal flour extracts were added for the purpose of retarding the development of rancidity. These are being stored pending observation from time to time. To date examinations on samples of canned salmon showed that where oat flour was used or where an extract of oat flour was sprayed on the inside of the can, there was a noticeable lessening of the characteristic fish odor and taste of the treated product. Whether this difference in odor and taste will continue after extended storage periods cannot be stated at this time.

IDENTIFICATION OF CANNED SALMON

From time to time regulatory bodies and others associated with the marketing of canned salmon are called upon to check the identity of the species of salmon used in canning. At present this is done largely on the basis of experience in judging the appearance of the canned product. Some years ago, however, there appeared in the literature an article⁴ suggesting the possibility of identifying the various species of salmon by the iodine number of the oil in the flesh. In recent studies by the Bureau in which the physical and chemical characteristics of salmon waste oils were determined a similar grouping according to iodine number was observed. It was noted also that the refractive index and iodine number of each sample were very closely correlated. In view of the fact that the determination of refractive index might provide a very simple means for checking identity, technologists of our Seattle laboratory have begun the collection of samples of oil from canned salmon for the purpose of determining the probable merit of the method as a positive means of identification.

CANNING AQUATIC PRODUCTS

During 1936 the experimental studies in canning were continued with special attention to the development of improved methods for canning fishery products in the home or under noncommercial condi-

⁴ "The determination of the hexabromide and iodine numbers of salmon oil as a means of identifying the species of canned salmon", by H. S. Bailey and J. M. Johnson, *Journal of Industrial and Engineering Chemistry*, vol. 10, pp. 999-1001 (1918).

tions. In general, data obtained during the year indicated the unsuitability of large-size containers such as quart jars for the home canning of fishery products. Attempts were made to develop a method for home canning of oysters, but our experiments indicated that it is somewhat doubtful whether conditions or equipment available in the usual home would justify the safety and economy of this procedure.

Certain shellfish, such as the mussel, are widely used in Europe, but largely unknown in this country, although the mussel is found in quantities along certain portions of our coast. Therefore, a series of packs of canned mussels was made to explore the possibility of a wider use of this mollusk. Examination of this series has not been completed, but it has been determined that canned products of good quality may be prepared from the mussel if a supply of large-size mussels can be obtained. Mussels smaller than 650-700 per bushel were found to be too small for economical canning.

In addition to the above-mentioned preparations, experimental packs during 1936 have included clams, clam chowder, surf clams, crab gumbo, oysters, shrimp, salmon, mullet, carp, finnan haddie, spiced mackerel, fish roe, and pet food. A report entitled "Canning Crab Gumbo" (special memorandum no. 1607-21), by Norman D. Jarvis, assistant technologist, was published and attracted considerable attention. One firm is considering packing this as a commercial product.

The review of existing commercial methods for canning sea foods, begun during the previous year, was continued in 1936. Considerable material has been collected and the section dealing with the principles on which canning is based has been completed. It is intended that this manuscript, when published, will be a complete review or bibliography on the entire fishery products canning industry. Several years will be required for the completion of this work.

During the first 2 months of 1936, our technologist in charge of experimental canning was again detailed to assist the North Carolina Fisheries, Inc., Morehead City, N. C., a cooperative organization of North Carolina fishermen, in development of processes and in plant operations with respect to the filleting, smoking, and salting of fishery products and in connection with studies of the possibilities for canning fishery products of that locality.

At the request of the Extension Service of the United States Department of Agriculture, a short course in the canning of fishery products was given in our Washington Laboratory to Miss Lorada Curtis, Extension Agent for the State of Alabama.

LOW-TEMPERATURE PRESERVATION OF PACIFIC OYSTERS

Pacific, or Japanese oysters, *Ostrea gigas*, are grown mainly in the State of Washington, and although the industry has not approached its potential output, producers have begun to feel the limitations of present markets. Greater opportunity for expansion might be expected by extending the normal season of consumption and by reaching more distant and more heavily populated consuming centers. An aid in accomplishing this would be the application of low-temperature preservation.

In view of the meager data of fundamental nature dealing with the preservation of Pacific oysters, Dr. Francis P. Griffiths was detailed from the College Park technological staff to Seattle, and was assigned

to investigate this problem. The immediate purpose of the investigation was to determine the maximum length of time oysters could be kept in a fresh unfrozen condition and to study the effects of freezing and cold storage of frozen oysters, as indicated by the quality and keeping properties of the thawed product. Inasmuch as our Seattle technological laboratory was not equipped for this type of work, H. C. Diehl, in charge of the Frozen Pack laboratory of the Bureau of Chemistry and Soils, United States Department of Agriculture, extended to our technologist the use of its facilities at the Spokane Street Terminal of the Seattle Port Commission.

The results of this study indicated that: (1) If fresh oysters of maximum quality are packed in ice in airtight containers they will remain in good condition for not more than 10 to 12 days, provided the container is in sufficiently good contact with the ice to maintain the contents at 32° F.; (2) there is a possibility of further extending the freshness of unfrozen oysters if kept between 30 to 31° F.; (3) oysters freeze at a temperature of between 29 and 30° F.; (4) oysters frozen in closed containers in brine at 0° F., and in air at -25° F. appeared to be in good condition when thawed after 6 weeks and kept fresh for about 5 days; (5) oysters of poor quality when frozen and thawed dripped considerably and presented an unappetizing appearance.

Unfortunately, we were not able to continue the storage studies beyond a period of 6 weeks because the technologist carrying on the work resigned. In view of this, the data obtained can be considered as indicative only and in no sense conclusive.

BACTERIOLOGICAL STUDIES

Our bacteriological studies have been closely correlated with other investigations of our technological staff as many of the latter investigations require a knowledge of the action of bacteria. These studies have included examinations of the experimental packs of canned fishery products to determine which processes produce sterility; bacterial counts on samples used in experiments on freezing oysters; studies of the role of bacteria in the different types of decomposition or spoilage described in preceding paragraphs, with special reference to the studies on mackerel; determinations of the effectiveness of formaldehyde and other chemical preservatives in preventing or retarding the development of bacterial spoilage in fishery byproducts; and other miscellaneous bacterial control problems.

DISINFECTANTS FOR SPONGES

As described in the 1935 report of this Division, at the request of the sponge industry, two student assistants employed by the National Youth Administration were assigned through the courtesy of George Washington University, Washington, D. C., in 1934, to develop a simple and inexpensive disinfectant which could be used for sterilizing sponges after use. This study was carried on during 1935 and until June 1936 in the laboratories of George Washington University as a cooperative investigation of this Bureau and of that institution. A disinfectant, consisting of a mixture of 1 percent of formalin, 1 percent of phenol, and 0.5 percent of chlorine solution in water has been found to be effective in sterilizing sponges for the purpose described above. This disinfectant could be prepared by the housewife or it could be compounded by any drug store for sale along with sponges.

PHARMACOLOGICAL STUDIES

Previous pharmacological studies by our staff have shown that the arsenic which occurs in shrimp is in a stable undissociated organic state. It is readily soluble in water and is rapidly eliminated by the kidneys. Further studies on the nature of this compound are being continued with the cooperation of Dr. C. W. Colver, Professor of organic chemistry at Kansas State College, who is attempting to isolate and identify this compound.

PRESERVATION OF FISHERY BYPRODUCTS

As in previous years, during 1936 there was great demand for information on the manufacture and utilization of byproducts from fish waste and other waste materials resulting from our harvest of products from the sea. During this past year, investigations concerning the preservation of fishery byproducts were carried on in our Seattle technological laboratory under the supervision of R. W. Harrison, associate technologist in charge, with the assistance of A. W. Anderson, assistant technologist, and Leslie Lowen, Richard Crosby, and Robert Rucker, research associates and student assistants; and in our College Park technological laboratory under the supervision of James M. Lemon, associate technologist in charge, with the assistance of S. R. Pottinger, junior technologist, M. E. Stansby, junior chemist, Joseph E. Puncochar, junior bacteriologist, and Harold E. Crowther, R. H. Flowers, and C. E. Swift, research associates and student assistants. Mr. Crowther is a bacteriologist and Messrs. Flowers and Swift are chemists, employed by the Aquacide Co., Washington, D. C., and assigned in a cooperative investigation to the Bureau's laboratories.

UTILIZATION OF SALMON CANNERY TRIMMINGS

In view of the importance of the problem surrounding the profitable use of salmon trimmings which has been mentioned in previous reports, the Bureau has continued its studies on ways and means of assisting the salmon industry toward greater and more profitable utilization of this material. Our investigations are demonstrating that the potentialities of the products obtainable from salmon trimmings are not fully appreciated and indicate the need for a further educational program. The value of fats and oils to consuming industries is influenced by their biological, physical, and chemical properties. Thus oils rich in vitamins are eligible and in demand for consumption in human and animal nutrition, in contrast with oils not possessing these properties. Likewise a certain industry may require fats and oils having a high iodine number while an oil not possessing this property may be of equal utility to another industry. More complete knowledge of the properties of salmon oils will not only serve in directing them into the most useful field of consumption but may also suggest new uses for them.

A study of the vitamin content of oils from cannery trimmings of salmon from the Columbia River and Puget Sound regions reveals that salmon oils are equal or superior to cod-liver oil as sources of vitamins A and D for human and animal nutrition. This work was done in cooperation with Dr. Arthur D. Holmes of the E. L. Patch Co., Boston, Mass. Another report is being prepared in which salmon wastes from Alaska cannery operations are evaluated as sources of vitamins.

Some 200 samples of salmon oil have been examined to determine their physical and chemical properties. These data which are now being assembled in report form will indicate to both producing and consuming industries the variation in nature of oil obtainable from the different portions of the waste and from the several species of salmon. For example, the oils varied in iodine number from as low as 104 to as high as 225, depending upon the portion of waste and the species from which they were prepared. The former oils had some properties closely resembling certain edible vegetable oils while the latter were more unsaturated than the majority of the best drying oils. With such differences in the nature of these oils it is readily apparent that present conceptions of salmon oil are not consistent with maximum utility.

EXTRACTION OF OIL FROM HALIBUT LIVERS

Increasing interest in fish-liver oils as concentrated sources of vitamins A and D has led to a rather general use of many types of fish livers for this purpose. Fat livers, such as those obtained from cod and haddock and related species give up oil readily by simple heat treatment. As a general rule the more concentrated vitamin oils are found in fish having lean livers which offer difficulty in extraction.

In our last report reference was made to work on the extraction of oil from halibut livers in connection with the preparation of authentic halibut-liver oil samples for study by the Food and Drug Administration and the Bureau of Chemistry and Soils. However, because of the increasing number of requests for information on methods of extracting oil from lean livers, these studies were continued during the past year. As a result a rather simple method with several modifications has been developed. This method in general involves a special mechanical disintegration of the liver, conversion of the liver into a soluble metaproteininate, and separation of the oil from the solution by centrifuging. The entire treatment requires less than an hour, does not require expensive chemicals or equipment, and gives good yields of a pure high quality oil. Details of the method together with data on the nature and variation of oil in halibut livers and related livers are now being assembled in form for publication during the coming year. An application for a public-service patent covering the process has been made.

PREVENTING RANCIDITY IN FISH AND FISH-LIVER OILS

Beginning November 1, 1935, the Musher Foundation, Inc., New York, appointed a research associate in our Seattle Laboratory for the purpose of studying the prevention of rancidity and general deterioration of fish oils, fish-liver oils, and other fishery byproducts, by treatment with, or incorporation of, especially prepared cereal flours for which the Foundation holds patents. This work was continued during 1936 and further expanded to include some preserved fishery food products.

Due to the unsaturated nature of the fatty components of fish, fish oil, and fatty fish are unusually susceptible to oxidative rancidity with the resultant development of off odors and flavors. Numerous chemical compounds have been found to possess antioxidant properties, i. e., retard oxidative rancidity, but most of these are not suitable for use in foods. Accordingly, food industries are anxious to find

antioxidant materials which will meet food regulatory requirements. The so-called natural antioxidants of certain edible materials are at present receiving widespread investigation. The cereal flours come under this classification.

In experiments carried on in our laboratories the addition of oat flour to fish oils was found to increase the fresh life of fish oils up to 60 percent as determined by peroxide formation and organoleptic test. The oat flour however did not prolong the induction period preceding autocatalytic peroxide formation but instead appeared to decrease the rate of peroxide formation. Further, the oat flour did not retard materially oxidative destruction of vitamin A. These data and related information were incorporated in a paper presented at the Pittsburgh meeting of the American Chemical Society and will appear shortly in the *Journal of Industrial and Engineering Chemistry*.

More recent work with cereal mixtures and cereal extracts indicates the possibility of much greater protection against rancidity than demonstrated by oat flour alone. These data show also that vitamin A protection is obtained with the latter materials and is closely associated with prolongation of the time preceding autocatalytic peroxide formation.

DETERMINING THE FAT CONTENT OF FISH MEAL

In Investigational Report No. 1 of the Bureau of Fisheries, entitled "The Menhaden Industry", which was published in 1931, data were given which demonstrated the fact that the extractable fat in fish meal decreased during storage. This was attributed to some of the oil becoming oxidized and consequently less soluble in the test solvent.

This condition together with the fact that uniform methods of determining fat in fish meal are not followed in testing laboratories has given rise to an aggravating situation. The Bureau has undertaken an investigation of the problem because of its relation to the sale and distribution of fish meal. The studies are concerned with the relative efficiency of various solvents as concerned with degree of extraction and rate of extraction, the nature of the material extracted, and the relation of oxidation of the oil in meal to the efficiency of the various solvents. Attention will be given also to the possibility of determining and reporting fat content in a manner which will be indicative of the nature of the fat in the meal. A discussion of the problem and scope of work contemplated was given before the meeting of the Association of Official Agricultural Chemists in Washington, D. C., in December 1936, but the actual experimental work has not progressed to a point warranting discussion here.

CHEMICAL PRESERVATION OF FISH AND FISH WASTE

As in 1935, we continued during 1936 in our College Park laboratories a cooperative investigation with research associates employed by the Aquacide Co., Washington, D. C., in making tests of various chemical preservatives used on raw fish and raw fish waste in the production of fish meals and oils. In some cases, the meals and oils made from these chemically preserved samples were tested with respect to edibility and palatability on albino rats in our nutrition laboratory. The results of these experiments have been exceedingly encouraging and show clearly that fish may be preserved in relatively dilute chemical solutions. The products which were studied included salmon, menhaden, cod, and haddock waste, redfish waste, sea herring,

and the livers of various fish including cod and related species, halibut, swordfish, and California tuna. Many of these experimentally prepared products were chemically preserved at sea and forwarded to our College Park laboratories for tests. These samples were tested bacteriologically for evidence of decomposition and the finished products, such as oil and meal, were tested chemically and nutritionally.

It has been found that certain of the volatile aldehydes, particularly acetaldehyde, readily sterilize the raw material and may be removed by the application of heat in the conventional rendering process. It has also been found that on the application of heat through material preserved in some of the aldehydes, the material becomes increasingly firm, thus reducing to a considerable extent the softening action of cooking ordinarily encountered in the rendering of fish waste.

In view of the progress being made in the United States and abroad looking toward the utilization and preparation of special glandular and pharmaceutical products from the vital organs of fish, the above cooperative arrangement was extended to include some preliminary studies in that field. Entrails or vital organs of cod or related species preserved at sea were received at the laboratory and segregated according to organs. The initial work was confined to a study of the pyloric caeca and the male gonads. The work on pyloric caeca was in the nature of a continuation of similar studies done by W. W. Johnston of the Biological Board of Canada. Mr. Johnston discovered that the pyloric caeca of fish, when promptly dehydrated, are exceptionally effective as bates for tanning of leather. The object of our experiments with pyloric caeca was to determine whether chemically preserved pyloric caeca may be used in the production of bates in the same manner as fresh pyloric caeca. The difficulty in the handling of this product heretofore has been that some trouble was encountered in dehydrating this material at sea on commercial fishing vessels. Preliminary work on male gonads has been undertaken for the purpose of determining whether protamine may be produced from the chemically preserved raw material. The difficulties of producing protamine from the raw material at sea have been substantially the same with respect to dehydration of the raw material, as was encountered in the production of bates for tanning from pyloric caeca.

Although the above-described phase of this cooperative project on the utilization of fish organs is in a preliminary stage, it is anticipated that, with the finding of new and useful products obtainable from the various organs, it will be profitable for the cod and haddock fishermen to save the entrails and other vital organs now discarded at sea. Up to the present, it has been customary for the fishermen occasionally to save some of the livers and it is now hoped that it can also be made profitable to fishermen to save other vital organs as well.

NUTRITIVE VALUE OF AQUATIC PRODUCTS

The importance of conducting studies of the nutritive value of aquatic products is readily recognized when it is realized that the fisheries constitute a basic food industry. For this reason food research is the major part of the Bureau's technological investigations. Not only is it necessary to determine the fundamental chemical composition and nutritive value of aquatic products as a foundation for truly evaluating their economic and dietary importance, but nutrition tests constitute the only true yardstick or standard of measurement for

determining the value of technological improvements in methods of manufacture, preservation, handling, and storage of such products.

During 1936, nutrition investigations were conducted in the Bureau's College Park laboratory, in the laboratories of the State Medical College, Charleston, S. C., in the laboratories of the University of Maryland, and the Maryland State Agricultural Experiment Station, and in the laboratories of Western Maryland College, Westminster, Md., by E. J. Coulson, Charles F. Lee and Dr. Francis P. Griffiths of our technological staff; William B. Lanham, Jr., and Miss Thelma Chell, student assistants; Dr. Roe E. Remington, Nutrition Department, State Medical College, Charleston, S. C.; Prof. Samuel B. Scofield, of the chemistry department of Western Maryland College; and Dr. W. C. Supplee and M. H. Berry of the Staff of the University of Maryland and the Maryland State Agricultural Experiment Station.

VITAMIN CONTENT OF FISH-LIVER OILS

Determinations of vitamins A and D on approximately 25 samples of halibut liver oil were completed during the past year in connection with our cooperative arrangement with the Bureau of Chemistry and Soils and the Food and Drug Administration of the United States Department of Agriculture. As a result of these determinations a large variation was found in the vitamin potency of the halibut-liver oils tested, ranging from 5,000 to 210,000 vitamin A units per gram, U. S. P. X. and from 600 to 3,000 vitamin D units per gram U. S. P. X. Most of the samples, however, averaged around 30,000 to 70,000 vitamin A units per gram and 1,200 to 1,600 vitamin D units per gram according to U. S. P. X. tests.

The Bureau's nutrition laboratory at College Park also completed vitamin studies of the salmon oil samples submitted by our Seattle laboratory and referred to elsewhere in this report.

VITAMIN CONTENT OF FRESH FISH FLESH

An investigation of the amount of vitamin A in the edible portions of fresh fish and shellfish was begun during 1936. This covered tests of sea trout, clams, oysters, shrimp, striped bass, and bluefish, and indicated that the vitamin potency of these foods varied from less than $\frac{1}{2}$ to 5 units of vitamin A per gram. The different species ranked as follows in vitamin potency: Oysters highest, clams a close second, shrimp third, then sea trout and bluefish (about equal), and finally striped bass showing almost no vitamin A. Oysters are approximately 6 to 10 times as high in vitamin A as sea trout and bluefish, possibly due to the fact that the entire body of the oyster (which is edible) was tested.

It should be emphasized that these are preliminary tests and that definite conclusions should not be drawn until more complete data are available.

NUTRITIVE VALUE OF SHELLFISH

At the request of Dr. A. C. Hunter of the Food and Drug Administration, U. S. Department of Agriculture, E. J. Coulson of our technological staff summarized the literature on the nutritive value of shellfish, including complete references. From this a report was then prepared by Dr. Roe E. Remington, Department of Nutrition, State

Medical College, Charleston, S. C., and Mr. Coulson, which was submitted to Dr. Hunter for inclusion as a chapter in a book to be published by the American Public Health Association, entitled, "Standard Methods for the Examination of Shellfish."

CHEMICAL COMPOSITION AND NUTRITIVE VALUE OF FISH PROTEINS

This investigation, begun during the latter part of 1935, has consisted of a detailed study of fish proteins. Because of their importance in nutrition as constituents of these proteins, the amounts of the amino acids, cystine, tryptophane, arginine, histidine, and lysine were determined in the following species of fish and shellfish: Boston mackerel, Spanish mackerel, cod, shad, shrimp, croaker, halibut, red snapper, oysters, clams, and haddock. Also the same amino acid determinations, except cystine, were made on casein, a protein which is generally used as the standard or control protein in all determinations of this character.

Studies of the metabolism or biological value of some of these fish proteins were carried on in our nutrition laboratory by the use of albino rats. Casein was used as the control protein in making these feeding tests. At the present time, these studies have progressed far enough to indicate the relative biological value of the protein in three species of fish. The protein of Boston mackerel, Spanish mackerel, and haddock were compared with respect to each other and with reference to casein as to their value in growth promotion, maintenance of body weight and digestibility. Synthetic diets containing 9 percent of fish protein produced approximately the same gain in weight per gram of protein eaten for each of the above-named species of fish. All three of them proved superior to casein. However, in diets containing 18 percent of protein, the fish proteins produced about equal growth to that of casein. The data on maintenance of body weight indicated that all three of the fish proteins were superior to casein and Boston mackerel probably was the best of the lot. Haddock was the most completely digested fish protein and was closely followed by Spanish and Boston mackerel in this respect.

MINERAL CONSTITUENTS OF FISHERY PRODUCTS AND BYPRODUCTS

Studies of the mineral constituents of fishery products and byproducts were continued by E. J. Coulson, assistant pharmacologist of the Bureau's technological staff, stationed in the laboratories of the State Medical College, Charleston, S. C., with special reference to the role of these mineral constituents in nutrition. Chemical determinations of the amount of calcium, phosphorus, magnesium, iron, copper, sulphur, iodine, and arsenic were made in the principal commercial species of fish and shellfish during the past year. With the resignation of Mr. Coulson, this work is being continued by another investigator.

The principal mineral nutrients of value to man and animal are calcium, phosphorus, iron, copper, iodine, and sulphur. It has been known for a long time that most fishery products are exceptionally good sources of these minerals and the above described studies further verify and amplify this information.

MENHADEN OIL FOR POULTRY FEEDING

The cooperative studies of menhaden oil for use in poultry feeding, as described in last year's report of this Division, were continued by Dr. W. C. Supplee of the Chemistry Department of the University of Maryland and our nutrition laboratory. These tests were made on both albino rats and baby chicks. They continued to show that menhaden oil is at least equal to the average cod-liver oil as a source of vitamin D for poultry feeding.

MENHADEN MEAL FOR CATTLE FEEDING

The studies of the relative value of steam-dried and flame-dried menhaden meal described in the 1935 report of this Division, in the dairy ration, carried on by the Maryland State Agricultural Experiment Station in cooperation with our technological staff were completed. The results of these feeding experiments extended over a period of 2 years, and were published in the October 1936 issue of the *Journal of Dairy Science* in a report entitled "Comparison of the feeding value of steam-dried and flame-dried menhaden fish meal", by M. H. Berry and J. R. Manning. The tests showed conclusively that menhaden fish meal is an excellent ingredient of the dairy ration. There was no significant difference in the relative nutritive value of the steam-dried and flame-dried meals. This is in contrast to tests conducted previously on smaller farm animals, such as swine and poultry, where the steam-dried menhaden fish meal was found to be superior to the flame-dried product.

OILY FISH MEALS IN ANIMAL FEEDING

During the year the Bureau continued its cooperation with the Department of Poultry Husbandry at the State College of Washington for the purpose of studying the nutritive value of fish meals. As mentioned in our last report attention was being given to vitamin A and D retention in fish meals. Experimental salmon meals were found to provide adequate vitamin D in the poultry ration and if stored properly showed no apparent destruction of this vitamin after 1 year. The use of antioxidants in fish meals is being investigated also.

FISH COOKERY STUDIES AND DEMONSTRATIONS

In recent years there has been a great demand on the Bureau of Fisheries from housewives, proprietors of public and institutional eating places, and others for fish cookery recipes and instructions. To meet this demand, the Bureau has continued its researches on the development of practical and economical recipes for cooking fish and also has given fish cookery lectures and demonstrations to interested groups of people.

During the past year Agnes I. Webster, fish cookery expert of the Division, continued her researches in our fish cookery laboratory toward developing economical recipes using fish for mass feeding in school and institutional dining rooms. Many of the recipes developed are now being tested on a quantity basis in the school lunchrooms in Baltimore, Md. In connection with this program a series of cards or posters were prepared, telling in brief the food value of fish and

shellfish. These are being used on the counters in the lunchrooms of the cooperating schools in Baltimore to arouse the interest of the school children in eating the fish dishes offered for sale.

Miss Webster also conducted a series of experiments in the cooking of hard, frozen fish (i. e. frozen fish that had not been thawed) and succeeded in developing tasty recipes for cooking frozen swordfish, whiting, pollock, Boston mackerel, halibut, bluefish, and others. By the methods developed the juices which are frozen in the flesh of the fish are not lost in the cooking process.

Other laboratory work included the development of methods for boning fish; for the utilization of fish trimmings and carcasses in making stock or glaze, which end-products later can be used in the preparation of soups, sauces, and the like; and for elimination of odors in the cooking of fish. All of this work has been aimed toward developing technique which can be used to overcome some of the popular misconceptions and prejudices surrounding fish, which have hitherto retarded consumption.

During a considerable portion of the year the Bureau cooperated with the Department of Agriculture of the State of Massachusetts and the fishery industry in that State in conducting a series of fish-cookery demonstrations and lectures for women, girls, school lunch-room managers, home-economics teachers, and college students. At these meetings, conducted by Miss Webster, she emphasized the food value of fishery products, ease and quickness in preparing such products for the table, how to remove bones from fish, how to utilize trimmings and carcasses for food purposes, and how to eliminate odors in cooking fish. An important part of each lecture consisted in acquainting those in attendance with the wide variety of fish available for purchase in Massachusetts, and seasons when they are in abundance.

Some 15,000 consumers were reached in the following cities and towns of Massachusetts:

<i>City</i>	<i>Number of meetings</i>	<i>City</i>	<i>Number of meetings</i>
Andover.....	1	Maynard.....	1
Athol.....	2	Milford.....	2
Boston.....	5	New Bedford.....	3
Bourne.....	1	Newburyport.....	1
Brockton.....	2	Newton Center.....	2
Charlton.....	1	North Adams.....	2
Chicopee.....	1	North Attleboro.....	1
Clinton.....	1	Northampton.....	2
Dalton.....	1	Orange.....	1
Fairhaven.....	1	Pembroke.....	1
Fitchburg.....	2	Pittsfield.....	2
Framingham.....	1	Quincy.....	1
Franklin.....	2	Rockport.....	1
Gardner.....	1	Roxbury.....	1
Gloucester.....	2	Salem.....	2
Great Barrington.....	2	Sharon.....	1
Greenfield.....	2	Shelburne Falls.....	1
Groton.....	1	Southbridge.....	2
Haverhill.....	2	South Hamilton.....	1
Holden.....	1	Springfield.....	5
Holyoke.....	3	Stoughton.....	1
Hyannis.....	1	Turners Falls.....	1
Lawrence.....	2	Ware.....	2
Lowell.....	3	Westfield.....	3
Marblehead.....	1	Worcester.....	3

Six fish-cookery lectures and demonstrations also were given in Washington, D. C., to groups of women in cooperation with the Consumers' Council of Washington, D. C., and one to a group of school lunchroom managers in Baltimore, Md.

RESEARCH ASSOCIATES AND STUDENT ASSISTANTS

Because of the relatively small size of the Bureau's technological staff and the rather broad field of research it must cover, it is only possible to undertake those problems which are of a fundamental nature and which promise to be of the greatest value to the largest number of persons (whose livelihood depends in whole or in part on the fisheries), and which are possible with the funds and personnel available. For this reason, the Division cannot, with present facilities, attack problems of special or restricted interest affecting certain products, processes, methods, or industries. However, the Bureau has available, by congressional authorization and under an arrangement similar to that of other scientific Government bureaus, facilities for research associates and student assistants in its laboratories. The salaries and expenses of these employees are paid by the firms or groups who are interested in the problems on which they are working and the investigations are carried out under the supervision of the Bureau's technologists in its laboratories and under its control. Thus the Bureau provides these industries and groups with laboratory, consulting, and library facilities which, in most instances, cannot be obtained elsewhere.

Within the limits of its facilities, the Bureau also has opened its technological laboratories to research students who are pursuing courses in universities and who are selecting investigational problems in the fisheries as their major study. This may prove of special benefit to the industry as it brings its problems to the attention of a large group of research workers who in turn may spread interest to applied fishery research.

The following research associates and student assistants carried on investigations under the supervision of our technological staff during the past year:

In the College Park laboratory, W. J. Hart, research associate, employed by the Musher Foundation, Inc., New York City, working on the problem of rancidity in fatty fish; George Tarrant, R. H. Flowers, C. E. Swift, Harold E. Crowther, and Joseph F. Puncoschar (part time), research associates, employed by the Aquacide Co., Washington, D. C., working on problems in the chemical preservation of fishery byproducts; William B. Lanham, Jr., Hillman C. Harris, and Willis H. Baldwin, part-time graduate student assistants, employed by the Bureau of Fisheries and working on problems in the chemistry and metabolism of fish proteins; James W. McCurley, Roscoe Dwigins, Robert D. Nichols, G. E. Linthicum, Amiel Kirshbaum, Raymond N. Miskimon, George W. Dorr, H. H. Hemsley, C. R. Langmaid, George W. Knepley, Walter Schaufele, Wade Wood, Ned Oakley, Abraham Scop, A. N. Chumbris, K. Krulevitz, Edward J. Kennedy, John Webster, and T. N. Scharf, student assistants provided by the National Youth Administration through the University of Maryland.

In the Seattle technological laboratory, Lyle Anderson and Leslie Lowen, research associates employed by the Musher Foundation, Inc.,

New York City, working on the problem of rancidity in fish livers, oils, and meals; Myron Thurman, Robert Rucker, and Richard Crosby, student assistants, provided by the National Youth Administration, through the University of Washington.

In the laboratory of the State Medical College at Charleston, S. C., Cecil Leroy Smith, chemist, provided by the Works Progress Administration through the State Medical College and assisting Mr. Coulson of our technological staff in studies of the pharmacology and nutritive value of mineral constituents in fishery products.

At Western Maryland College, Westminster, Md., Miss Thelma Chell, graduate student assistant, employed part time by the Bureau of Fisheries and studying the chemistry of fish proteins; William F. Coleman, Miss Helen H. Frey, and Miss Louella H. Mead, student assistants provided by the National Youth Administration through Western Maryland College and assisting Miss Chell in her study of fish proteins.

At George Washington University, Washington, D. C., William H. Conway and William J. P. Howard, senior medical students provided by the National Youth Administration through the university and working on the problem of the development of disinfectants for sponges for household use.

The details of the above problems have been described in the preceding pages.

EDUCATIONAL AND CONSULTING SERVICE

In addition to the research activities described in this report, our economic and technological staffs conduct, along with their regular duties, an educational and consulting service for those interested in the fisheries. During the past year the demand for this type of service has increased. Many requests have been received from groups and individuals to demonstrate improved methods developed in our laboratories for the handling and processing of fishery products, for instruction in fish cookery, and for aid in improving various marketing practices. Insofar as our facilities have permitted, we have complied with these requests, endeavoring to offer assistance first where the request has come from a large group or industry. We are not able to comply with all of the requests received because of insufficient personnel that could be spared from regular research work, and, because of inadequate funds to provide for the travel expenses of the demonstrators.

In regard to the above, it should be mentioned that the rendering of a demonstration service to the fishery industry has promise, among other things, of improving the quality of the pack and of increasing the consumption of fishery products. For instance, many persons engaged in the industry at remote points are unfamiliar with improved methods for handling fresh fish to assure it reaching consumers in prime condition. This often has resulted in delivering fish of inferior quality to the market, which have brought low returns to the producer. Proper instruction in the handling and preserving of fish should result not only in delivering higher-quality fish to the market, but also in improving the financial status of producers.

On the part of consumers, the nutritive value of fish and other aquatic foods is not generally recognized. As a class these foods are rich in protein and vitamins, and minerals in quantity and variety. The diet of our people should include generous amounts of these foods

so that the general health of the Nation will be conserved. Fish-cookery demonstrations should aid materially in educating consumers as to the wholesomeness of fishery products.

Some of the educational services rendered are discussed or referred to in previous paragraphs of this report. In brief, this work has covered the fields of commercial preserving of fishery products, fish cookery in the home, and the cooperative marketing of aquatic products.

Another phase of this service has consisted in answering thousands of letters directed to the Bureau on fishery subjects, and in supplying information to persons who have called at the Bureau, personally. Many of the latter came from foreign lands to seek fishery information which might be useful in the conduct of the industry in their native country.

PUBLICATIONS OF THE DIVISION

During the calendar year 1936 the following publications were prepared and addresses delivered 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, Maine, and Seattle, Wash., nor the monthly reports on cold-storage holdings of frozen fish and quantities of fish frozen. The fishery 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 nos. 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. Statistical information for the years 1930 to 1934, inclusive, may be obtained from the annual reports of the Division for the years 1931 to 1935, inclusive.

DOCUMENTS, REPORTS, AND CIRCULARS

FIEDLER, R. H.

Fishery industries of the United States, 1935. 8°, 348 pp. Administrative Report No. 24. Appendix II to Report of Commissioner of Fisheries. 30 cents.

The story of oysters. 8°, 29 pp., 21 figs. Fishery Circular No. 21, 1936. 5 cents.

JARVIS, NORMAN D. and FRANCIS P. GRIFFITHS.

The home canning of fishery products. 8°, 16 pp., 5 figs. Investigational Report No. 34. 5 cents.

SALTER, L. C.

Organizing and incorporating fishery cooperative marketing associations. 8°, 38 pp. Fishery Circular No. 22. 5 cents.

SPECIAL ARTICLES AND ADDRESSES

BERRY, M. H., and J. R. MANNING.

Comparison of the feeding value of steam dried and flame dried menhaden fish meal. Bureau of Fisheries' Special Memorandum 2295-M, Washington, D. C. Reprinted from Journal of Dairy Science, vol. XIX, No. 10, pp. 663-669, October 1936, Columbus, Ohio.

CONN, W. T.

Florida fish on the table. Out-door Florida, March 1936, Tampa, Fla.
The modern fish retailer. Atlantic Fisherman, April-May 1936, Manchester,
N. H.

COULSON, E. J.

Associate referee's report on copper. Published in Journal of the Association
of Official Agricultural Chemists, vol. 19, pp. 219-228, May 1936, Wash-
ington, D. C.

Iodine content of fishery products and simple goiter. Bureau of Fisheries'
Special Memorandum 3233, Washington, D. C.

Oysters and anemia. Bureau of Fisheries' Special Memorandum 3234,
Washington, D. C.

FIEDLER, R. H.

Consider the fishes. Bureau of Fisheries' Special Memorandum 3232,
Washington, D. C. Also published in Fish & Oyster Reporter, November
1936, Tampa, Fla.

Keep the fishermen fishing. Fishing Gazette, 1936 Annual Review Number,
vol. 53, No. 7, New York, N. Y.

Marine Wealth of Texas. Southwest Business, July 1936, Dallas, Tex.

Washington's fish market. Address delivered over radio station WMAL,
Washington, D. C., October 30, 1936.

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Part 2. FISHERY STATISTICS

GENERAL REVIEW

Based upon available statistics for 1935, there was a large increase in the catch of fishery products in the United States and Alaska as compared with that of 1933. Statistics of the catch were collected for both 1933 and 1935 in the important New England, Middle Atlantic, Chesapeake, and Pacific sections and in Alaska, and when considering the combined catch of these sections alone, an increase of 45 percent in the volume and 34 percent in the value of the catch is indicated over 1933. Only three sections were surveyed in both 1934 and 1935. These were the Chesapeake and Pacific States, and Alaska. The Pacific States showed increases in both the quantity and value of the catch in the more recent year while decreases were reflected in the catches of the other two sections.

The total annual catch of fishery products in the United States and Alaska as based on the most recent surveys, amounted to 4,152,349,000 pounds, valued at \$80,121,000. About 125,000 fishermen were employed in making this catch.

In 1935 in the United States and Alaska, the production of canned fishery products amounted to 672,755,960 pounds, valued at \$74,999,034; the output of byproducts was valued at \$29,839,277; and the production of frozen fishery products (excluding frozen packaged fish and shellfish), amounted to 93,566,495 pounds, estimated to be valued at \$8,600,000. Based on the most recent surveys the production of

cured fishery products amounted to 120,516,387 pounds, valued at \$15,691,380 and fresh and frozen packaged fish and shellfish 191,-273,299 pounds, valued at \$25,378,622. It is estimated that about 675,000,000 pounds of fresh fishery products (excluding fresh-packaged fish and shellfish), valued at about \$53,000,000 were marketed during 1935. The total marketed value to domestic primary handlers of all fishery products in 1935 is estimated at \$210,000,000.

Fishery products imported for consumption were valued at \$36,231,-959 and domestic exports were valued at \$14,374,016.

New England States.—The commercial catch of fishery products in these States for 1935 showed an increase in both volume and value as compared with 1933 when the first preceding survey of the complete catch in these States was made. With the exception of the catches for 1929 and 1930 the volume of the catch in 1935 was the largest on record. There were large increases in both the volume and value of the combined landings of fishery products by vessels at Boston and Gloucester, Mass., and Portland, Maine, in 1935 as compared with 1934. There also were important increases in the production of sardines and frozen fish in 1935 as compared with the preceding year.

Middle Atlantic States.—The catch of fishery products in the Middle Atlantic States showed a large increase in both volume and value as compared with the catch in 1933 when the first previous survey was made. The volume of the catch in 1935 exceeded that of any previous year for which records are available since 1921. There was a decrease in the production of frozen fish in 1935 as compared with the preceding year, but a large increase in the catch of shad on the Hudson River in 1935 as compared with 1934.

Chesapeake Bay States.—In 1935 the catch of fishery products in the Chesapeake Bay States decreased in both volume and value as compared with the preceding year. The value of the production of menhaden products as well as the volume and value of the catch of shad in the Potomac River in 1935 increased over the preceding year.

South Atlantic and Gulf States.—No survey was made of the commercial catch of fishery products in the South Atlantic and Gulf States during 1935. In 1934 there was a large increase in both the volume and value of the catch as compared with 1932 when the first preceding survey of the catch was made. There were increased packs of canned shrimp and oysters in 1935 as compared with the preceding year.

Pacific Coast States.—The commercial catch of fishery products in these States for 1935 was the largest of any year on record and the value of the catch exceeded that of any previous year except 1929. The value of manufactured fishery products produced in the Pacific Coast States was 25 percent greater than the value of the production for the previous year.

Lake States.—No survey has yet been made for statistics of the catch of the fisheries of the Great Lakes and the international lakes of northern Minnesota for 1935. In 1934, when the most recent survey was made, the catch of fish in this section exceeded any year since 1918.

Mississippi River and tributaries.—The most recent complete statistics of the catch of the Mississippi River and tributaries are those collected for 1931. As compared with 1922, when the most recent preceding survey was made, there was a decrease in the catch. This decrease was reflected principally in a smaller catch of fresh-water mussels. A survey made for Lakes Pepin and Keokuk and the

Mississippi River between these two lakes showed an increase in 1935 as compared with the preceding year. The production of fresh-water mussel-shell buttons decreased in 1935.

Alaska.—The catch of fishery products in Alaska in 1935 decreased in both volume and value as compared with 1934. The pack of canned salmon was considerably less than in the preceding year. There also was a decrease in both the volume and value of the production of frozen fish; a decrease in the volume but an increase in the value of fresh fish; but increases in both the volume and value of the production of cured fish and fishery byproducts.

Fisheries of the United States and Alaska

SUMMARY OF CATCH: BY SECTIONS

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

Product	New England, 1935, Area XXII		Middle Atlantic, 1935, Area XXIII		Chesapeake, 1935, Area XXIII		South Atlantic and Gulf, 1934, Areas XXIV and XXV		Pacific, 1935	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Fish.....	609, 136	12, 539	245, 728	2, 904	192, 889	1, 896	288, 015	4, 435	1, 648, 155	20, 940
Shellfish, etc.....	46, 294	5, 445	33, 710	3, 512	72, 938	3, 628	159, 899	5, 559	22, 357	1, 994
Whale products.....									5, 724	155
Total.....	655, 430	17, 984	279, 438	6, 416	265, 827	5, 524	447, 914	9, 994	1, 676, 236	23, 089

Product	Lakes, 1934		Mississippi River and tributaries, 1931		Alaska, 1935		Total for the vari- ous years	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Fish.....	93, 241	5, 068	44, 062	2, 257	635, 793	8, 556	3, 757, 019	58, 595
Shellfish, etc.....	3, 170	56	38, 321	640	2, 543	147	379, 232	20, 981
Whale products.....					10, 374	390	16, 098	545
Total.....	96, 411	5, 124	82, 383	2, 897	648, 710	9, 093	4, 152, 349	80, 121

NOTE.—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 whose principal fishing ports are in the respective areas but at times they may fish elsewhere.

OPERATING UNITS: BY SECTIONS

Item	New Eng- land, 1935	Middle Atlantic, 1935	Chesa- peake, 1935	South At- lantic and Gulf, 1934 ¹	Pacific, 1935
	Number	Number	Number	Number	Number
Fishermen:					
On vessels.....	5, 023	2, 499	2, 118	2, 914	7, 087
On boats and shore.....	13, 426	7, 121	16, 998	21, 984	13, 496
Total.....	18, 449	9, 620	19, 116	24, 898	20, 583
Vessels:					
Steam.....	39	19	22		2
Net tonnage.....	5, 977	2, 090	2, 480		41
Motor.....	582	368	125	710	1, 034
Net tonnage.....	16, 074	5, 834	2, 057	8, 789	26, 642
Sail.....		4	140	30	5
Net tonnage.....		29	1, 694	298	2, 170
Total vessels.....	621	391	287	740	1, 041
Total net tonnage.....	22, 051	7, 953	6, 231	9, 087	28, 853
Boats:					
Motor.....	4, 457	1, 830	6, 576	6, 309	5, 256
Other.....	4, 623	3, 251	6, 155	8, 089	854
Accessory boats.....	857	177	86	198	689
Apparatus:					
Haul seines.....	140	260	408	852	236
Purse seines.....	157	38	29	40	427
Lampara nets.....					220

¹ Includes the fisheries of Lake Okeechobee, Fla.

Fisheries of the United States and Alaska—Continued

OPERATING UNITS: BY SECTIONS—Continued

Item	New Eng-land, 1935	Middle Atlantic, 1935	Chesa-peake, 1935	South At-lantic and Gulf, 1934	Pacific, 1935
Apparatus—Continued.	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Otter trawls.....	479	175	23	3,051	41
Beam trawls.....					29
Paranzella nets.....					11
Gill nets.....	6,319	1,619	11,254	10,581	3,851
Trammel nets.....				425	47
Pound nets, trap nets, and weirs.....	457	577	2,541	1,551	59
Stop nets.....		68	5	9	
Fyke nets.....	303	1,655	3,272	490	1,628
Bag nets.....	148				10
Other nets ¹	457	489	3,181	14,486	595
Hooks, baits, or snoods.....	3,236,009	474,013	1,926,290	609,206	1,133,525
Fish wheels.....				33	
Eel pots and traps.....	3,016	5,349	13,761	790	
Brush traps.....				25,250	
Lobster pots and traps.....	289,437	17,449			6,258
Crab, crawfish, and turtle pots, and traps.....	6,107	10	56	2,654	27,336
Clam dredges.....	63	68		1	
Crab dredges.....		61	211		
Mussel dredges.....		9			
Oyster dredges.....	160	346	706	662	4
Scallop dredges.....	3,587	490		6	
Crab scrapes.....			716		
Tongs, rakes, shovels, hoes, forks, picks, etc.....	5,721	4,938	9,245	2,977	4,980
Diving outfits.....				53	21
Other apparatus ²	1,505	8,729	141	4,473	59

Item	Lakes, 1934	Mississippi River and tributaries, 1931	Alaska, 1935	Total for the various years
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	1,703		9,208	30,552
On boats and shore.....	5,876	15,884		94,785
Total.....	7,579	15,884	9,208	125,337
Vessels:				
Steam.....	76		7	165
Net tonnage.....	1,716		547	12,851
Motor.....	414		838	4,071
Net tonnage.....	4,581		11,298	75,275
Sail.....				179
Net tonnage.....				4,191
Total vessels.....	490		845	4,415
Total net tonnage.....	6,297		11,845	92,317
Boats:				
Motor.....	1,720	4,426	1,257	31,831
Other.....	1,350	10,120	2,732	37,174
Accessory boats.....	18			2,025
Apparatus:				
Haul seines.....	254	1,013	196	3,359
Purse seines.....			860	1,551
Lampara nets.....				220
Otter trawls.....				3,769
Beam trawls.....			12	41
Paranzella nets.....				11
Gill nets.....	98,012	101	2,430	134,167
Trammel nets.....	123	518		1,113
Pound nets, trap nets, and weirs.....	9,008	374	458	15,025
Stop nets.....				82
Fyke nets.....	2,821	32,541		42,710
Bag nets.....				158
Other nets ³		191		19,399
Hooks, baits, or snoods.....	726,986	2,459,179	(*)	10,565,208
Fish wheels.....			297	330
Eel pots and traps.....				22,916
Brush traps.....				25,250
Lobster pots and traps.....				313,144
Crab, crawfish, and turtle pots, and traps.....	2,710	456	3,785	43,114

¹ Includes persons in boat and shore fisheries.² Includes dip nets, push nets, reef nets, scap nets, drag nets, cast nets, and drop nets.³ Number not determined.⁴ Includes periwinkle, cockle, and fish pots, harpoons, spears, and wire baskets.

Fisheries of the United States and Alaska—Continued

OPERATING UNITS: BY SECTIONS—Continued

Item	Lakes, 1934	Mississippi River and tributaries, 1931	Alaska, 1935	Total for the various years
Apparatus—Continued.	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Clam dredges				132
Crab dredges				272
Mussel dredges		440		449
Oyster dredges				1,878
Scallop dredges				4,083
Crab scrapes				716
Tongs, rakes, shovels, hoes, forks, picks, etc.	142	3,994		31,897
Diving outfits	16			90
Crowfoot bars	685	4,480		5,165
Other apparatus ¹		3,781		18,688

CATCH: BY SECTIONS

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

Species	New England, 1935		Middle Atlan- tic, 1935		Chesapeake, 1935		South Atlan- tic and Gulf, 1934 ¹		Pacific, 1935	
	Quantity 4,406	Value 25	Quantity 554	Value 7	Quantity 15,203	Value 116	Quantity 15,112	Value 92	Quantity	Value
FISH										
Alewives										
Amberjack										
Anchovies	4	(⁶)							179	3
Barracuda									2,618	111
Black bass					36	3	424	25		
Bluefish	357	32	2,976	193	653	43	3,732	165		
Blue runner or hardtail							184	3		
Bonito	33	2	301	9	(⁶)	(⁶)				
Bowfin					5	(⁶)	1	(⁶)		
Buffalofish							19	1		
Butterfish	2,294	83	6,438	296	2,547	64	43	1		
Cable or crab eater					49	3		7	(⁶)	
Calappa									122	5
Carp	52	4	494	36	692	33	109	4	236	4
Catfish and bullheads			120	8	768	27	3,480	117	290	32
Cero							4	(⁶)		
Charrfish							4	(⁶)		
Cod	120,334	2,514	1,856	84	(⁶)	(⁶)			14,387	203
Croppie					6	(⁶)	462	12		
Crovalle	1	(⁶)	1	(⁶)			114	2		
Croaker	2,350	43	8,042	127	26,438	335	8,374	118		
Cunner	1	(⁶)	3	(⁶)						
Cusk	7,556	137								
Delphin					(⁶)	(⁶)	8	(⁶)		
Drum										
Black			9	(⁶)	63	1	2,556	69		
Red or redfish	2	(⁶)	39	1	38	1	3,365	156		
Eels										
Common	420	33	619	69	409	33	63	3		
Conger	114	1	21	1						
Flounders	38,734	1,321	9,252	514	705	36	1,297	63	14,811	744
Flycatcher									38	1
Frigate mackerel	82	1	158	2						
Garfish							(⁶)	(⁶)		
Gizzard shad			(⁶)		330	4	24	(⁶)		
Goosfish	3	(⁶)	71	1						
Grayfish	35	1	116	2					832	12
Groupers			2	(⁶)			3,570	85	31	2
Grunts							49	1		
Haddock	194,606	4,276	1,323	61						
Hake	26,541	376	209	5	24	(⁶)			74	1
Hallbut	2,925	252							27,368	2,171
Hardhead									78	4
Harvey fish or starfish					151	3	820	12		
Herring, sea	54,329	286	334	3	2	(⁶)			1,666	15
Herring smelt	13	(⁶)								
Hickory shad	(⁶)	(⁶)	3	(⁶)	73	2	158	7		
Hogfish							6	(⁶)		
Horse mackerel									9,984	43
Jewfish							47	1		

¹ Includes the fisheries of Lake Okechobee, Fla.² Includes periwinkle, cockle, and fish pots, harpoons, spears, and wire baskets.³ Less than 50 pounds or dollars.

Fisheries of the United States and Alaska—Continued

CATCH: BY SECTIONS—Continued

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

Species	New England, 1935		Middle Atlan- tic, 1935		Chesapeake, 1935		South Atlan- tic and Gulf, 1934		Pacific, 1935	
	Quan- tity	Value	Quan- tity	Value	Quan- tity	Value	Quan- tity	Value	Quantity 769	Value 18
FISH—continued										
Kingfish (California)										
Kingfish or "king mack- erel"	(^o)	(^o)	13	1			2,661	117		
King whiting or "king- fish"	5	(^o)	71	5	58	2	661	16		
Lamprey	2	(^o)								
Launce	34	(^o)	2	(^o)						
"Lingcod"									2,321	75
Mackerel	61,950	1,249	3,082	91	54	2	(^o)	(^o)	146,427	1,120
Marlin									19	1
Menhaden	4,284	14	179,603	474	121,088	411	164,386	541		
Minnnows	4	3								
Mojarro							19	(^o)		
Mullet			99	4	54	2	30,485	812	14	1
Mummichog	6	1	13	1						
Muttonfish							199	9		
Paddlefish or "spoonbill cat"							1	(^o)		
Permit							2	(^o)		
Pigfish			(^o)	(^o)	11	(^o)	187	3		
Pike or pickerel (jacks)			(^o)	(^o)	23	4	1	(^o)		
Pilchard									1,168,213	4,606
Pilotfish	1	(^o)								
Pinfish							211	2		
Pollock	33,394	547	22	1						
Pompano			4	1	(^o)	(^o)	442	79	6	3
Rock bass									365	21
Rockfishes									5,331	197
Rosefish	17,157	184								
Rudderfish									35	2
Sablefish									5,998	202
Salmon:										
Atlantic	40	10								
Blueback, red or sock- eye									4,854	481
Chinook or king									29,432	1,970
Chum or keta									9,612	245
Humpback or pink									26,178	603
Silver or coho									29,375	1,367
Sawfish							18	(^o)		
Sculpin									80	5
Scup or porgy	6,751	160	7,096	135	2,057	29	38	1		
Sea bass	3,416	122	2,089	106	226	9	257	10	631	34
Sea bass, white (Calif- ornia)									1,070	66
Sea catfish							105	(^o)		
Sea robin	276	3	92	2						
Shad	727	40	1,329	132	3,683	359	2,497	330	2,414	68
Sharks	81	1	45	1	7	(^o)	3,229	9		
Sheepshead, salt water							1,199	39	188	6
Silversides			70	3						
Skates	227	3	132	2	17	(^o)	175	(^o)	306	3
Skipper or "billfish"	(^o)	(^o)								
Smelt	729	86							4,400	113
Snapper:										
Mangrove							229	7		
Red			15	1			5,856	324		
Snook							428	11		
Spadefish							6	(^o)		
Spanish mackerel			24	1	38	3	6,969	286	4	(^o)
Splittail									38	1
Spot			19	1	425	15	4,906	75		
Squawfish									2	(^o)
Squeteagues or "sea trout":										
Gray	327	15	10,140	321	14,756	194	7,742	181		
Spotted			3	(^o)	116	8	8,711	544		
White							730	18		
Squirrel hake			25	(^o)						
Steelhead trout									2,108	117
Striped bass	22	3	62	8	1,302	118	362	36	530	43
Sturgeon	5	1	20	3	7	1	73	6	80	2
Suckers	97	4	89	6	12	(^o)			44	(^o)
Sunfish			1	(^o)	2	(^o)	518	14		
Surfishes (perch)									362	14
Swellfish			5	(^o)	1	(^o)				

^o Less than 500 pounds or dollars.

Fisheries of the United States and Alaska—Continued

CATCH: BY SECTIONS—Continued

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

Species	New England, 1935		Middle Atlan- tic, 1935		Chesapeake, 1935		South Atlan- tic and Gulf, 1934		Pacific, 1935	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
FISH—continued										
Swordfish.....	2, 086	424	43	9					669	74
Tautog.....	259	11	43	1	2	(^o)				
Tenpounder.....							29	(^o)		
Thimble-eyed mackerel.....	46	(^o)	245	4						
Tilefish.....	161	8	2, 491	94						
Tomcod.....	17	1	7	(^o)	1	(^o)			1	(^o)
Tripletail.....							1	(^o)		
Tuna and tunalike fishes										
Albacore.....									2, 448	200
Bluefin or horse mack- erel.....	538	14	24	2			4	(^o)	25, 173	1, 145
Bonito.....									7, 896	229
Skipjack.....									17, 197	688
Yellowfin.....									72, 252	3, 620
Turbot.....							2	(^o)		
Wahoo.....							2	(^o)		
Whitebait.....			9	1					170	9
Whitefish, common.....									58	3
White perch.....	51	6	113	7	599	27	540	23		
Whiting.....	17, 415	182	5, 629	96	16	(^o)				
Wolfish.....	2, 934	60								
Yellow perch.....	3	(^o)	13	1	142	8	17	(^o)		
Yellowtail.....							81	5	8, 149	234
Miscellaneous fish.....									222	3
Total	609, 136	12, 539	245, 728	2, 904	192, 889	1, 896	288, 015	4, 435	1, 648, 155	20, 940
SHELLFISH, ETC.										
Crabs:										
Hard.....	3, 106	59	1, 297	40	37, 028	841	18, 013	265	7, 604	635
King or "horseshoe" Soft and peelers.....	(^o)	(^o)	3, 135	9			500	1		
Stone.....			390	107	4, 006	385	908	123		
Crawfish.....							81	6	79	8
Lobsters:										
Common.....	10, 852	2, 520	643	139	1	(^o)				
Spiny.....							351	17	1, 345	214
Shrimp.....			194	13			119, 318	3, 068	3, 572	61
Abalone.....									774	115
Clams:										
Coquina.....							6	1		
Hard.....	4, 057	451	5, 217	794	1, 669	373	920	66	853	61
Pismo.....									49	10
Razor.....	583	14							1, 013	158
Soft.....	9, 801	561	1, 834	143					48	10
Surf.....	1	(^o)	837	37						
Mixed.....									75	4
Conchs.....			9	1			2	(^o)		
Mussels, sea.....	117	3	98	6	23	1				
Octopus.....							2	(^o)	150	7
Oysters:										
Eastern, market, public.....	64	11	346	51	17, 255	1, 083	12, 170	731		
Eastern, market, private.....	9, 940	1, 199	14, 465	1, 677	12, 645	937	6, 657	410	65	31
Japanese, market.....									5, 527	444
Western, market.....									338	208
Periwinkles and "cockles"	159	7								
Scallops:										
Bay.....	1, 504	261	107	36			110	12	15	4
Sea.....	1, 670	231	2, 640	344			120	18		
Squid.....	3, 544	67	2, 423	67	290	5			835	24
Sea urchins.....	35	(^o)								
Terrapin.....					6	2	17	2		
Turtles.....			21	1	15	1	69	1	2	(^o)
Irish moss.....	8	(^o)								
Sponges.....							655	838		
Bloodworms.....	293	38	24	20						
Sandworms.....	570	33	30	27						
Trepang.....									13	(^o)
Total	46, 294	5, 445	33, 710	3, 512	72, 938	3, 628	159, 899	5, 559	22, 357	1, 994

^o Less than 500 pounds or dollars.

Fisheries of the United States and Alaska—Continued

CATCH: BY SECTIONS—Continued

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

Species	New England, 1935		Middle Atlantic, 1935		Chesapeake, 1935		South Atlantic and Gulf, 1934		Pacific, 1935	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
WHALE PRODUCTS¹										
Meat.....									3, 272	66
Oil, whale.....									2, 452	89
Total.....									5, 724	155
Grand total.....	655, 430	17, 984	279, 438	6, 416	265, 827	5, 524	447, 914	9, 994	1, 676, 236	23, 089

Species	Lakes, 1934		Mississippi River and tributaries, 1931		Alaska, 1935		Total for the various years	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
FISH								
Alewives.....							35, 275	240 ¹
Amberjack.....							4	(⁶)
Anchovies.....							183	3
Barracuda.....							2, 618	111
Black bass.....			14	2			474	30
Bluefish.....							7, 718	433
Blue pike.....	8, 509	445					8, 509	445
Blue runner or hardtail.....							184	3
Bonito.....							334	11
Bowfin.....	9	(⁶)	428	10			443	10
Buffalofish.....	1	(⁶)	15, 772	687			15, 792	688
Butterfish.....							11, 322	414
Burbot.....	396	7					396	7
Cabio or crab eater.....							56	3
Cabrilla.....							122	5
Carp.....	3, 846	66	11, 892	456			17, 321	603
Catfish and bullheads.....	789	48	10, 267	878			15, 714	1, 110
Cero.....							4	(⁶)
Chub.....	7, 149	644					7, 149	644
Cigarfish.....							4	(⁶)
Cisco.....	111	9					111	9
Cod.....					449	2	137, 026	2, 803
Crappie.....	1	(⁶)	41	3			510	15
Crevalle.....							116	2
Croaker.....							45, 204	623
Cunner.....							4	(⁶)
Cusk.....							7, 556	137
Dolly Varden trout.....					29	2	29	2
Dolphin.....							8	(⁶)
Drum:								
Black.....							2, 628	70
Red or redfish.....							3, 444	158
Eels:								
Common.....	65	2	7	(⁶)			1, 583	140
Conger.....							134	2
Flounders.....					278	3	65, 077	2, 681
Flyingfish.....							38	1
Frigate mackerel.....							240	3
Garfish.....			73	1			73	1
Gizzard shad.....							356	4
Goldfish.....	66	1					68	1
Goosefish.....							74	1
Grayfish.....							983	15
Groupers.....							3, 603	87
Grunts.....							49	1
Haddock.....							195, 929	4, 337
Hake.....							26, 848	382
Halibut.....					10, 895	608	41, 188	3, 031
Hardhead.....							78	4
Harvestfish or "starfish".....							971	15
Herring:								
Lake.....	23, 941	440					23, 941	440
Sea.....					189, 287	947	245, 618	1, 251
Herring smelt.....							13	(⁶)
Hickory shad.....							234	9
Hogfish.....							6	(⁶)

⁶ Less than 500 pounds or dollars.

⁷ The weight of whales caught was not determined; therefore, the weight of the manufactured products is shown.

Fisheries of the United States and Alaska—Continued

CATCH: BY SECTIONS—Continued

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

Species	Lakes, 1934		Mississippi River and tributaries, 1931		Alaska, 1935		Total for the various years	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
FISH—continued								
Horse mackerel							9,984	43
Jewfish							47	1
Kingfish (California)							769	18
Kingfish or "king mackerel"							2,674	118
King whiting or "kingfish"							795	23
Lake trout	10,112	1,200					10,112	1,200
Lamprey							2	(^o)
Launce							36	(^o)
"Lingcod"							2,321	75
Mackerel							211,513	2,462
Marlin							19	1
Menhaden							469,361	1,440
Minnnows			1	(^o)			5	3
Mojarro							19	(^o)
Mooneye	26	(^o)	3	(^o)			29	(^o)
Mullet							30,652	819
Mummichog							19	2
Muttonfish							199	9
Paddlefish or "spoonbill cat"			951	43			952	43
Permit							2	(^o)
Pigfish							198	3
Pike or pickerel (jacks)	559	18	5	(^o)			588	22
Pilchard							1,168,213	4,606
Pilotfish							1	(^o)
Pinfish							211	2
Pollock							33,416	548
Pompano							452	83
Quillback			268	11			268	11
Rock bass	23	2					388	23
Rockfishes					8	(^o)	5,339	197
Rosefish							17,157	184
Rudderfish							35	2
Sablefish					832	23	6,830	225
Salmon:								
Atlantic							40	10
Blueback, red or sockeye					73,516	1,940	78,370	2,421
Chinook or king					16,010	370	45,442	2,340
Chum or keta					84,898	866	94,510	1,111
Humpback or pink					241,110	3,430	267,288	4,033
Silver or coho					18,470	364	47,845	1,731
Sauger	1,174	58	3	(^o)			1,177	58
Sawfish							18	(^o)
Sculpin							80	5
Scup or porgy							15,942	325
Sea bass							6,619	281
Sea bass, white (California)							1,070	66
Sea catfish							105	(^o)
Sea robin							368	5
Shad							10,650	929
Sharks							3,362	11
Sheepshead:								
Fresh water	2,232	38	3,905	143			6,137	181
Salt water							1,387	45
Silversides							70	3
Skates							857	8
Skipper or "billfish"							(^o)	(^o)
Smelt	1,029	16					6,158	215
Snapper:								
Mangrove							229	7
Red							5,871	325
Snook							428	11
Spadefish							6	(^o)
Spanish mackerel							7,035	290
Splittail							38	1
Spot							5,350	91
Squawfish							2	(^o)
Squeteagues or "sea trout":								
Gray							32,965	711
Spotted							8,830	552
White							730	18
Squirrel hake							25	(^o)
Steelhead trout	2	(^o)			11	1	2,121	118
Striped bass							2,278	208
Sturgeon	36	9					221	22
Sturgeon, shovelnose			87	8			87	8

Less than 500 pounds or dollars.

Fisheries of the United States and Alaska—Continued

CATCH: BY SECTIONS—Continued

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

Species	Lakes, 1934		Mississippi River and tributaries, 1931		Alaska, 1935		Total for the various years	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
FISH—continued								
Suckers.....	5,616	136	315	13			6,173	159
Sunfish.....	18	(⁶)	22	1			561	15
Surfishes (perch).....							362	14
Swellfish.....							6	(⁶)
Swordfish.....							3,698	507
Tautog.....							304	12
Tenpounder.....							29	(⁶)
Thimble-eyed mackerel.....							291	4
Tilefish.....							2,655	102
Tomcod.....							26	1
Tripletail.....							1	(⁶)
Tullibees.....	156	(⁶)					156	(⁶)
Tuna and tunalike fishes:								
Albacore.....							2,448	200
Bluefin or horse mackerel.....							25,739	1,161
Bonito.....							7,896	229
Skipjack.....							17,197	688
Yellowfin.....							72,252	3,620
Turbot.....							2	(⁶)
Wahoo.....							2	(⁶)
White bass.....	688	25	3	(⁶)			691	25
Whitebait.....							179	10
Whitefish:								
Common.....	6,276	804					6,334	807
Menominee.....	229	12					229	12
White perch.....							1,303	63
Whiting.....							23,060	278
Wolfish.....							2,934	60
Yellow perch.....	16,099	695					16,274	704
Yellow pike.....	4,081	393	5	1			4,086	394
Yellowtail.....							8,230	239
Miscellaneous fish.....							222	3
Total.....	93,241	5,068	44,062	2,257	635,793	8,556	3,757,019	58,595
SHELLFISH, ETC.								
Crabs:								
Hard.....					960	82	68,008	1,922
King (Pacific coast).....					2	(⁶)	2	(⁶)
King or "horseshoe".....							3,635	10
Soft and peelers.....							5,304	615
Stone.....							81	6
Crawfish.....	36	3	29	(⁶)			144	11
Lobsters:								
Common.....							11,496	2,659
Spiny.....							1,696	231
Shrimp.....			49	4	691	26	123,824	3,172
Abalone.....							774	115
Clams:								
Coquina.....							6	1
Hard.....					32	1	12,748	1,746
Pismo.....							49	10
Razor.....					858	38	2,454	210
Soft.....							11,683	714
Surf.....							838	37
Mixed.....							75	4
Conchs.....							11	1
Mussels, sea.....							238	10
Mussel shells.....	3,134	51	37,255	422			40,389	473
Octopus.....							152	7
Oysters:								
Eastern, market, public.....							29,835	1,876
Eastern, market, private.....							43,772	4,254
Japanese, market.....							5,527	444
Western, market.....							338	208
Periwinkles and "cockles".....							159	7
Scallops:								
Bay.....							1,736	313
Sea.....							4,430	593
Squid.....							7,092	153
Sea urchins.....							35	(⁶)
Terrapin.....			19	(⁶)			42	4
Turtles.....			94	3			201	6
Frogs.....			875	131			875	131
Irish moss.....							8	(⁶)

* Less than 500 pounds or dollars.

Fisheries of the United States and Alaska—Continued

CATCH: BY SECTIONS—Continued

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

Species	Lakes, 1934		Mississippi River and tributaries, 1931		Alaska, 1935		Total for the various years	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
SHELLFISH, ETC.—continued								
Sponges.....							655	838
Pearls and slugs.....		2		80				82
Bloodworms.....							307	58
Sandworms.....							600	60
Trepang.....							13	(⁹)
Total.....	3, 170	56	38, 321	640	2, 543	147	379, 232	20, 981
WHALE PRODUCTS ⁷								
Meat.....							3, 272	66
Fertilizer.....					2, 678	31	2, 678	31
Oil, sperm.....					1, 446	46	1, 446	46
Oil, whale.....					6, 250	313	8, 702	402
Total.....					10, 374	390	16, 098	545
Grand total.....	96, 411	5, 124	82, 383	2, 897	648, 710	9, 093	4, 152, 349	80, 121

CATCH: BY STATES ⁸

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

State	Marine and coastal rivers		Mississippi River and tributaries		Lakes ⁹		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Alabama.....	7, 964	253		33			9, 786	286
Arkansas.....			15, 733	411			15, 733	411
California.....	1, 466, 758	14, 683					1, 466, 758	14, 683
Connecticut.....	14, 916	1, 217					14, 916	1, 217
Delaware.....	86, 666	430					86, 666	430
Florida.....	117, 192	3, 586			1, 609	48	118, 801	3, 634
Georgia.....	27, 141	360					27, 141	360
Illinois.....			14, 263	367	1, 206	92	15, 469	459
Indiana.....			7, 717	157	702	52	8, 419	209
Iowa.....			7, 778	302			7, 778	302
Kansas.....			455	17			455	17
Kentucky.....			1, 622	61			1, 622	61
Louisiana.....	76, 633	2, 285	19, 214	995			95, 847	3, 280
Maine.....	112, 219	3, 309					112, 219	3, 309
Maryland.....	48, 235	2, 004					48, 235	2, 004
Massachusetts.....	503, 417	12, 148					503, 417	12, 148
Michigan.....					30, 393	2, 156	30, 393	2, 156
Minnesota.....			3, 498	138	10, 735	297	14, 233	435
Mississippi.....	22, 153	652	2, 650	123			24, 803	775
Missouri.....			928	77			928	77
Nebraska.....			145	16			145	16
New Hampshire.....	354	62					354	62
New Jersey.....	107, 802	2, 844					107, 802	2, 844
New York.....	84, 939	3, 135			1, 432	99	86, 371	3, 234
North Carolina.....	163, 462	1, 672					163, 462	1, 672
Ohio.....			185	7	27, 670	1, 157	27, 855	1, 164
Oklahoma.....			40	4			40	4
Oregon.....	85, 392	2, 077					85, 392	2, 077
Pennsylvania.....	31	6			3, 572	208	3, 603	214
Rhode Island.....	24, 524	1, 248					24, 524	1, 248
South Carolina.....	5, 891	225					5, 891	225
South Dakota.....			114	11			114	11
Tennessee.....			3, 435	104			3, 435	104
Texas.....	25, 869	912	139	6			26, 008	918
Virginia.....	217, 592	3, 521					217, 592	3, 521
Washington.....	124, 086	6, 329					124, 086	6, 329
Wisconsin.....			2, 645	68	20, 701	1, 064	23, 346	1, 132
Alaska.....	648, 710	9, 093					648, 710	9, 093
Total.....	3, 971, 946	72, 051	82, 383	2, 897	98, 020	5, 173	4, 152, 349	80, 121

⁶ Less than 500 pounds or dollars.⁷ The weight of whales caught was not determined; therefore, the weight of the manufactured products is shown.⁸ The catch for "Marine and coastal rivers" is for 1935 except in the South Atlantic and Gulf States which is for 1934; the catch of the "Mississippi River and tributaries" is for 1931; and the catch of the "Lakes" is for 1934.⁹ 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—Continued

SEED OYSTER FISHERY

Item	New England, 1935		Middle Atlantic, 1935	
OPERATING UNITS				
Fishermen:	<i>Number</i>		<i>Number</i>	
On vessels.....	137		1, 151	
On boats and shore:				
Regular.....	29		74	
Casual.....	1		154	
Total	167		1, 379	
Vessels:				
Steam.....	4			
Net tonnage.....	344			
Motor.....	9		5	
Net tonnage.....	236		85	
Sail.....	15		109	
Net tonnage.....	114		2, 246	
Total vessels	98		114	
Total net tonnage	694		2, 331	
Boats:				
Motor.....	1		73	
Other.....	15		145	
Apparatus:				
Dredges, oyster.....	161		230	
Yards at mouth.....	142		283	
Tongs.....	7		202	
Rakes.....			25	
CATCH				
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring.....	17, 355	\$6, 942	913, 505	\$302, 954
Seed, public, fall.....	88, 888	35, 658	24, 465	6, 502
Seed, private, spring.....	355, 843	162, 334	30, 659	18, 412
Seed, private, fall.....	20, 725	13, 600	11, 215	10, 128
Total	482, 811	218, 534	979, 844	337, 996

Item	Chesapeake, 1935		South Atlantic and Gulf, 1934		Total	
OPERATING UNITS						
Fishermen:	<i>Number</i>		<i>Number</i>		<i>Number</i>	
On vessels.....	212				1, 500	
On boats and shore:						
Regular.....	1, 369		12		1, 484	
Casual.....	188				343	
Total	1, 769		12		3, 327	
Vessels:						
Steam.....					4	
Net tonnage.....					344	
Motor.....	1				15	
Net tonnage.....	6				327	
Sail.....	39				163	
Net tonnage.....	758				3, 118	
Total vessels	40				182	
Total net tonnage	764				3, 789	
Boats:						
Motor.....	843				917	
Other.....	280		6		446	
Apparatus:						
Dredges, oyster.....	78		12		481	
Yards at mouth.....	107		12		544	
Tongs.....	1, 142				1, 351	
Rakes.....	200				225	
CATCH						
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring.....	1, 148, 218	\$182, 547	17, 450	\$2, 617	2, 096, 528	\$495, 060
Seed, public, fall.....	889, 100	154, 715			1, 002, 453	196, 875
Seed, private, spring.....	20, 000	4, 000			406, 502	184, 746
Seed, private, fall.....					31, 940	23, 728
Total	2, 057, 318	341, 262	17, 450	2, 617	3, 537, 423	900, 409

NOTE.—Of the number of persons fishing for seed oysters, a total of 2,760 are duplicated among those fishing for market oysters or other species. Similarly, the following craft and gear are duplicated: 123 vessels, 731 motor boats, 255 other boats, 258 dredges, 913 tongs, and 208 rakes.

Yield of the fisheries of the United States: By gear

Gear	New England, 1935		Middle Atlantic, 1935		Chesapeake, 1935	
	Pounds	Value	Pounds	Value	Pounds	Value
Purse seines.....	87,259,900	\$1,249,300	175,514,600	\$492,484	119,230,600	\$407,520
Haul seines.....	780,400	37,580	1,739,800	76,005	3,440,600	122,179
Gill nets.....	29,674,200	609,943	2,867,900	183,821	1,396,500	124,039
Lines.....	87,788,200	2,022,257	6,848,900	327,926	32,141,300	687,683
Pound nets.....	22,956,200	265,206	42,022,600	994,073	59,130,600	1,016,676
Floating traps.....	11,952,300	233,815	-----	-----	-----	-----
Other traps.....	37,000	3,135	-----	-----	-----	-----
Weirs.....	21,250,500	104,281	1,392,000	2,508	-----	-----
Stop nets.....	-----	-----	156,800	11,120	72,700	1,565
Fyke nets.....	146,900	8,258	408,600	21,491	954,600	42,187
Dip nets.....	2,796,800	83,188	1,703,700	113,066	2,500,700	247,932
Cast nets.....	-----	-----	2,600	185	-----	-----
Scap nets.....	-----	-----	119,700	4,423	-----	-----
Bag and pocket nets.....	146,600	17,080	-----	-----	-----	-----
Drag nets.....	-----	-----	11,700	2,800	-----	-----
Push nets.....	14,400	4,800	-----	-----	-----	-----
Other trawls.....	344,801,900	7,585,204	19,067,900	803,090	8,693,300	173,249
Pots.....	14,273,400	2,597,879	1,966,100	209,422	369,200	18,957
Harpoons.....	3,246,000	428,837	42,600	8,850	-----	-----
Spears.....	28,300	2,556	90,200	11,229	-----	-----
Scrapes, crab.....	-----	-----	-----	-----	1,383,800	98,246
Dredges.....	12,987,900	1,604,006	18,015,200	2,045,705	15,507,200	944,233
Tongs.....	2,467,000	279,512	2,996,800	477,449	19,209,600	1,399,451
Rakes.....	1,271,800	161,058	3,059,900	420,181	1,178,900	115,336
Forks.....	705,200	39,497	529,600	91,691	-----	-----
Hoes.....	10,562,500	608,372	1,055,900	69,878	-----	-----
Picks.....	-----	-----	-----	-----	303,200	75,800
Gaffs.....	-----	-----	500	25	-----	-----
By hand.....	283,000	37,830	824,500	48,242	314,500	49,466
Total.....	655,430,400	17,983,594	279,438,100	6,415,664	265,827,300	5,524,519

Gear	South Atlantic and Gulf, 1934		Pacific, 1935		Lakes, 1934	
	Pounds	Value	Pounds	Value	Pounds	Value
Purse seines.....	164,367,700	\$553,133	1,014,133,700	\$6,679,603	-----	-----
Haul seines.....	36,138,600	990,725	4,353,000	236,712	4,176,000	\$89,287
Gill nets.....	48,900,500	1,598,648	34,986,100	1,799,421	44,432,900	2,547,455
Trammel nets.....	5,655,000	290,441	1,408,300	97,605	218,500	4,051
Lines.....	32,049,700	978,492	179,425,400	8,831,430	2,394,600	278,599
Pound nets.....	19,218,900	304,045	1,006,600	56,268	10,902,100	494,978
Other traps.....	520,100	65,700	-----	-----	28,686,600	1,546,336
Weirs.....	3,000	90	575,800	6,909	-----	-----
Wheels.....	450,000	2,500	-----	-----	-----	-----
Stop nets.....	563,400	16,674	-----	-----	-----	-----
Fyke nets.....	146,600	4,516	323,100	32,237	2,430,500	106,628
Dip nets.....	3,745,200	109,531	4,612,200	137,440	-----	-----
Drag bag nets.....	-----	-----	2,245,400	33,917	-----	-----
Cast nets.....	642,200	14,240	-----	-----	-----	-----
Push nets.....	25,800	2,975	-----	-----	-----	-----
Reef nets.....	-----	-----	482,300	15,758	-----	-----
Lampara nets.....	-----	-----	390,481,700	2,259,727	-----	-----
Paranzella nets.....	-----	-----	13,116,800	650,165	-----	-----
Other trawls.....	113,248,200	2,914,053	3,206,500	80,759	-----	-----
Beam trawls.....	-----	-----	1,351,900	30,815	-----	-----
Pots.....	1,426,500	61,204	9,381,900	869,206	35,600	3,200
Harpoons.....	-----	-----	6,403,400	229,154	-----	-----
Spears.....	153,800	10,213	-----	-----	-----	-----
Dredges.....	8,148,000	545,011	(*)	(*)	-----	-----
Tongs.....	7,636,200	508,060	7,967,900	926,365	-----	-----
Crowfoot bars.....	-----	-----	-----	-----	1,681,800	29,125
Rakes.....	367,100	38,772	(*)	(*)	-----	-----
Forks.....	134,200	5,988	-----	-----	-----	-----
Grabs.....	2,991,100	103,656	-----	-----	-----	-----
Picks.....	-----	-----	-----	-----	251,300	4,723
Hooks.....	240,400	250,269	-----	-----	-----	-----
Diving apparatus, abalone and sponge.....	417,400	587,456	774,200	115,319	35,200	679
By hand.....	744,300	39,268	-----	-----	1,166,100	18,674
Total.....	447,913,900	9,993,660	1,676,236,200	23,088,810	96,411,200	5,123,735

* Includes the catch by drop nets and wire baskets.

† This catch was made by scoop nets.

‡ The catch by shovels, rakes, and dredges is included with tongs.

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

Gear	Mississippi River and tributaries, 1931		Total	
	Pounds	Value	Pounds	Value
Purse seines.....			1,560,506,500	\$9,382,040
Haul seines.....	13,739,657	\$574,541	64,368,057	2,127,029
Gill nets.....	166,598	6,547	162,424,698	6,869,874
Trammel nets.....	1,134,206	75,615	8,416,006	467,712
Lines.....	10,140,037	772,245	350,788,137	13,898,632
Pound nets.....	224,275	9,541	155,461,275	3,140,787
Floating traps.....			11,952,300	233,815
Other traps.....			29,243,700	1,615,171
Weirs.....			23,221,300	113,788
Wheels.....			450,000	2,500
Stop nets.....			792,900	29,359
Fyke nets.....			22,917,504	1,012,447
Dip nets.....	18,507,204	797,130	14,388,645	694,464
Drag-bag nets.....	30,045	3,307	2,245,400	33,917
Cast nets.....			644,800	14,425
Scap nets.....			119,700	4,423
Bag and pocket nets.....			146,600	17,080
Drag nets.....			11,700	2,800
Push nets.....			20,200	5,775
Reef nets.....			482,300	15,758
Lampara nets.....			390,481,700	2,259,727
Paranzella nets.....			13,116,800	650,165
Otter trawls.....			489,017,800	11,556,355
Beam trawls.....			1,351,900	30,815
Pots.....	3 310,455	3 26,277	27,763,155	3,786,145
Harpoons.....			9,692,000	666,841
Spears.....	2,250	270	274,550	24,268
Scrapes, crab.....			1,383,800	98,246
Dredges.....	3,699,100	40,958	58,357,400	5,179,013
Tongs.....	1,601,876	21,091	41,879,376	3,611,928
Crowfoot bars.....	20,893,550	265,443	22,575,350	294,568
Rakes.....	370,130	4,029	6,247,830	739,376
Forks.....	4,812,737	76,214	6,181,737	213,390
Hoes.....			11,618,400	678,250
Grabs.....	873,099	130,621	3,864,199	234,277
Picks.....			554,500	80,523
Hooks.....			240,400	250,269
Diving apparatus, abalone and sponge.....			1,226,800	703,454
Gaffs.....			500	25
By hand.....	5,877,304	93,528	9,209,704	287,008
Total.....	82,382,523	2,897,357	3,503,639,623	71,027,339

³ Includes the catch by baskets.

Industries related to the fisheries of the United States and Alaska

Item	New England, 1935	Middle Atlantic, 1935	Chesapeake, 1935	South Atlantic and Gulf, 1934
Transporting:				
Persons engaged:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	124	69	1,022	397
On boats.....	18	72		181
Total.....	142	141	1,022	578
Vessels:				
Steam.....			1	
Net tonnage.....			103	
Motor.....	50	23	481	157
Net tonnage.....	909	378	5,480	1,631
Sail.....			3	33
Net tonnage.....			85	301
Total vessels.....	50	23	485	190
Total net tonnage.....	909	378	5,668	1,932
Boats.....	15	63		168
Wholesale and manufacturing:				
Establishments.....	380	408	585	591
Persons engaged:				
Proprietors.....	265	302	740	637
Salariated employees.....	718	1,071	360	409
Wage earners:				
Average for season.....	9,578	4,770	12,113	13,308
Average for year.....	5,501	3,485	4,805	4,200
Salaries and wages paid.....	\$6,456,456	\$6,666,507	\$3,055,029	\$2,873,812
Manufactured products ⁴	\$22,838,942	\$13,452,877	\$9,411,465	⁵ \$10,242,039
Fishermen's manufactured products:				
Fishermen engaged.....	3,792	558	62	987
Products ⁴	\$680,020	\$378,741	\$10,089	\$129,700

⁴ Includes packaged, cured, and canned fishery products and byproducts.

⁵ Includes data for 1935 on packaged and canned products and byproducts.

Industries related to the fisheries of the United States and Alaska—Continued

Item	Pacific, 1935	Lakes, 1934	Mississippi River and tributaries, 1931	Alaska, 1935	Total for the various years
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Transporting:					
Persons engaged:					
On vessels.....	198	15	29	1,551	3,405
On boats.....				(¹)	271
Total.....	198	15	29	1,551	3,676
Vessels:					
Steam:				1	2
Net tonnage.....				3,474	3,577
Motor:	86	8	8	355	1,168
Net tonnage.....	1,937	114	104	11,095	21,648
Sail:					36
Net tonnage.....					386
Total vessels.....	86	8	8	356	1,906
Total net tonnage.....	1,937	114	104	14,569	25,611
Boats.....				2,574	820
Wholesale and manufacturing:					
Establishments.....	337	238	217	228	2,984
Persons engaged:					
Proprietors.....	361	173	204	11,861	78,583
Salaried employees.....	965	521	355		
Wage earners:					
Average for season.....	13,424	2,173	4,275		
Average for year.....	5,204	1,152	3,483	(³)	(³)
Salaries and wages paid.....	\$6,531,351	\$2,442,879	\$3,080,430	(³)	(³)
Manufactured products ⁴	\$51,243,348	\$2,599,058	\$3,348,636	\$30,097,424	\$143,233,789
Fishermen's manufactured products:					
Persons engaged.....	254	535	216	(³)	(³)
Products ⁴	\$232,921	\$67,850	\$8,751	(³)	(³)

¹ Included in vessels.

² Includes scows, houseboats, pile drivers, etc.

³ Statistics not available.

⁴ Includes packaged, cured, and canned fishery products and byproducts.

⁵ Includes data for 1935 on packaged and canned products and byproducts.

NOTE.—Of the total number of persons engaged in the preparation of fishermen's manufactured products, 5,618 have also been included as fishermen, and 1,018 of the persons shown on transporting craft have also been included as fishermen.

MANUFACTURED FISHERY PRODUCTS

The output of manufactured fishery products (canned, cured, packaged, and byproducts) in the United States and Alaska during the most recent years for which data are available were valued at \$145,908,313. Of this amount, canned products accounted for 52 percent, byproducts 20 percent, fresh and frozen packaged products 17 percent, and cured products 11 percent.

Since general statistical surveys were conducted in only the New England, Middle Atlantic, Chesapeake, and Pacific States, and Alaska for 1935, the following compilation of manufactured fishery products consists of composite data, based on the most recent statistics. The years covered by the data are indicated by footnotes.

Manufactured fishery products of the United States and Alaska ¹

Item	Quantity	Value
Alewives:		
Salted:		
Corned ²	pounds..... 7,567,658	\$82,249
Tight-pack cut ²	do..... 2,101,260	79,376
Tight-pack roe ²	do..... 257,330	13,889
Pickled ²	do..... ³ 4,027,328	112,911
Spiced ⁴	do..... 383,500	54,925
Miscellaneous.....	do..... 1,536,880	37,985
Smoked.....	do..... 182,038	6,075
Canned.....	standard cases..... 15,256	37,682
Roe, canned.....	do..... 30,120	206,045
Dry scrap.....	tons..... 528	15,311
Oil.....	gallons..... 6,000	1,040
Barracuda, fresh fillets.....	pounds..... 765,000	97,350
Buffalofish, smoked ⁵	do..... 885,300	220,495
Butterfish, smoked ⁵	do..... 740,876	192,737
Cabrilla, fresh fillets.....	do..... 45,000	5,775
Carp, smoked ⁵	do..... 116,145	38,289
Cisco, chubs, tullibee, and lake herring, smoked ⁵	do..... 8,705,331	2,121,639
Cod:		
Fresh fillets.....	do..... 8,830,019	1,059,361
Frozen fillets.....	do..... 8,689,241	669,361
Fresh sticks.....	do..... 227,880	22,717
Salted:		
Green.....	do..... ³ 7,421,592	357,716
Dry.....	do..... 1,970,086	118,567
Boneless, including absolutely boneless.....	do..... 8,677,585	1,535,250
Tongues.....	do..... 16,926	1,162
Pickled.....	do..... 32,789	1,130
Smoked fillets.....	do..... 1,043,598	152,181
Stockfish.....	do..... 8,140	1,128
Codfish cakes, canned.....	standard cases..... 10,186	44,452
Oil:		
Cod.....	gallons..... 17,342	4,049
Cod liver.....	do..... 215,479	227,019
Croaker, fresh fillets.....	pounds..... 103,000	13,550
Cusk:		
Fresh fillets.....	do..... 625,125	82,382
Frozen fillets.....	do..... 1,230,778	109,408
Fresh sticks.....	do..... 522,039	58,631
Salted, green.....	do..... ³ 74,040	2,492
Smoked fillets.....	do..... 82,005	10,801
Drum, red, fresh fillets and steaks.....	do..... 2,659	416
Eels:		
Salted.....	do..... 78,148	5,956
Smoked ⁵	do..... 87,250	25,540
Flounders:		
Fresh fillets.....	do..... 5,409,315	873,375
Frozen fillets.....	do..... 756,807	99,411
Grayfish, fresh fillets.....	do..... 150,000	15,000
Groupers:		
Fresh fillets.....	do..... 60,082	12,538
Fresh steaks.....	do..... 366,561	53,859
Haddock:		
Fresh fillets.....	do..... 20,067,462	2,211,222
Frozen fillets.....	do..... 26,362,271	2,205,045
Fresh sticks.....	do..... 57,775	11,156
Salted, green.....	do..... ³ 26,850	541
Finnan haddie.....	do..... 355,000	45,014
Hake:		
Fresh fillets.....	do..... 1,823,479	171,759
Frozen fillets.....	do..... 1,265,803	86,818
Fresh sticks.....	do..... 426,746	47,650
Salted:		
Green.....	do..... ³ 1,892,855	55,769
Dry.....	do..... 2,087,892	97,450
Boneless, including absolutely boneless.....	do..... 1,259,122	94,928
Smoked fillets.....	do..... 78,245	9,968
Halibut:		
Fresh fillets.....	do..... 456,350	88,080
Frozen steaks.....	do..... 250,033	36,744
Herring, lake:		
Fresh fillets.....	do..... 131,000	11,000
Salted ⁴	do..... 5,599,920	193,975

¹ Data are for 1935 unless otherwise indicated.² This item represents a combination of 1935 and 1934 data.³ This is usually an intermediate product and although shown in the total may also be shown in its final stage of processing elsewhere in the table.⁴ Data are for 1934.⁵ This item represents a combination of 1935, 1934, and 1931 data.

Manufactured fishery products of the United States and Alaska—Continued

Item	Quantity	Value
Herring, sea:		
Roused..... pounds	1,319,470	\$34,793
Spiced ² do	273,100	35,925
Split..... do	1,065,787	35,848
Scotch cure..... do	14,942,750	808,064
Norwegian cure..... do	4,000	360
Dry salted..... do	396,975	11,661
Smoked:		
Bloaters, hard..... do	384,180	26,343
Bloaters, soft..... do	864,346	77,573
Bloaters, unclassified..... do	149,365	9,838
Boneless..... do	2,603,604	275,654
Kippered..... do	275,120	34,394
Lengthwise..... do	117,105	7,063
Medium scale..... do	351,550	23,388
Canned "sardines" ¹ standard cases	1,655,839	5,142,750
Pearl essence..... pounds	6,000	56,000
Dry scrap..... tons	1,462	34,647
Meal..... do	16,506	412,612
Oil..... gallons	3,856,545	1,122,202
Lake trout:		
Fresh fillets..... pounds	13,172	2,820
Salted ⁴ do	25,000	1,240
Smoked ⁵ do	673,856	172,433
"Lingcod", fresh fillets..... do	189,000	22,815
Mackerel:		
Fresh fillets..... do	166,717	16,500
Frozen fillets..... do	793,124	65,411
Salted:		
Fillets..... do	1,874,480	152,063
Split..... do	2,477,507	196,832
Smoked ² do	564,714	84,314
Canned..... standard cases	1,812,218	4,975,677
Meal..... tons	4,391	113,595
Oil..... gallons	267,347	75,520
Menhaden:		
Acid scrap..... tons	29,890	524,870
Dry scrap..... do	25,364	749,069
Meal..... do	5,052	183,596
Oil..... gallons	4,066,159	1,178,337
Mullet:		
Salted ⁴ pounds	880,100	41,209
Roe, salted ⁴ do	153,930	9,291
Smoked ⁴ do	4,500	1,175
Paddlefish or spoonbill cat:		
Roe, salted ⁶ do	1,595	812
Smoked ⁷ do	334,500	135,045
Pike, blue, yellow, and sauger:		
Fresh fillets..... do	2,976,111	631,674
Frozen fillets..... do	357,283	73,053
Pilchard:		
Canned "sardines" ¹ standard cases	2,420,055	6,237,262
Meal..... tons	95,846	2,638,382
Oil..... gallons	21,735,165	6,658,965
Pollock:		
Fresh fillets..... pounds	1,931,176	143,888
Frozen fillets..... do	8,658,401	573,394
Salted:		
Green..... do	⁸ 118,946	4,253
Dry..... do	203,497	12,097
Rockfishes, fresh fillets:		
1,023,000..... do	1,023,000	126,735
Rosefish:		
Fresh fillets..... do	822,844	87,484
Frozen fillets..... do	3,497,635	352,495
Sablefish:		
Fresh fillets..... do	410,000	41,000
Kippered..... do	555,656	95,873
Pickled..... do	6,161	318
Salted..... do	362,459	23,856
Smoked ⁸ do	60,142	17,720
Salmon:		
Fresh fillets and steaks..... do	10,538	2,628
Frozen fillets and steaks..... do	36,035	5,928
Salted:		
Pickled..... do	896,175	95,158
Mild cured..... do	10,571,141	2,148,333

¹ This item represents a combination of 1935 and 1934 data.

² This is usually an intermediate product and although shown in the total may also be shown in its final stage of processing elsewhere in the table.

³ Data are for 1934.

⁴ This item represents a combination of 1935, 1934, and 1931 data.

⁵ Data are for 1931.

⁶ This item represents a combination of 1935 and 1931 data.

⁷ This item represents a combination of 1934 and 1931 data.

⁸ This item represents a combination of 1934 and 1931 data.

Manufactured fishery products of the United States and Alaska—Continued

Item	Quantity	Value	
Salmon—Continued.			
Salted—Continued.			
Caviar.....	pounds.....	304, 184	\$36, 229
Dry salted.....	do.....	87, 300	9, 711
Dried.....	do.....	1, 436, 000	114, 960
Smoked ¹	do.....	8, 821, 963	2, 673, 960
Kippered ²	do.....	2, 320, 813	479, 121
Canned:			
Chinook or king.....	standard cases.....	257, 692	2, 885, 591
Blueback, red or sockeye.....	do.....	870, 411	8, 367, 882
Silver or cohó.....	do.....	366, 613	2, 621, 008
Humpback or pink.....	do.....	3, 620, 725	15, 026, 936
Chum or keta.....	do.....	897, 819	3, 441, 271
Steelhead trout.....	do.....	14, 630	132, 578
Eggs for food.....	do.....	986	23, 294
Eggs for bait.....	do.....	3, 870	73, 239
Meal.....	tons.....	1, 109	30, 789
Oil.....	gallons.....	135, 488	54, 388
Sea bass:			
Fresh fillets (Atlantic coast).....	pounds.....	75, 000	11, 330
Black, fresh fillets (Pacific coast).....	do.....	380, 000	46, 200
White, fresh fillets (Pacific coast).....	do.....	226, 600	35, 238
Shad:			
Smoked and kippered ²	do.....	183, 892	34, 876
Canned.....	standard cases.....	10, 507	36, 044
Roe canned.....	do.....	2, 493	73, 064
Sheepshead:			
Fresh fillets.....	pounds.....	63, 900	9, 675
Smoked ³	do.....	617	77
Snapper, red, fresh steaks.....			
do.....	do.....	11, 000	2, 200
Squeteagues, fresh fillets.....			
do.....	do.....	230, 340	30, 733
Sturgeon:			
Roe, salted ⁷	do.....	323	749
Smoked and kippered ⁴	do.....	1, 678, 976	1, 064, 102
Caviar, canned.....	standard cases.....	2, 834	389, 238
Swordfish, fresh fillets and steaks.....			
do.....	pounds.....	405, 006	97, 052
Totua, fresh fillets.....			
do.....	do.....	750, 000	120, 000
Tuna and tunalike fishes:			
Canned:			
Albacore.....	standard cases.....	122, 222	778, 393
Bluefin.....	do.....	409, 534	1, 965, 593
Bonito.....	do.....	145, 180	603, 798
Striped.....	do.....	285, 433	1, 313, 337
"Tonno".....	do.....	160, 848	1, 025, 954
Yellowfin.....	do.....	1, 293, 550	6, 762, 805
Yellowtail.....	do.....	94, 061	373, 849
Meal.....	tons.....	8, 330	219, 610
Oil.....	gallons.....	127, 660	22, 648
White bass, fresh fillets.....			
do.....	pounds.....	9, 398	1, 410
Whitefish:			
Fresh fillets.....	do.....	15, 315	3, 260
Smoked ⁵	do.....	2, 496, 947	705, 951
Caviar, canned.....	standard cases.....	1, 286	49, 921
Whiting, smoked.....			
do.....	pounds.....	350	35
Wolfish:			
Fresh fillets.....	do.....	40, 961	5, 346
Frozen fillets.....	do.....	19, 945	2, 078
Yellow perch:			
Fresh fillets.....	do.....	1, 118, 480	243, 194
Frozen fillets.....	do.....	89, 440	17, 376
Crabs, hard:			
Meat, packaged, fresh cooked ²	do.....	6, 369, 658	2, 195, 164
Canned.....	standard cases.....	7, 300	117, 727
Dry scrap.....	tons.....	2, 198	38, 954
Crabs, king, meal and dry scrap.....			
do.....	do.....	622	17, 507
Lobsters:			
Common, packaged, fresh cooked.....	pounds.....	56, 500	21, 738
Spiny, packaged, fresh cooked ⁴	do.....	1, 023, 117	348, 019
Shrimp:			
Fresh packaged.....	do.....	384, 930	131, 524
Frozen packaged ⁴	do.....	2, 299, 800	379, 467
Sun dried ²	do.....	2, 007, 711	301, 755
Cooked and peeled ²	do.....	827, 814	168, 794
Canned.....	standard cases.....	1, 086, 345	4, 721, 872
Meal or bran.....	tons.....	2, 611	55, 389
Abalone, steaks.....			
do.....	pounds.....	740, 000	231, 844
Clams, hard:			
Fresh shucked.....	gallons.....	44, 232	61, 291

¹ This item represents a combination of 1935 and 1934 data.² Data are for 1934.³ This item represents a combination of 1935, 1934, and 1931 data.⁴ Data are for 1931.⁵ This item represents a combination of 1935 and 1931 data.

Manufactured fishery products of the United States and Alaska—Continued

Item	Quantity	Value
Clams, hard—Continued.		
Canned:		
Whole..... standard cases.....	21, 253	\$107, 038
Chowder..... do.....	331, 557	1, 179, 951
Mincod..... do.....	23, 366	120, 933
Broth, bouillon and cocktail..... do.....	6, 498	28, 219
Juice and nectar..... do.....	9, 640	41, 172
Shells, ground, poultry feed..... tons.....	2, 656	26, 273
Clams, razor:		
Fresh shucked..... gallons.....		
30, 916	13, 132	
Canned:		
Whole..... standard cases.....	1, 490	12, 534
Mincod..... do.....	70, 188	543, 611
Juice..... do.....	70	246
Clams, soft:		
Fresh shucked..... gallons.....		
254, 856	274, 951	
Steamed..... pounds.....		
228, 873	19, 494	
Canned:		
Whole..... standard cases.....	106, 084	375, 561
Chowder..... do.....	81, 947	246, 510
Juice, bouillon and cocktail..... do.....	14, 763	24, 760
Marine-shell products:		
Buttons..... gross.....	5, 606, 318	3, 221, 548
Novelties..... do.....		641, 529
Mussels, fresh water, shell products		
Buttons..... gross.....	13, 957, 529	3, 932, 269
Novelties..... do.....		78, 734
Poultry feed..... tons.....	6, 231	35, 112
Lime..... do.....	1, 797	3, 281
Oysters:		
Eastern:		
Freshed shucked ¹ gallons.....		
6, 910, 504	8, 689, 983	
Canned..... standard cases.....		
412, 823	1, 660, 480	
Japanese:		
Fresh shucked..... gallons.....		
397, 943	514, 933	
Canned..... standard cases.....		
88, 062	384, 423	
Native, Pacific, fresh shucked..... gallons.....	29, 395	185, 736
Soup, canned (Eastern and Japanese)..... standard cases.....	34, 833	196, 212
Shell products:		
Poultry feed..... tons.....		
262, 916	1, 242, 915	
Lime..... do.....	44, 734	109, 554
Lime, burned..... do.....	16, 255	102, 593
Scallops, bay, fresh shucked ² gallons.....	160, 644	454, 133
Scallops, sea, fresh shucked..... do.....	381, 954	485, 178
Alligator hides ³ pounds.....	88, 356	7, 363
Terrapin and turtle products, canned..... standard cases.....	3, 298	55, 237
Whales:		
Meal, meat..... tons.....	852	21, 800
Meal, bone..... do.....	487	9, 740
Oil, whale..... gallons.....	1, 142, 549	399, 150
Oil, sperm..... do.....	200, 350	48, 909
Unclassified products:		
Fillets, fresh..... pounds.....	⁹ 98, 611	11, 888
Fillets, frozen..... do.....	¹⁰ 350, 268	33, 305
Steaks, fresh..... do.....	¹¹ 146, 234	28, 899
Steaks, frozen..... do.....	¹² 58, 762	16, 731
Sticks, frozen..... do.....	¹³ 3, 659, 448	281, 393
Miscellaneous, packaged, fresh..... do.....	¹⁴ 243, 062	17, 550
Salted ² do.....	¹⁵ 3, 129, 502	299, 883
Smoked ¹ do.....	¹⁶ 228, 120	28, 622
Canned:		
Fish for cat and dog food..... standard cases.....		
475, 667	1, 303, 757	
Fish cakes, etc..... do.....		
70, 775	560, 326	
Fish flakes..... do.....		
36, 070	321, 848	

¹ This item represents a combination of 1935 and 1934 data.

² Data for 1931.

³ Includes fresh fillets of bluefish, king whiting or "kingfish", mullet, sauger, red snapper, Spanish mackerel, suckers, and whiting.

⁴ Includes frozen fillets of bluefish, groupers, halibut, mullet, red snapper, Spanish mackerel, squeteagues, and whiting.

⁵ Includes fresh steaks of cabio, cero, cod, haddock, halibut, pollock, and snook.

⁶ Includes frozen steaks of groupers, snook, and swordfish.

⁷ Includes frozen sticks of cod, cusk, hake, and whiting.

⁸ Includes pan-dressed croakers and squeteagues, and fresh-shucked sea mussels.

⁹ Includes salted barracuda, cusk, haddock, pilchards, black and white sea bass, spot, yellowtail, sea herring and sea herring roe, shrimp, bits and strips and partly boned green cod, boneless cusk, and fillets of hake and sea herring; spiced chubs; and pickled sea herring.

¹⁰ Includes smoked bluefish, cod, flounders, goosefish, haddock, smelt, Spanish mackerel, cod steaks, and miscellaneous fish; fillets of haddock, sea herring, king whiting or "kingfish," and mullet; bismarck sea herring; and spiced salmon.

Manufactured fishery products of the United States and Alaska—Continued

Item	Quantity	Value
Unclassified products—Continued.		
Canned—Continued.		
Fish chowder.....standard cases..	9, 057	\$42, 473
Other.....do.....	¹⁷ 39, 622	366, 581
Acid and dry scrap.....tons.....	1, 574	34, 195
Meal:		
Groundfish (white fish).....do.....	11, 838	484, 540
Miscellaneous.....do.....	¹⁸ 4, 215	137, 060
Oil:		
Liver, miscellaneous.....gallons.....	¹⁹ 83, 378	3, 338, 834
Miscellaneous.....do.....	²⁰ 72, 198	18, 057
Glue.....do.....	409, 850	829, 625
Novelties, miscellaneous.....		2, 725
Other byproducts.....		²¹ 377, 247
Total, fresh and frozen packaged products ².....pounds.....	191, 273, 299	25, 378, 622
Total, cured products ³.....do.....	120, 516, 387	15, 691, 380
Total, canned products.....do.....	672, 755, 960	74, 999, 034
Total, byproducts ⁴.....do.....		29, 839, 277
Grand total.....		145, 908, 313

² This item represents a combination of 1935 and 1934 data.

³ This item represents a combination of 1935, 1934, and 1931 data.

¹⁷ Includes canned pickled eels, finnan haddie, smoked salmon, kippered sturgeon, spiny lobster soup and meat, shrimp soup, abalone products, coquina clam broth, conch chowder, pickled sea mussels, squid, sea cucumber, frog products, rat poison bait, cod and hake filets, fish paste, and groundfish roe.

¹⁸ Includes salmon egg, abalone, soft clam, oyster and miscellaneous fish meals.

¹⁹ Includes black cod, burbot, halibut, swordfish, tuna and miscellaneous liver oils.

²⁰ Includes salmon egg, shark, and miscellaneous fish oils.

²¹ Includes shark skins and fins; fresh-water mussel-shell stucco and chips; isinglass; kelp products; and cod-liver pressings.

NOTE.—Some of the above products have been manufactured from products imported from another country; therefore, they cannot be correlated directly with the catch within the United States and Alaska.

CANNED FISHERY PRODUCTS AND BYPRODUCTS TRADE

The output of canned fishery products and byproducts in the United States and Alaska in 1935 was valued at \$104,518,774. Of this total, canned products comprised \$74,999,034, and byproducts, \$29,519,740—a decrease of 6 percent in the value of canned products and an increase of 30 percent in the value of byproducts when compared with the respective values of the same groups of commodities for the previous year.

Fishery products were canned at 377 establishments in the United States and Alaska during 1935. The combined output of these canneries amounted to 17,435,076 standard cases. The net weight of the products canned amounted to 672,755,960 pounds.

Canned fishery products or byproducts were prepared in 26 States and in Alaska during 1935. California ranked first in the value of the products, accounting for 34 percent of the total, and Alaska ranked second, with 27 percent.

Canned fishery products and byproducts of the United States and Alaska, 1935

SUMMARY OF PRODUCTION: BY COMMODITIES

Product	Number of plants	Standard cases	Pounds	Value
Canned products:				
Salmon:				
United States	32	804, 768	42, 948, 404	\$6, 707, 130
Alaska	99	5, 123, 122	246, 390, 856	25, 798, 136
Sardines				
Maine	22	1, 655, 839	41, 395, 975	5, 142, 750
California	23	2, 420, 055	116, 162, 640	6, 237, 262
Tuna and tunnikie fishes	14	2, 510, 828	60, 259, 872	12, 823, 729
Mackerel	29	1, 812, 218	86, 986, 464	4, 975, 677
Alewives	6	15, 256	732, 288	37, 682
Alewife roe	26	30, 120	1, 445, 760	209, 045
Shad	7	10, 507	504, 336	34, 044
Shad roe	8	2, 463	119, 664	73, 094
Fish flakes	3	36, 070	1, 731, 360	321, 848
Fish cakes, balls, etc.	6	90, 961	3, 899, 126	604, 779
Cat and dog food	6	475, 667	22, 832, 016	1, 363, 757
Miscellaneous fish	12	15, 375	740, 000	144, 501
Sturgeon caviar	5	2, 834	136, 032	390, 238
Whitefish roe and caviar	4	1, 286	61, 728	49, 921
Salmon eggs for bait	10	3, 870	185, 760	73, 239
Miscellaneous roe and caviar	4	20, 810	999, 660	169, 842
Clam products	81	1, 696, 961	16, 673, 715	2, 680, 935
Oysters	46	500, 885	7, 513, 275	2, 044, 903
Shrimp	46	1, 066, 345	18, 239, 619	4, 721, 872
Crabs	16	7, 300	350, 400	117, 727
Turtle products	4	3, 271	157, 008	52, 655
Miscellaneous shellfish, etc.	13	48, 215	2, 314, 320	277, 909
Total	4377	17, 435, 076	672, 785, 990	74, 999, 034
Byproducts:				
Oyster-shell products		tons	326, 564	1, 481, 335
Fresh-water mussel-shell products				4, 067, 876
Marine pearl-shell products				3, 693, 077
Scrap, meal, etc.		tons	212, 403	5, 711, 217
Marine animal oils		gallons	31, 925, 660	13, 149, 118
Miscellaneous byproducts				1, 257, 117
Total				29, 519, 740
Grand total				104, 518, 774

* "Outout" or "drained" weights of can contents are included for whole and minced clams, and gross can contents for other clam products.

¹ Exclusive of duplication.

VALUE OF PRODUCTION: BY STATES

State	Canned products	Byproducts	Total
Maine	\$6, 077, 590	\$298, 254	\$6, 375, 844
Massachusetts	1, 132, 822	2, 051, 234	3, 199, 850
Rhode Island		15, 794	
Connecticut		845, 582	845, 582
New York	579, 026	1, 818, 014	2, 397, 042
New Jersey		1, 549, 828	
Pennsylvania	1, 018, 338	294, 743	2, 862, 909
Delaware		638, 454	638, 454
Maryland	371, 150	958, 440	1, 227, 596
Virginia	88, 253	1, 167, 705	1, 255, 958
North Carolina	81, 231		
South Carolina	336, 748	341, 206	759, 185
Georgia	850, 991		
Florida	334, 618	691, 346	1, 876, 955
Alabama	337, 108		
Mississippi	2, 154, 917	41, 071	2, 533, 096
Louisiana	2, 173, 008	451, 743	2, 624, 801
Texas and Wisconsin	328, 916	77, 996	406, 912
Missouri, Illinois, and Minnesota		73, 642	73, 642
Iowa		3, 029, 461	3, 029, 461
Washington	4, 955, 117	2, 378, 368	7, 333, 485
Oregon	2, 853, 262	461, 110	3, 314, 372
California	25, 252, 965	10, 543, 000	35, 796, 865
Alaska	26, 072, 966	1, 893, 799	27, 966, 765
Total	74, 999, 034	29, 519, 740	104, 518, 774

Canned fishery products and byproducts of the United States and Alaska, 1935—Con.

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.....	4, 058	\$28, 138	11, 590	\$83, 071	775	\$5, 907	16, 423	\$117, 116
1-pound flat.....	2, 081	21, 289	4, 379	41, 435	60	564	6, 520	63, 288
½-pound flat.....	4, 969	64, 075	8, 493	72, 240	-----	-----	13, 462	136, 315
Total.....	11, 108	113, 502	24, 462	196, 746	835	6, 471	36, 405	316, 719
Blueback, red or sock-eye:								
1-pound tall.....	117, 364	1, 053, 878	281, 689	2, 432, 751	265, 302	2, 371, 913	664, 355	5, 858, 542
1-pound flat.....	12, 505	121, 515	45, 188	451, 610	-----	-----	57, 693	573, 125
½-pound flat.....	29, 560	381, 892	57, 306	723, 278	632	7, 813	87, 498	1, 112, 983
Total.....	159, 429	1, 557, 285	384, 183	3, 607, 639	265, 934	2, 379, 726	809, 546	7, 544, 650
Silver or coho:								
1-pound tall.....	135, 591	855, 526	44, 708	276, 555	223	1, 411	180, 522	1, 133, 492
1-pound flat.....	2, 094	15, 055	739	5, 173	-----	-----	2, 833	20, 228
½-pound flat.....	4, 808	46, 208	2, 014	17, 306	-----	-----	6, 822	63, 514
Total.....	142, 493	916, 789	47, 461	299, 034	223	1, 411	190, 177	1, 217, 234
Humpback or pink:								
1-pound tall.....	2, 164, 797	9, 037, 864	1, 034, 018	4, 094, 392	4	15	3, 198, 819	13, 132, 271
1-pound flat.....	687	2, 748	-----	-----	-----	-----	687	2, 748
½-pound flat.....	34, 576	222, 654	9, 984	62, 789	-----	-----	44, 560	285, 443
Total.....	2, 200, 060	9, 263, 266	1, 044, 002	4, 157, 181	4	15	3, 244, 066	13, 420, 462
Chum or keta:								
1-pound tall.....	539, 942	2, 053, 905	301, 482	1, 166, 752	9, 857	38, 712	851, 281	3, 259, 369
½-pound flat.....	1, 006	6, 036	641	3, 666	-----	-----	1, 647	9, 702
Total.....	540, 948	2, 059, 941	302, 123	1, 170, 418	9, 857	38, 712	852, 928	3, 269, 071
Grand total.....	3, 054, 038	13,910,783	1,802,231	9,431,018	276,853	2,426,335	5,133,122	25,768,136

Product	United States						Grand total, Alaska and United States	
	Washington		Oregon		Total			
	Cases	Value	Cases	Value	Cases	Value		
Chinook or king:								
1-pound tall.....	18, 296	\$122, 963	20, 320	\$111, 059	38, 616	\$234, 022	55, 039	\$351, 138
1-pound oval.....	279	5, 859	774	16, 254	1, 053	22, 113	1, 053	22, 113
1-pound flat.....	12, 214	131, 332	39, 967	410, 162	52, 181	541, 494	58, 701	604, 782
½-pound oval.....	8	208	3, 107	80, 782	3, 115	80, 990	3, 115	80, 990
½-pound flat.....	35, 959	468, 303	82, 536	1, 094, 899	118, 495	1, 563, 202	131, 957	1, 699, 517
¾-pound flat.....	593	7, 579	7, 234	119, 472	7, 827	127, 051	7, 827	127, 051
Total.....	67, 349	736, 244	153, 938	1,832,628	221,287	2,568,872	257,692	2,885,591
Blueback, red or sock-eye:								
1-pound tall.....	459	4, 406	87	870	546	5, 276	664, 901	5, 863, 818
1-pound flat.....	1, 998	23, 177	-----	-----	1, 998	23, 177	59, 691	596, 302
½-pound oval.....	41	607	-----	-----	41	607	41	607
½-pound flat.....	57, 452	781, 528	530	7, 420	57, 982	788, 948	145, 480	1, 901, 931
¾-pound flat.....	103	1, 792	195	3, 432	298	5, 224	298	5, 224
Total.....	60, 053	811, 510	812	11,722	60,865	823,232	870,411	8,367,882
Silver or coho:								
1-pound tall.....	46, 648	309, 263	17, 148	123, 465	63, 796	432, 728	244, 318	1, 566, 220
1-pound flat.....	21, 197	159, 546	31, 331	250, 648	52, 528	410, 194	55, 361	430, 422
½-pound oval.....	52	520	581	8, 134	633	8, 654	633	8, 654
½-pound flat.....	19, 443	167, 590	26, 071	229, 425	45, 514	397, 015	52, 336	460, 529
¾-pound flat.....	1, 531	15, 922	12, 434	139, 261	13, 965	155, 183	13, 965	155, 183
Total.....	88, 871	652,841	87,565	750,933	176,436	1,403,774	366,613	2,621,008

Canned fishery products and byproducts of the United States and Alaska, 1935—Con.

Product	United States						Grand total, Alaska and United States	
	Washington		Oregon		Total			
Humpback or pink:	<i>Cases</i>	<i>Value</i>	<i>Cases</i>	<i>Value</i>	<i>Cases</i>	<i>Value</i>	<i>Cases</i>	<i>Value</i>
1-pound tall.....	333, 419	\$1,333,676	-----	-----	333, 419	\$1,333,676	3, 532, 238	\$14,465,947
1-pound flat.....	2, 188	10, 065	-----	-----	2, 188	10, 065	2, 875	12, 813
½-pound flat.....	41, 052	262, 733	-----	-----	41, 052	262, 733	85, 612	548, 176
Total.....	376, 659	1, 606, 474	-----	-----	376, 659	1, 606, 474	3, 620, 725	15, 026, 936
Chum or keta:								
1-pound tall.....	21, 933	82, 194	19, 336	\$69, 610	41, 269	151, 804	892, 550	3, 411, 173
½-pound flat.....	3, 426	19, 220	196	1, 176	3, 622	20, 396	5, 269	30, 098
Total.....	25, 359	101, 414	19, 532	70, 786	44, 891	172, 200	897, 819	3, 441, 271
Steelhead:								
1-pound tall.....	542	2, 710	3, 181	15, 905	3, 723	18, 615	3, 723	18, 615
1-pound flat.....	350	2, 170	2, 347	14, 551	2, 697	16, 721	2, 697	16, 721
½-pound oval.....	-----	-----	2, 175	33, 060	2, 175	33, 060	2, 175	33, 060
½-pound flat.....	1, 073	9, 443	2, 910	25, 608	3, 983	35, 051	3, 983	35, 051
¼-pound oval.....	-----	-----	340	5, 848	340	5, 848	340	5, 848
¼-pound flat.....	549	7, 466	1, 163	15, 817	1, 712	23, 283	1, 712	23, 283
Total.....	2, 514	21, 789	12, 116	110, 789	14, 630	132, 578	14, 630	132, 578
Grand total.....	620, 805	3, 930, 272	273, 963	2, 776, 858	894, 768	6, 707, 130	6, 027, 890	32, 475, 266

NOTE.—“Standard cases” represent the various size cases converted to the equivalent of 48 1-pound cans to the case. Salmon were canned at 24 plants in Washington, 8 in Oregon, and 99 in Alaska.

PACK OF CANNED SARDINES

Sardines (herring)	Maine		Sardines (pilchard)	California	
	<i>Cases</i>	<i>Value</i>		<i>Cases</i>	<i>Value</i>
Quarters, ¼-pound (100 cans):			1-pound oval (48 cans):		
In olive oil.....	4, 774	\$26, 346	In cottonseed oil.....	1, 427	\$3, 211
In cottonseed oil.....	31, 461, 051	\$4, 582, 432	In mustard.....	360, 136	918, 258
In mustard.....	83, 459	315, 208	In tomato sauce.....	1, 339, 077	3, 433, 240
In other sauces.....	3, 086	15, 054	In natural oil.....	16, 068	37, 438
Three-quarters, ¾-pound (48 cans):			In other sauces or oils....	29, 485	77, 896
In mustard.....	67, 270	203, 710	½-pound oval (48 cans):		
			In various sauces or oils..	4, 456	16, 533
			1-pound tall (48 cans):		
			In natural oil.....	356, 751	722, 639
			½-pound (96 cans):		
			In natural oil.....	69, 242	195, 104
			9-ounce oblong (48 cans):		
			In various sauces or oils..	3, 924	13, 542
			6-ounce tall (50 cans):		
			In various sauces or oils..	13, 085	18, 973
			6-ounce (100 cans):		
			In tomato sauce.....	11, 046	27, 987
			In natural oil.....	4 261, 058	4 637, 351
			Other sizes:		
			In various sauces or oils (standard cases).....	25, 742	135, 090
Total.....	1, 626, 240	5, 142, 750	Total.....	2, 491, 497	6, 237, 262
Total (standard cases).	1, 655, 839	-----	Total (standard cases).	2, 420, 055	-----

* Includes a small amount packed in 6-ounce cans, 100 to the case, and 12-ounce cans, 48 to the case, which have been converted to the basis of 4-ounce cans, 100 to the case.

† Includes a small amount packed in salad oil.

NOTE.—“Standard cases” represent the various size cases converted to the uniform basis of 100 ¼-pound cans to the case of sardines (herring), and 48 1-pound cans to the case of sardines (pilchards). Sardines were canned at 22 plants in Maine and 23 in California.

Canned fishery products and byproducts of the United States and Alaska, 1935—Con.

PACK OF CANNED TUNA AND TUNALIKE FISHES IN CALIFORNIA

Product and size	Albacore		Yellowfin		Bluefin		Striped	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
¼-pound (48 cans).....	1,041	\$3,941	119,984	\$459,344	65,777	\$263,278	15,936	\$51,288
½-pound (48 cans).....	98,087	654,277	937,664	5,046,455	297,687	1,374,048	255,584	1,173,409
1-pound (48 cans).....	6,803	\$2,771	83,427	\$716,730	22,285	\$187,606	8,857	71,374
Total (actual cases).....	105,931	740,989	1,141,075	6,222,529	385,749	1,824,932	280,377	1,296,071
Total (standard cases).....	112,214	-----	1,164,510	-----	375,146	-----	281,266	-----
Flakes:								
¼-pound (48 cans).....	-----	-----	2,081	6,192	-----	-----	-----	-----
½-pound (48 cans).....	7,378	27,122	99,678	428,107	29,096	121,134	4,595	18,667
1-pound (48 cans).....	1,315	10,282	14,161	105,977	2,646	19,527	7128	7,992
Total (actual cases).....	8,693	37,404	115,920	540,276	31,742	140,661	4,723	19,659
Total (standard cases).....	10,008	-----	129,040	-----	34,388	-----	4,851	-----
Grand total (actual cases).....	114,624	778,393	1,256,995	6,762,805	417,491	1,965,593	285,100	1,315,730
Grand total (standard cases).....	122,222	-----	1,293,550	-----	409,534	-----	286,117	-----

Product and size	"Tonno"		Bonito		Yellowtail		Total	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
¼-pound (48 cans).....	-----	-----	476	\$1,468	-----	-----	203,214	\$779,319
¼-pound (100 cans).....	140,543	\$938,709	8,555	50,985	-----	-----	149,098	989,694
½-pound (48 cans).....	14,458	87,245	102,933	429,332	68,299	\$280,120	1,774,712	9,044,886
1-pound (48 cans).....	-----	-----	16,207	119,620	12,881	93,729	150,460	1,271,830
Total (actual cases).....	155,001	1,025,954	128,171	601,405	81,180	373,849	2,277,484	12,085,729
Total (standard cases).....	160,848	-----	144,496	-----	94,061	-----	2,332,541	-----
Flakes:								
¼-pound (48 cans).....	-----	-----	-----	-----	-----	-----	2,081	6,192
½-pound (48 cans).....	-----	-----	(7)	(7)	-----	-----	140,747	595,030
1-pound (48 cans).....	-----	-----	(7)	(7)	-----	-----	18,250	136,778
Total (actual cases).....	-----	-----	-----	-----	-----	-----	161,078	738,000
Total (standard cases).....	-----	-----	-----	-----	-----	-----	178,287	-----
Grand total (actual cases).....	155,001	1,025,954	128,171	601,405	81,180	373,849	2,438,562	12,823,729
Grand total (standard cases).....	160,848	-----	144,496	-----	94,061	-----	2,510,828	-----

⁵ Includes the pack in 4-pound cans, 12 to the case, which has been converted to the equivalent of 1-pound cans, 48 to the case.

⁶ Includes the pack in ¼-pound cans, 48 to the case, which has been converted to the equivalent of ½-pound cans, 48 to the case.

⁷ The pack of bonito flakes has been included with striped tuna flakes.

NOTE.—"Standard cases" represent the various size cases converted to the equivalent of 48 ½-pound cans to the case. Tuna and tunalike fishes were canned at 14 plants in California.

PACK OF CANNED MACKEREL

Size	Maine and Massachusetts		California		Total	
	Cases	Value	Cases	Value	Cases	Value
8-ounce (48 cans).....	-----	-----	2,480	\$8,992	2,480	\$8,992
8-ounce (96 cans).....	-----	-----	234,271	723,505	234,271	723,505
16-ounce (48 cans).....	-----	-----	1,560,213	4,112,622	1,560,213	4,112,622
Other sizes (standard cases).....	16,494	\$130,558	-----	-----	16,494	130,558
Total (actual cases).....	16,494	130,558	1,796,964	4,845,119	1,813,458	4,975,677
Total (standard cases).....	16,494	-----	1,795,724	-----	1,812,218	-----

⁸ Includes a small amount of mackerel stew.

NOTE.—"Standard cases" represent the various size cans converted to the equivalent of 48 1-pound cans to the case. Mackerel were canned at 1 plant in Maine, 2 in Massachusetts, and 26 in California.

Canned fishery products and byproducts of the United States and Alaska, 1935—Con.

PACK OF CANNED ALEWIVES AND ALEWIFE ROE: STANDARD CASES

Product	Maryland		Virginia		North Carolina		Total	
	Cases	Value	Cases (⁹)	Value (⁹)	Cases	Value	Cases	Value
Alewives.....	15,256	\$37,682	11,961	\$84,133	12,249	\$81,231	15,256	\$37,682
Alewife roe.....	5,910	40,681					30,120	206,045
Total.....	21,166	78,363	11,961	84,133	12,249	81,231	45,376	243,727

PACK OF CANNED ALEWIVES AND ALEWIFE ROE: ACTUAL CASES

Product and size	Cases	Value
Alewives:		
14 and 16 ounce (24 cans).....	30,397	\$33,622
17, 19, and 28 ounce (24 cans).....	10,309	104,060
Total.....		37,682
Alewife roe:		
8 ounce (48 cans).....	17,892	72,990
16 and 17 ounce (24 cans).....	39,926	133,055
Total.....		206,045
Grand total.....		243,727

⁹ The production of canned alewives in Virginia is included with that of Maryland.

¹⁰ Includes the pack in 106-ounce cans, 6 to the case, which has been converted to the equivalent of 17-ounce cans, 24 to the case.

NOTE.—“Standard cases” represent the various size cases converted to the equivalent of 48 1-pound cans to the case. Alewives or alewife roe were canned at 7 plants in Maryland, 15 in Virginia, and 4 in North Carolina.

PACK OF CANNED OYSTERS: STANDARD CASES

State	Cases	Value
New Jersey, Maryland, Georgia, and Florida.....	21,501	\$85,595
South Carolina.....	85,891	336,748
Alabama.....	25,717	103,700
Mississippi.....	241,809	982,539
Louisiana.....	37,905	151,898
Washington.....	88,062	384,423
Total.....	500,885	2,044,903

PACK OF CANNED OYSTERS: ACTUAL CASES

Size	Cases	Value
3½-ounce (48 cans).....	14,226	\$45,302
4-ounce (48 cans).....	26,245	103,038
5-ounce (48 cans).....	348,354	1,397,091
8-ounce (24 cans).....	51,933	196,585
8-ounce (48 cans).....	¹¹ 25,588	¹¹ 164,657
10-ounce (24 cans).....	39,091	138,230
Total.....		2,044,903

¹¹ Includes the pack in 6-ounce cans, 48 to the case, which has been converted to the equivalent of 8-ounce cans, 48 to the case.

NOTE.—“Standard cases” represent the various size cases converted to the equivalent of forty-eight 5-ounce cans to the case. Oysters were canned at 1 plant in New Jersey, 1 in Maryland, 4 in South Carolina, 1 in Georgia, 2 in Florida, 3 in Alabama, 15 in Mississippi, 8 in Louisiana, and 11 in Washington.

Canned fishery products and byproducts of the United States and Alaska, 1935—Con.

PACK OF CANNED CLAMS AND CLAM PRODUCTS: STANDARD CASES

Product and State	Whole		Minced		Chowder	
	Cases	Value	Cases	Value	Cases	Value
Soft clams: Maine and Massachusetts.....	¹³ 106,084	¹³ \$375,561			81,947	\$246,510
Hard clams:						
Maryland.....					55,776	155,515
Washington.....	16,605	68,280	16,026	\$74,673	480	1,686
Alaska.....	48	384	940	3,250		
Massachusetts, Rhode Island, New York, New Jersey, Pennsylvania, and Florida.....	¹⁴ 4,600	¹⁴ 38,374	¹⁵ 6,400	¹⁵ 43,010	275,301	1,022,750
Total.....	21,253	107,038	23,366	120,933	331,557	1,179,951
Razor clams:						
Washington.....	1,152	10,327	40,872	344,558		
Oregon.....	51	408	1,012	7,105		
Alaska.....	287	1,799	28,304	191,848		
Total.....	1,490	12,534	70,188	543,511		
Grand total.....	128,827	495,133	93,554	664,444	413,504	1,426,461

Product and State	Juice, bouillon, broth, and cocktail ¹²		Total	
	Cases	Value	Cases	Value
Soft clams: Maine and Massachusetts.....	14,763	\$24,760	202,794	\$646,831
Hard clams:				
Maryland.....			55,776	155,515
Washington.....	3,216	6,786	36,327	151,425
Alaska.....	60	300	1,048	3,934
Massachusetts, Rhode Island, New York, New Jersey, Pennsylvania, and Florida.....	¹⁶ 12,987	¹⁶ 62,805	299,288	1,166,939
Total.....	16,263	69,891	392,439	1,477,813
Razor clams:				
Washington.....			42,024	354,885
Oregon.....	70	246	1,133	7,759
Alaska.....			28,591	193,647
Total.....	70	246	71,748	556,291
Grand total.....	31,096	94,897	666,981	2,680,935

¹² Consists of juice, bouillon, and cocktail from soft clams in Maine; juice from hard clams in New York, Florida, Washington, and Alaska; broth from hard and coquina clams in Florida; bouillon and cocktail from hard clams in New York; and juice from razor clams in Oregon.

¹³ Packed in Maine.

¹⁴ Packed in New York, New Jersey, and Florida.

¹⁵ Packed in New York and Florida.

¹⁶ Includes a small amount of coquina broth packed in Florida.

Canned fishery products and byproducts of the United States and Alaska, 1935—Con.

PACK OF CANNED CLAMS AND CLAM PRODUCTS: ACTUAL CASES

Product and size	Whole		Minced		Chowder	
	Cases	Value	Cases	Value	Cases	Value
Soft clams:						
No. 1 (48 cans).....	76,536	\$275,076			17,708	\$62,431
1-pound (48 cans).....	6,284	30,574				
No. 2 (24 cans).....	17,403	60,694			14,390	41,750
No. 3 (24 cans).....					16,506	59,033
No. 10 (6 cans).....					1,812	10,914
Other sizes (standard cases).....	2,091	9,217			20,303	73,382
Total.....		375,561				246,510
Hard clams:						
½-pound (48 cans).....			16,066	\$59,504		
½-pound (96 cans).....						
No. 1 (48 cans).....	1,901	16,471	2,969	16,434	170,598	546,338
1-pound (24 cans).....					6,930	19,374
1-pound (48 cans).....	2,230	15,776				
No. 2 (24 cans).....	3,935	23,339	1,060	6,036		
No. 3 (12 cans).....					18,860	38,977
No. 10 (6 cans).....	7,500	36,612	3,157	26,845	2,745	12,065
Other sizes (standard cases).....	2,099	14,840	2,380	11,514	136,304	563,197
Total.....		107,038		120,933		1,179,951
Razor clams:						
½-pound (48 cans).....			65,431	421,456		
No. 1 (48 cans).....	1,234	11,005	17,006	116,200		
1-pound (48 cans).....			327	3,233		
No. 2 (24 cans).....			315	2,613		
Other sizes (standard cases).....	256	1,529				
Total.....		12,534		543,511		
Grand total.....		495,133		694,444		1,426,461

Product and size	Juice, bouillon, broth, and cocktail		Total	
	Cases	Value	Cases	Value
Soft clams:				
No. 1 (48 cans).....			94,244	\$337,507
1-pound (48 cans).....			6,284	30,574
No. 2 (24 cans).....	9,939	\$14,319	41,732	116,793
No. 3 (24 cans).....			16,506	59,033
No. 10 (6 cans).....	1,950	3,275	3,762	14,189
Other sizes (standard cases).....	2,338	7,136	24,732	89,735
Total.....			24,760	646,831
Hard clams:				
½-pound (48 cans).....			16,066	59,504
½-pound (96 cans).....	79	571	79	571
No. 1 (48 cans).....	1,785	6,942	177,253	586,185
1-pound (24 cans).....			6,930	19,374
1-pound (48 cans).....			2,230	15,776
No. 2 (24 cans).....	2,672	8,503	7,667	38,478
No. 3 (12 cans).....			18,860	38,977
No. 10 (6 cans).....	2,901	9,913	16,243	85,435
Other sizes (standard cases).....	8,105	43,962	148,888	633,513
Total.....		69,891		1,477,813
Razor clams:				
½-pound (48 cans).....			65,431	421,456
No. 1 (48 cans).....			18,240	127,214
1-pound (48 cans).....			327	3,233
No. 2 (24 cans).....			315	2,613
Other sizes (standard cases).....	70	246	326	1,775
Total.....		246		556,291
Grand total.....			94,897	2,680,935

NOTE.—“Standard cases” represent the various size cases converted to the equivalent of 48 no. 1 cans. Soft clam products were canned at 20 plants in Maine, and 1 plant in Massachusetts; hard clam products at 1 plant in Massachusetts, 1 in Rhode Island, 2 in New York, 3 in New Jersey, 1 in Pennsylvania, 4 in Maryland, 3 in Florida, 10 in Washington, and 2 in Alaska; razor-clam products, at 8 plants in Washington, 4 in Oregon, and 15 in Alaska; and coquina-clam products at 1 plant in Florida.

Canned fishery products and byproducts of the United States and Alaska, 1935—Con.

PACK OF CANNED SHRIMP: STANDARD CASES

State	Dry pack (in tins)		Wet pack (in tins)		Wet pack (in glass)		Total	
	Cases	Value	Cases	Value	Cases (17)	Value (17)	Cases	Value
Georgia.....	33, 290	\$143, 929	108, 972	\$444, 250			142, 262	\$588, 179
Florida, Alabama, and Texas.....	15, 139	65, 358	128, 746	533, 330	17 65, 469	17 \$454, 044	209, 354	1, 052, 732
Mississippi.....	80, 449	345, 597	199, 603	825, 626			280, 052	1, 171, 223
Louisiana.....	97, 714	417, 235	356, 930	1, 492, 311	(17)	(17)	454, 644	1, 909, 546
Alaska.....			33	192			33	192
Total.....	226, 592	972, 119	794, 284	3, 295, 709	65, 469	454, 044	1, 086, 345	4, 721, 872

PACK OF CANNED SHRIMP: ACTUAL CASES

Size	Cases	Value
In tins, dry:		
4-ounce (48 cans).....	9, 466	\$34, 736
5-ounce (48 cans).....	190, 118	800, 383
8¼-ounce (24 cans).....	35, 031	137, 000
In tins, wet:		
5¼-ounce (48 cans).....	790, 253	3, 276, 629
9¾-ounce (24 cans).....	4, 349	17, 674
Other sizes (standard cases).....	344	1, 406
In glass, wet:		
4-ounce (24 cans).....	7, 264	19, 483
6-ounce (24 cans).....	74, 839	261, 936
Other sizes (standard cases).....	23, 899	172, 625
Total.....		4, 721, 872

¹⁷ The pack of shrimp in glass for Georgia and Louisiana has been included with Florida, Alabama, and Texas.

NOTE.—“Standard cases” represent the various size cans converted to the equivalent of forty-eight 5-ounce cans to the case in the dry pack and forty-eight 5¼-ounce cans to the case in the wet pack. Shrimp were canned at 5 plants in Georgia, 2 in Florida, 3 in Alabama, 16 in Mississippi, 17 in Louisiana, 2 in Texas, and 1 in Alaska.

PACK OF MISCELLANEOUS CANNED FISHERY PRODUCTS: STANDARD CASES

Product	Atlantic and Gulf coasts ¹⁸		Pacific coast (including Alaska)		Total	
	Cases	Value	Cases	Value	Cases	Value
Shad.....			10, 507	\$36, 044	10, 507	\$36, 044
Shad roe.....			2, 493	73, 064	2, 493	73, 064
Fish flakes ¹⁹	36, 070	\$321, 848			36, 070	321, 848
Fish cakes, balls, etc.....	80, 961	604, 778			80, 961	604, 778
Cat and dog food.....	15, 750	34, 628	459, 917	1, 269, 129	475, 667	1, 303, 757
Fish chowder.....	9, 057	42, 473			9, 057	42, 473
Miscellaneous fish ²⁰	6, 241	140, 528	77	1, 500	6, 318	112, 028
Sturgeon caviar.....	²¹ 2, 834	²¹ 389, 238	(21)	(21)	2, 834	389, 238
Whitefish roe and caviar.....	1, 286	49, 921			1, 286	49, 921
Salmon eggs for bait.....			3, 870	73, 239	3, 870	73, 239
Miscellaneous roe and caviar ²²	20, 810	168, 842			20, 810	168, 842
Crabs.....	(23)	(23)	²² 7, 300	²² 117, 727	7, 300	117, 727
Turtle products.....	3, 271	52, 055			3, 271	52, 055
Miscellaneous shellfish, etc. ²⁴	32, 549	189, 108	15, 666	88, 791	48, 215	277, 899
Total.....	208, 829	1, 993, 419	499, 830	1, 659, 494	708, 659	3, 652, 913

¹⁸ Includes the production of whitefish caviar by 1 firm in Wisconsin.

¹⁹ Tuna flakes are not included in this table, but are included in the table for canned tuna and tuna like fishes.

²⁰ Includes finnan haddie, pickled eels, fillets, fish paste, smoked king salmon, kippered sturgeon, and fish prepared for poisoning rats.

²¹ The production of 1 firm in Washington is included with the east coast.

²² Includes salmon roe and caviar and groundfish roe.

²³ The production of 1 firm in Virginia is included with the Pacific coast.

²⁴ Includes pickled mussels, squid, oyster puree, shrimp soup, fresh-water crawfish, terrapin, conch and abalone products, sea cucumber, frogs and frogs' legs.

NOTE.—“Standard cases” represent the various size cases converted to the equivalent of 48 1-pound cans to the case. Shad were canned at 7 plants, shad roe at 8 plants, fish flakes at 3 plants, cat and dog food at 6 plants, fish cakes, balls, etc., at 6 plants, fish chowder at 6 plants, miscellaneous fish at 6 plants, sturgeon caviar at 5 plants, whitefish roe and caviar at 4 plants, salmon eggs (for bait) at 10 plants, miscellaneous roe and caviar at 4 plants, crabs at 16 plants, turtle products at 4 plants, and miscellaneous shellfish products, etc., at 13 plants.

Canned fishery products and byproducts of the United States and Alaska, 1935—Con.

PRODUCTION OF OYSTER-SHELL PRODUCTS ²⁴

State	Crushed oyster-shell for poultry feed		Oyster-shell lime		Total	
	Tons	Value	Tons	Value	Tons	Value
Rhode Island and Delaware	1,480	\$11,680	461	\$2,375	1,950	\$14,064
New Jersey	7,395	55,230	3,012	13,868	10,407	69,098
Pennsylvania	4,236	35,212	911	3,412	5,147	38,624
Maryland	41,895	179,896	23,692	33,881	65,587	213,777
Virginia	15,202	85,805	²⁵ 24,610	²⁶ 134,000	39,812	219,805
North Carolina, South Carolina, and Florida	55,049	259,361	636	1,949	55,685	261,310
Alabama and Louisiana	94,480	422,950	1,460	2,065	95,949	425,021
Mississippi	5,220	21,675	(²⁷)	(²⁷)	5,220	21,675
Texas	21,398	66,872	²⁷ 4,311	²⁷ 11,199	25,709	78,071
Washington and Oregon	5,926	57,353	(²⁸)	(²⁸)	5,926	57,353
California	13,273	73,139	²⁸ 1,899	²⁸ 9,398	15,172	82,537
Total	265,572	1,269,188	60,992	212,147	326,564	1,481,335

²⁵ The production in Washington was from both clam and oyster shells.

²⁶ Of this amount, 16,255 tons, valued at \$102,593, were reported as "burned" lime.

²⁷ The production of oyster-shell lime in Mississippi has been included with that of Texas.

²⁸ The production of oyster-shell lime in Washington and Oregon has been included with that of California.

NOTE.—The above crushed shell products were prepared at 2 plants in Rhode Island, 10 in New Jersey, 4 in Pennsylvania, 1 in Delaware, 4 in Maryland, 9 in Virginia, 3 in North Carolina, 1 in South Carolina, 3 in Florida, 2 in Alabama, 4 in Mississippi, 1 in Louisiana, 3 in Texas, 5 in Washington, 1 in Oregon, and 5 in California.

PRODUCTION OF FRESH-WATER MUSSEL-SHELL PRODUCTS

Item	Iowa		Other States		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
Pearl buttons..... gross	10,147,144	\$2,921,583	3,810,385	\$1,010,686	13,957,529	\$3,932,269
Crushed shell for poultry feed						
tons.....	5,842	32,743	389	2,369	6,231	35,112
Lime..... do.....	1,689	2,921	108	360	1,797	3,281
Other products ²⁹		³⁰ 87,214		(³⁰)		87,214
Total		3,044,461		1,013,415		4,057,876

²⁹ Includes stucco, colored shells, and "pearl novelties."

³⁰ The novelties produced in other States are included with the production in Iowa.

NOTE.—Mussel shells purchased by manufacturing plants during the year amounted to 16,962,000 pounds, valued at \$213,606. Shells were purchased from 15 States in the Mississippi Valley, in the Great Lakes region, and from Canada. The producing States in order of their importance were: Arkansas, which contributed 22 percent of the total quantity; Tennessee and Illinois, each 17 percent; Indiana, 11 percent; Michigan, 7 percent; Kentucky, 6 percent; Iowa and Minnesota, each 5 percent; Texas, 4 percent; Wisconsin, 2 percent; Ohio and Mississippi, each 1 percent; and Alabama, Missouri, South Dakota, and Canada each less than one-half of 1 percent.

PRODUCTION OF MARINE PEARL-SHELL PRODUCT ³¹

Item	Maine, Massachusetts, Rhode Island, and Connecticut		New York		New Jersey	
	Gross	Value	Gross	Value	Gross	Value
Pearl buttons.....	1,531,909	\$886,368	1,054,838	\$546,251	1,518,690	\$1,065,039
Novelties ³²		194,500		61,690		152,564
Total		1,080,868		607,941		1,217,603

Item	Pennsylvania, Maryland, and Florida		Oregon and California		Total	
	Gross	Value	Gross	Value	Gross	Value
Pearl buttons.....	1,500,881	\$723,890			5,606,318	\$3,221,548
Novelties ³²		160,767		\$72,008		641,529
Total		884,657		72,008		3,863,077

³¹ Produced principally from imported shells.

³² Includes knife handles, handles for manure sets, dolls, lamps, mounted-fish decoys, etc.

NOTE.—Marine pearl-shell products were manufactured at 1 plant in Maine, 2 in Massachusetts, 1 in Rhode Island, 6 in Connecticut, 10 in New York, 22 in New Jersey, 2 in Pennsylvania, 1 in Maryland, 3 in Florida, 1 in Oregon, and 2 in California.

Canned fishery products and byproducts of the United States and Alaska, 1935—Con.

FISH UTILIZED AND PRODUCTS OF THE MENHADEN INDUSTRY

State	Menhaden utilized	Products						
		Dry scrap and meal		Acidulated scrap		Oil		Total
	<i>Number</i>	<i>Tons</i>	<i>Value</i>	<i>Tons</i>	<i>Value</i>	<i>Gallons</i>	<i>Value</i>	<i>Value</i>
New York, New Jersey, Delaware, and Georgia.....	272,276,000	5,724	\$185,437	18,322	\$335,938	1,882,631	\$549,129	\$1,070,504
Virginia.....	200,300,000	14,404	424,510	-----	-----	1,567,298	459,101	883,611
North Carolina.....	99,227,000	3,994	123,724	5,271	84,106	356,331	96,771	304,601
Florida.....	76,534,000	6,294	199,014	6,297	104,826	259,899	73,336	377,176
Total.....	³³ 648,337,000	³⁴ 30,416	³⁴ 932,685	29,890	524,870	4,066,159	1,178,337	2,635,892

³³ 389,002,000 pounds.

³⁴ Of this production 25,364 tons, valued at \$749,039 were reported as dry scrap and 5,052 tons, valued at \$133,596, as fish meal.

NOTE.—The menhaden factories were located as follows: 1 in New York, 2 in New Jersey, 2 in Delaware, 9 in Virginia, 7 in North Carolina, 1 in Georgia, and 5 in Florida.

PRODUCTION OF MISCELLANEOUS BYPRODUCTS

Product	Atlantic and Gulf coasts ³⁵		Pacific coast (including Alaska)		Total	
	<i>Quantity</i>	<i>Value</i>	<i>Quantity</i>	<i>Value</i>	<i>Quantity</i>	<i>Value</i>
Dried scrap:						
Alewife..... tons.....	528	\$15,311	-----	-----	528	\$15,311
Herring..... do.....	1,462	34,647	-----	-----	1,462	34,647
Blue crab..... do.....	2,198	38,954	-----	-----	2,198	38,954
King crab..... do.....	340	10,134	-----	-----	340	10,134
Miscellaneous ³⁶ do.....	1,574	34,195	-----	-----	1,574	34,195
Meal:						
Groundfish "white fish"..... do.....	11,838	484,540	-----	-----	11,838	484,540
Herring (Alaska)..... do.....	-----	-----	15,061	\$357,728	15,061	357,728
Herring (Maine)..... do.....	1,445	54,884	-----	-----	1,445	54,884
Mackerel..... do.....	-----	-----	4,391	113,595	4,391	113,595
Pilchard..... do.....	-----	-----	95,846	2,638,382	95,846	2,638,382
Salmon..... do.....	-----	-----	1,109	30,739	1,109	30,739
Tuna..... do.....	-----	-----	8,330	219,610	8,330	219,610
Shrimp..... do.....	2,131	45,793	-----	-----	2,131	45,793
Whale (meat)..... do.....	-----	-----	852	21,800	852	21,800
Whale (bone)..... do.....	-----	-----	487	9,740	487	9,740
Miscellaneous ³⁷ do.....	1,779	62,859	2,486	75,951	4,265	138,810
Oil:						
Alewife..... gallons.....	6,000	1,040	-----	-----	6,000	1,040
Cod..... do.....	17,342	4,049	-----	-----	17,342	4,049
Cod liver..... do.....	215,479	227,019	-----	-----	215,479	227,019
Herring (Alaska)..... do.....	-----	-----	3,792,409	1,113,724	3,792,409	1,113,724
Herring (Maine)..... do.....	64,136	8,478	-----	-----	64,136	8,478
Mackerel..... do.....	-----	-----	267,347	75,520	267,347	75,520
Pilchard..... do.....	-----	-----	21,735,165	6,658,965	21,735,165	6,658,965
Salmon ³⁸ do.....	-----	-----	135,488	54,388	135,488	54,388
Tuna..... do.....	-----	-----	127,660	22,648	127,660	22,648
Whale:						
Sperm..... do.....	-----	-----	200,350	48,909	200,350	48,909
Other..... do.....	-----	-----	1,142,549	399,150	1,142,549	399,150
Liver (other than cod) ³⁹ do.....	11,605	539,687	-----	-----	11,605	539,687
Miscellaneous ⁴⁰ do.....	14,618	3,450	71,773	2,799,147	83,378	3,338,834
Liquid glue..... do.....	⁴¹ 409,850	⁴¹ 829,625	(⁴¹)	(⁴¹)	409,850	829,625
Pearl essence..... pounds.....	6,000	56,000	-----	-----	6,000	56,000
Miscellaneous byproducts ⁴² do.....	-----	39,992	-----	331,500	-----	371,492
Total.....	-----	2,490,657	-----	14,990,903	-----	17,481,560

³⁵ Includes the production of burbot liver oil in Minnesota and Wisconsin.

³⁶ Includes groundfish and miscellaneous dry scrap, as well as the production of miscellaneous acid scrap by 1 firm in Virginia.

³⁷ Includes salmon egg, abalone, clam, king crab, oyster, and miscellaneous meal.

³⁸ Includes a considerable production of salmon oil especially prepared for human consumption.

³⁹ Partly estimated.

⁴⁰ Includes salmon egg, shark, and miscellaneous oil.

⁴¹ A quantity of liquid glue produced by one firm in California is included with the production of liquid glue of the Atlantic and Gulf coasts.

⁴² Includes isinglass, shark skins and fins, kelp products, miscellaneous novelties, and cod-liver pressing.

FROZEN-FISH TRADE ⁵

FISH, FROZEN

During 1935 the freezing plants which reported their activities to the Government froze 149,642,769 pounds of fishery products. These products at the time they were held in cold storage plants, were estimated to be valued at about \$15,000,000. Compared with the output in 1934 this was an increase of 12 percent in volume. Five species or groups of species accounted for 66 percent of the total amount frozen. In the order of their importance they were: Cod, haddock (including haddock fillets), hake, and pollock, which accounted for 27 percent of the total; salmon, 13 percent; whiting, 10 percent; and halibut and mackerel, 8 percent each. Other products frozen in considerable quantities during the year were shellfish, sea herring, and squid.

Production of frozen fishery products, 1935

BY SPECIES AND MONTHS

Species	Month ended the 15th of—					
	January	February	March	April	May	June
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Bluefish (all trade sizes).....	16, 525	24, 549	10, 537	7, 086	63, 500	21, 464
Butterfish (all trade sizes).....	2, 298	9, 458	1, 690	-----	22, 004	93, 011
Catfish.....	36, 866	26, 679	19, 367	60, 639	43, 110	83, 925
Cisco (Lake Erie).....	17, 222	-----	-----	118	327	3, 883
Cisco (lake herring), including bluefin, blackfin, and chub.....	55, 713	28, 965	62, 865	12, 080	28, 293	74, 275
Cisco (tullibees, Canadian lakes).....	11, 030	464	-----	1, 986	7, 138	6, 800
Cod, haddock, hake, and pollock.....	464, 147	153, 401	246, 712	794, 527	717, 636	1, 388, 279
Croaker.....	6, 143	813	1 107	11, 359	76, 946	218, 194
Flounders.....	48, 802	83, 265	51, 405	34, 964	75, 235	106, 315
Haddock fillets.....	1, 011, 346	1, 826, 855	1, 423, 983	1, 936, 592	2, 985, 725	2, 925, 015
Halibut (all trade sizes).....	-----	-----	-----	91, 087	1, 867, 747	2, 164, 607
Herring, sea (including alewives and blue- backs).....	57, 150	56, 457	42, 716	7, 731	227, 104	950, 689
Lake trout.....	23, 173	20, 198	2 169	1, 882	81, 655	87, 346
Mackerel (except Spanish).....	16, 987	35, 623	30, 441	32, 715	350, 601	3, 569, 675
Perch, yellow.....	(1)	(1)	(1)	(1)	(1)	(1)
Pike, blue and sauger.....	147, 477	10, 349	3, 455	26, 394	25, 852	1, 802
Pike, yellow or wall-eyed.....	4, 339	4, 272	390	17, 167	50, 427	8, 574
Pike (including pickerel, jacks, and yel- low jack).....	9, 876	47, 655	2, 696	15, 762	13, 028	21, 143
Sablefish (black cod).....	2, 313	577	894	2, 435	16, 026	76, 442
Salmon, king or chinook.....	57, 219	920	2, 135	5, 946	41, 050	391, 557
Salmon, silver or coho.....	102, 566	11, 245	11, 915	20, 933	4, 693	30, 515
Salmon, fall and pink.....	17, 106	31, 111	21, 854	9, 388	1, 885	2, 186
Salmon, steelhead trout.....	1, 755	19, 095	18, 400	4, 630	5, 566	11, 601
Salmon, sockeye or red.....	27, 600	17, 973	14, 313	14, 409	10, 113	24, 014
Scup (porgies).....	-----	-----	-----	-----	43, 647	19, 252
Shad and shad roe.....	2, 270	3, 618	1, 069	2, 014	67, 268	79, 905
Shellfish.....	141, 119	190, 512	146, 619	125, 736	410, 545	478, 582
Smelts, eulachon, etc.....	13, 000	15, 392	8, 677	160, 075	91, 913	35, 156
Squid.....	-----	1, 196	360	2, 353	386, 445	2, 094, 335
Sturgeon and spoonbill cat.....	3, 636	9	291	1, 832	22, 257	19, 505
Suckers.....	5, 140	400	1, 642	2, 284	19, 333	17, 549
Swordfish.....	41, 311	7, 329	19, 606	21, 985	3, 541	68
Weakfish (including southern "sea trout").....	4, 907	596	500	193	15, 163	18, 612
Whitefish.....	50, 072	41, 561	24, 574	69, 126	55, 048	30, 633
Whiting.....	52, 422	36, 569	66, 102	55, 257	274, 785	4, 303, 320
Miscellaneous fish.....	1, 493, 480	1, 266, 880	1, 037, 463	1, 232, 372	1, 561, 656	1, 639, 776
Total.....	3, 945, 010	3, 973, 986	3, 275, 937	4, 783, 057	9, 667, 262	20, 996, 055

¹ Prior to July 15, 1935, yellow perch were included with "Miscellaneous fish."⁵ The statistics in this section have been furnished by the Bureau of Agricultural Economics, Department of Agriculture.

Production of frozen fishery products, 1935—Continued

BY SPECIES AND MONTHS—Continued

Species	Month ended the 15th of—						
	July	August	September	October	November	December	Total
	<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).....	3, 033	37, 001	136, 702	329, 799	94, 595	7, 613	752, 404
Butterfish (all trade sizes).....	147, 734	24, 747	64, 678	373, 594	136, 631	9, 319	885, 154
Catfish.....	70, 995	53, 371	57, 835	55, 833	61, 750	58, 347	633, 717
Cisco (Lake Erie).....	20, 972	26, 601	3, 240	1, 719	930	31, 451	106, 463
Cisco (lake herring), including bluefin, blackfin, and chub.....	115, 640	300, 440	105, 137	131, 275	383, 962	1, 049, 317	2, 347, 962
Cisco (tullibees, Canadian lakes).....	1, 752	3, 550	3, 001	2, 368	900	322	39, 311
Cod, haddock, hake, and pollock.....	1, 662, 506	1, 636, 807	1, 325, 602	1, 800, 072	3, 424, 203	1, 542, 537	15, 156, 429
Croaker.....	383, 386	607, 777	217, 173	18, 917	5, 595	53, 540	1, 605, 950
Flounders.....	88, 694	16, 761	28, 124	191, 064	61, 284	38, 338	824, 251
Haddock fillets.....	2, 054, 240	2, 179, 051	1, 999, 751	2, 560, 164	1, 902, 715	1, 630, 368	24, 435, 805
Halibut (all trade sizes).....	2, 021, 306	1, 839, 372	1, 830, 737	667, 326	1, 127, 898	758, 069	12, 368, 149
Herring, sea (including alewives and bluebacks).....	156, 758	770, 525	986, 117	450, 153	499, 236	607, 772	4, 812, 408
Lake trout.....	112, 841	71, 310	52, 374	104, 016	416, 044	72, 953	1, 045, 961
Mackerel (except Spanish).....	3, 155, 216	2, 628, 458	1, 629, 361	296, 497	471, 810	73, 739	12, 291, 123
Perch, yellow.....	4, 189	735	21, 600	14, 993	43, 723	9, 483	94, 723
Pike, blue and sauger.....	41, 829	12, 890	3, 643	52, 798	267, 117	212, 273	805, 779
Pike, yellow or wall-eyed.....	10, 535	1, 772	22, 960	13, 431	18, 827	7, 635	160, 329
Pike (including pickerel, jacks, and yellow jack).....	13, 199	8, 200	22, 561	23, 497	12, 820	796	191, 233
Sablefish (black cod).....	308, 162	114, 080	533, 572	1, 090, 134	681, 324	157, 511	2, 983, 470
Salmon, king or chinook.....	799, 801	697, 622	925, 098	1, 463, 970	891, 651	16, 517	5, 293, 486
Salmon, silver or coho.....	166, 648	876, 478	1, 841, 909	2, 311, 051	2, 311, 836	440, 519	8, 130, 308
Salmon, fall and pink.....	780	114, 971	73, 385	226, 960	3, 771, 146	178, 566	4, 449, 338
Salmon, steelhead trout.....	85, 882	183, 859	155, 452	112, 135	10, 209	8, 057	616, 641
Salmon, sockeye or red.....	9, 159	9, 428	11, 019	27, 151	17, 769	9, 015	191, 963
Scup (porgies).....	8, 471	50, 983	55, 572	28, 344	2, 550	219	209, 038
Shad and shad roe.....	112, 531	13, 805	49, 368	38, 086	14, 988	2, 209	387, 131
Shellfish.....	617, 559	438, 895	810, 309	1, 105, 583	1, 123, 079	935, 173	6, 521, 711
Smelts, eulachon, etc.....	11, 371	47, 064	44, 775	58, 309	26, 761	14, 125	526, 618
Squid.....	240, 265	227, 933	14, 378	66, 765	2, 817	10, 822	3, 047, 719
Sturgeon and spoonbill cat.....	19, 352	45, 090	8, 169	41, 661	6, 144	885	168, 831
Suckers.....	9, 746	7, 950	2, 573	642	7, 948	9, 953	85, 160
Swordfish.....	4, 971	129, 478	730, 853	45, 020	5, 740	11, 287	1, 021, 189
Weakfish (including southern "sea trout").....	29, 203	46, 607	135, 276	364, 694	74, 819	48, 033	738, 603
Whitefish.....	22, 465	128, 501	23, 882	28, 182	17, 282	47, 994	539, 320
Whiting.....	5, 071, 951	1, 792, 730	1, 366, 701	913, 083	816, 995	495, 528	15, 245, 443
Miscellaneous fish.....	1, 555, 383	2, 568, 003	1, 441, 985	2, 080, 807	2, 478, 246	2, 573, 598	20, 929, 649
Total.....	19, 143, 525	17, 717, 845	16, 734, 772	17, 090, 093	21, 191, 344	11, 123, 883	149, 642, 769

Production of frozen fishery products, 1935—Continued

BY GEOGRAPHICAL SECTIONS AND SPECIES¹

[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).....	46	660	4	18	1	23		752
Butterfish (all trade sizes).....	135	746	2	1		1		885
Catfish.....	201	10	134	48	183	58		634
Cisco (Lake Erie).....	9	97						106
Cisco (lake herring), including bluefin, blackfin, and chub.....		452		1,313	583			2,348
Cisco (tullibees, Canadian lakes).....	23	5	1	8	2			39
Cod, haddock, hake, and pollock.....	14,424	136	4	141	9	122	321	15,157
Croaker.....		398	1,109	73		26		1,606
Flounders.....	170	578	12	12	2	5		824
Haddock fillets.....	23,661	48	22	693	9		3	24,436
Halibut (all trade sizes).....	325	103	5	604	25	22	11,284	12,368
Herring, sea (including alewives and bluebacks).....	3,802	115	13	624	5	28	225	4,812
Lake trout.....	2	166	17	733	107	11	10	1,046
Mackerel (except Spanish).....	9,944	1,909	26	97	1	44	270	12,291
Perch, yellow.....		3		92				95
Pike, blue and sauger.....		388		418				806
Pike, yellow or wall-eyed.....		74		85	1			160
Pike (including pickerel, jacks, and yellow jack).....		4		101	86			191
Sablefish (black cod).....		6		51	1		2,926	2,984
Salmon, chinook or king.....	22	54		18	2		5,197	5,293
Salmon, silver or coho.....	67	95		37	6		7,925	8,130
Salmon, fall and pink.....	2	19		46	4		4,378	4,449
Salmon, steelhead trout.....		20	40	2			555	617
Salmon, red or sockeye.....		1			3	7		181
Scup (porgies).....	52	157						209
Shad and shad roe.....	212	88	2	33	1	2		347
Shellfish.....	850	1,981	416	1,240	720	35	1,280	6,522
Smelts, eulachon, etc.....	32	8	6	291	1	2	187	527
Squid.....	2,131	907		2				3,048
Sturgeon and spoonbill cat.....		132	1	5	16	5	10	169
Suckers.....	5	1		77	2			85
Swordfish.....	839	4	4	1			173	1,021
Weakfish (including southern "sea trout").....		632	107					739
Whitefish.....	11	271	1	224	24	4	4	539
Whiting.....	13,846	583	36	257	5	519		15,246
Miscellaneous fish.....	7,169	1,289	1,638	4,455	612	2,151	3,613	20,930
Total.....	77,989	12,140	3,600	11,800	2,411	3,068	38,635	149,643

¹ Prior to July 15, 1935, yellow perch were included with "Miscellaneous fish."² New England includes the six 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; and Pacific—Washington, Oregon, California, and Alaska.

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.....	1,599	484	272	644	168	165	613	3,945
February.....	1,926	267	123	865	109	253	431	3,974
March.....	1,668	193	71	628	56	322	338	3,276
April.....	3,164	174	40	759	89	189	368	4,783
May.....	4,736	1,097	113	932	134	201	2,454	9,667
June.....	14,179	2,468	163	859	175	181	2,971	20,996
July.....	12,490	1,277	401	960	173	176	3,667	19,144
August.....	10,284	964	1,215	823	144	207	3,991	17,718
September.....	8,364	1,297	316	560	116	292	5,790	16,735
October.....	6,728	1,971	147	992	286	369	6,597	17,090
November.....	8,063	1,180	115	1,848	387	341	9,257	21,191
December.....	4,788	768	624	1,930	574	282	2,158	11,124
Total.....	77,989	12,140	3,600	11,800	2,411	3,068	38,635	149,643

HOLDINGS

During 1935 monthly holdings of frozen fish and shellfish averaged 52,201,000 pounds, which is an increase of 8 percent as compared with the average monthly holdings in 1934. The holdings during November were largest, amounting to 76,503,000 pounds. However, the holdings during each of the months from October to December inclusive, exceeded 70,000,000 pounds. The holdings during May were smallest when only 21,774,000 pounds of fishery products were in storage.

Holdings of frozen fishery products, 1935

BY SPECIES AND MONTHS

Species	Month ended the 15th of—					
	January	February	March	April	May	June
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Bluefish (all trade sizes).....	466, 197	372, 036	272, 294	155, 570	185, 576	164, 821
Butterfish (all trade sizes).....	1, 255, 844	958, 998	671, 618	447, 450	364, 260	363, 209
Catfish.....	184, 679	193, 967	153, 934	173, 710	175, 984	240, 443
Cisco (Lake Erie).....	60, 317	44, 442	17, 209	2, 717	3, 011	6, 034
Cisco (lake herring), including bluefin, blackfin, and chub.....	955, 205	546, 594	341, 438	116, 869	88, 143	142, 271
Cisco (tullibees, Canadian lakes).....	105, 270	129, 912	190, 760	106, 980	82, 065	72, 335
Cod, haddock, hake, and pollock.....	3, 600, 836	2, 250, 919	1, 562, 560	1, 409, 209	1, 461, 476	2, 162, 082
Croaker.....	1, 425, 219	1, 003, 195	804, 243	465, 529	352, 314	524, 687
Flounders.....	453, 570	475, 143	428, 242	284, 810	283, 160	310, 365
Haddock filets.....	6, 245, 885	6, 233, 714	4, 585, 411	3, 631, 586	4, 557, 744	5, 534, 630
Halibut (all trade sizes).....	6, 717, 335	4, 541, 533	2, 330, 938	1, 068, 233	2, 430, 966	4, 457, 616
Herring, sea (including alewives and blue- backs).....	2, 723, 163	2, 298, 555	1, 990, 415	1, 548, 538	1, 477, 151	2, 111, 611
Lake trout.....	925, 265	688, 937	415, 462	183, 745	215, 399	255, 415
Mackerel (except Spanish).....	5, 992, 851	4, 213, 538	2, 340, 337	538, 126	549, 236	4, 041, 658
Perch, yellow.....	(1)	(1)	(1)	(1)	(1)	(1)
Pike, blue and sauger.....	714, 449	746, 475	375, 403	363, 327	227, 610	133, 090
Pike, yellow or wall-eyed.....	221, 437	279, 942	235, 575	177, 942	145, 887	119, 131
Pike (including pickerel, jacks, and yellow jack).....	173, 331	221, 754	173, 548	139, 921	101, 872	81, 472
Sablefish (black cod).....	925, 998	579, 462	324, 431	143, 455	77, 504	114, 244
Salmon, chinook or king.....	2, 303, 618	1, 799, 439	1, 200, 676	691, 797	559, 257	745, 929
Salmon, silver or coho.....	4, 348, 522	3, 412, 008	2, 251, 666	1, 039, 412	608, 409	397, 464
Salmon, fall and pink.....	1, 780, 003	1, 326, 758	715, 495	430, 240	243, 929	198, 829
Salmon, steelhead trout.....	431, 799	363, 445	238, 151	229, 869	191, 988	178, 371
Salmon, red or sockeye.....	146, 066	125, 768	101, 473	57, 469	48, 961	50, 551
Scup (porgies).....	235, 638	177, 493	149, 544	79, 345	94, 514	100, 197
Shad and shad roe.....	359, 911	325, 708	217, 698	248, 865	193, 089	245, 527
Shellfish.....	1, 845, 298	1, 425, 174	895, 117	528, 199	609, 477	698, 107
Smelts, eulachon, etc.....	647, 553	1, 170, 806	1, 136, 002	833, 127	610, 907	541, 210
Squid.....	731, 618	681, 362	449, 519	283, 514	539, 928	2, 602, 327
Sturgeon and spoonbill cat.....	517, 831	459, 311	390, 910	337, 172	223, 951	185, 681
Suckers.....	17, 212	12, 796	7, 745	10, 405	29, 688	47, 237
Swordfish.....	707, 936	579, 176	347, 765	54, 989	15, 729	21, 605
Weakfish (including southern "sea trout").....	577, 273	383, 840	265, 659	100, 118	73, 502	75, 971
Whitefish.....	839, 067	1, 043, 275	1, 266, 441	820, 399	635, 609	528, 757
Whiting.....	6, 298, 132	4, 648, 610	3, 043, 826	1, 617, 077	642, 851	4, 204, 303
Miscellaneous fish.....	9, 241, 969	7, 824, 437	5, 293, 584	3, 835, 349	3, 672, 807	4, 280, 314
Total.....	64, 176, 297	51, 538, 522	35, 185, 089	22, 053, 063	21, 773, 954	35, 937, 494

¹ Prior to July 15, 1935, yellow perch were included with "miscellaneous fish."

Holdings of frozen fishery products, 1935—Continued

BY SPECIES AND MONTHS—Continued

Species	Month ended the 15th of—					
	July	August	September	October	November	December
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Bluefish (all trade sizes).....	100,607	116,329	215,536	528,714	526,886	400,987
Butterfish (all trade sizes).....	431,164	380,655	371,085	721,461	693,400	501,874
Catfish.....	275,764	358,872	375,485	391,833	412,847	455,293
Cisco (Lake Erie).....	22,718	35,057	37,645	32,469	21,064	50,379
Cisco (lake herring), including bluefin, blackfin, and chub.....	225,797	483,712	529,179	509,633	665,688	1,548,908
Cisco (tullibees, Canadian lakes).....	64,412	59,981	50,613	56,943	36,872	333,835
Cod, haddock, hake and pollock.....	2,308,867	3,237,507	3,428,878	3,245,795	5,060,670	5,562,626
Croaker.....	889,810	1,404,523	1,316,046	1,040,614	680,041	536,186
Flounders.....	360,953	312,802	297,698	447,270	442,521	366,526
Haddock fillets.....	6,150,506	7,489,189	6,730,342	6,833,251	6,143,835	6,090,160
Halibut (all trade sizes).....	6,307,235	8,055,857	9,589,926	8,540,209	8,534,135	7,777,632
Herring, sea (including alewives and blue- backs).....	1,947,328	2,242,378	2,881,410	3,009,779	3,119,523	3,284,349
Lake trout.....	356,112	337,313	272,053	343,187	725,805	706,347
Mackerel (except Spanish).....	6,998,555	9,245,920	10,578,508	10,005,173	9,328,256	7,664,819
Perch, yellow.....	22,675	7,391	36,050	62,995	134,150	122,169
Pike, blue and sauger.....	123,807	76,026	52,849	113,210	395,600	629,423
Pike, yellow or wall-eyed.....	105,506	61,534	104,162	104,338	147,194	152,086
Pike (including pickerel, jacks, and yellow jack).....	87,035	88,183	97,079	138,606	221,217	214,512
Sablefish (black cod).....	390,604	441,848	874,436	1,823,211	2,320,800	2,179,450
Salmon, chinook or king.....	1,450,740	1,933,903	2,669,713	3,984,539	4,255,226	3,607,258
Salmon, silver or coho.....	534,795	1,365,684	3,109,048	5,118,508	7,047,796	6,575,159
Salmon, fall and pink.....	150,692	202,283	256,995	447,784	3,058,980	3,672,912
Salmon, steelhead trout.....	253,166	389,182	510,438	606,291	496,196	374,495
Salmon, red or sockeye.....	47,890	49,062	44,556	50,927	67,794	57,655
Soup (porgies).....	105,986	151,149	193,744	213,523	125,920	79,875
Shad and shad roe.....	324,033	303,987	319,125	246,380	329,418	246,190
Shellfish.....	1,051,778	1,012,793	1,638,462	2,433,391	3,235,388	3,999,247
Smelts, eulachon, etc.....	513,214	545,112	556,156	548,032	615,403	690,489
Squid.....	2,758,706	2,786,373	2,527,719	2,401,638	2,142,301	1,838,732
Sturgeon and spoonbill cat.....	183,402	205,557	160,455	170,191	121,529	93,171
Suckers.....	83,225	85,870	103,461	95,247	99,865	104,630
Swordfish.....	16,526	135,553	952,999	829,066	665,035	586,839
Weakfish (including southern "sea trout").....	92,268	176,620	291,810	645,572	618,290	428,339
Whitefish.....	501,701	615,496	630,286	605,048	682,095	738,794
Whiting.....	8,244,286	8,849,307	8,298,368	7,023,050	5,603,924	4,956,307
Miscellaneous fish.....	4,665,508	6,110,229	6,437,643	6,643,088	7,727,096	8,428,313
Total.....	48,147,371	59,353,237	66,539,858	70,155,966	76,502,760	75,055,966

BY GEOGRAPHICAL SECTIONS AND MONTHS¹

[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 ²	Total
January.....	22,789	10,409	3,313	9,139	2,434	550	15,542	64,176
February.....	18,127	9,247	2,772	7,852	2,492	518	10,531	51,539
March.....	11,510	7,615	2,124	5,133	2,445	602	5,756	35,185
April.....	6,753	4,804	1,298	3,800	2,187	384	2,818	22,053
May.....	6,672	4,276	1,018	3,632	1,916	302	3,958	21,774
June.....	16,230	5,929	1,081	3,735	2,281	385	6,296	35,937
July.....	23,735	6,614	1,377	4,018	2,784	361	9,258	48,147
August.....	29,223	6,921	2,397	4,642	3,313	446	12,411	59,353
September.....	30,702	7,457	2,278	4,829	3,619	470	17,185	66,540
October.....	28,687	8,934	2,023	5,219	3,988	544	20,761	70,156
November.....	27,283	9,403	1,479	7,638	4,062	587	25,451	76,603
December.....	25,167	9,798	1,838	9,071	5,515	605	23,062	75,056
Average.....	20,573	7,617	1,917	5,726	3,136	480	12,752	52,201

¹ New England includes the six 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; and Pacific—Washington, Oregon, California, and Alaska.

² Includes a small amount of fish held in Colorado in the Mountain section.

COLD-STORAGE HOLDINGS OF CURED FISH

During 1935 monthly cold storage holdings of cured herring and mild-cured salmon averaged 12,908,000 pounds, which is a decrease of 7 percent as compared with the average monthly holdings in 1934. The holdings during November were the largest, amounting to 18,013,327 pounds, and the smallest were in April, amounting to 9,581,547 pounds.

Holdings of cured fish, 1935, by species and months

Month ended the 15th of—	Cured herring	Mild-cured salmon	Total
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
January.....	7,338,569	5,169,306	12,507,875
February.....	6,758,153	3,622,609	10,380,762
March.....	6,491,758	3,348,698	9,840,456
April.....	6,494,393	3,087,154	9,581,547
May.....	7,133,795	2,632,528	9,766,323
June.....	7,225,106	3,185,054	10,410,160
July.....	7,605,512	3,751,945	11,357,457
August.....	8,748,849	4,784,312	13,533,161
September.....	10,510,962	5,149,166	15,660,128
October.....	11,773,739	5,538,342	17,312,081
November.....	12,242,185	5,771,142	18,013,327
December.....	11,729,915	4,800,959	16,530,874

FOREIGN FISHERY TRADE

The foreign trade in fishery products of the United States in 1935 amounted to \$50,605,975, of which \$36,231,959 represents the value of these products imported for consumption, and \$14,374,016, the value of exports of domestic fishery products. Compared with the previous year, there was an increase of 13 percent in total trade, 18 percent in the value of the imports, and 4 percent in the value of exports.

Imports consisted of 324,731,532 pounds of edible products, valued at \$27,535,119, and nonedible products, valued at \$8,696,840. Fishery exports consisted of 119,687,266 pounds of edible products, valued at \$12,875,503, and nonedible products, valued at \$1,498,513.

Exports of domestic fishery products, 1935¹

Item	Quantity	Value
EDIBLE FISHERY PRODUCTS		
Fish, fresh, frozen, or packed in ice:		
Salmon.....pounds.....	3,125,180	\$381,778
Other.....do.....	2,019,733	173,258
Total.....do.....	5,144,913	555,036
Fish, salted, smoked, or dry cured:		
Cod.....do.....	401,203	43,414
Salmon.....do.....	890,727	135,536
Other.....do.....	842,361	72,073
Total.....do.....	2,134,291	251,023
Fish, pickled:		
Salmon.....do.....	1,449,400	249,438
Other.....do.....	1,234,200	67,514
Total.....do.....	2,683,600	316,952

¹ These statistics have been furnished by the Bureau of Foreign and Domestic Commerce, Department of Commerce.

Exports of domestic fishery products, 1935—Continued

Item	Quantity	Value
Fish, canned:		
Mackerel.....pounds..	2, 258, 067	\$113, 439
Salmon.....do.....	45, 312, 277	6, 917, 920
Sardines.....do.....	45, 454, 334	2, 724, 210
Other.....do.....	1, 042, 967	156, 524
Total.....do.....	94, 067, 645	9, 912, 093
Shellfish, not canned:		
Oysters, fresh, in the shell.....do.....	3, 853, 687	109, 730
Oysters, fresh, shucked, frozen, or in ice.....do.....	1, 649, 860	211, 655
Shrimp, fresh, frozen, or in ice.....do.....	3, 372, 972	381, 776
Shrimp, dried.....do.....	1, 812, 729	307, 551
Other shellfish, fresh, frozen, in ice or dried.....do.....	299, 811	25, 663
Total.....do.....	10, 899, 059	1, 036, 375
Shellfish, canned.....do.....	4, 517, 937	711, 882
Other fish products.....do.....	239, 821	92, 142
Total edible products.....do.....	119, 687, 266	12, 875, 503
NONEDIBLE FISHERY PRODUCTS		
Marine-animal oils.....pounds..	3, 276, 003	269, 547
Sponges.....do.....	78, 465	88, 706
Fish meal for feed.....tons..	21, 858	848, 392
Oyster shells.....do.....	44, 470	291, 868
Total nonedible products.....do.....		1, 498, 513
Grand total.....do.....		14, 374, 016

Imports of fishery products entered for consumption, 1935¹

Item	Pounds	Value
EDIBLE FISHERY PRODUCTS		
Fish, fresh or frozen:		
Whole, beheaded, or eviscerated or both:		
Salmon.....	6, 398, 525	\$573, 542
Fresh-water fish, not elsewhere specified:		
Yellow pike.....	8, 104, 721	700, 488
Whitefish.....	11, 696, 306	1, 234, 511
Tullibees.....	2, 656, 937	152, 123
Jacks or grass pike.....	3, 694, 012	196, 710
Lake trout.....	3, 790, 821	373, 939
Yellow perch.....	5, 417, 378	323, 495
Lake herring, ciscoes, and chubs.....	1, 575, 563	151, 404
Fresh-water fish, not elsewhere specified.....	11, 831, 126	700, 395
Eels.....	403, 428	23, 230
Cod, haddock, hake, pollock, and cusk.....	2, 388, 531	106, 476
Halibut:		
Fresh.....	2, 536, 946	246, 488
Frozen.....	164, 093	13, 862
Mackerel.....	123, 367	6, 643
Swordfish.....	4, 185, 126	383, 849
Sturgeon.....	1, 721, 896	280, 734
Fish, not specially provided for.....	4, 058, 935	132, 555
Whether or not whole:		
Smelts.....	7, 086, 162	736, 458
Tuna fish.....	6, 282, 680	394, 902
Sea herring:		
Fresh.....	37, 459, 015	276, 833
Frozen.....	1, 979, 033	58, 079
Fillets, skinned, boned, sliced, or divided, not specially provided for.....	4, 100, 761	415, 099
Total.....do.....	127, 655, 362	7, 481, 815
Fish, salted, dried, smoked, pickled or preserved:		
Dried and unsalted:		
Cod, haddock, hake, pollock, and cusk.....	48, 018	3, 301
Other.....	3, 265, 794	393, 964
In oil or in oil and other substances:		
Sardines.....	28, 663, 348	3, 525, 495
Anchovies.....	2, 391, 958	787, 845
Antipasto.....	287, 320	105, 157
Tuna.....	8, 185, 340	1, 262, 676
Other.....	233, 659	57, 714

¹ These statistics have been furnished by the Bureau of Foreign and Domestic Commerce, Department of Commerce.

Imports of fishery products entered for consumption, 1935—Continued

Item	Pounds	Value
EDIBLE FISHERY PRODUCTS—continued		
Fish, salted, dried, smoked, pickled or preserved—Continued.		
Not in oil or in oil and other substances:		
In airtight containers weighing, with contents, not over 15 pounds each:		
Anchovies.....	2,906,423	\$270,466
Salmon.....	3,024,720	196,298
Herring and sardines.....	10,353,553	728,650
Fish cakes, balls, and pudding.....	1,921,789	126,568
Other.....	1,397,807	154,312
Pickled or salted:		
Not in oil, etc., and not in airtight containers weighing, with contents, 15 pounds or less each:		
Salmon.....	498,068	60,653
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.....	4,585,011	232,063
Containing more than 43 percent moisture by weight.....	37,417,033	1,461,281
Cod, haddock, hake, pollock, and cusk, skinned or boned.....	2,512,556	285,014
Herring:		
In bulk or in containers weighing, with contents, more than 15 pounds each (net weight).....	33,418,569	1,783,823
In containers (not airtight), weighing, with contents, not more than 15 pounds each.....	81,350	1,832
Mackerel:		
In bulk or in containers weighing, with contents, more than 15 pounds each (net weight).....	3,809,866	201,100
Pickled or salted, not specially provided for:		
In bulk or in containers weighing, with contents, more than 15 pounds each (net weight).....	1,082,054	79,975
In containers (not airtight), weighing, with contents, not more than 15 pounds each.....	4,276	469
Smoked or kippered:		
Not in oil, etc., and not in airtight containers weighing, with contents, 15 pounds or less each:		
Salmon.....	1,654	795
Herring:		
Whole or beheaded.....	2,008,798	67,246
Eviscerated, split, skinned, boned, or divided.....	1,128,979	100,806
Cod, haddock, hake, pollock, and cusk:		
Whole, or beheaded, or eviscerated or both.....	763,260	71,044
Filleted, skinned, boned, sliced, or divided.....	1,521,740	152,319
Smoked or kippered, not specially provided for.....	11,358	817
Fish paste and fish sauce.....	138,045	36,188
Prepared or preserved, not specially provided for:		
In containers weighing, with contents, not more than 15 pounds each.....	28,247	3,929
In bulk or in containers weighing, with contents, more than 15 pounds each (net weight).....	651,284	79,620
Total.....	152,275,977	12,199,440
Caviar and other fish roe:		
Not boiled, etc.:		
Sturgeon.....	268,075	305,441
Fish roe, not specially provided for.....	92,536	18,003
Boiled, packed in airtight containers.....		
	80,192	8,163
Total.....	440,803	331,607
Shellfish:		
Crab meat, crab sauce, and crab paste.....	10,783,156	3,146,886
Clams, or clams in combination with other substances (except clam chowder).....	1,322,620	281,432
Oysters, oyster juice, or either in combination with other substances in airtight containers.....	113,288	91,820
Lobsters (including spiny lobsters and crawfish):		
Not canned.....	10,620,069	2,100,187
Canned.....	897,667	419,841
Clams not in airtight containers.....	7,012,241	79,876
Shrimp and prawn.....	1,883,949	178,072
Scallops.....	1,452,051	239,871
Oysters, not in airtight containers.....	7,071,082	8,129
Shellfish, not specially provided for.....	4,488,886	2,883
Pastes and sauces of shellfish, not specially provided for.....	149,333	22,481
Crabs.....	2,779	479
Turtles.....	468,194	28,631
Total.....	44,679,986	7,192,277
Total edible fishery products.....	324,791,712	25,197,119

Imports of fishery products entered for consumption, 1935—Continued

Item	Quantity	Value
NONEDIBLE FISHERY PRODUCTS		
Marine-animal oils:		
Cod oil..... gallons.....	2, 678, 102	\$809, 630
Cod-liver oil..... do.....	4, 607, 093	2, 075, 298
Eulachon oil..... do.....	3, 188	270
Halibut-liver oil..... do.....	1, 062	23, 587
Herring oil..... do.....	4, 948	537
Menhaden oil..... do.....	3, 186	1, 056
Sod oil..... do.....	106, 604	28, 086
Whale oil:		
Sperm, crude..... do.....	311, 685	73, 502
Sperm, refined or otherwise processed..... do.....	66, 099	22, 854
Whale oil, not specially provided for..... do.....	2, 698, 638	604, 872
Total.....	10, 481, 185	4, 539, 692
Pearls and imitation pearls:		
Pearls and parts, no. strung or set.....		652, 219
Imitation pearls, half pearls and hollow or filled.....		13, 858
Imitation pearl beads:		
Hollow or filled.....		15, 615
Solid iridescent, valued at not more than 10 cents per inch..... inches.....	104, 880	43
Other solid imitation pearl beads:		
Valued at not more than $\frac{1}{4}$ cent per inch..... do.....	86, 005, 328	48, 212
Valued at more than $\frac{1}{4}$, but not more than 1 cent per inch..... do.....	254, 856	1, 201
Valued at more than 1, but not more than 5 cents per inch..... do.....	10, 805	250
Valued at more than 5 cents per inch..... do.....	420	87
Total.....		731, 485
Shells and buttons of pearl or shell:		
Shells, unmanufactured:		
Green snail shell..... pounds.....	129, 726	14, 489
Mother-of-pearl..... do.....	5, 818, 871	1, 160, 190
Shells, not specially provided for..... do.....	3, 114, 627	56, 261
Shells and mother-of-pearl, engraved, cut, ornamented, or manufactured.....		37, 624
Shell pearl buttons:		
Ocean or trochus..... gross.....	273, 185	76, 138
Fresh water..... do.....	1, 823	522
Buttons (from Philippine Islands)..... do.....	728, 276	260, 576
Total.....		1, 605, 799
Sponges:		
Sheepswool..... pounds.....	156, 912	241, 903
Yellow, grass, or velvet..... do.....	355, 137	116, 840
Other..... do.....	101, 094	105, 468
Total.....	613, 143	464, 211
Agar agar..... do.....	451, 399	161, 998
Ambergris..... do.....	41	6, 029
Cod-liver oil cake and cod-liver oil cake meal..... do.....	2, 206, 874	57, 633
Cuttlefish bone..... do.....	346, 472	54, 134
Goldfish, live..... number.....	533, 880	4, 731
Fish for other than human consumption, not elsewhere specified.....		91, 801
Fish sounds..... pounds.....	164, 049	27, 068
Fish scrap and fish meal..... tons.....	27, 851	750, 183
Isinglass..... pounds.....	66, 549	27, 920
Kelp..... do.....	65, 660	1, 285
Skins, fish, raw or salted..... do.....	1, 312, 078	66, 276
Skins, seal, raw (not fur skins)..... do.....	913, 102	87, 635
Spermaceti wax..... do.....	120, 269	18, 555
Whalebone, unmanufactured..... do.....	277	181
Whalebone, manufactures of..... do.....		224
Total.....		1, 355, 653
Total, nonedible fishery products.....		8, 696, 840
Grand total.....		36, 231, 959

FISHERIES OF THE NEW ENGLAND STATES

(Area XXII) ⁶

The yield of the commercial fisheries of the New England States (Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut) during 1935 amounted to 655,430,400 pounds, valued at \$17,983,594 to the fishermen, representing an increase of 31 percent in volume and 33 percent in value as compared with the catch in 1933, the most recent previous year for which catch statistics are available. These fisheries gave employment to 18,449 fishermen, as compared with 17,073 in 1933.

There were 380 fishery wholesale and manufacturing establishments in the 5 States in 1935 as compared with 362 in 1933 when the most recent survey of these establishments was made. In 1935 these establishments employed 10,561 persons, paid \$6,456,456 in salaries and wages, and produced manufactured products (canned, cured, packaged, and byproducts), valued at \$22,838,942. In 1933 the whole sale and manufacturing firms employed 9,177 persons, paid \$5,410,072 in salaries and wages, and produced manufactured products valued at \$14,322,274.

Fisheries of the New England States, 1935

SUMMARY OF CATCH

Product	Maine		New Hampshire		Massachusetts	
	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
Fish.....	95,785,000	\$1,076,277	146,400	\$10,730	489,824,600	\$10,807,598
Shellfish, etc.....	16,434,000	2,232,965	207,700	50,860	13,592,800	1,340,293
Total.....	112,219,000	3,309,242	354,100	61,590	503,417,400	12,147,891

Product	Rhode Island		Connecticut		Total	
	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
Fish.....	14,275,900	\$301,477	9,104,400	\$342,870	609,136,300	\$12,538,952
Shellfish, etc.....	10,248,000	946,424	5,811,600	874,100	46,294,100	5,444,642
Total.....	24,523,900	1,247,901	14,916,000	1,216,970	655,430,400	17,983,594

⁶ 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 whose principal fishing ports are in the area but at times fish elsewhere. Notable examples are the groundfish fishery in area XXI and the mackerel and southern trawl fisheries in area XXIII. For a clearer understanding of the statistics published in this section, the reader is referred to the section in the latter part of this document entitled "Statistical survey procedure."

Fisheries of the New England States, 1935—Continued

OPERATING UNITS: BY STATES

Item	Maine	New Hampshire	Massachusetts	Rhode Island	Connecticut	Total
Fishermen:						
On vessels.....	Number 490	Number	Number 3,904	Number 280	Number 349	Number 5,023
On boats and shore:						
Regular.....	2,823	45	2,849	429	276	6,422
Casual.....	3,202	164	1,971	874	793	7,004
Total.....	6,515	209	8,724	1,583	1,418	18,449
Vessels:						
Steam.....			29	7	3	39
Net tonnage.....			4,950	200	827	5,977
Motor.....	91		340	70	81	582
Net tonnage.....	992		12,873	804	1,405	16,074
Total vessels.....	91		369	77	84	621
Total net tonnage.....	992		17,823	1,004	2,232	22,051
Boats:						
Motor.....	2,321	43	1,374	460	259	4,457
Other.....	1,737	28	1,666	666	526	4,623
Accessory boats.....	183		562	86	26	857
Apparatus:						
Purse seines:						
Mackerel.....	26		74	1		101
Length, yards.....	5,075		34,395	300		39,770
Menhaden.....				1		1
Length, yards.....				400		400
Other.....	53		2			55
Length, yards.....	5,005		800			5,805
Haul seines.....	66		14	9	51	140
Length, yards.....	6,425		1,472	687	5,010	13,594
Gill nets:						
Anchor.....	1,090		2,187	5		3,282
Square yards.....	322,131		792,580	14,160		1,128,871
Drift.....	187	3	2,620	49	48	2,907
Square yards.....	49,003	540	1,340,644	36,380	66,867	1,493,434
Stake.....	125				5	130
Square yards.....	13,146				840	13,986
Lines:						
Hand.....	5,566	677	213	145	107	6,708
Hooks and baits.....	5,667	677	374	179	125	7,022
Trawl.....	28,514	100	30,987	71	618	60,290
Hooks.....	1,510,100	5,000	1,661,115	30,155	21,672	3,228,042
Troll.....				45		45
Hooks.....				45		45
Trot with hooks.....				1	4	5
Hooks.....				200	700	900
Pound nets.....			120	43	14	177
Floating traps.....	25		32	39		96
Weirs.....	181		3			184
Fyke nets.....	49		16	127	111	303
Dip nets.....	96		90		231	417
Bag nets.....	126	22				148
Push nets.....			40			40
Otter trawls.....	49		292	59	79	479
Yards at mouth.....	1,085		8,502	1,489	2,133	13,209
Box traps.....	10					10
Pots:						
Crab.....	1,947		4,123	37		6,107
Eel.....	125		933	982	966	3,006
Fish.....					12	12
Lobster.....	184,592	3,287	58,419	25,255	17,884	289,437
Periwinkle and cockle.....			50	1,174		1,224
Harpoons.....	86		60	47	26	219
Spears.....	5		16	19	10	50
Dredges:						
Clam.....			44	19		63
Yards at mouth.....			22	14		36
Oyster.....			48	36	76	160
Yards at mouth.....			54	54	115	223
Scallop.....	154		2,515	918		3,587
Yards at mouth.....	233		2,189	731		3,153
Tongs:						
Oyster.....			34	57	10	101
Other.....			269	729	63	1,061
Rakes:						
Oyster.....				16	2	18
Other.....	9		700	70	121	900
Forks.....			273	7		285
Hoes.....	1,924	33	1,292	86	21	3,356

Fisheries of the New England States, 1935—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.....	3,373,900	\$17,105			958,700	\$7,797	55,400	\$381	17,600	\$184	4,405,600	\$25,467
Anchovies.....							3,700	74			3,700	74
Bluefish.....					91,300	9,713	147,500	10,972	118,300	11,783	357,100	32,468
Bonito.....					17,800	718	15,200	783			33,000	1,501
Butterfish.....	25,700	1,494			1,478,700	55,156	734,800	23,861			2,293,700	83,503
Carp.....									54,500	2,992	54,500	3,860
Cod.....	8,407,200	160,690	13,900	\$525	110,633,700	2,313,898	608,100	16,090	670,900	22,890	120,333,800	2,514,093
Crevalle.....							1,500	15			1,500	15
Croaker.....					2,278,100	41,307			72,400	1,478	2,350,500	42,785
Cunner.....	200	6					800	4			1,000	10
Cusk.....	2,734,100	47,588	2,200	66	4,819,900	89,057					7,556,200	136,711
Drum, red.....					2,200	35					2,200	35
Eels:												
Common.....	95,600	7,048			105,800	7,065	162,700	13,295	55,900	5,337	420,000	32,745
Conger.....					110,500	1,345	1,700	149	1,200	57	113,400	1,551
Flounders.....	1,669,000	47,678	44,300	1,813	28,377,600	997,215	2,349,800	80,449	6,293,500	194,110	38,734,200	1,321,265
Frigate mackerel.....					73,500	368	8,300	134			81,800	502
Goosefish.....					2,300	34					2,300	34
Grayfish.....	300	1			30,400	686	4,600	46			35,300	733
Haddock.....	4,245,300	153,984	33,400	1,672	189,860,200	4,106,404			466,800	14,670	194,605,700	4,276,730
Hake.....	16,231,700	154,095	4,100	82	10,271,500	220,452	1,800	29	32,200	1,420	26,541,300	376,078
Halibut.....	44,800	5,486			2,780,500	238,708			100,000	8,000	2,925,300	252,194
Herring, sea.....	50,942,500	260,722			3,189,800	23,222	196,300	2,167			54,328,600	286,111
Herring smelt.....					13,400	253					13,400	253
Hickory shad.....							200	2			200	2
Kingfish or "king mackerel".....									100	4	100	4
King whiting or "kingfish".....					4,100	158	900	25			5,000	183
Lamprey.....									1,800	375	1,800	375
Launce.....					34,000	550	100	1			34,100	551
Mackerel.....	1,476,600	25,388	1,800	108	59,652,100	1,206,904	817,300	16,474	2,400	180	61,950,200	1,249,054
Menhaden.....					21,000	205	4,256,100	13,683	7,300	74	4,284,400	13,962
Minnnows.....									4,500	2,409	4,500	2,409
Mummichog.....									6,000	1,150	6,000	1,150
Pilotfish.....					600	8					600	8
Pollock.....	5,018,400	57,466	4,500	134	28,281,100	487,661	37,500	1,113	53,000	866	33,394,500	547,240
Rosefish.....	47,400	379			17,109,500	183,709					17,156,900	184,088
Salmon.....	39,400	9,366			900	202					40,300	9,568
Scup or porgy.....					4,786,000	114,376	1,851,900	42,361	112,800	3,056	6,750,700	159,793
Sea bass.....					3,322,100	116,333	63,000	3,479	31,000	2,173	3,416,100	121,985
Sea robin.....					17,500	215	219,000	2,078	39,500	707	276,000	3,000
Shad.....	13,000	753			306,000	5,900	5,600	364	402,600	32,685	727,200	39,702
Sharks.....	36,400	390			42,200	567	2,200	44			80,800	1,001
Skates.....	2,500	31			7,700	105	167,100	1,403	49,600	795	226,900	2,334

Fisheries of the New England States, 1935—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												
Skipper or "billfish".....					300	\$3	200	\$2			500	\$5
Smelt.....	682,800	\$79,648	42,200	\$6,330	600	6	1,000	200	1,900	\$353	728,500	86,537
Squeteagues, or "sea trout", gray.....					260,500	10,747	38,000	2,552	28,500	1,544	327,000	14,843
Striped bass.....					5,100	537	16,200	2,094	400	55	21,700	2,686
Sturgeon.....	900	90			2,700	303	1,400	123			5,000	516
Suckers.....	15,200	819							81,400	3,032	96,600	3,851
Swordfish.....	309,400	38,979			2,295,000	332,655	295,500	38,242	85,700	13,996	2,985,600	423,872
Tautog.....					38,100	1,671	165,100	5,272	55,600	3,826	258,800	10,769
Thimble-eyed mackerel.....							45,800	496			45,800	496
Tilefish.....					700	16			160,000	8,000	160,700	8,016
Tomcod.....	11,300	279							5,200	260	16,500	539
Tuna or "horse mackerel".....	271,400	5,527			223,600	6,887	43,500	1,517			538,500	13,931
White perch.....	100	5			50,000	5,684	1,100	66			51,200	5,755
Whiting.....	12,500	76			15,418,100	160,009	1,954,500	21,387	29,900	449	17,415,000	181,921
Wolfish.....	75,000	848			2,849,200	58,754			10,000	100	2,934,200	59,702
Yellow perch.....	2,400	336					500	50			2,900	386
Total.....	95,785,000	1,076,277	146,400	10,730	489,824,600	10,807,598	14,275,900	301,477	9,104,400	342,870	609,136,300	12,538,952
SHELLFISH, ETC.												
Crabs:												
Hard.....	593,500	16,220			2,394,000	39,580	114,100	2,994	4,500	490	3,106,100	59,284
Soft and peelers.....									300	97	300	97
Lobsters.....	7,687,200	1,767,498	194,400	49,523	1,805,300	448,327	619,000	132,690	546,400	122,186	10,852,300	2,520,224
Clams:												
Hard, public ¹	1,700	152			1,241,600	140,618	2,252,100	207,883	421,400	85,666	3,916,800	434,319
Hard, private ¹					24,000	2,842	108,000	10,704	7,900	2,849	139,900	16,395
Razor.....					583,000	13,682					583,000	13,682
Soft, public ²	6,960,000	286,484	13,300	1,337	2,488,100	248,155	390,200	19,742	30,700	5,045	9,801,300	560,763
Surf or skimmer.....					800	50					800	50
Mussels, sea.....	117,100	2,875									117,100	2,875
Oysters: ³												
Market, public, spring.....					3,300	625	28,800	4,930	1,600	145	33,700	5,700
Market, public, fall.....							29,700	5,467	800	135	30,500	5,602
Market, private, spring.....					266,800	77,234	2,374,000	238,129	1,933,000	255,062	4,573,800	570,425
Market, private, fall.....							2,794,500	276,215	2,571,700	352,300	5,366,200	628,515
Periwinkles and cockles.....	3,000	90			2,700	345	153,200	6,722			158,900	7,157
Scallops:												
Bay.....					1,142,300	199,784	74,700	11,495	287,500	50,000	1,504,500	261,259
Sea.....	743,200	115,620			924,300	115,089	2,600	247			1,670,100	230,958
Squid.....					2,149,600	27,717	1,388,100	29,206	5,800	125	3,643,500	87,048

Irish moss.....					7,500	300					7,500	300
Bloodworms.....	227,800	34,653			55,500	2,665					283,300	37,318
Sandworms.....	65,500	9,173			504,000	23,300					569,500	32,473
Sea urchins.....	35,000	200									35,000	200
Total.....	16,434,000	2,232,965	207,700	50,860	13,592,800	1,340,293	10,248,000	946,424	5,811,600	874,100	46,294,100	5,444,642
Grand total.....	112,219,000	3,309,242	354,100	61,590	503,417,400	12,147,891	24,523,900	1,247,901	14,916,000	1,216,970	655,430,400	17,983,594

¹ Statistics on hard clams used in this table are based on yields of 11 pounds of meats per bushel in Maine; 11.01 pounds, in Massachusetts; 16 pounds, in 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 and New Hampshire; 13.64 pounds, in Massachusetts; 20 pounds, in Rhode Island; and 14.94 pounds, in Connecticut.

³ Statistics on oysters used in this table are based on yields of 6.57 pounds of meats in Massachusetts; 7.31 pounds, in Rhode Island; and 8 pounds in Connecticut.

NOTE.—Included in the catch of Massachusetts are 15,098,600 pounds of fishery products, valued at \$465,905 which were taken in the southern winter trawl fishery off southern New Jersey, Maryland, Virginia, and North Carolina. These products consisted principally of croakers, flounders, scup, and sea bass.

SUPPLEMENTARY TABLE SHOWING THE PRODUCTION OF CERTAIN SHELLFISH IN NUMBER AND BUSHELS

Product	Maine		New Hampshire		Massachusetts		Rhode Island		Connecticut		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Crabs:												
Hard..... number.....	1,780,500	\$16,220			7,182,000	\$39,580	342,300	\$2,994	13,500	\$490	9,318,300	\$59,284
Soft and peelers..... do.....									1,200	97	1,200	97
Clams:												
Hard, public..... bushels.....	155	152			112,770	140,618	140,756	207,883	42,140	85,666	295,821	434,319
Hard, private..... do.....					2,182	2,842	6,750	10,704	790	2,849	9,722	16,395
Razor..... do.....					18,403	13,682					18,403	13,682
Soft, public..... do.....	464,000	286,484	887	\$1,337	182,412	248,155	15,460	19,742	2,055	5,045	664,814	560,763
Surf or skimmer..... do.....					47	50					47	50
Mussels, sea..... do.....	9,758	2,875									9,758	2,875
Oysters:												
Market, public, spring..... do.....					502	625	3,940	4,930	200	145	4,642	5,700
Market, public, fall..... do.....							4,063	5,467	100	135	4,163	5,602
Market, private, spring..... do.....					40,609	77,234	324,761	238,129	241,625	255,062	606,995	570,425
Market, private, fall..... do.....							382,285	276,215	321,462	352,300	703,747	628,515
Periwinkles and cockles..... do.....	200	90			150	345	8,511	6,722			8,861	7,157
Scallops:												
Bay..... do.....					186,346	199,764	10,671	11,495	50,000	50,000	247,017	261,259
Sea..... do.....	123,867	115,620			154,050	115,089		371			278,288	230,956

Fisheries of the New England States, 1935—Continued

SEED OYSTER FISHERY

Item	Rhode Island		Connecticut		Total	
OPERATING UNITS						
Fishermen:	<i>Number</i>		<i>Number</i>		<i>Number</i>	
On vessels.....			137		137	
On boats and shore:						
Regular.....	2		27		29	
Casual.....			1		1	
Total.....	2		165		167	
Vessels:						
Steam.....			4		4	
Net tonnage.....			344		344	
Motor.....			9		9	
Net tonnage.....			236		236	
Sail.....			15		15	
Net tonnage.....			114		114	
Total vessels.....			28		28	
Total net tonnage.....			694		694	
Boats:						
Motor.....	1					1
Other.....			15		15	
Apparatus:						
Dredges.....			161		161	
Yards at mouth.....			142		142	
Tongs.....	2		5		7	
CATCH						
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring.....			17,355	\$6,942	17,355	\$6,942
Seed, public, fall.....	1,000	\$500	87,888	35,158	88,888	35,658
Seed, private, spring.....			355,843	162,334	355,843	162,334
Seed, private, fall.....			20,725	13,600	20,725	13,600
Total.....	1,000	500	481,811	218,034	482,811	218,534

NOTE.—Of the total number of persons fishing for seed oysters, 13 are duplicated among those fishing for market oysters or other species. Similarly the following craft and gear are duplicated: 2 vessels, 4 dredges, and 2 tongs.

Industries related to the fisheries of the New England States, 1935

OPERATING UNITS, SALARIES, AND WAGES

Item	Maine and New Hampshire	Massa- chusetts	Rhode Island	Connec- ticut	Total
Transporting:					
Persons engaged:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	62	45	3	14	124
On boats.....	15		3		18
Total.....	77	45	6	14	142
Vessels, motor.....	31	11	2	6	50
Net tonnage.....	364	314	15	216	909
Boats.....	12		3		15
Wholesale and manufacturing:					
Establishments.....	149	170	31	30	380
Persons engaged:					
Proprietors.....	108	102	27	28	265
Salaried employees.....	195	443	36	44	718
Wage earners:					
Average for season.....	5,034	3,787	383	374	9,578
Average for year.....	2,012	2,983	276	230	5,501
Paid to salaried employees.....	\$318,559	\$948,553	\$92,299	\$121,401	\$1,480,812
Paid to wage earners.....	\$1,241,799	\$3,344,633	\$230,077	\$159,135	\$4,975,644
Total salaries and wages.....	\$1,560,358	\$4,293,186	\$322,376	\$280,536	\$6,456,456
Fishermen manufacturing.....	3	2,181	337	1	3,792

Industries related to the fisheries of the New England States, 1935—Continued

PRODUCTS MANUFACTURED

Item	Maine		Massachusetts		Rhode Island		Connecticut	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
By manufacturing establishments:								
Alewives, salted, tight pack.....pounds..	1, 536, 880	\$37, 985						
Cod:								
Fresh fillets.....do.....	157, 828	16, 506	5, 771, 831	\$644, 303				
Fresh sticks.....do.....	227, 880	22, 717						
Frozen fillets.....do.....	(1)	(1)	8, 643, 741	665, 721				
Salted:								
Green ².....do.....	950, 998	45, 499	(1)	(1)				
Dry.....do.....	26, 465	1, 064	(1)	(1)				
Boneless, including absolutely boneless.....do.....	167, 084	24, 632	5, 526, 395	1, 003, 811				
Oil, cod.....gallons.....	14, 502	3, 180	(1)	(1)				
Oil, cod liver.....do.....	(1)	(1)	204, 122	221, 895				
Cusk:								
Fresh fillets.....pounds.....	62, 055	10, 777	563, 070	71, 605				
Fresh sticks.....do.....	522, 039	58, 631						
Frozen fillets.....do.....	(1)	(1)	1, 222, 778	108, 808				
Salted, green ².....do.....	53, 040	2, 072	(1)	(1)				
Smoked fillets.....do.....	82, 005	10, 801						
Flounders:								
Fresh fillets.....do.....	62, 261	8, 215	1, 089, 981	162, 874				
Frozen fillets.....do.....	(1)	(1)	709, 392	94, 285				
Haddock:								
Fresh fillets.....do.....	602, 744	78, 369	16, 954, 718	1, 802, 223				
Fresh sticks.....do.....	57, 775	11, 156						
Frozen fillets.....do.....	35, 070	2, 890	26, 327, 201	2, 202, 155				
Salted, green ².....do.....	6, 250	131						
Hake:								
Fresh fillets.....do.....	414, 484	30, 038	1, 280, 968	125, 617				
Fresh sticks.....do.....	426, 746	47, 650						
Frozen fillets.....do.....	(1)	(1)	1, 205, 655	81, 010				
Salted:								
Green ².....do.....	1, 575, 831	44, 842	(1)	(1)				
Dry.....do.....	452, 926	12, 544	1, 634, 966	84, 906				
Smoked fillets.....do.....	78, 215	9, 968						
Herring, sea:								
Salted, split.....do.....	1, 085, 787	35, 848						
Smoked:								
Bloaters:								
Hard.....do.....	171, 780	7, 001	(1)	(1)				
Soft.....do.....	113, 946	6, 522	(1)	(1)				

¹ This item has been included under "Unclassified products."

² This item is usually an intermediate product, and although included in the total, may also be shown in its final stage of processing in this or another State.

Industries related to the fisheries of the New England States, 1935—Continued

PRODUCTS MANUFACTURED—Continued

Item	Maine		Massachusetts		Rhode Island		Connecticut	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
By manufacturing establishments—Continued.								
Herring, sea—Continued.								
Smoked—Continued.								
Boneless.....do	2, 603, 604	\$275, 654						
Lengthwise.....do	117, 105	7, 083						
Medium scaled.....do	345, 300	22, 488	(1)	(1)				
Kippered.....do			118, 520	\$14, 004				
Canned "sardines".....standard cases	1, 655, 839	5, 142, 750						
Pearl essence.....pounds	5, 750	53, 500						
Scrap, dry.....tons	1, 462	34, 647						
Meal.....do	1, 445	54, 884						
Oil.....gallons	64, 136	8, 478						
Mackerel:								
Fresh fillets.....pounds	(1)	(1)	140, 717	12, 670				
Frozen fillets.....do			793, 124	65, 411				
Salted:								
Fillets.....do			1, 874, 480	152, 083				
Split.....do			2, 459, 507	196, 157				
Pollock:								
Fresh fillets.....do	(1)	(1)	1, 361, 076	100, 578				
Frozen fillets.....do	(1)	(1)	8, 532, 401	565, 204				
Salted:								
Green ².....do	98, 946	3, 953	(1)	(1)				
Dry.....do	16, 791	797	(1)	(1)				
Rosefish:								
Fresh fillets.....do			822, 844	87, 484				
Frozen fillets.....do			3, 497, 635	352, 495				
Wolfish:								
Fresh fillets.....do			32, 961	3, 906				
Frozen fillets.....do			19, 945	2, 078				
Crab meat, packaged, fresh cooked.....do	70, 067	34, 328	257, 576	109, 166	(1)	(1)		
Lobster meat, packaged, fresh cooked.....do	(1)	(1)	111, 900	117, 885	(1)	(1)		
Clams, hard, fresh shucked.....gallons					33, 560	\$43, 072		
Clams, soft:								
Fresh shucked.....do	43, 055	43, 438	99, 560	135, 177	11, 290	11, 581		
Canned:								
Whole.....standard cases	106, 084	375, 561						
Chowder.....do	77, 585	231, 510	(1)	(1)				
Juice, bouillon, and cocktail.....do	14, 763	24, 760						
Marine-shell buttons.....gross	(1)	(1)	(1)	(1)			1, 329, 911	\$760, 582
Oysters, fresh shucked.....gallons			(1)	(1)	426, 012	656, 792	322, 825	467, 605
Unclassified products:								
Fillets, fresh and frozen.....pounds	³ 674, 723	³ 45, 527	⁴ 383, 251	⁴ 35, 532				
Sticks and steaks, fresh and frozen.....do	⁴ 6, 000	⁴ 605	⁶ 3, 882, 895	⁶ 332, 080				

Salted.....do.....	⁷ 253, 125	⁷ 14, 610	⁸ 6, 530, 189	⁸ 481, 551				
Smoked.....do.....	⁹ 402, 100	⁹ 50, 080	¹⁰ 2, 260, 378	¹⁰ 344, 847	(11)	(11)	(11)	(11)
Canned:								
Fish cakes and flakes.....standard cases.....	34, 042	257, 485	13, 698	115, 992				
Fish chowder.....do.....	7, 129	31, 376						
Cat and dog food.....do.....			15, 750	34, 628				
Other.....do.....	¹² 2, 248	¹² 14, 148	¹³ 118, 436	¹³ 904, 656	(11)	(11)		
Meal, groundfish.....tons.....	(11)	(11)	11, 588	473, 540				
Oil, miscellaneous liver.....gallons.....	(11)	(11)	11, 209	435, 206				
Glue.....do.....			385, 058	755, 249				
Miscellaneous.....do.....		¹⁴ 154, 045		¹⁶ 165, 734		¹⁶ 99, 379		¹⁷ 126, 660
Total.....do.....		7, 410, 745		13, 262, 526		810, 824		1, 354, 847
By fishermen:								
Alewives, smoked.....pounds.....	117, 258	3, 062	5, 000	250				
Cod:								
Fresh fillets.....do.....	360	22						
Salted, green ¹.....do.....			406, 500	10, 975				
Salted, dry.....do.....	4, 300	272						
Cusk, salted, green ².....do.....			1, 000	20				
Haddock, salted, green ².....do.....			20, 600	410				
Hake:								
Fresh fillets.....do.....	2, 827	254						
Salted, green ².....do.....			5, 000	50				

¹ This item has been included under "Unclassified products."

² This item is usually an intermediate product, and although included in the total, may also be shown in its final stage of processing in this or another State.

³ Includes fresh fillets of mackerel and pollock, and frozen fillets of cod, cusk, flounders, hake, and pollock.

⁴ Includes fresh and frozen fillets of halibut, salmon, and whiting.

⁵ Includes frozen sticks of cod, cusk, and hake.

⁶ Includes fresh steaks of cod, haddock, halibut, pollock, salmon, and swordfish; frozen steaks of halibut, salmon, and swordfish; and frozen whiting sticks.

⁷ Includes dry-salted cusk, boneless hake, salted hake, and sea herring fillets; and salted round sea herring.

⁸ Includes green-salted cod, cusk, hake, and pollock; dry-salted cod, haddock, and pollock; strips and bits of cod; boneless cusk and hake; absolutely boneless hake; and round and pickled sea herring.

⁹ Includes smoked fillets of cod, haddock, and sea herring, and finnan haddie.

¹⁰ Includes smoked alewives, butterfish, carp, cod fillets, haddock (finnan haddie), lake trout, mackerel, salmon, sea herring (medium scaled, and hard and soft bloaters), shad and whitefish, and smoked and spiced salmon.

¹¹ This item has been included under "Miscellaneous."

¹² Includes canned finnan haddie, mackerel, and cod and hake fillets.

¹³ Includes canned haddock chowder; mackerel; hard and soft clam chowder; groundfish roe; fish cakes, balls, etc.; and rat poison bait.

¹⁴ Includes clam meal, groundfish meal and dry scrap; fresh-shucked salt-water mussels; packaged, fresh-cooked lobster meat; and marine-shell buttons.

¹⁵ Includes cod-liver pressings; fresh-shucked oysters; groundfish dry scrap; miscellaneous meal; marine-shell buttons and novelties; fresh-water mussel-shell novelties; and isinglass.

¹⁶ Includes finnan haddie; canned hard clam chowder; packaged fresh-cooked crab and lobster meats; oyster-shell poultry feed and lime; and marine-shell novelties.

¹⁷ Includes smoked butterfish, carp, lake trout, mackerel, salmon, spoonbill cat, and whitefish; and marine-shell novelties.

Industries related to the fisheries of the New England States, 1935—Continued

PRODUCTS MANUFACTURED—Continued

Item	Maine		Massachusetts		Rhode Island		Connecticut	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
By fishermen—Continued.								
Herring, sea, smoked, bloaters, soft.....do.....	1,000	\$106						
Mackerel, salted, split.....do.....			18,000	\$675				
Pollock, salted, dry.....do.....	5,000	400						
Crab meat, packaged, fresh cooked.....do.....	1,070	412	10,900	5,230	3,000	\$1,200		
Clams, hard, fresh shucked.....gallons.....					25	44		
Clams, razor, fresh shucked.....do.....			30,915	13,132				
Clams, soft:								
Fresh shucked.....do.....	68,647	49,073	15,504	18,792	400	700		
Steamed.....pounds.....	228,873	19,494						
Oysters, fresh shucked.....gallons.....			4,200	7,383				
Scallops:								
Bay, fresh shucked.....do.....			123,528	357,700	8,301	27,863		
Sea, fresh shucked.....do.....	42,900	71,156	63,007	91,286			45	\$59
Total.....		144,251		505,903		29,807		59
Grand total.....		7,554,996		13,768,429		840,631		1,354,906

NOTE.—The total value of manufactured products for the New England States was as follows: By manufacturing establishments, \$22,838,942; and by fishermen, \$680,020. Some of the above products may have been manufactured from products imported from another State or country; therefore they cannot be correlated directly with the catch within the State. Of the total number of persons engaged in the preparation of fishermen's manufactured products, 3,664 have also been included as fishermen and 8 of the persons shown on transporting craft have also been included as fishermen. This should be considered when computing the total number of persons in the fishery industries exclusive of duplication.

MAINE

Fisheries of Maine, 1935

OPERATING UNITS: BY GEAR

Item	Purse seines		Haul seines	Gill nets			Lines	
	Mack-erel	Other		Anchor	Drift	Stake	Hand	Trawl
	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:								
On vessels.....	64	115		70	3		8	163
On boats and shore:								
Regular.....	48	89	35	77	23		162	395
Casual.....	3	3	95	37	13	37	988	122
Total.....	115	207	130	184	39	37	1,158	680
Vessels:								
Motor.....	12	28		12	1		5	18
Net tonnage.....	111	247		107	5		31	307
Boats:								
Motor.....	14	25	65	43	24		194	431
Other.....	14	25	66	17	6	32	33	10
Accessory boats.....	12	28						126
Apparatus:								
Number.....	26	53	66	1,090	187	125	5,566	28,514
Length, yards.....	5,075	5,005	6,425	322,131	49,003	13,146		
Square yards.....								
Hooks.....							5,667	1,510,100

Item	Float- ing traps	Weirs	Fyke nets	Dip nets	Bag nets	Otter trawls	Box traps	Pots	
								Crab	Eel
	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:									
On vessels.....						70			
On boats and shore:									
Regular.....	26	175			5	60		23	
Casual.....	2	88	10	96	66		14	17	7
Total.....	28	263	10	96	71	130	14	40	7
Vessels:									
Motor.....						18			
Net tonnage.....						178			
Boats:									
Motor.....	14	25	1			31		24	
Other.....	9	202	8		11		2	16	7
Accessory boats.....		16							
Apparatus:									
Number.....	25	181	49	96	126	49	10	1,947	125
Yards at mouth.....						1,085			

Item	Pots, lobster	Har- poons	Spears	Dredges, scallop	Rakes, other than for oysters	Hoes	By hand, other than for oysters	Total, exclu- sive of dupli- cation
								Number
Fishermen:								
On vessels.....	7	83		30				490
On boats and shore:								
Regular.....	2,069	95		106		512	5	2,823
Casual.....	425	51	5	83	9	1,412	26	3,202
Total.....	2,501	229	5	219	9	1,924	31	6,515
Vessels:								
Motor.....	7	11		3				91
Net tonnage.....	41	189		75				992
Boats:								
Motor.....	1,764	75		146				2,321
Other.....	615		5		4	811	8	1,737
Accessory boats.....		10						183
Apparatus:								
Number.....	184,592	86	5	154	9	1,924		
Yards at mouth.....				233				

U. S. BUREAU OF FISHERIES

Fisheries of Maine, 1935—Continued

CATCH: BY GEAR

Species	Purse seines				Haul seines		Gill nets			
	Mackerel		Other				Anchor		Drift	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	905,500	\$7,422	95,090	\$720						
Butterfish.....	100	3								
Cod.....							3,357,700	73,401		
Cusk.....							16,900	268		
Flounders.....							23,400	439		
Haddock.....							766,800	24,353		
Hake.....							365,700	3,965		
Halibut.....							100	14		
Herring, sea.....	211,800	1,482	29,811,600	162,003					900	\$22
Mackerel.....	428,600	7,545	49,700	1,007			100	1	182,100	3,514
Pollock.....	411,100	2,399	732,100	3,871			3,016,300	40,639		
Rosefish.....							1,400	13		
Salmon.....							100	11	900	270
Shad.....	4,700	272	200	1			1,500	85	900	78
Sharks.....			200	4			34,000	361		
Smelt.....					92,700	\$8,765	46,100	6,572		
Sturgeon.....							800	82		
Tomcod.....					300	8				
Tuna or "horse mackerel".....									100	2
Wolfish.....							1,900	11		
Total.....	1,961,800	19,123	30,688,800	167,606	93,000	8,773	7,633,000	150,217	184,800	3,884

Species	Gill nets—Con.		Lines				Floating traps	
	Stake		Hand		Trawl		Pounds	Value
	Pounds	Value	Pounds	Value	Pounds	Value		
Alewives.....	12,800	\$340					6,900	\$50
Butterfish.....							25,600	1,491
Cod.....			505,700	\$7,915	3,992,100	\$69,909		
Cunners.....			200	6				
Cusk.....			2,400	41	2,682,000	46,765		
Eels, common.....					2,200	136		
Flounders.....			2,100	252	14,900	265		
Grayfish.....					300	1		
Haddock.....			61,100	2,054	2,825,300	104,223		
Hake.....			801,200	6,818	13,794,100	131,991		
Halibut.....			2,000	246	40,700	4,974		
Herring, sea.....							393,700	2,534
Mackerel.....							812,400	13,211
Pollock.....			418,100	5,977	418,900	4,361		
Rosefish.....					4,300	41		
Salmon.....	5,200	780					14,600	3,130
Shad.....	1,200	155					2,200	82
Sharks.....					2,200	25		
Skates.....					2,500	31		
Smelt.....								
Tuna or "horse mackerel".....	21,600	2,324	354,200	42,274				
Whiting.....			9,200	276			12,200	73
Wolfish.....			200	2	33,300	392		
Total.....	40,800	3,599	2,156,400	65,861	23,812,800	363,114	1,267,600	20,571

Fisheries of Maine, 1935—Continued

CATCH: BY GEAR—Continued

Species	Weirs		Fyke nets		Dip nets		Bag nets		Otter trawls	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	667,000	\$2,867			1,686,600	\$5,704				
Cod.....									551,700	\$9,465
Cusk.....									32,800	516
Eels, common.....			25,900	\$2,044						
Flounders.....									1,628,600	46,722
Haddock.....									592,100	23,354
Hake.....									1,270,700	11,321
Halibut.....									2,000	252
Herring, sea.....	20,524,500	94,681								
Mackerel.....	3,700	110								
Pollock.....									21,900	219
Rosefish.....									41,700	325
Salmon.....	16,400	4,625			2,200	550				
Shad.....	2,300	80								
Smelt.....	14,600	1,798			15,700	1,865	137,900	\$16,050		
Sturgeon.....									100	8
Suckers.....			15,200	819						
Tomcod.....			4,300	129	4,200	42	2,500	100		
White perch.....			100	5						
Whiting.....									300	3
Wolffish.....									39,600	443
Yellow perch.....			2,400	336						
Total.....	21,228,500	104,161	47,900	3,333	1,708,700	8,161	140,400	16,150	4,181,500	92,628

Species	Box traps		Pots						Harpoons	
			Crab		Eel		Lobster			
			Pounds	Value	Pounds	Value	Pounds	Value		
Eels, common.....	37,000	\$3,135			23,300	\$1,229				
Swordfish.....									309,400	\$38,979
Tuna or "horse mackerel".....									262,100	5,249
Crabs, hard.....			359,400	\$9,743			234,100	\$6,477		
Lobsters.....							7,687,200	1,767,498		
Total.....	37,000	3,135	359,400	9,743	23,300	1,229	7,921,300	1,773,975	571,500	44,228

Species	Spears		Dredges, scallop		Rakes		Hoes		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Eels.....	7,200	\$504								
Clams:										
Hard, public.....							1,700	\$152		
Soft, public.....							6,960,000	286,484		
Mussels, sea.....					59,800	\$1,660			57,300	\$1,215
Periwinkles and cockles.....									3,000	90
Scallops, sea.....			743,200	\$115,620						
Bloodworms.....							227,800	34,653		
Sandworms.....							65,500	9,173		
Sea urchins.....									35,000	200
Total.....	7,200	504	743,200	115,620	59,800	1,660	7,255,000	330,462	95,300	1,505

Fisheries of Maine, 1935—Continued

OPERATING UNITS: BY COUNTIES

Item	Cum-berland	Han-cock	Ken-nebec	Knox	Lin-coln	Penob-scot	Saga-dahoc	Waldo	Wash-ington	York
	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:										
On vessels.....	274	36		95	56				22	7
On boats and shore:										
Regular.....	512	621		483	350		94	19	562	182
Casual.....	434	961	4	339	311	18	376	98	567	94
Total.....	1,220	1,618	4	917	717	18	470	117	1,151	283
Vessels:										
Motor.....	38	11		22	12				6	2
Net tonnage.....	500	95		231	99				52	15
Boats:										
Motor.....	480	517		460	260		93	9	326	176
Other.....	290	412	4	185	194	18	71	44	472	47
Accessory boats.....	126	5		20	9				21	2
Apparatus:										
Purse seines:										
Mackerel.....	5			2	17					2
Length, yards.....	940			480	3,255					400
Other.....	13	11		9	11				9	
Length, yards.....	1,130	1,100		1,220	985				570	
Haul seines.....	65						1			
Length, yards.....	6,325						100			
Gill nets:										
Anchor.....	452	53			470				115	
Square yards.....	170,045	16,300			116,860				18,926	
Drift.....	60			6	12		6		17	86
Square yards.....	15,803			1,080	2,160		1,440		7,200	21,320
Stake.....		12			5	61	3	13	31	
Square yards.....		1,080			280	5,040	266	780	5,700	
Lines:										
Hand.....	28	1,805		814	851		1,684	276	105	3
Hooks.....	28	1,805		814	873		1,744	276	124	3
Trawl.....	10,950	5,070		3,090	2,030		3,710	60	2,233	1,371
Hooks.....	548,000	253,500		154,500	102,500		236,700	3,000	143,350	68,550
Floating traps.....	8			1	2		9	5		
Weirs.....		66		13	4	11	1	10	76	
Fyke nets.....			20		7		22			
Dip nets.....		4		29	7		2	15	33	6
Bag nets.....		8					1	33	84	
Otter trawls.....	21	15		7	4				2	
Yards at mouth.....	425	350		160	90				60	
Box traps.....		4							6	
Pots:										
Crab.....	1,947									
Eel.....					55			50	20	
Lobster.....	25,881	42,942		43,472	21,143		4,933	260	33,061	12,900
Harpoons.....	45				11		22			8
Spears.....				3	2					
Dredges, scallop.....	69	65		9					11	
Yards at mouth.....	100	94		26					13	
Rakes, other than for oysters.....	9									
Hoes.....	307	616		145	184		91	42	491	48

Fisheries of Maine, 1935—Continued

CATCH: BY COUNTIES

Species	Cumberland		Hancock		Kennebec	
	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	150,600	\$1,221	653,100	\$2,828		
Butterfish	1,500	80				
Cod	4,309,800	95,160	1,145,200	19,152		
Cunners	200	6				
Cusk	1,617,500	30,317	91,500	1,448		
Eels, common	1,000	16	8,500	850	2,500	\$175
Flounders	589,000	11,404	687,800	28,165		
Haddock	1,624,500	57,041	710,400	25,507		
Hake	5,026,500	58,579	4,955,400	33,918		
Halibut	12,100	1,369	8,500	954		
Herring, sea	11,215,300	63,844	7,909,200	41,491		
Mackerel	253,300	3,900				
Pollock	3,259,700	43,124	171,700	984		
Rosefish	27,700	237	10,200	51		
Salmon	400	56	8,200	2,479		
Shad	3,800	185				
Sharks	34,000	344				
Smelt	91,600	8,663	261,900	28,368		
Sturgeon	600	59				
Suckers					12,200	610
Swordfish	309,400	38,979				
Tomcod	300	8			4,300	129
Tuna or "horse mackerel"	135,500	2,524				
Whiting	12,200	73				
Wolfish	32,800	336	6,700	76		
Yellow perch					400	36
Crabs, hard	442,700	11,905				
Lobsters	923,900	225,045	1,681,100	377,855		
Clams:						
Hard, public	1,700	152				
Soft, public	663,900	45,538	1,277,200	47,974		
Mussels, sea	116,000	2,845				
Scallops, sea	73,600	14,060	291,000	53,282		
Bloodworms	177,300	27,071				
Total	31,113,400	744,141	19,877,600	665,382	19,400	950

Species	Knox		Lincoln		Penobscot	
	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	455,200	\$2,438	1,320,000	\$7,295		
Butterfish	100	3	1,800	91		
Cod	707,000	10,832	1,114,600	14,678		
Cusk	354,600	5,910	361,000	3,183		
Eels, common	5,200	364	18,900	1,427		
Flounders	241,700	4,320	89,800	1,478		
Grayfish	300	1				
Haddock	575,700	22,739	311,700	9,508		
Hake	2,547,300	24,355	1,727,200	12,524		
Halibut	4,700	550	8,200	966		
Herring, sea	6,033,800	32,569	6,237,100	36,180		
Mackerel	30,200	881	388,600	7,268		
Pollock	506,000	2,737	606,400	3,494		
Rosefish	2,300	18	7,200	73		
Salmon			2,500	625	3,100	\$896
Shad			1,500	158		
Sharks	400	8	2,000	38		
Smelt	26,900	2,886	46,900	6,392	12,200	1,260
Sturgeon			300	31		
Tuna or "horse mackerel"			16,700	420		
Whiting	300	3				
Wolfish	22,900	260	2,000	14		
Crabs, hard	11,000	300	139,800	4,015		
Lobsters	1,817,600	417,862	887,300	218,026		
Clams, soft, public	1,059,600	37,688	443,700	14,334		
Scallops, sea	366,100	46,165				
Bloodworms			50,500	7,582		
Sandworms			65,500	9,173		
Sea urchins			35,000	200		
Total	14,768,900	612,889	13,886,200	359,173	15,300	2,156

Fisheries of Maine, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Sagadahoc		Waldo		Washington		York	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	40,400	\$535			644,000	\$1,802	110,600	\$986
Butterfish.....	22,300	1,320						
Cod.....	410,500	8,134	11,700	\$350	613,500	10,180	94,900	2,204
Cusk.....	105,400	1,993			91,800	1,695	112,300	3,042
Eels, common.....	13,300	1,061	13,500	540	31,500	2,495	1,200	120
Flounders.....	2,200	41			58,500	2,270		
Haddock.....	305,900	9,647	5,200	210	331,500	13,263	380,400	16,069
Hake.....	558,700	6,666	36,200	250	911,100	11,761	469,300	6,042
Halibut.....	2,000	244			4,600	626	4,700	777
Herring, sea.....	778,800	4,459	432,100	2,381	18,336,200	79,798		
Mackerel.....	573,600	8,458			3,700	110	222,200	4,771
Pollock.....	70,200	731			380,900	6,007	23,500	389
Salmon.....	11,000	2,186	4,000	1,243	10,200	1,881		
Shad.....	800	30			2,900	140	4,000	240
Skates.....					2,500	31		
Smelt.....	58,500	8,377	79,400	9,058	104,400	14,494	1,000	150
Suckers.....	3,000	209						
Tomcod.....			2,500	100	4,200	42		
Tuna or "horse mackerel".....	99,000	1,976					20,200	607
White perch.....	100	5						
Wolfish.....	6,200	71			500	4	3,900	87
Yellow perch.....	2,000	300						
Lobsters.....	153,500	36,945	8,200	2,105	1,480,400	305,604	735,200	184,056
Clams, soft, public.....	406,800	13,827	229,500	10,662	2,669,000	102,441	210,300	14,020
Mussels, sea.....	1,100	30						
Periwinkles and cockles.....					3,000	90		
Scallops, sea.....					12,500	2,113		
Total.....	3,625,300	107,245	822,300	26,899	25,696,900	556,847	2,393,700	233,560

NEW HAMPSHIRE

Fisheries of New Hampshire, 1935¹

OPERATING UNITS: BY GEAR

Item	Gill nets, drift	Lines		Bag nets	Pots, lobster	Hoes	Total, exclusive of duplication
		Hand	Trawl				
Fishermen, on boats and shore:	Number	Number	Number	Number	Number	Number	Number
Regular.....	1		1		44	7	45
Casual.....	1	117	1	11	10	26	164
Total.....	2	117	2	11	54	33	209
Boats:							
Motor.....	1		2		41		43
Other.....		5			10	14	28
Apparatus:							
Number.....	3	677	100	22	3,287	33	
Square yards.....	540						
Hooks.....		677	5,000				

CATCH: BY GEAR

Species	Gill nets, drift		Lines			
			Hand		Trawl	
	Pounds	Value	Pounds	Value	Pounds	Value
Cod.....			10,800	\$432	3,100	\$93
Cusk.....					2,200	66
Flounders.....			41,400	1,668	2,900	145
Haddock.....			1,200	62	32,200	1,610
Hake.....					4,100	82
Mackerel.....	1,200	\$72	600	36		
Pollock.....					4,500	134
Smelt.....			36,000	5,400		
Total.....	1,200	72	90,000	7,598	49,000	2,130

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

Fisheries of New Hampshire, 1935—Continued

CATCH: BY GEAR—Continued

Species	Bag nets		Pots, lobster		Hoes	
	Pounds	Value	Pounds	Value	Pounds	Value
Smelt.....	6,200	\$930				
Lobsters.....			194,400	\$49,523		
Clams, soft, public.....					13,300	\$1,337
Total.....	6,200	930	194,400	49,523	13,300	1,337

MASSACHUSETTS

Fisheries of Massachusetts, 1935

OPERATING UNITS: BY GEAR

Item	Purse seines			Gill nets		Lines		Pound nets
	Mack-erel	Other	Haul seines	Anchor	Drift	Hand	Trawl	
	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber
Fishermen:								
On vessels.....	772	14		107	163	31	940	
On boats and shore:								
Regular.....	41		33	54	43	112	363	165
Casual.....			11		1	1	6	12
Total.....	813	14	44	161	207	144	1,309	177
Vessels, motor.....	66	2		18	24	4	60	
Net tonnage.....	2,350	31		358	429	85	2,610	
Boats:								
Motor.....	8		2	26	17	75	143	46
Other.....	8		21	10	4	1	47	74
Accessory boats.....	66	2					460	
Apparatus:								
Number.....	74	2	14	2,187	2,620	213	30,987	120
Length, yards.....	34,395	800	1,472					
Square yards.....				792,580	1,340,644			
Hooks, baits, or snoods.....						374	1,661,115	

Item	Float-ing traps	Weirs	Fyke nets	Dip nets	Push nets	Otter trawls	Pots	
							Crab	Eel
	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:								
On vessels.....						2,400		
On boats and shore:								
Regular.....	63	2	2	77		77	60	21
Casual.....		2	7	46	80	3	2	15
Total.....	63	4	9	123	80	2,480	62	36
Vessels:								
Steam.....						29		
Net tonnage.....						4,950		
Motor.....						237		
Net tonnage.....						9,255		
Total vessels.....						266		
Total net tonnage.....						14,205		
Boats:								
Motor.....	29			22		26	41	7
Other.....	34		6	58	40		1	27
Apparatus:								
Number.....	32	3	16	90	40	292	4,123	933
Yards at mouth.....						8,502		

Fisheries of Massachusetts, 1935—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Pots—Continued		Harpoons	Spears	Dredges		
	Lobster	Parl-winkle and cockle			Clam	Oyster	Scallop
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	4		540		5	9	87
On boats and shore:							
Regular.....	742	1	3	1	59	43	709
Casual.....	148			15	2		552
Total.....	864	1	543	16	66	52	1,348
Vessels, motor.....	2		57		2	3	14
Net tonnage.....	11		2,244		14	34	244
Boats:							
Motor.....	583		3		33	23	519
Other.....	168	1					215
Accessory boats.....			69				
Apparatus:							
Number.....	58,419	50	60	16	44	48	2,515
Yards at mouth.....					22	54	2,199
Item	Tongs		Rakes, other than for oysters	Forks	Hoes	By hand, other than for oysters	Total, exclusive of duplication
	Oyster	Other					
Fisherman:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....							3,904
On boats and shore:							
Regular.....	28	119	380	135	528	2	2,849
Casual.....	6	150	320	140	764		1,971
Total.....	34	269	700	278	1,292	2	8,724
Vessels:							
Steam.....							29
Net tonnage.....							4,950
Motor.....							340
Net tonnage.....							12,873
Total vessels.....							369
Total net tonnage.....							17,823
Boats:							
Motor.....		20	55		20		1,374
Other.....	31	224	532	126	442	1	1,666
Accessory boats.....							562
Apparatus, number.....	34	269	700	278	1,292		

Fisheries of Massachusetts, 1935—Continued

CATCH: BY GEAR

Species	Purse seines				Haul seines		Gill nets	
	Mackerel		Other				Anchor	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	389,700	\$4,312			300,000	\$1,750	600	\$9
Bluefish			2,000	\$320	5,000	800	50,000	5,000
Butterfish	1,600	64						
Cod	17,700	470					5,143,400	128,583
Cusk							100	1
Flounders	5,300	183					1,400	34
Frigate mackerel	59,000	296						
Haddock							345,400	10,811
Hake	800	34					38,600	1,175
Herring, sea	45,000	325			24,000	240		
Launce					34,000	550		
Mackerel	49,014,800	1,026,170					345,900	4,693
Pollock	248,300	4,559	629,500	10,741			11,543,600	188,282
Rosefish	2,200	22						
Salmon							200	30
Shad	174,000	2,649			35,000	525		
Sharks							2,700	40
Striped bass					1,500	255		
Tuna or "horse mackerel"	15,200	215						
White perch					46,000	5,600		
Wolfish							100	1
Squid	100	6						
Total	49,973,700	1,039,305	631,500	11,061	445,500	9,720	17,472,000	338,659

Species	Gill nets—Con.		Lines				Pound nets	
	Drift		Hand		Trawl			
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives							29,000	\$306
Bluefish			20,800	\$2,107			12,600	1,412
Bonito							15,700	705
Butterfish							945,600	26,422
Cod			672,700	15,465	27,021,700	\$590,288	15,200	145
Cusk			9,000	119	4,261,800	77,841		
Eels:								
Common							15,600	920
Conger							400	17
Flounders					464,800	15,145	72,600	3,610
Grayfish							11,200	203
Haddock			20,000	351	17,126,100	465,786		
Hake			600	8	6,677,900	145,020		
Halibut			100	11	1,781,100	157,603		
Herring, sea							2,188,400	12,539
Mackerel	3,862,600	\$81,453	16,000	520			5,123,600	72,712
Menhaden							21,000	205
Pilotfish							600	8
Pollock			38,300	747	747,400	13,151	191,600	1,768
Rosefish					5,100	51		
Scup or porgy			40,200	1,255			204,500	2,127
Sea bass			13,500	924			2,600	107
Sea robin							2,800	39
Shad	28,800	432					46,700	1,866
Sharks	400	14			1,400	41	28,900	264
Skates							4,800	64
Skipper or "billfish"							300	3
Squeteagues or "sea trout", gray							4,200	223
Striped bass			3,000	210			400	47
Sturgeon							1,300	160
Swordfish					1,400	219		
Tautog			27,500	1,173			10,200	482
Tuna or "horse mackerel"							201,200	6,374
Whiting					21,800	281	10,521,900	82,244
Wolfish			5,000	146	585,400	11,979		
Squid							1,914,200	23,312
Total	3,891,800	81,899	866,700	23,036	58,695,900	1,477,405	21,587,100	238,274

Fisheries of Massachusetts, 1935—Continued

CATCH: BY GEAR—Continued

Species	Floating traps		Weirs		Fyke nets		Dip nets		Push nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	84,400	\$485	22,000	\$120			133,000	\$815		
Bonito.....	2,100	13								
Butterfish.....	114,100	7,043								
Cod.....	28,600	738								
Eels, common.....	5,000	200			5,800	\$596				
Flounders.....	1,500	39			4,400	133				
Grayfish.....	18,000	450								
Herring, sea.....	326,900	2,566					605,400	7,540		
Mackerel.....	1,269,100	20,078								
Pollock.....	50,800	613								
Salmon.....	700	172								
Scup or porgy.....	400	10								
Sea robin.....	400	6								
Shad.....	21,000	406								
Sharks.....	2,200	45								
Squeteagues or "sea trout", gray.....	47,100	1,285								
Striped bass.....	200	25								
Tautog.....	300	15								
Tuna or "horse mackerel".....	4,300	111								
Whiting.....	2,435,300	33,291								
Scallops, bay.....							50,600	15,460	14,400	\$4,800
Squid.....	107,500	1,631								
Total.....	4,519,900	69,222	22,000	120	10,200	729	789,000	23,815	14,400	4,800

Species	Otter trawls		Pots							
			Crab		Eel		Lobster		Periwinkle and cockle	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bluefish.....	900	\$74								
Butterfish.....	417,400	21,627								
Cod.....	77,734,400	1,578,209								
Crowder.....	2,278,100	41,307								
Cusk.....	549,000	11,096								
Drum, red.....	2,200	35								
Eels:										
Common.....					73,700	\$4,830				
Conger.....	107,500	1,294								
Flounders.....	27,830,200	978,105								
Frigate mackerel.....	14,500	72								
Goosefish.....	2,300	54								
Grayfish.....	1,200	33								
Haddock.....	172,368,700	3,629,456								
Hake.....	3,553,600	74,215								
Halibut.....	999,300	81,094								
Herring, sea.....	100	12								
Herring smelt.....	13,400	253								
King whiting or "kingfish".....	4,100	158								
Mackerel.....	20,100	1,278								
Pollock.....	14,831,600	267,810								
Rosefish.....	17,102,200	183,636								
Scup or porgy.....	4,540,900	110,984								
Sea bass.....	3,206,000	115,302								
Sea robin.....	14,300	170								
Shad.....	500	22								
Sharks.....	6,600	163								
Skates.....	2,900	41								
Spot.....	600	6								
Squeteagues or "sea trout", gray.....	209,200	9,239								
Sturgeon.....	1,400	143								
Swordfish.....	600	92								
Tautog.....	100	1								
Tilefish.....	700	16								
Tuna or "horse mackerel".....	2,600	160								
White perch.....	4,000	84								
Whiting.....	2,439,100	44,193								
Wolfish.....	2,258,700	46,628								
Crabs, hard.....			2,234,100	\$36,290			159,900	\$3,290		
Lobsters.....	4,500	423					1,800,800	447,904		
Periwinkles and cockles.....									1,800	\$270
Scallops, sea.....	4,500	222								
Squid.....	127,800	2,768								
Total.....	330,755,800	7,200,455	2,234,100	36,290	73,700	4,830	1,960,700	451,194	1,800	270

Fisheries of Massachusetts, 1935—Continued

CATCH: BY GEAR—Continued

Species	Harpoons		Spears		Dredges					
	Pounds	Value	Pounds	Value	Clam		Oyster		Scallop	
			5, 700	\$519	Pounds	Value	Pounds	Value	Pounds	Value
Eels, common.....										
Swordfish.....	2, 293, 000	\$332, 344								
Tuna or "horse mackerel".....	300	27								
Clams, hard public.....					185, 000	\$22, 330				
Oysters, market, private, spring.....							112, 400	\$28, 370		
Periwinkles and cockles.....									900	\$75
Scallops:										
Bay.....							1, 800	675	1, 040, 200	167, 511
Sea.....									919, 800	114, 867
Total.....	2, 293, 300	332, 371	5, 700	519	185, 000	22, 330	114, 200	29, 045	1, 960, 900	282, 453

Species	Tongs		Rakes		Forks		Hoes		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Clams:										
Hard, public.....	307, 900	\$31, 400	721, 800	\$83, 652			26, 900	\$3, 236		
Hard, private.....	9, 800	1, 151	12, 000	1, 421			2, 200	270		
Razor.....							583, 000	13, 682		
Soft, public.....					119, 300	\$12, 435	2, 368, 800	235, 720		
Surf or skimmer.....			800	50						
Oysters:										
Market, public, spring.....	3, 300	625								
Market, private, spring.....	154, 400	48, 864								
Scallops, bay.....			35, 300	11, 318						
Irish moss.....									7, 500	\$300
Bloodworms.....					55, 500	2, 665				
Sandworms.....					500, 000	22, 500	4, 000	800		
Total.....	475, 400	82, 040	769, 900	96, 441	674, 800	37, 600	2, 984, 900	253, 708	7, 500	300

OPERATING UNITS: BY COUNTIES

Item	Barnstable	Bristol	Dukes	Essex	Nantucket	Norfolk	Plymouth	Suffolk
Fishermen:								
On vessels.....	142	205	53	1, 516	55			1, 933
On boats and shore:								
Regular.....	599	363	272	668	105	97	319	426
Casual.....	604	308	192	364	44	30	319	110
Total.....	1, 345	876	517	2, 548	204	127	638	2, 469
Vessels:								
Steam.....				1				28
Net tonnage.....				184				4, 766
Motor.....	29	28	9	125	13			136
Net tonnage.....	362	737	140	4, 994	161			6, 479
Total vessels.....	29	28	9	126	13			164
Total net tonnage.....	362	737	140	5, 178	161			11, 245
Boats:								
Motor.....	327	171	143	277	90	20	203	143
Other.....	457	349	87	279	41	50	286	117
Accessory boats.....	25	4	7	334				132
Apparatus:								
Purse seines:								
Mackerel.....	5	1		45				23
Length, yards.....	1, 900	400		23, 395				8, 700
Other.....	1			1				
Length, yards.....	250			550				
Haul seines.....	2		2	3	6		1	
Length, yards.....	60		520	167	700		25	
Gill nets:								
Anchor.....	380			1, 774	30		3	
Square yards.....	54, 400			724, 560	13, 500		120	
Drift.....	102	75	210	1, 631				602
Square yards.....	49, 700	22, 500	66, 680	1, 045, 840				155, 924
Lines:								
Hand.....	54	62	13	12	26		2	44
Hooks.....	56	124	26	24	52		4	88
Trawl.....	1, 640			15, 137			72	14, 138
Hooks.....	86, 200			819, 075			2, 880	752, 960

Fisheries of Massachusetts, 1935—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Barnstable	Bristol	Dukes	Essex	Nantucket	Norfolk	Plymouth	Suffolk
	Number	Number	Number	Number	Number	Number	Number	Number
Apparatus—Continued.								
Pound nets	96	13	8	1	2			
Floating traps	1			31				
Weirs							3	
Fyke nets	16							
Dip nets	72			6			4	8
Push nets			40					
Otter trawls	36	27	9	71	11			138
Yards at mouth	966	929	293	2,311	329			3,674
Pots:								
Crab				135		359	70	3,559
Eel	200	168	210	55	300			
Lobster	4,865	2,560	6,785	21,051	542	1,307	16,894	4,415
Periwinkle and cockle				50				
Harpoons	4	6	5	38				7
Spears		10	6					
Dredges:								
Clam	18	18	5		1		2	
Yards at mouth	8	7	3		1		3	
Oyster	12						36	
Yards at mouth	18						36	
Scallop	535	893	483		356		248	
Yards at mouth	495	782	409		296		207	
Tongs:								
Oyster	28	6						
Other	9	115				25		80
Rakes, other than for oysters	368	120	103		25			84
Forks						100		178
Hoes	435	26		579			252	

CATCH—BY COUNTIES

Species	Barnstable		Bristol		Dukes		Essex	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	9,600	\$80	24,900	\$263	1,500	\$15	550,200	\$5,311
Bluefish	13,700	2,095	3,600	232	1,300	118	900	74
Bonito	10,900	489			4,300	179	2,100	13
Butterfish	795,700	22,333	124,700	4,580	93,300	2,265	320,200	17,763
Cod	2,000,700	63,927	4,051,000	104,358	28,200	847	25,249,600	521,408
Croaker							2,154,000	39,074
Cusk	112,300	1,433					2,900,200	47,796
Drum, red							2,200	35
Eels:								
Common	39,700	3,127	30,200	1,489	19,900	1,529	13,000	680
Conger			1,600	37	100	1	89,600	1,067
Flounders	2,218,200	78,425	5,690,500	214,925	697,900	21,290	4,863,700	179,328
Frigate mackerel							56,100	281
Goosefish							2,300	34
Grayfish	5,500	52			5,700	151	19,200	483
Haddock	978,900	30,289	10,031,400	246,794	4,000	105	19,362,200	458,971
Hake	113,500	2,545	97,400	1,768	1,800	30	4,737,600	100,828
Halibut	16,200	1,711	34,200	2,831			1,697,800	150,114
Herring, sea	2,174,600	12,260	15,000	273	200	1	434,800	6,449
King whiting or "kingfish"							4,100	158
Launce							34,000	550
Mackerel	5,927,000	89,110	106,800	3,118	236,400	4,036	39,108,600	819,023
Menhaden	11,000	105	6,900	69	3,100	31		
Pilotfish			500	5	100	3		
Pollock	280,700	3,386	75,900	1,387			15,823,500	261,475
Rosefish	1,500	15	500	6			1,188,100	13,370
Salmon							900	202
Scup or porgy	3,700	67	158,700	2,356	196,200	2,166	3,448,300	66,057
Sea bass	100	1	65,500	3,063	6,400	380	2,433,400	84,218
Sea robin	1,300	22	1,900	23			9,400	119
Shad	45,800	1,840	700	20			235,000	3,645
Sharks	2,700	65	26,900	225			10,200	213
Skates			5,800	74	100	1		
Skipper or "billfish"	300	3						
Spot							600	6
Squeteagues or "sea trout", gray	800	18	1,400	96	2,000	109	235,000	9,133
Striped bass	1,700	277	200	27			200	25
Sturgeon	1,300	160	300	23			1,000	112
Swordfish	39,100	4,658	64,700	7,417	199,900	31,194	1,880,900	272,424
Tautog	5,900	235	29,200	1,263	1,300	49	300	15
Tilefish							400	8
Tuna or "horse mackerel"	201,200	6,374					7,300	311
White perch					1,000	200	4,000	84
Whiting	10,489,200	82,140	104,200	1,310	3,700	44	2,967,300	45,289

Fisheries of Massachusetts, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Barnstable		Bristol		Dukes		Essex	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Wolfish.....	23, 200	\$551	2, 200	\$46			225, 400	\$4, 946
Crabs, hard.....	25, 200	454					192, 100	3, 208
Lobsters.....	114, 000	34, 660	64, 500	15, 721	169, 200	\$40, 650	666, 900	163, 733
Clams:								
Hard, public.....	505, 900	61, 157	573, 800	61, 894	77, 900	9, 010		
Hard, private.....	4, 400	540						
Razor.....	570, 900	13, 132						
Soft, public.....	232, 100	24, 343	27, 600	4, 020			1, 479, 800	151, 840
Surf or skimmer.....					800	50		
Oysters:								
Market, public, spring.....			3, 300	625				
Market, private, spring.....	236, 200	69, 092						
Periwinkles and cockles.....							1, 800	270
Scallops:								
Bay.....	774, 300	80, 378	127, 800	38, 936	118, 500	39, 245		
Sea.....	21, 500	3, 469	808, 300	99, 898	90, 000	11, 500	4, 500	222
Squid.....	1, 885, 600	23, 580	76, 800	634	19, 600	225	149, 200	2, 779
Irish moss.....							7, 500	390
Sandworms.....							4, 000	800
Total.....	20, 896, 100	724, 598	22, 438, 900	819, 804	1, 984, 400	165, 424	132, 580, 400	3, 434, 244

Species	Nantucket		Norfolk		Plymouth		Suffolk	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....					348, 000	\$1, 883	24, 500	\$245
Bluefish.....	71, 800	\$7, 194						
Bonito.....	500	37						
Butterfish.....	16, 300	285					128, 500	7, 930
Cod.....	990, 700	26, 573			20, 600	716	78, 292, 900	1, 596, 069
Croaker.....							124, 100	2, 233
Cusk.....	11, 300	161					1, 796, 100	39, 667
Eels:								
Common.....	3, 000	240						
Conger.....							19, 200	240
Flounders.....	2, 457, 000	99, 440					12, 450, 300	403, 807
Frigate mackerel.....							17, 400	87
Haddock.....	386, 100	9, 604			32, 200	1, 120	159, 095, 400	3, 359, 521
Hake.....	112, 100	1, 272					5, 299, 100	114, 009
Halibut.....	300	35					1, 032, 000	84, 017
Herring, sea.....					65, 200	489	500, 000	3, 750
Herring smelt.....							13, 400	253
Mackerel.....	32, 100	282			15, 000	300	14, 226, 200	291, 035
Pollock.....	600	4					12, 100, 400	221, 409
Rosefish.....							15, 919, 400	170, 318
Scup or porgy.....	6, 000	74			1, 000	80	972, 100	43, 576
Sea bass.....					600	48	816, 100	28, 623
Sea robin.....							4, 900	51
Shad.....	700	8					23, 800	387
Sharks.....							2, 400	64
Skates.....							1, 800	30
Squeteagues or "sea trout", gray.....							21, 300	1, 391
Striped bass.....	3, 000	210						
Sturgeon.....							100	8
Swordfish.....							110, 400	16, 962
Tautog.....					1, 300	108	100	1
Tilefish.....							300	8
Tuna or "horse mackerel".....							15, 100	202
White perch.....	45, 000	5, 400						
Whiting.....							1, 853, 700	31, 225
Wolfish.....	400	5					2, 597, 000	53, 206
Crabs, hard.....			34, 500	\$791	69, 200	1, 831	2, 073, 000	33, 298
Lobsters.....	15, 300	4, 288	55, 700	14, 346	265, 100	136, 754	154, 600	38, 175
Clams:								
Hard, public.....	22, 900	2, 600			61, 100	5, 957		
Hard, private.....					19, 600	2, 302		
Razor.....					12, 100	550		
Soft, public.....			63, 200	6, 588	629, 300	55, 517	56, 100	5, 847
Oysters, market, private, spring.....					30, 600	8, 142		
Periwinkles and cockles.....					900	75		
Scallops, bay.....	92, 200	25, 680			29, 500	9, 525		
Squid.....	600	82					17, 800	417
Bloodworms.....			20, 800	1, 000			34, 700	1, 665
Sandworms.....			187, 500	8, 438			312, 500	14, 062
Total.....	4, 267, 900	183, 474	361, 700	31, 163	1, 901, 300	225, 297	309, 986, 700	6, 563, 787

RHODE ISLAND

Fisheries of Rhode Island, 1935

OPERATING UNITS: BY GEAR

Item	Purse seines		Haul seines	Gill nets		Lines			
	Mack-erel	Men-haden		Anchor	Drift	Hand	Trawl	Troll	Trot with hooks
	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber
Fishermen:									
On vessels.....	7	28		20	7	26	6		
On boats and shore:									
Regular.....			6		4	67	27	21	
Casual.....			22		2	18	2	2	1
Total.....	7	28	28	20	13	111	35	23	1
Vessels:									
Steam.....		1							
Net tonnage.....		45							
Motor.....				1	1	12	1		
Net tonnage.....				13	8	96	10		
Total vessels.....		1		1	1	12	1		
Total net tonnage.....		45		13	8	96	10		
Boats:									
Motor.....					2	55	14	16	
Other.....			13		1	7			
Accessory boats.....	2	3			2	1	2		
Apparatus:									
Number.....	1	1	9	5	49	145	71	45	1
Length, yards.....	300	400	687						
Square yards.....				14, 160	36, 380				
Yards at mouth.....						179	30, 155	45	200
Hooks or baits.....									

Item	Pound nets	Float- ing traps	Fyke nets	Otter trawls	Pots				Har- poons	Spears
					Crab	Eel	Lob- ster	Peri- winkle and cockle		
	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber	Num-ber	
Fishermen:										
On vessels.....	7	87		103			22		86	
On boats and shore:										
Regular.....	28	39	6	42		14	169	21	34	
Casual.....	12	2	3	1	2	12	56	10	4	
Total.....	47	128	9	146	2	26	247	31	124	
Vessels:										
Steam.....		2		1						
Net tonnage.....		21		8						
Motor.....	2	6		23			3		4	
Net tonnage.....	22	70		181			18		38	
Total vessels.....	2	8		24			3		4	
Total net tonnage.....	22	91		189			18		38	
Boats:										
Motor.....	2	1	5	26		15	152	23	19	
Other.....	30	24	1		2	7	8			
Accessory boats.....	10	33							39	
Apparatus:										
Number.....	43	39	127	59	37	982	25, 255	1, 174	47	
Yards at mouth.....				1, 489						

Fisheries of Rhode Island, 1935—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Dredges			Tongs		Rakes		Forks	Hoes	Total, exclusive of duplication
	Clam	Oyster	Scallop	Oyster	Other	Oyster	Other			
	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:										
On vessels.....	7	81	3							280
On boats and shore:										
Regular.....	18		121	32	172	1	26	2	19	429
Casual.....	13		221	25	558	15	44	6	73	874
Total	38	81	345	57	730	16	70	8	92	1,583
Vessels:										
Steam.....		3								7
Net tonnage.....		126								200
Motor.....	2	15								70
Net tonnage.....	18	339								804
Total vessels	2	18								77
Total net tonnage	18	456								1,004
Boats:										
Motor.....	16		184	22	171	2	18	3	4	460
Other.....				32	522	13	50	1	14	666
Accessory boats										86
Apparatus:										
Number.....	19	36	918	57	729	16	70	7	86	
Yards at mouth.....	14	54	731							

CATCH: BY GEAR

Species	Purse seines				Haul seines		Gill nets				
	Mackerel		Menhaden				Anchor		Drift		
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	
Bluefish.....								24,800	\$2,517	4,800	\$380
Eels, common.....					58,600	\$5,089					
Herring, sea.....					12,000	180					
Mackerel.....	4,100	\$205								90,100	1,502
Menhaden.....			4,000,000	\$12,000							
Squeteagues or "sea trout", gray.....							400	30		500	40
Tautog.....					500	20					
Total	4,100	205	4,000,000	12,000	71,100	5,289	25,200	2,547	95,400	1,922	

Species	Lines								
	Hand		Trawl		Troll		Trot with hooks		
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	
Bluefish.....									
Cod.....	402,700	\$10,625	166,300	\$4,477					
Eels, common.....	11,100	1,245						1,600	\$144
Mackerel.....					19,900	217			
Sea bass.....	4,600	506							
Tautog.....	31,400	1,101							
Tuna or "horse mackerel".....					28,700	920			
Total	449,800	13,477	166,300	4,477	78,100	3,215	1,600	144	

Fisheries of Rhode Island, 1935—Continued

CATCH: BY GEAR—Continued

Species	Pound nets		Floating traps		Fyke nets		Otter trawls	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	55,400	\$381						
Anchovies			3,700	\$74				
Bluefish	300	28	88,100	5,969				
Bonito			15,200	783				
Butterfish	124,600	3,695	610,200	20,166				
Cod			33,300	851			5,800	\$137
Crevalle			1,500	15				
Cunners			800	4				
Eels:								
Common	27,900	1,753			1,300	\$60		
Conger			1,700	149				
Flounders	20,900	738	230,600	11,915	13,500	657	2,084,800	67,139
Frigate mackerel			8,300	134				
Grayfish			4,600	46				
Hake			1,700	28			100	1
Herring, sea	53,700	691	52,700	565			77,900	731
Hickory shad			200	2				
King whiting or "kingfish"			900	25				
Launce			100	1				
Mackerel	67,000	1,550	636,200	13,000				
Menhaden	141,200	710	114,900	973				
Pollock			37,500	1,113				
Scup or porgy	33,300	329	1,818,600	42,032				
Sea bass			58,400	2,973				
Sea robin	6,800	68	125,000	1,213			87,200	797
Shad	600	49	5,000	315				
Sharks			2,200	44				
Skates			13,300	93			153,800	1,310
Skipper or "billfish"			200	2				
Smelt	1,000	200						
Squeteagues or "sea trout", gray	10,600	718	26,500	1,764				
Striped bass	500	55	15,700	2,039				
Sturgeon			1,400	123				
Tautog	72,900	2,207	52,200	1,701	8,100	243		
Thimble-eyed mackerel	400	4	45,400	492				
Tuna or "horse mackerel"			14,800	597				
White perch					1,100	66	442,000	3,072
Whiting	336,000	3,094	1,176,500	15,221				
Yellow perch					500	50		
Crabs, hard							8,000	63
Lobsters							100	25
Periwinkles and cockles							700	11
Scallops, sea							2,600	247
Squid	348,300	7,322	967,400	19,600			72,400	2,284
Total	1,301,400	23,592	6,164,800	144,022	24,500	1,076	2,935,400	75,817

Species	Pots								Harpoons	
	Crab		Eel		Lobster		Periwinkle and cockle			
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Eels, common			51,500	\$3,822					295,500	\$38,242
Swordfish										
Crabs, hard	1,300	\$62			104,800	\$2,869				
Lobsters					618,900	132,665				
Periwinkles and cockles					2,100	117	150,300	\$6,587		
Total	1,300	62	51,500	3,822	725,800	135,651	150,300	6,587	295,500	38,242

Species	Spears		Dredges						
			Clam		Oyster		Scallop		
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	
Eels, common	10,700	\$1,182							
Clams:									
Hard, public			151,700	\$14,728					
Hard, private			108,000	10,704					
Oysters:									
Market, private, spring					2,374,000	\$238,129			
Market, private, fall					2,794,500	276,215			
Scallops, bay							74,700	\$11,495	
Total	10,700	1,182	259,700	25,432	5,168,500	514,344	74,700	11,495	

Fisheries of Rhode Island, 1935—Continued

CATCH: BY GEAR—Continued

Species	Tongs		Rakes		Forks		Hoes	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Clams:								
Hard, public.....	1,826,700	\$165,916	273,700	\$27,239				
Soft, public.....					30,400	\$1,897	278,800	\$17,845
Oysters:								
Market, public, spring.....	16,500	1,897	12,300	3,033				
Market, public, fall.....	16,800	2,297	12,900	3,170				
Periwinkles and cockles.....	190	7						
Total.....	1,860,190	170,117	298,900	33,442	30,400	1,789	278,800	17,845

OPERATING UNITS: BY COUNTIES

Item	Bristol	Kent	Newport	Providence	Washington
Fishermen:	Number	Number	Number	Number	Number
On vessels.....	31	4	192	27	26
On boats and shore:					
Regular.....	29	107	176	10	107
Casual.....	104	368	161	138	103
Total.....	164	479	529	175	236
Vessels:					
Steam.....			4	3	
Net tonnage.....			74	126	
Motor.....	8	1	48	3	10
Net tonnage.....	118	11	428	142	105
Total vessels.....	8	1	52	6	10
Total net tonnage.....	118	11	502	298	105
Boats:					
Motor.....	47	128	188	15	82
Other.....	62	308	87	114	95
Accessory boats.....			79		7
Apparatus:					
Purse seines:					
Mackerel.....			1		
Length, yards.....			300		
Menhaden.....			1		
Length, yards.....			400		
Haul seines.....	2		1	5	1
Length, yards.....	125		20	342	200
Gill nets:					
Anchor.....			5		
Square yards.....			14,160		
Drift.....			47		2
Square yards.....			33,880		2,500
Lines:					
Hand.....	4		115	8	18
Hooks or baits.....	8		145	8	18
Trawl.....			68		3
Hooks.....			29,255		900
Troll.....			33		12
Hooks.....			33		12
Trot with hooks.....				1	
Hooks.....				200	
Pound nets.....	1		29	3	10
Floating traps.....			28		11
Fyke nets.....		24	100		3
Otter trawls.....			43		16
Yards at mouth.....			1,086		403
Pots:					
Crab.....			37		
Eel.....	70	77	235	95	505
Lobster.....	1,560	590	16,669		6,436
Periwinkle and cockle.....	304		520		350
Harpoons.....			42		5
Spears.....	1	10		8	
Dredges:					
Clam.....	3	1	15		
Yards at mouth.....	4	1	9		
Oyster.....	14	2		12	8
Yards at mouth.....	21	3		18	12
Scallop.....	104	357	300	28	129
Yards at mouth.....	78	285	238	25	105
Tongs:					
Oyster.....	2	45			10
Other.....	92	385	76	113	63
Rakes:					
Oyster.....		4			12
Other.....		48		1	21
Forks.....					7
Hoes.....		29	2	18	16

Fisheries of Rhode Island, 1935—Continued

CATCH: BY COUNTIES

Species	Bristol		Kent		Newport		Providence		Washington	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	5,000	\$50			15,300	\$153			35,100	\$178
Anchovies.....					3,600	73			100	1
Bluefish.....					137,500	10,285			10,000	687
Bonito.....					15,100	778			100	5
Butterfish.....					636,200	20,575			98,600	3,286
Cod.....	1,600	48			583,000	15,222			23,500	820
Crevalle.....					1,200	12			300	3
Cunners.....					800	4				
Eels:										
Common.....	2,600	220	10,400	\$1,086	28,900	1,430	44,100	\$4,207	76,700	6,352
Conger.....					1,700	149				
Flounders.....	100	1	1,100	33	1,767,900	61,684			580,700	18,731
Frigate mackerel.....					8,300	134				
Grayfish.....									4,600	46
Hake.....					1,200	17			600	12
Herring, sea.....					172,700	1,931			23,600	236
Hickory shad.....									200	2
King whiting or "kingfish".....					600	16			300	9
Launce.....									100	1
Mackerel.....					738,200	14,774			79,100	1,700
Menhaden.....					4,014,000	12,075			242,100	1,608
Pollock.....					37,400	1,110			100	3
Scup or porgy.....					1,679,600	38,915			172,300	3,446
Sea bass.....					60,600	3,359			2,400	120
Sea robin.....					91,200	800			127,800	1,278
Shad.....	500	40			5,000	318			100	6
Sharks.....									2,200	44
Skates.....					133,600	1,068			33,500	335
Skipper or "billfish".....					200	2				
Smelt.....									1,000	200
Squeteagues or "sea trout", gray.....					15,600	894			22,400	1,658
Striped bass.....					13,400	1,855			2,800	239
Sturgeon.....					1,400	123				
Swordfish.....					261,300	33,921			34,200	4,321
Tautog.....	6,700	208	6,600	198	116,100	3,765	3,000	120	32,700	981
Thimble-eyed mackerel.....					44,100	472			1,700	24
Tuna or "horse mackerel".....					43,500	1,517				
White perch.....									1,100	66
Whiting.....					1,789,800	19,658			164,700	1,729
Yellow perch.....									500	50
Crabs, hard.....	72,700	2,181			25,800	358			15,600	455
Lobsters.....	21,700	5,419	18,500	4,294	414,700	88,717			164,100	34,260
Clams:										
Hard, public.....	202,500	18,936	1,492,000	136,152	200,200	19,227	172,700	16,201	184,700	17,317
Hard, private.....	38,700	3,624	21,300	3,330	48,000	3,750				
Soft, public.....	46,300	3,349	180,800	11,305	6,000	225	37,400	2,340	38,700	2,523
Oysters:										
Market, public, spring.....			16,100	1,774					12,700	3,156
Market, public, fall.....	8,000	1,000	6,000	748					15,700	3,719
Market, private, spring.....	893,200	79,835	86,000	9,675			1,028,500	95,609	366,300	53,010
Market, private, fall.....	1,155,200	99,440	86,000	9,675			1,028,600	95,610	524,700	71,490
Periwinkles and cockles.....	12,700	657	2,100	117	96,100	4,186			42,300	1,762
Scallops:										
Bay.....	4,600	672	35,600	5,106	21,500	3,119	2,700	392	10,300	2,206
Sea.....									2,600	247
Squid.....					728,600	16,751			659,500	12,455
Total.....	2,472,100	215,73	01,962,50	0183,49	313,959,90	0383,42	22,317,00	0214,47	93,812,400	250,777

SEED OYSTER FISHERY: BY GEAR

Item	Tongs	
	Number	Value
OPERATING UNITS		
Fishermen, on boats and shore—regular.....	2	
Boats, motor.....	1	
Apparatus, number.....	2	
CATCH		
Oysters, seed, public, fall.....	Bushels 1,000	Value \$500

NOTE.—Both persons fishing for seed oysters are duplicated among those fishing for market oysters or other species. The seed oyster fishery in Rhode Island was confined to Bristol County.

CONNECTICUT

Fisheries of Connecticut, 1935

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets		Lines			Pound nets
		Drift	Stake	Hand	Trawl	Trot with hooks	
Fishermen:	Number	Number	Number	Number	Number	Number	Number
On vessels.....				27	15		
On boats and shore:							
Regular.....	12	12	2	59	2	5	13
Casual.....	120	72	6	20			5
Total.....	132	84	8	106	17	5	18
Vessels, motor.....				12	1		
Net tonnage.....				109	24		
Boats:							
Motor.....	11	36	2	56	1	1	9
Other.....	33	14	1	1		2	10
Accessory boats.....					8		
Apparatus:							
Number.....	51	48	5	107	618	4	14
Length, yards.....	5,010						
Square yards.....		66,867	840				
Hooks.....				125	21,672	700	

Item	Fyke nets	Dip nets	Otter trawls	Pots			Harpoons	Spears
				Eel	Fish	Loosbter		
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number
On vessels.....			96			7	46	
On boats and shore:								
Regular.....	7	30	66	11		202	8	4
Casual.....	26	203	7	31	1	67	9	6
Total.....	33	233	169	42	1	276	63	10
Vessels, motor.....			32			1	3	
Net tonnage.....			403			8	24	
Boats:								
Motor.....	5	1	39	14	1	173	8	1
Other.....	22	213		25		36	2	10
Accessory boats.....							18	
Apparatus:								
Number.....	111	231	79	966	12	17,884	26	10
Yards at mouth.....			2,133					

Item	Dredges, oyster	Tongs		Rakes		Hoes	By hand other than for oysters	Total, exclusive of duplication
		Oyster	Other	Oyster	Other			
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number
On vessels.....	222							349
On boats and shore:								
Regular.....		5	12		5	15		276
Casual.....		5	51	2	116	6	102	793
Total.....	222	10	63	2	121	21	102	1,418
Vessels:								
Steam.....	3							3
Net tonnage.....	827							827
Motor.....	32							81
Net tonnage.....	837							1,405
Total vessels.....	35							84
Total net tonnage.....	1,664							2,232
Boats:								
Motor.....		1	1	1				259
Other.....		7	60		119	6		526
Accessory boats.....								26
Apparatus:								
Number.....	76	10	63	2	121	21		
Yards at mouth.....	115							

Fisheries of Connecticut, 1935—Continued

CATCH: BY GEAR

Species	Haul seines		Gill nets				Lines			
			Drift		Stake		Hand		Trawl	
			Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bluefish							116,500	\$11,622		
Carp	16,200	\$1,244			28,300	\$2,126				
Cod							4,500	315	505,000	\$15,330
Eels, common							6,000	566		
Flounders							200	10		
Haddock									400,000	12,000
Hake									2,000	20
Halibut									100,000	8,000
Mackerel							1,800	144		
Minnows	4,400	2,349								
Mummichog	6,000	1,150								
Pollock							2,500	100	50,000	750
Scup or porgy							1,000	23		
Sea bass							3,100	310		
Shad	91,300	6,830	301,700	\$25,018						
Smelt	300	150								
Suckers	47,400	1,815								
Tautog							48,800	3,478		
Tilefish									160,000	8,000
Tomcod	5,200	260							10,000	100
Wolfish										
Total	170,800	13,798	301,700	25,018	28,300	2,126	184,400	16,568	1,227,000	44,220

Species	Lines—Con.		Pound nets		Fyke nets		Dip nets		Otter trawls	
	Trot with hooks									
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives			2,600	\$42	15,000	\$142				
Bluefish			300	21					1,500	\$140
Butterfish			25,500	1,140					29,000	1,852
Carp					7,400	490				
Cod									161,400	7,225
Croaker									72,400	1,478
Eels:										
Common	10,200	\$1,012			5,400	857				
Conger									1,200	57
Flounders			3,300	199	700	39			289,300	193,862
Haddock									66,800	2,670
Hake									30,200	1,400
Kingfish or "king mackerel"									100	4
Lamprey					1,800	375				
Mackerel			600	36						
Menhaden			7,300	74						
Minnows							100	\$60		
Pollock									500	16
Scup or porgy			100	5					111,700	3,028
Sea bass									27,900	1,863
Sea robin									39,500	707
Shad			4,500	475			5,100	362		
Skates			6,400	64					43,200	731
Smelt							1,600	203		
Squeteagues or "sea trout", gray			8,300	865					20,200	679
Striped bass			400	55						
Suckers					34,000	1,217				
Tautog			6,000	317					600	24
Whiting									29,900	449
Crabs:										
Hard							4,500	490		
Soft and peelers							300	97		
Lo bsters									400	41
Scallops, bay							287,500	50,000		
Squid			2,400	47					3,400	78
Total	10,200	1,012	67,700	3,340	64,300	3,120	299,100	51,212	6,929,200	216,304

Fisheries of Connecticut, 1935—Continued

CATCH: BY GEAR—Continued

Species	Pots					
	Eel		Fish		Lobster	
	Pounds	Value	Pounds	Value	Pounds	Value
Eels, common.....	29,600	\$2,551	.....	.....	.....	.....
Tautog.....	.....	.....	200	\$7	.....	.....
Lobsters.....	.....	.....	.....	.....	546,000	\$122,145
Total.....	29,600	2,551	200	7	546,000	122,145

Species	Harpoons		Spears		Dredges, oyster	
	Pounds	Value	Pounds	Value	Pounds	Value
	Eels, common.....	4,700	\$351
Swordfish.....	85,700	\$13,996	.....	.....	.....	.....
Oysters:	.....	.....	.....	.....	.....	.....
Market, private, spring.....	.....	.....	.....	.....	1,925,800	\$253,162
Market, private, fall.....	.....	.....	.....	.....	2,555,900	350,125
Total.....	85,700	13,996	4,700	351	4,481,700	603,287

Species	Tongs		Rakes		Hoes		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
	Clams:
Hard, public.....	99,800	\$20,716	141,600	\$28,950	.....	.....	180,000	\$36,000
Hard, private.....	7,700	2,809	200	40	.....	.....	.....	.....
Soft, public.....	.....	.....	.....	.....	30,500	\$5,020	200	25
Oysters:	.....	.....	.....	.....	.....	.....	.....	.....
Market, public, spring.....	1,600	145	.....	.....	.....	.....	.....	.....
Market, public, fall.....	800	135	.....	.....	.....	.....	.....	.....
Market, private, spring.....	6,400	1,600	800	300	.....	.....	.....	.....
Market, private, fall.....	15,200	1,950	600	225	.....	.....	.....	.....
Total.....	131,500	27,355	143,200	29,515	30,500	5,020	180,200	36,025

OPERATING UNITS: BY COUNTIES

Item	Fairfield	Hartford	Middlesex	New Haven	New London
Fishermen:	.....	.....	.....	.....	.....
On vessels.....	Number 87	Number	Number 5	Number 154	Number 103
On boats and shore:	.....	.....	.....	.....	.....
Regular.....	43	6	35	40	152
Casual.....	280	101	109	54	249
Total.....	410	107	149	248	504
Vessels:	.....	.....	.....	.....	.....
Steam.....	.....	.....	.....	3	.....
Net tonnage.....	.....	.....	.....	827	.....
Motor.....	22	.....	2	22	35
Net tonnage.....	343	.....	22	613	427
Total vessels.....	22	.....	2	25	35
Total net tonnage.....	343	.....	22	1,440	427
Boats:	.....	.....	.....	.....	.....
Motor.....	27	4	68	46	114
Other.....	174	30	26	35	261
Accessory boats.....	.....	.....	1	1	24
Apparatus:	.....	.....	.....	.....	.....
Haul seines.....	7	25	14	3	2
Length, yards.....	490	2,050	2,220	50	200
Gill nets:	.....	.....	.....	.....	.....
Drift.....	.....	1	30	1	16
Square yards.....	.....	1,200	61,100	67	4,500
Stake.....	.....	.....	5	.....	.....
Square yards.....	.....	.....	840	.....	.....

Fisheries of Connecticut, 1935—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Fairfield	Hartford	Middlesex	New Haven	New London
Apparatus—Continued.					
Lines:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Hand.....	8		36	15	48
Hooks.....	9		43	21	52
Trawl.....					618
Hooks.....					21, 672
Trot with hooks.....	2			2	
Hooks.....	500			200	
Pound nets.....			3	2	9
Fyke nets.....	1	56	13	1	40
Dip nets.....	2	18			211
Otter trawls.....	8		5	11	55
Yards at mouth.....	204		97	250	1, 582
Pots:					
Eel.....	16	65	203	110	572
Fish.....	12				
Lobster.....	2, 965		1, 574	4, 184	9, 161
Harpoons.....			3	1	22
Spears.....					10
Dredges, oyster.....	30			44	2
Yards at mouth.....	46			67	2
Tongs:					
Oyster.....	4		4		2
Other.....	61			2	
Rakes:					
Oyster.....	2				
Other.....	104			17	
Hoes.....	14		1		6

CATCH: BY COUNTIES

Species	Fairfield		Hartford		Middlesex		New Haven		New London	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....			15, 000	\$142					2, 600	\$42
Bluefish.....	800	\$65			50, 000	\$5, 787	12, 800	\$1, 411	54, 700	4, 520
Butterfish.....					300	15	4, 900	279	49, 300	2, 698
Carp.....			14, 000	1, 166	35, 000	2, 540			2, 900	154
Cod.....							1, 200	54	669, 700	22, 836
Croaker.....									72, 400	1, 478
Eels:										
Common.....	17, 500	1, 748	1, 600	154	11, 600	812	6, 700	544	18, 500	2, 079
Conger.....									1, 200	57
Flounders.....	109, 900	2, 770			11, 900	526	390, 200	16, 888	5, 781, 500	173, 928
Haddock.....									466, 800	14, 670
Hake.....									32, 200	1, 420
Halibut.....									100, 000	8, 000
Kingfish or "king mackerel".....										100
Lamprey.....			1, 800	375						4
Mackerel.....							1, 800	144	600	36
Menhaden.....					4, 000	40	400	5	2, 900	29
Minnnows.....	600	150	3, 000	1, 729	200	180	700	350		
Mummichog.....	5, 000	800			600	150	400	200		
Pollock.....									53, 000	866
Scup or porgy.....							400	11	112, 400	3, 045
Sea bass.....							1, 200	48	29, 800	2, 125
Sea robin.....									39, 500	707
Shad.....			82, 700	6, 272	235, 500	19, 244			84, 400	7, 169
Skates.....					800	15	6, 000	60	42, 800	720
Smelt.....	300	150							1, 600	203
Squeteagues or "sea trout", gray.....							1, 000	55	27, 500	1, 489
Striped bass.....									400	55
Suckers.....			31, 200	1, 093	47, 600	1, 811			2, 600	128
Swordfish.....					10, 700	2, 188	1, 500	234	73, 500	11, 574
Tautog.....	300	22			27, 700	2, 176	2, 600	200	25, 000	1, 428
Tilefish.....									160, 000	8, 000
Tomcod.....	5, 200	260								
Whiting.....									29, 900	449
Wolfish.....									10, 000	100
Crabs:										
Hard.....	2, 000	295							2, 500	195
Soft and peelers.....									300	97
Lobsters.....	60, 600	17, 583			59, 900	15, 054	119, 800	32, 076	306, 100	57, 473

Fisheries of Connecticut, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Fairfield		Hartford		Middlesex		New Haven		New London	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Clams:										
Hard, public.....	417,500	\$84,516					3,900	\$1,150		
Hard, private.....	7,900	2,849								
Soft, public.....	28,800	4,846			300	\$34			1,600	\$165
Oysters:										
Market, public, spring.....	800	50			800	95				
Market, public, fall.....					800	135				
Market, private, spring.....	944,000	146,450					970,600	104,512	18,400	4,100
Market, private, fall.....	1,009,900	152,299					1,547,400	196,901	14,400	3,100
Scallops, bay.....									287,500	50,000
Squid.....									5,800	125
Total.....	2,611,100	414,853	149,300	\$10,931	497,700	50,802	3,073,500	355,122	8,584,400	385,262

SEED OYSTER FISHERY: BY GEAR

Item	Dredges		Tongs		Total, exclusive of duplication	
	Number	Value	Number	Value	Number	Value
OPERATING UNITS						
Fishermen:						
On vessels.....	137				137	
On boats and shore:						
Regular.....	23		4		27	
Casual.....			1		1	
Total.....	160		5		165	
Vessels:						
Steam.....	4				4	
Net tonnage.....	344				344	
Motor.....	9				9	
Net tonnage.....	236				236	
Sail.....	15				15	
Net tonnage.....	114				114	
Total vessels.....	28				28	
Total net tonnage.....	694				694	
Boats, other than motor.....	11		4		15	
Apparatus:						
Number.....	161		5			
Yards at mouth.....	142					
CATCH						
Oysters:						
Seed, public, spring.....	17,355	\$6,942			17,355	\$6,942
Seed, public, fall.....	87,888	35,158			87,888	35,158
Seed, private, spring.....	347,053	157,339	8,790	\$4,995	355,843	162,334
Seed, private, fall.....	20,725	13,600			20,725	13,600
Total.....	473,021	213,039	8,790	4,995	481,811	218,034

Fisheries of Connecticut, 1935—Continued

SEED OYSTER FISHERY: BY COUNTIES

Item	Fairfield		New Haven	
	<i>Number</i>		<i>Number</i>	
OPERATING UNITS				
Fishermen:				
On vessels	104		33	
On boats and shore:				
Regular	24		3	
Casual	1			
Total	129		36	
Vessels:				
Steam:	3		1	
Net tonnage	239		105	
Motor	4		5	
Net tonnage	134		102	
Sail	15			
Net tonnage	114			
Total vessels	22		6	
Total net tonnage	487		207	
Boats, other than motor	12		3	
Apparatus:				
Dredges	149		12	
Yards at mouth	123		19	
Tongs	2		3	
CATCH				
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring	17,355	\$6,942		
Seed, public, fall	87,888	35,158		
Seed, private, spring	131,591	71,246	224,252	\$91,088
Seed, private, fall	20,725	13,600		
Total	257,559	126,946	224,252	91,088

NOTE.—Of the total number of persons fishing for seed oysters, 11 are duplicated among those fishing for market oysters or other species. Similarly the following craft and gear are duplicated: 2 motor vessels, 4 dredges, and 2 tongs.

VESSEL FISHERIES AT PRINCIPAL NEW ENGLAND PORTS

Due to the importance of the ports of Boston and Gloucester, Mass., and Portland, Maine, as landing points for fishery products, detailed monthly statistics are collected for these landings which are published in the following sections. These landings are included in the catch by States appearing elsewhere in this document, but are presented here for their value in detailed form.

ECONOMIC ASPECT

The landings of fishery products at the three principal New England ports (Boston and Gloucester, Mass., and Portland, Maine), by vessels of 5 net tons capacity or more, during 1935, amounted to 373,118,393 pounds as landed, valued at \$9,004,652. This is an increase of 24 percent in the quantity of the catch as compared with 1934, and an increase of 14 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 307,371,962 pounds, valued at \$7,732,742 or 82 percent of the total volume; the landings at Gloucester amounted to 51,264,509 pounds, valued at \$934,991, or 14 percent of the total; and the landings at Portland amounted to 14,481,922 pounds, valued at \$336,919, or 4 percent of the total.

Among the landings of fresh fish, haddock far outranked other species in volume landed, the landings of all sizes in 1935 amounting to 156,995,731 pounds, or 42 percent of the total fresh fish.

Landings by fishing vessels at the three principal New England ports, 1935

BOSTON: BY MONTHS

Species	January		February		March		April		May		June		July	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:														
Large.....	2,256,750	\$92,008	3,026,515	\$72,084	4,819,420	\$110,765	4,121,155	\$36,865	3,041,710	\$50,673	1,814,670	\$44,519	2,771,805	\$51,044
Market.....	2,177,424	70,682	1,970,255	41,927	4,644,730	886,663	4,170,180	71,481	3,556,535	54,922	2,390,205	45,308	5,288,610	87,347
Scrod.....	56,410	1,343	6,000	147	2,450	59	8,110	123	29,850	503	69,550	1,339	15,300	221
Haddock, fresh:														
Large.....	8,051,875	268,207	11,091,195	241,464	11,960,035	309,497	14,277,770	273,800	10,353,470	212,376	7,529,295	167,706	7,101,615	160,610
Scrod.....	2,771,120	73,958	3,799,360	70,006	3,774,050	78,438	4,617,380	71,467	4,684,545	72,633	3,411,700	55,487	3,477,165	57,816
Hake, fresh:														
Large.....	302,930	13,113	306,640	10,484	580,035	16,650	505,370	11,563	652,340	10,127	631,590	10,695	793,915	12,493
Small.....	11,216	514	8,505	257	9,325	278	14,500	309	22,550	443	74,000	1,428	95,206	1,918
Pollock, fresh.....	719,245	18,162	699,835	14,323	952,580	20,107	1,045,745	18,505	663,210	11,333	346,590	7,107	280,200	5,657
Cusk, fresh.....	145,975	4,236	255,665	5,543	311,935	6,746	290,260	4,712	596,210	7,958	253,300	3,764	179,710	2,799
Halibut, fresh.....	71,043	9,322	182,238	19,598	210,021	27,721	270,967	29,861	333,214	31,121	247,426	19,791	192,103	16,934
Mackerel, fresh.....														
Flounders, fresh.....	1,056,930	40,053	868,410	25,869	1,809,055	43,811	1,111,565	34,023	1,443,020	29,655	1,265,205	29,241	808,413	24,908
Swordfish, fresh.....											63,361	20,140	674,089	138,770
Wolffish, fresh.....	129,640	4,253	139,805	3,937	249,100	7,334	365,325	8,161	405,880	7,922	385,110	7,382	177,490	3,999
Rosefish, fresh.....	73,685	677	135,400	1,362	457,850	3,455	285,800	2,861	953,700	9,461	153,235	1,532	834,750	8,350
Other, fresh.....	12,352	683	12,558	1,047	61,255	1,508	21,585	1,230	44,615	1,204	57,065	663	73,861	1,322
Total.....	17,836,595	597,211	22,502,386	508,048	29,841,841	713,032	31,105,712	614,961	29,465,482	578,009	26,374,297	509,095	29,923,592	673,591
Landed in 1934:														
Fresh.....	14,236,593	553,040	15,496,804	662,082	25,596,117	771,289	26,498,086	499,312	23,690,399	498,960	20,506,195	521,448	22,924,069	586,979
Salted.....											28,100	923	20,470	616
Total.....	14,236,593	553,040	15,496,804	662,082	25,596,117	771,289	26,498,086	499,312	23,690,399	498,960	20,534,295	522,371	22,944,539	587,595

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 over 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. The above statistics of the landings at Boston prior to September 1935 have been revised from those in annual or monthly bulletins or reports published prior to September 1935.

Landings by fishing vessels at the three principal New England ports, 1935—Continued

BOSTON: BY MONTHS—Continued

Species	August		September		October		November		December		Total, 1935		1934	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:														
Large	1,799,040	\$46,989	1,691,085	\$58,983	1,992,150	\$76,933	1,195,358	\$59,783	2,098,485	\$85,417	30,628,143	\$836,063	28,517,675	\$807,730
Market	3,786,065	70,519	2,997,615	65,931	2,544,750	68,397	3,368,620	101,918	2,502,785	81,060	39,397,774	846,155	40,544,632	961,060
Scrod	7,600	97	31,100	513	37,550	858	263,105	6,163	191,150	4,563	718,175	15,929	229,035	4,423
Cod, salted:														
Large			5,100	135							5,100	135	60,500	2,336
Market													22,700	395
Haddock, fresh:														
Large	6,605,425	178,039	6,833,668	206,085	6,618,755	246,750	4,465,725	189,268	5,745,730	237,122	100,634,558	2,690,924	68,276,732	2,245,644
Scrod	3,580,075	70,074	5,025,915	112,934	4,391,165	109,888	3,786,885	111,336	3,831,345	119,124	47,150,705	1,003,161	50,482,003	1,059,242
Hake, fresh:														
Large	670,680	11,440	890,305	19,275	1,000,620	24,491	472,640	15,974	597,410	22,470	7,404,480	178,775	3,438,887	95,549
Small	139,300	2,956	102,400	2,577	137,250	3,728	56,350	1,946	22,915	955	693,517	17,309	769,855	23,944
Hake, salted:														
Large													4,370	55
Pollock, fresh	440,110	9,764	381,885	8,607	1,720,820	31,547	3,147,000	62,228	3,351,927	66,598	13,754,147	276,938	8,698,871	145,637
Cusk, fresh	163,980	2,548	482,240	8,784	515,260	10,871	249,490	6,224	433,405	12,024	3,877,030	76,249	2,613,335	52,507
Halibut, fresh	235,412	19,528	170,700	17,308	68,152	7,693	22,696	2,853	32,245	3,682	2,036,267	205,412	1,646,456	193,726
Mackerel, fresh	4,536,615	92,241	2,708,555	76,396	1,514,348	66,047	533,595	21,013	200,135	14,324	27,014,236	540,095	21,002,336	422,548
Mackerel, salted													3,090	77
Flounder, fresh	719,865	32,060	1,055,465	39,282	1,506,905	47,151	764,820	35,170	1,089,990	55,008	13,499,643	436,231	10,769,825	374,270
Swordfish, fresh	807,048	123,486	476,060	76,209	3,641	804			2,024,199	359,469	1,314,095	240,254	240,254	
Wolfish, fresh	49,635	1,709	32,530	999	36,050	1,217	40,575	1,276	37,439	1,397	2,048,570	49,586	3,053,151	64,042
Rosefish, fresh	2,104,960	21,479	3,083,496	32,374	3,733,652	45,713	1,550,235	14,886	777,511	8,155	14,144,274	150,305	1,288,499	13,333
Herring, fresh			4,000	25							4,000	25		
Other, fresh	445,010	8,085	861,155	16,648	627,037	13,532	90,252	2,825	30,399	1,334	2,337,144	50,081	956,631	24,592
Total, fresh	26,090,820	691,014	26,828,264	742,930	26,448,105	758,620	20,006,946	632,863	20,942,822	713,233	307,366,862	7,732,607	243,602,018	6,728,501
Total, salted			5,100	135							5,100	135	90,570	2,863
Grand total	26,090,820	691,014	26,833,364	743,065	26,448,105	758,620	20,006,946	632,863	20,942,822	713,233	307,371,962	7,732,742	243,692,588	6,731,364
Landed in 1934:														
Fresh	25,027,763	602,285	22,388,239	596,705	11,925,053	416,887	16,287,788	452,930	19,024,912	566,584			243,602,018	6,728,501
Salted			11,300	490	17,000	731	13,700	103					90,570	2,863
Total	25,027,763	602,285	22,399,539	597,195	11,942,053	417,618	16,301,488	453,033	19,024,912	566,584			243,692,588	6,731,364

GLOUCESTER: BY MONTHS

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Species	January		February		March		April		May		June		July	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:														
Large	144,340	\$7,826	671,770	\$15,176	1,642,025	\$35,492	1,872,515	\$38,009	1,852,545	\$36,167	992,395	\$23,754	596,595	\$9,519
Market	18,775	744	63,035	1,394	290,765	4,503	293,100	2,988	495,850	5,019	229,675	2,298	273,520	2,736
Scrod	2,450	53	4,970	75	945	13	935	18	2,080	24				
Cod, salted:														
Large					9,565	287	17,080	512	95,620	2,867	47,855	1,436	338,697	10,158
Market					3,010	70	8,920	193	12,255	245	18,255	549	215,250	4,303
Scrod													27,636	277
Haddock, fresh:														
Large	12,510	903	39,995	828	11,935	320	469,290	11,522	639,050	11,995	513,645	7,728	529,295	7,494
Scrod	3,250	73	3,340	46	6,850	105	100,675	1,009	201,965	2,028	147,650	1,479	194,380	1,947
Haddock, salted:														
Scrod									60	4				
Hake, fresh:														
Large	41,430	1,933	11,565	436	13,560	223	595	4	16,570	129	4,770	36	30,580	232
Small							550	12	600	5	50	1	390	4
Hake, salted:														
Large									250	4			1,000	25
Pollock, fresh	416,495	12,478	59,835	1,756	13,000	130	68,755	589	129,770	1,697	32,385	334	18,165	153
Pollock, salted													505	10
Cusk, fresh	5,215	141	13,665	156	815	13	26,110	172	47,500	363	5,675	43	17,310	133
Halibut, fresh			41	8	25	4	305	39	626	69			196,390	11,783
Halibut, salted							2,000	140			100	11	285	26
Mackerel, fresh									43,225	703	3,179,757	31,959	4,045,770	41,320
Mackerel, salted											19,530	208	4,100	103
Flounders, fresh	44,560	2,064	58,545	1,841	42,095	1,043	24,145	603	36,595	804	39,960	978	19,575	391
Wolffish, fresh	2,345	75	4,065	89	11,760	252	28,955	237	18,690	195	26,800	260	3,615	36
Rosefish, fresh	14,275	123	19,650	113	12,325	70	700	4	10,700	103			250,040	2,500
Herrings, salted	420,832	12,676							160,000	6,320			21,200	689
Other, fresh											34,020	292	28,600	429
Total, fresh	705,645	26,413	950,476	21,918	2,046,100	42,168	2,886,630	55,206	3,495,766	59,301	5,206,782	69,162	6,114,225	78,679
Total, salted	420,832	12,676			12,575	357	28,000	845	268,185	9,440	85,740	2,204	608,683	15,591
Grand total	1,126,477	39,089	950,476	21,918	2,058,675	42,525	2,914,630	56,051	3,763,951	68,741	5,292,522	71,366	6,722,908	94,270
Landed in 1934:														
Fresh	604,936	25,617	221,334	10,367	1,197,305	33,976	4,361,232	94,555	3,871,806	74,736	2,531,655	46,489	2,810,143	40,987
Salted					3,420	154	4,500	152	107,520	2,931	50,030	1,182	419,155	13,284
Total	604,936	25,617	221,334	10,367	1,200,725	34,130	4,365,732	94,707	3,979,326	77,667	2,581,685	47,671	3,229,298	54,271

FISHERY INDUSTRIES OF THE UNITED STATES, 1936

Landings by fishing vessels at the three principal New England ports, 1935—Continued

GLOUCESTER: BY MONTHS—Continued

Species	August		September		October		November		December		Total, 1935		1934	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:														
Large.....	159,554	\$3,680	268,805	\$9,604	368,460	\$15,302	94,015	\$4,668	96,710	\$4,108	8,669,729	\$203,305	7,924,179	\$210,142
Market.....	294,978	2,955	85,265	854	88,023	2,616	60,925	1,821	42,670	1,108	2,236,581	29,036	3,266,308	57,101
Scrod.....	25	1			19,575	390	11,560	182	3,605	73	46,145	829	29,215	463
Cod, salted:														
Large.....	199,648	7,256	231,662	8,109	172,997	5,755			128,765	5,150	1,241,889	41,530	1,204,215	37,379
Market.....	97,706	2,475	339,088	8,745	125,640	3,142			156,050	4,681	976,184	24,403	701,021	15,450
Scrod.....	34,040	511	59,191	888	15,217	228			48,018	751	184,102	2,655	195,368	2,832
Haddock, fresh:														
Large.....	425,499	6,517	294,830	4,737	164,671	4,948	43,455	2,097	30,145	1,222	3,174,320	60,311	2,470,588	63,668
Scrod.....	309,870	3,102	384,435	3,849	233,220	4,655	29,525	711	3,705	93	1,618,865	19,097	2,420,692	38,387
Haddock, salted:														
Large.....					6,088	92					6,088	92	6,000	130
Scrod.....											60	4		
Hake, fresh:														
Large.....	23,555	175	16,560	217	22,362	357	4,265	103	29,355	905	215,167	4,750	552,175	16,624
Small.....	400	3	3,600	68	834	14	2,960	76			9,384	183	1,200	22
Hake, salted:														
Large.....					830	17					2,080	46	9,390	156
Small.....	855	21									855	21		
Pollock, fresh.....	54,279	856	1,517,790	30,344	4,061,895	80,802	4,731,090	75,765	2,178,300	41,687	13,281,759	246,592	11,140,955	160,721
Pollock, salted.....	200	4	100	3							805	17	790	13
Cusk, fresh.....	44,955	341	1,565	18	2,267	35	5,920	146	8,340	196	179,337	1,757	187,320	2,373
Cusk, salted.....	600	9									600	9	1,600	33
Halibut, fresh.....	2,555	156	2,300	207	17,854	1,916	30	4			220,126	14,186	651	95
Halibut, salted.....	1,905	171									4,290	348	4,120	215
Mackerel, fresh.....	3,598,267	42,699	1,716,890	23,664	666,420	20,495	178,445	8,545	120,725	7,717	13,549,499	177,102	7,848,295	103,051
Mackerel, salted.....	34,632	763	4,450	157	171,300	5,139					234,012	6,370	446,980	13,549
Flounders, fresh.....	24,275	586	25,855	652	22,378	610	22,940	807	24,505	1,442	335,428	11,821	366,995	12,603
Swordfish, fresh.....													9,279	1,620
Wolfish, fresh.....	85,568	856	1,630	19	955	15	130	3	590	18	185,103	2,057	129,835	2,106
Rosefish, fresh.....	490,840	4,909	618,512	6,186	1,236,721	15,840	74,510	869	167,585	2,090	2,895,858	32,807	530,067	5,313
Herring, salted.....			400	12					1,079,626	33,011	1,682,058	52,708	262,200	7,935
Other, fresh.....	50,715	676	137,855	1,379	8,980	68	3,035	92	1,450	19	264,185	2,955	411,751	3,718
Total, fresh.....	5,565,335	67,512	5,075,422	81,798	6,914,615	148,063	5,262,805	95,890	2,707,685	60,678	46,931,486	806,788	37,298,505	678,007
Total, salted.....	369,586	11,210	634,891	17,914	492,072	14,373			4,122,459	43,593	4,333,023	128,203	2,831,684	77,692
Grand total.....	5,934,921	78,722	5,710,313	99,712	7,406,687	162,436	5,262,805	95,890	4,120,144	104,271	51,264,509	934,991	40,130,189	755,699

Landed in 1934:															
Fresh.....	3,621,053	55,938	3,960,799	58,077	4,452,052	101,519	6,630,209	91,898	3,029,981	43,848			37,298,505	678,007	
Salted.....	776,017	18,893	437,084	11,126	561,503	15,635	220,255	6,400	262,200	7,935			2,831,684	77,692	
Total.....	4,387,070	74,831	4,403,883	69,203	5,013,555	117,154	6,850,464	98,298	3,292,181	51,783			40,130,189	755,699	

PORTLAND: BY MONTHS

Species	January		February		March		April		May		June		July	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:														
Large.....	29,291	\$1,467	142,464	\$4,055	253,466	\$6,161	678,175	\$12,917	343,830	\$5,585	380,398	\$9,699	474,166	\$10,556
Market.....	16,378	635	65,710	1,431	160,562	3,293	327,873	5,930	88,923	1,280	22,455	307	7,834	110
Scrod.....	135	2	461	5	610	4	2,210	21	260	2				
Haddock, fresh:														
Large.....	46,906	2,765	138,748	5,167	240,836	7,118	1,981,328	37,821	940,005	17,218	44,669	1,876	52,354	2,323
Scrod.....	7,315	219	12,685	191	54,274	1,099	289,055	5,085	146,895	2,423	310	3	2,770	27
Hake, fresh:														
Large.....	45,783	2,220	50,122	1,844	46,566	1,743	82,092	2,182	152,957	1,983	314,562	3,983	396,608	5,421
Small.....	1,240	26	790	9	1,560	18	2,540	26	2,295	35	435	3	2,655	26
Pollock, fresh.....	14,358	247	20,937	362	31,957	518	80,283	886	133,822	1,201	51,771	526	76,299	765
Cusk, fresh.....	27,335	1,117	178,390	4,536	248,899	6,565	348,890	6,418	177,524	2,596	64,103	981	18,095	246
Halibut, fresh.....	2,625	326	926	141	4,432	527	26,949	3,021	6,463	689	37,535	4,451	136	17
Mackerel, fresh.....											7,705	111	4,660	46
Flounders, fresh.....	19,480	893	27,595	850	69,964	1,850	40,632	663	49,180	600	79,719	1,297	107,259	2,248
Swordfish, fresh.....													48,907	9,888
Wolfish, fresh.....	90	2	270	2	6,730	85	21,450	235	19,795	184	2,005	11	1,739	13
Rosefish, fresh.....	15,845	159	16,340	163	33,620	238	3,560	27	1,000	5				
Herring, fresh.....											135	2		
Other, fresh.....	172	4	1,441	66	2,422	133	10,282	981	11,268	1,037	21,075	1,806	42,444	458
Total.....	226,953	10,082	656,879	18,822	1,155,898	29,352	3,895,319	76,213	2,074,217	34,838	1,026,877	25,056	1,235,926	32,144
Landed in 1934:														
Fresh.....	498,874	20,558	322,626	15,728	879,545	25,218	3,883,239	73,297	2,032,385	37,488	1,242,096	30,342	1,306,980	39,792
Salted.....											1,425	28		
Total.....	498,874	20,558	322,626	15,728	879,545	25,218	3,883,239	73,297	2,032,385	37,488	1,243,521	30,370	1,306,980	39,792

PORTLAND: BY MONTHS—Continued

Species	August		September		October		November		December		Total, 1935		1934	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:														
Large.....	523,461	\$15,924	181,891	\$8,389	93,779	\$3,707	11,595	\$1,491	28,981	\$1,287	3,171,397	\$83,315	3,332,477	\$94,519
Market.....	8,369	121	19,493	218	26,645	568	31,531	717	8,560	262	775,315	14,872	1,517,315	30,197
Scrod.....	32,575	610	510	5	2,030	31	1,615	16	770	9	41,176	735	8,442	67
Cod, salted:														
Large.....														
Market.....													14,919	522
Scrod.....													2,960	89
Haddock, fresh:														
Large.....	75,721	3,216	56,191	3,329	118,356	5,698	134,725	6,955	34,891	1,947	3,864,919	94,411	3,221,938	98,413
Scrod.....	3,558	44	385	3	11,196	143	29,395	534	3,895	65	552,643	9,636	891,758	16,506
Hake, fresh:														
Large.....	336,816	4,935	247,657	4,965	297,915	6,299	181,879	5,331	89,490	3,077	2,245,337	43,891	2,290,139	48,412
Small.....	1,340	12	2,035	19	410	4	697	6	650	6	16,610	193	27,427	330
Hake, salted:														
Large.....														
Small.....														
Pollock, fresh.....	134,457	1,345	115,596	1,497	129,000	1,292	5,550	65	33,316	472	848,256	9,086	953,693	9,934
Pollock, salted.....														
Large.....														
Small.....														
Cusk, fresh.....	35,557	692	96,530	1,928	192,025	3,425	58,695	1,417	51,250	1,572	1,467,233	31,553	1,121,468	23,329
Cusk, salted.....														
Large.....														
Small.....														
Halibut, fresh.....	1,489	130	294	44	1,927	262	1,447	291	463	72	81,677	9,881	139,519	11,325
Mackerel, fresh.....	25,909	522	8,464	288							46,738	967	1,258,273	15,178
Mackerel, salted.....	3,450	34									3,450	34	17,125	87
Flounders, fresh.....	74,038	1,714	29,386	611	2,483	62	8,670	211	16,855	535	516,291	11,134	598,194	12,496
Swordfish, fresh.....	55,794	7,954	14,629	2,928							119,539	19,870	119,119	23,975
Wolfish, fresh.....	634	2	83		189	2	65		75		53,116	536	58,443	441
Rosefish, fresh.....											79,365	592	13,885	140
Herring, fresh.....	8,800	88	55,409	263	23,800	119					88,135	472	395,400	2,871
Other, fresh.....	386,276	3,283	25,145	211	1,040	31	9,895	197	5,681	114	517,143	8,351	216,076	8,635
Total, fresh.....	1,794,785	39,692	865,599	23,814	861,777	21,373	499,544	16,083	274,698	9,416	14,478,472	336,885	16,057,539	394,629
Total, salted.....	3,450	34									3,450	34	35,505	705
Grand total.....	1,798,235	39,726	865,599	23,814	861,777	21,373	499,544	16,083	274,698	9,416	14,481,922	336,919	16,093,044	395,334
Landed in 1934:														
Fresh.....	1,786,887	44,786	1,020,870	35,049	1,173,947	31,027	868,247	25,593	441,843	15,751			16,057,539	394,629
Salted.....	34,080	677											35,505	705
Total.....	1,820,967	45,463	1,020,870	35,049	1,173,947	31,027	868,247	25,593	441,843	15,751			16,093,044	395,334

SUMMARY: BY PORTS

Species	Boston		Gloucester		Portland		Total, 1935		1934	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Cod, fresh:										
Large.....	30,628,143	\$836,063	8,669,729	\$203,305	3,171,397	\$80,335	42,469,269	\$1,119,703	39,774,331	\$1,112,391
Market.....	39,397,774	846,155	2,236,581	29,036	775,335	14,872	42,409,690	890,063	45,328,255	1,048,358
Scrod.....	718,175	15,929	46,145	829	41,176	705	805,496	17,463	266,692	4,953
Cod, salted:										
Large.....	5,100	135	1,241,889	41,530			1,246,989	41,665	1,279,625	40,237
Market.....			976,184	24,403			976,184	24,403	726,651	15,934
Scrod.....			184,102	2,655			184,102	2,655	195,368	2,832
Haddock, fresh:										
Large.....	100,634,558	2,690,924	3,174,320	60,311	3,864,640	94,414	107,673,518	2,845,649	73,969,228	2,407,725
Scrod.....	47,150,705	1,003,161	1,618,865	19,097	552,643	9,636	49,322,213	1,031,894	53,794,453	1,114,135
Haddock, salted:										
Large.....			6,088	92			6,088	92	6,000	130
Scrod.....			60	4			60	4		
Hake, fresh:										
Large.....	7,404,480	178,775	215,167	4,750	2,245,357	43,891	9,865,004	227,416	6,281,201	160,585
Small.....	693,517	17,309	9,384	183	16,610	190	719,511	17,682	798,482	24,196
Hake, salted:										
Large.....			2,080	46			2,080	46	13,935	214
Small.....			855	21			855	21		
Pollock, fresh.....	13,754,147	276,938	13,281,759	246,592	848,256	9,086	27,884,162	532,616	20,795,519	316,292
Pollock, salted.....			805	17			805	17	900	15
Cusk, fresh.....	3,877,030	76,209	179,337	1,757	1,467,293	31,553	5,523,660	109,519	3,922,123	78,200
Cusk, salted.....			600	9			600	9	1,725	35
Halibut, fresh.....	2,036,267	205,412	220,126	14,186	84,677	9,881	2,341,070	229,479	1,777,626	205,146
Halibut, salted.....			4,290	348			4,290	348	4,120	215
Mackerel, fresh.....	27,014,236	540,095	13,549,499	177,102	46,738	967	40,610,473	718,164	30,078,907	538,777
Mackerel, salted.....			234,012	6,370	3,450	34	237,462	6,404	467,205	13,713
Flounders, fresh.....	13,499,643	438,231	385,428	11,821	516,261	11,534	14,401,332	459,586	11,645,014	399,369
Swordfish, fresh.....	2,024,199	359,409			119,330	19,870	2,143,529	379,279	1,463,493	265,849
Wolfish, fresh.....	2,048,570	49,586	185,103	2,057	53,116	536	2,286,789	52,179	3,241,429	66,589
Rosefish, fresh.....	14,144,274	150,305	2,895,858	32,807	70,365	592	17,110,497	183,704	1,841,451	18,786
Herring, fresh.....	4,000	25			88,135	472	92,135	497	395,400	2,871
Herring, salted.....			1,682,058	52,708			1,682,058	52,708	262,200	7,935
Other, fresh.....	2,337,144	50,081	264,185	2,955	517,143	8,351	3,118,472	61,387	1,584,458	36,915
Total, fresh.....	307,366,862	7,732,607	46,931,486	806,788	14,478,472	336,885	368,776,820	8,876,280	296,958,062	7,801,137
Total, salted.....	5,100	135	4,333,023	128,203	3,450	34	4,341,573	128,372	2,957,759	81,260
Grand total.....	307,371,962	7,732,742	51,264,509	934,991	14,481,922	336,919	373,118,393	9,004,652	299,915,821	7,882,397
Landed in 1934:										
Fresh.....	243,602,018	6,728,501	37,298,505	678,007	16,057,539	394,629			296,958,062	7,801,137
Salted.....	90,570	2,863	2,831,684	77,692	35,505	705			2,957,759	81,260
Total.....	243,692,588	6,731,364	40,130,189	755,699	16,093,044	395,334			299,915,821	7,882,397

¹ The items under "Other, fresh" include alewives, 647,780 pounds, value \$5,612; butterfish, 187,458 pounds, value \$11,975; eels, 615 pounds, value \$27; frigate mackerel, 73,500 pounds value \$368; herring smelt, 9,315 pounds, value \$228; salmon, 108 pounds, value \$22; scup, 6,400 pounds, value \$146; sea bass, 750 pounds, value \$22; sea robins, 400 pounds, value \$8, shad, 65,212 pounds, value \$1,098; sharks, 23,088 pounds, value \$363; skates, 2,475 pounds, value \$36; squeteagues, 27 pounds, value \$2; sturgeon, 618 pounds, value \$61; tilefish, 50 pounds; value \$2; tuna or "horse mackerel", 26,413 pounds, value \$633; turbot, 500 pounds, value \$20; whiting, 1,892,265 pounds, value \$32,273; mixed fish, 29,750 pounds, value \$224; lobster, 26 pounds, value \$8; scallops, 31,698 pounds, value \$3,542; squid, 775 pounds, value \$24; livers, 17,712 pounds, value \$474; sounds, 7 pounds; spawn, 101,530 pounds, value \$4,219.

BIOLOGICAL ASPECT

In 1935 the fishing fleet landing fares at Boston and Gloucester, Mass., and Portland, Maine, and operating on the fishing banks of the North Atlantic, numbered 382 steam, motor, and sail vessels of 5-net-ton capacity or greater as measured by the United States Customs Service. These vessels made 12,372 trips to the fishing grounds, and were absent from port 53,264 days, or an average of 4.3 days per trip. The catch of edible fish landed at the three ports amounted to 376,277,640 pounds when the salted fish had been converted to the basis of fresh gutted or round fish as usually landed. This, however, does not represent the entire catch of edible fish of these vessels, for landings were also made at ports in New England other than these three, at New York City, and at more southern ports in connection with the southern winter trawl and mackerel fisheries.

Otter trawls on all sizes of vessels accounted for 254,906,714 pounds, or 68 percent of the total landings. Line trawls were next in importance, accounting for 53,541,051 pounds, or 14 percent of the total landings.

The catch taken on Sable Island Bank and landed at the three ports amounted to 102,146,279 pounds, or 27 percent of the total; that on Georges Bank, 84,473,973 pounds, or 22 percent; shore grounds, 63,786,339 pounds, or 17 percent; Browns Bank, 32,557,300 pounds, or 9 percent; South Channel, 20,055,730 pounds, or 5 percent; and Quereau Bank, 17,082,783 pounds, or 5 percent. No other bank accounted for as much as 10,000,000 pounds in the landings at the three ports.

Landings by fishing vessels at the three principal New England ports, 1935

BY GEAR AND FISHING GROUNDS

Gear and fishing grounds	Vessels fishing	Trips	Days absent	Cod			Haddock		Hake	
				Large	Market	Scrod	Large	Scrod	Large	Small
				Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Line trawls:	<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>
Grand Bank	5	8	297	57,649	28,825				1,830	
Green Bank	1	1	6	5,748	3,007				220	
St. Peters Bank	1	2	49	4,560	1,164					
Off Newfoundland (Treaty Coast)	1	1	30	127,178	194,784	82,833				
Bay of Fundy	2	3	17	3,530	4,875	565	45,830	6,220		11,810
Gulf of St. Lawrence	8	17	470	1,748,013	1,657,300	280,302	12,541			17,600
Quereau Bank	7	9	183	282,619	173,804		42,400	2,826		5,127
Sable Island Bank (Western Bank)	18	30	472	489,205	275,618	990	663,750	165,325	120,240	1,693
Cape Shore	33	97	1,098	705,670	898,414	2,500	1,605,295	213,875	819,465	
La Have Bank	14	29	320	519,315	438,630		444,345	61,380	135,815	
Roseway Bank	2	2	25	22,000	42,200		33,800	3,600	3,550	
Browns Bank	33	199	2,201	3,307,366	2,456,099	636	5,052,915	681,030	764,785	730
Georges Bank	33	119	1,186	4,182,682	946,612	1,850	1,975,675	104,170	350,855	
Georges Bank (occasional)				7,700	3,100					
South Channel	20	98	738	906,805	513,580	4,250	2,290,025	132,595	228,005	
Off Highland Light	3	4	26	4,910	3,910		12,650	920	14,510	
Off Chatham	2	2	12	11,125	3,765		24,320	640		
Nantucket Shoals	1	1	4	1,309	1,150		12,100	400	345	
Cashes Bank	29	101	597	367,303	181,823	3,015	313,708	24,685	1,161,257	3,577
Cashes Bank (occasional)				36,730	8,230					
Fippenies Bank	5	11	63	32,805	16,060	100	22,725	3,530	123,250	
Platts Bank	7	12	29	12,880	6,850	330	17,205	790	25,350	
Jeffreys Ledge	10	16	61	30,310	11,860	260	25,950	765	75,760	
Middle Bank (Stellwagen)	5	20	103	26,875	15,590		87,870	4,475	41,355	
South Shore, general	1	1	8	500					27,300	
Total	117	1,895	10,971	13,901,917	8,435,510	416,457	13,598,217	1,469,184	7,375,899	215,448
Hand lines:										
Cape Shore	3	5	55	41,900	51,150		1,250		59,500	
Browns Bank	1	1	11	19,200	7,500		85			
Georges Bank	3	17	183	241,285	167,055		100			
Georges Bank (occasional)				1,090	5,700		10,000			
Nantucket Shoals	2	2	13	4,950	6,180					
Shore, general	2	2	25	4,300	2,420		1,370		14,300	
Total	16	27	287	312,635	240,005		13,605		73,800	

† Exclusive of duplication.

BIOLOGICAL ASPECT

In 1935 the fishing fleet landing fares at Boston and Gloucester, Mass., and Portland, Maine, and operating on the fishing banks of the North Atlantic, numbered 382 steam, motor, and sail vessels of 5-net-ton capacity or greater as measured by the United States Customs Service. These vessels made 12,372 trips to the fishing grounds, and were absent from port 53,264 days, or an average of 4.3 days per trip. The catch of edible fish landed at the three ports amounted to 376,277,640 pounds when the salted fish had been converted to the basis of fresh gutted or round fish as usually landed. This, however, does not represent the entire catch of edible fish of these vessels, for landings were also made at ports in New England other than these three, at New York City, and at more southern ports in connection with the southern winter trawl and mackerel fisheries.

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The catch taken on Sable Island Bank and landed at the three ports amounted to 102,146,279 pounds, or 27 percent of the total; that on Georges Bank, 84,473,973 pounds, or 22 percent; shore grounds, 63,786,339 pounds, or 17 percent; Browns Bank, 32,557,300 pounds, or 9 percent; South Channel, 20,055,730 pounds, or 5 percent; and Quereau Bank, 17,082,783 pounds, or 5 percent. No other bank accounted for as much as 10,000,000 pounds in the landings at the three ports.

Landings by fishing vessels at the three principal New England ports, 1935

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	Founds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Line trawls:										
Grand Bank	5	8	297	57,649	28,825				1,830	
Green Bank	1	1	6	5,748	3,007				220	
St. Peters Bank	1	2	49	4,560	1,164					
Off Newfoundland (Treaty Coast)	1	1	30	127,178	194,784	82,833				
Bay of Fundy	2	3	17	3,530	4,875	565	45,830	6,220		11,810
Gulf of St. Lawrence	8	17	470	1,748,013	1,657,300	280,302	12,541			17,600
Quereau Bank	7	9	183	282,619	173,804		42,400	2,826		5,127
Sable Island Bank (Western Bank)	18	30	472	489,205	275,618	990	663,750	165,325	120,240	1,693
Cape Shore	33	97	1,098	705,670	898,414	2,500	1,605,295	213,875		819,465
La Have Bank	14	29	320	519,315	438,650		444,345	61,380		135,815
Roseway Bank	2	2	25	22,000	42,200		33,800	3,600		3,550
Browns Bank	33	199	2,201	3,307,366	2,456,099	636	5,052,915	681,030		764,785
Georges Bank	33	119	1,186	4,182,682	946,612	1,850	1,975,675	104,170		350,855
Georges Bank (occasional)				7,700	3,100					
South Channel	20	98	738	906,805	513,580	4,250	2,290,025	132,595		228,005
Off Highland Light	3	4	26	4,910	3,910		12,650	920		14,510
Off Chatham	2	2	12	11,125	3,765		24,320	640		
Nantucket Shoals	1	1	4	1,300	1,150		12,100	400		345
Cashes Bank	29	101	597	367,303	181,823	3,015	313,708	24,685	1,161,257	3,577
Cashes Bank (occasional)				36,730	8,230					
Fippenies Bank	5	11	63	32,805	16,060	100	22,725	3,530		123,250
Platts Bank	7	12	29	12,880	6,850	330	17,205	790		25,350
Jeffreys Ledge	10	16	61	30,310	11,860	260	25,950	765		75,760
Middle Bank (Stellwagen)	5	20	103	26,875	15,590		87,870	4,475		41,355
South	1	1	8	500						27,300
Shore, general	86	1,112	2,976	1,007,139	548,260	38,826	885,143	61,958	3,447,470	209,448
Total	117	1,895	10,971	13,901,917	8,435,510	416,457	13,598,247	1,469,184	7,375,899	215,448
Hand lines:										
Cape Shore	3	5	55	41,900	51,150		1,250			59,500
Browns Bank	1	1	11	19,200	7,500		85			
Georges Bank	3	17	183	241,285	167,055		500			
Georges Bank (occasional)				1,000	5,700		10,000			
Nantucket Shoals	2	2	13	4,950	6,180					
Shore, general	2	2	25	4,300	2,420		1,370			14,300
Total	6	27	287	312,635	240,005		13,605			73,800

† Exclusive of duplication.

Landings by fishing vessels at the three principal New England ports, 1935—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:										
The Gully.....	3	4	75							
Cape Shore.....	28	31	713							
Browns Bank.....	44	87	1,633							
Georges Bank.....	34	44	827							
Nantucket Shoals.....	7	8	99							
South.....	1	1	29							
Shore, general.....	5	20	82							
Total.....	151	195	3,458							
Otter trawls, large:										
Quereau Bank.....	43	118	1,514	1,913,515	6,416,860	196,950	2,581,900	3,737,070	38,490	
Sable Island Bank (Western Bank).....	57	618	7,858	11,464,492	15,385,223	85,410	40,964,913	17,636,480	947,790	1,500
Cape Shore.....	2	3	29	5,875	20,000	7,500	71,000	51,600	9,800	
Emerald Bank.....	1	1	1	108,000	28,000		48,000	11,000		
La Have Bank.....	5	5	61	47,855	47,960	4,200	674,570	229,960	1,675	
Browns Bank.....	42	92	1,001	1,696,910	1,180,630	12,000	7,243,770	2,261,140	64,850	1,250
Georges Bank.....	56	556	5,937	4,839,050	7,863,640	279,155	23,214,075	16,291,095	446,360	740
South Channel.....	24	73	649	397,465	517,960	4,500	2,631,675	1,118,385	69,100	
Off Highland Light.....	5	10	73	5,985	3,470		25,300	27,060	3,825	
Off Chatham.....	2	2	15	11,800	61,400		76,070	18,800	100	
Middle Bank (Stellwagen).....	2	2	22	140,600	101,000		104,250	39,000		
South.....	1	1	12	22,000	77,000		53,800	51,700		
Shore, general.....	4	7	43	43,500	62,875		86,040	85,690	3,340	
Total.....	158	1,488	17,225	29,697,047	31,766,018	589,715	77,775,363	41,558,960	1,585,330	3,490
Otter trawls, medium:										
Quereau Bank.....	5	9	107	63,100	180,525		87,175	157,650	1,925	
Sable Island Bank (Western Bank).....	10	46	535	536,680	590,200	10,200	2,308,100	629,350	65,210	
Emerald Bank.....	2	2	21	85,400	45,000		73,600	32,600	500	
La Have Bank.....	4	5	61	21,660	39,200		136,700	35,800	3,500	
Browns Bank.....	16	44	455	310,015	298,450		2,110,450	662,500	24,050	
Georges Bank.....	39	286	2,067	1,490,235	1,394,745	15,775	7,016,190	3,548,895	82,305	
South Channel.....	24	93	800	219,300	418,420	4,000	2,354,230	872,365	77,675	
Off Highland Light.....	15	101	611	23,092	24,083		169,040	35,890	23,452	700
Off Chatham.....	6	13	108	18,150	143,450		176,175	42,800	5,135	
Nantucket Shoals.....	3	3	24	465	3,910		62,800	13,700	1,675	

Cashes Bank.....	2	2	16	5,000	800		43,500	2,200		
Middle Bank (Stellwagen).....	1	1	6		200		500		450	
South.....	8	10	53	1,900	3,100		71,900	24,500	1,975	
Shore, general.....	66	547	1,893	288,083	210,845	33,765	313,752	95,695	168,475	194,784
Total.....	¹ 87	1,162	7,337	3,062,990	3,352,928	63,740	14,924,142	6,153,855	456,327	195,484
Otter trawls, small:										
Georges Bank.....	3	6	51	93,760	36,900		113,100	59,850	1,300	
South Channel.....	1	1	8	4,800	2,500		21,200	15,500		
Off Highland Light.....	2	2	15	1,100	900		9,200	5,850	800	
Nantucket Shoals.....	3	3	13	620	7,500		22,200	5,300	2,000	
South.....	2	5	17							
Shore, general.....	87	1,394	3,972	616,395	374,140	100,095	679,652	53,785	216,410	306,687
Total.....	¹ 91	1,411	4,076	716,675	421,940	100,095	845,352	140,285	220,510	306,687
Sink gill nets:										
Georges Bank (occasional).....				23,940	4,410					
Shore, general.....	35	4,564	4,572	6,123,145	82,467	10	529,300	55	157,090	95
Total.....	35	4,564	4,572	6,147,085	86,877	10	529,300	55	157,090	95
Drift gill nets:										
Bay of Islands.....	5	6	308							
Off Highland Light.....	6	7	15							
South.....	9	19	53							
Shore, general.....	28	85	179							
Total.....	¹ 34	117	555							
Purse seines:										
Cape Shore.....	2	2	6							
Georges Bank.....	8	8	25							
South Channel.....	40	67	203							
Off Highland Light.....	2	2	5							
Off Chatham.....	61	260	788							
Nantucket Shoals.....	13	14	42							
Middle Bank (Stellwagen).....	18	19	56							
South.....	61	516	1,630	200	210		50			
Shore, general.....	77	621	2,001							
Total.....	¹ 82	1,509	4,756	² 200	² 210		² 50			
Scallop drags:										
Georges Bank.....	1	4	27							
Grand total.....	¹ 382	12,372	53,264	44,838,549	44,303,488	1,170,017	107,686,059	49,322,339	9,898,956	721,204

¹ Exclusive of duplication.² Incidental catch.

Landings by fishing vessels at the three principal New England ports, 1935 -- Continued

BY GEAR AND FISHING GROUNDS -- Continued

Gear and fishing grounds	Pollock	Cusk	Halibut	Mackerel	Flounders	Swordfish	Wolffish	Resefish	Herring	Other	Total
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Line trawls:											
Grand Bank		4,700	197,616								290,620
Green Bank			10,714								19,689
St. Peters Bank			86,401								92,125
Off Newfoundland (Treaty Coast)											404,795
Bay of Fundy	420	2,100	451								75,801
Gulf of St. Lawrence			519,965						32,400		4,268,121
Quereau Bank	1,700	23,940	103,312		3,000		250				639,018
Sable Island Bank (Western Bank)	13,880	138,150	253,603		5,600		7,020			225	2,135,359
Cape Shore	72,570	586,505	15,352		500		35,570				4,955,716
La Have Bank	41,605	278,770	16,682				9,035				1,945,577
Roseway Bank	4,200	8,100	832				600				118,882
Browns Bank	232,684	858,455	157,816		5,605	5,585	85,695			5,285	13,644,686
Georges Bank	106,885	270,040	193,777		900	818	14,425			880	8,149,569
Georges Bank (occasional)	200										11,000
South Channel	133,895	133,300	21,099		480		23,160			2,800	4,389,994
Off Highland Light	835	4,000	105				50			50	41,940
Off Chatham	1,000		2,492				370			500	44,212
Nantucket Shoals			67								15,362
Cashes Bank	36,088	1,023,422	5,543		765		3,745			1,386	3,126,317
Cashes Bank (occasional)	175										45,155
Fippenies Bank	3,020	60,920	1,062				320		335	45	264,172
Platts Bank	1,245	45,410	299							80	110,439
Jeffreys Ledge	3,215	52,935	2,268				145			55	203,523
Middle Bank (Stellwagen)	4,235	78,320	437				195			1,505	260,857
South		750									28,550
Shore, general	119,531	1,647,871	12,805			63,413	64,685	114,420		38,623	8,259,592
Total	777,383	5,217,688	1,602,698		80,323	6,403	245,305	114,755	32,400	51,434	53,541,051
Hand lines:											
Cape Shore	3,800	8,500	45				585				166,730
Browns Bank	555	350					500				28,190
Georges Bank	15,385	2,115	6,102				4,780				437,622
Georges Bank (occasional)	700		71								17,471
Nantucket Shoals	600										11,730
Shore, general	710	15,000	105								38,205
Total	21,750	25,965	6,323				5,865				699,948
Harpoons:											
Green Bank (occasional)						300					300
The Gully						38,354				311	38,665

Sable Island Bank (Western Bank) (occasional)						210					210
Cape Shore						396,357					396,357
Browns Bank						1,105,507			446		1,105,953
Browns Bank (occasional)						19,002					19,002
Georges Bank						407,779			410		408,189
Georges Bank (occasional)						5,992					5,992
South Channel (occasional)						315					315
Off Chatham (occasional)						484					484
Nantucket Shoals						96,451					96,451
Nantucket Shoals (occasional)						83					83
South						11,450					11,450
Shore, general						41,723			7,676		49,399
Shore, general (occasional)						670					670
Total						2,124,677			8,843		2,133,520
Otter trawls, large:											
Quereau Bank	255,255	2,775	36,281			550,235		61,850	22,550		3,565
Sable Island Bank (Western Bank)	3,713,035	85,320	463,361	1,300		3,407,950	8,676	1,029,345	231,499		64,613
Cape Shore	2,500		229			14,075		6,100			188,679
Emerald Bank	1,200		445			100		900			197,645
La Have Bank	31,615	4,300	6,604			6,065		8,350			1,063,154
Browns Bank	769,970	42,475	61,286	400		401,250		138,155	134,555		20,402
Georges Bank	3,591,362	81,380	95,603	10,120		1,601,265		218,815	505,559		93,839
South Channel	184,090	8,465	8,524	300		191,985		19,460	2,780,662	4,000	16,870
Off Highland Light	31,585	40	313			2,995			706,334		190
Off Chatham	1,100		155			6,610		450	105,300		281,785
Middle Bank (Stellwagen)	13,400		2,193			2,500		1,500			404,443
South	1,100		525					400			206,525
Shore, general	180,650	200	377			3,635		600	44,100		260
Total	8,776,862	224,955	675,896	12,120		6,188,665	8,676	1,485,925	4,530,559	4,000	199,739
196,083,320											
Otter trawls, medium:											
Quereau Bank	4,550		1,051			27,940	2,528	7,395	92,650		626,489
Sable Island Bank (Western Bank)	56,675	2,475	14,253			198,905		28,555	76,000		3,200
Emerald Bank	7,100		1,388			550		300			246,468
La Have Bank	6,300	1,450	1,247			12,435		1,350	12,450		1,625
Browns Bank	163,640	6,400	14,141			77,955		53,700			9,125
Georges Bank	315,485	12,915	24,847	1,480		1,341,253	464	55,520	350,230		37,925
South Channel	57,640	3,140	4,275	500		434,455		13,990	1,112,825		22,435
Off Highland Light	199,219	1,942	150			34,778		87,153	7,906,501		765
Off Chatham	2,125	240	60			21,950		1,675	696,000		
Nantucket Shoals	960					14,785		30			98,325
Cashes Bank	37,700		132			3,600					92,932
Middle Bank (Stellwagen)									94,000		95,150
South						180,735					26,097
Shore, general	3,351,920	17,910	305			1,636,674		49,765	1,676,832		430,405
8,469,210											
Total	4,203,314	46,472	61,869	1,980		3,986,015	2,992	299,433	12,017,488		531,577
49,360,606											

² Incidental catch.

Landings by fishing vessels at the three principal New England ports, 1935—Continued

BY GEAR AND FISHING GROUNDS—Continued

Gear and fishing grounds	Pollock	Cusk	Halibut	Mackerel	Flounders	Swordfish	Wolfish	Rosefish	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>	<i>Pounds</i>	<i>Pounds</i>
Otter trawls, small:											
Georges Bank.....	1,350		350		15,805			2,400		1,425	326,240
South Channel.....	500		50		2,000		300				46,850
Off Highland Light.....	450		85		3,525		300	67,020			89,230
Nantucket Shoals.....	50				4,550			4,500		18,250	64,970
South.....					120,050					935	120,985
Shore, general.....	485,545	4,208	2,171	41	3,919,879	740	248,605	372,305		1,433,855	8,814,513
Total.....	487,895	4,208	2,656	241	4,065,809	2,740	249,205	446,225		1,454,465	9,462,788
Sink gill nets:											
Georges Bank (occasional)											28,350
Shore general.....	13,608,857	5,512	208	5,208	11,360		1,056	1,470	55,430	26,079	20,607,342
Total.....	13,608,857	5,512	208	2,5208	11,360		1,056	1,470	2,55,430	26,079	20,635,692
Drift gill nets:											
Bay of Islands.....									2,490,687		2,490,687
Off Highland Light.....				52,825						542	53,367
South.....				169,935						455	170,390
Shore, general.....				210,267						765	211,032
Total.....				433,027					2,490,687	1,762	2,925,476
Purse seines:											
Cape Shore.....				86,900							86,900
Georges Bank.....				237,700							237,700
South Channel.....				2,069,880							2,069,880
Off Highland Light.....				47,350							47,350
Off Chatham.....				7,732,116						47,590	7,779,706
Nantucket Shoals.....				419,785						115	419,900
Middle Bank (Stellwagen).....				658,525							658,525
South.....				13,120,436	69,160					88,595	13,278,651
Shore, general.....	9,630			10,105,978		41			32,705	676,755	16,825,109
Total.....	2,9,630			40,478,670	2,69,160	2,41			32,705	813,055	41,403,721
Scallop drags:											
Georges Bank.....										31,518	31,518
Grand total.....	27,885,691	5,524,800	2,349,650	40,931,046	14,401,332	2,143,529	2,286,789	17,110,497	2,615,222	3,118,472	376,277,640

NOTE.—The three 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 type of gear used.

SUMMARY: BY FISHING GROUNDS

Fishing grounds	Vessels fishing	Trips	Days absent	Cod			Haddock		Hake	
				Large	Market	Scrod	Large	Scrod	Large	Small
Off Newfoundland:										
Area XIX:	<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>
Bay of Islands.....	5	6	308							
Off Newfoundland (Treaty Coast).....	1	1	30	127, 178	194, 784	82, 883				
Area XX:										
Grand Bank.....	5	8	297	57, 649	28, 825				1, 830	
Green Bank.....	1	1	6	5, 748	3, 007				220	
St. Peters Bank.....	1	2	49	4, 560	1, 164					
Total.....	1 11	18	690	195, 135	227, 780	82, 833			2, 050	
Off Canada:										
Area XIX:										
Gulf of St. Lawrence.....	8	17	470	1, 748, 013	1, 657, 300	280, 302	12, 541		17, 600	
Area XXI:										
Quereau Bank.....	55	136	1, 804	2, 259, 234	6, 771, 189	196, 950	2, 711, 475	3, 897, 526	45, 542	
The Gully.....	3	4	75							
Sable Island Bank (Western Bank).....	83	694	8, 865	12, 490, 377	16, 251, 041	96, 660	43, 936, 763	18, 431, 155	1, 133, 240	3, 193
Cape Shore.....	65	138	1, 901	753, 445	969, 564	10, 000	1, 677, 545	265, 475	888, 765	
Emerald Bank.....	3	3	32	193, 400	73, 000		121, 630	43, 600	500	
La Have Bank.....	23	39	432	588, 830	525, 790	4, 200	1, 255, 615	327, 140	140, 990	
Roseway Bank.....	2	2	25	22, 000	42, 200		33, 800	3, 600	3, 550	
Browns Bank.....	130	423	5, 301	5, 333, 491	3, 942, 679	12, 636	14, 437, 220	3, 604, 670	853, 685	1, 980
Area XXII:										
Bay of Fundy.....	2	3	17	3, 530	4, 875	565	45, 830	6, 220	11, 810	
Total.....	1 157	1, 459	18, 922	23, 392, 320	30, 237, 638	601, 253	64, 232, 419	26, 579, 386	3, 095, 682	5, 173
Off United States:										
Area XXII:										
Georges Bank.....	165	1, 040	10, 893	10, 879, 652	10, 422, 162	296, 780	32, 329, 940	20, 004, 010	880, 820	740
South Channel.....	109	332	2, 308	1, 528, 370	1, 452, 460	12, 750	7, 297, 130	2, 138, 845	374, 780	
Off Highland Light.....	32	126	745	34, 997	32, 363		216, 190	69, 630	42, 587	700
Off Chatham.....	71	277	923	41, 075	208, 615		276, 565	62, 240	5, 235	
Nantucket Shoals.....	29	31	195	7, 335	18, 740		97, 100	19, 400	4, 020	
Cashes Bank.....	31	103	613	409, 033	190, 853	3, 015	357, 208	26, 885	1, 161, 257	3, 577
Fippenies Bank.....	5	11	63	32, 805	16, 060	100	22, 725	3, 530	123, 250	
Platts Bank.....	7	12	29	12, 830	6, 850	330	17, 205	790	25, 350	
Jeffreys Ledge.....	10	16	61	30, 310	11, 860	260	25, 950	765	75, 760	
Middle Bank (Stellwagen).....	26	42	187	167, 475	116, 790		192, 620	43, 475	41, 805	
Shore, general.....	266	8, 352	15, 743	8, 082, 562	1, 281, 007	172, 696	2, 495, 257	297, 183	4, 007, 085	711, 01
Area XXIII:										
South.....	76	553	1, 802	24, 600	80, 310		125, 750	76, 200	29, 275	
Total.....	1 369	10, 895	33, 652	21, 251, 094	13, 833, 070	485, 931	43, 453, 640	22, 742, 953	6, 771, 224	716, 031
Grand total.....	1 382	12, 372	53, 264	44, 838, 549	44, 303, 488	1, 170, 017	107, 686, 059	49, 322, 339	9, 868, 956	721, 204

¹ Exclusive of duplication.

² Incidental catch.

Landings by fishing vessels at the three principal New England ports, 1935—Continued

SUMMARY BY FISHING GROUPS—Continued

Fishing grounds	Pollock		Cusk		Halibut		Mackerel		Flourishers		Swordfish		Walleye		Rockfish		Herring		Other		Total		
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Off Newfoundland:																							
Area XIX:																							
Bay of Islands			4,700		197,616																		290,620
Off Newfoundland (Treaty Coast)					10,714				300														19,989
Green Bank					86,401																		92,135
St. Peters Bank			4,700		294,731				300														3,28,216
Total																							494,795
Area XX:																							
Off Canada:																							
Area XIX:																							
Gulf of St. Lawrence			26,715		519,965																		4,298,121
Area XXI:																							
Queereau Bank			261,505		140,644			581,175		2,528			69,835		115,200								17,082,783
The Gully			3,783,560		731,217			3,612,515		8,896			1,064,920		307,499								38,665
Sable Island Bank (Western Bank)			78,870		14,626			86,900		5,065			1,490		1,240								102,146,279
Cape Shore			8,300		1,833			650															5,794,382
Emerald Bank			79,520		24,733			18,500							12,450								444,113
La Have Bank			4,200		810										18,735								3,282,448
Roseway Bank			1,166,849		233,243			400		481,810			278,050		134,555								118,882
Brown Bank																							32,557,300
Area XXII:																							
Bay of Fundy			420		451																		75,801
Total			5,383,254		1,668,341			88,690		1,712,225			1,579,219		1,473,295								165,848,771
Off United States:																							
Area XXII:																							
Georges Bank			4,031,367		320,750			2,959,223		415,053			293,510		888,189								165,997
South Channel			376,125		33,918			628,920		315			56,910		3,893,487								42,105
Off Highland Light			232,089		653			41,298					87,803		8,679,855								1,547
Off Chatham			4,225		240																		48,090
Nantucket Shoals			1,610		67			28,560		454					801,300								9,213,947
Cashes Bank			73,963		1,610			19,345		96,344					4,500								18,365
Fisheries Bank			3,020		1,062			4,395															3,264,384
Platts Bank			1,245		269										335								45
Jeffreys Ledger			3,215		2,268								145										90
Middle Bank (Stellwagen)			17,635		2,630			658,525		2,508			1,695		94,000								293,523
Shore, general			17,756,843		13,971			16,321,434		43,174			364,711		2,299,127								1,418,973
Area XXIII:																							
South			1,100		545			13,290,371		11,450			400		88,135								63,786,339
Total			22,502,437		3,470,035			40,842,446		9,689,107			567,010		16,540,793								14,126,778
Total			27,885,691		5,524,800			40,931,040		14,401,332			2,143,529		2,286,789								307,170,650
Total																							378,277,640

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 regions 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, 1935

Fishing grounds	January	February	March	April	May	June	July	August	September	October	November	December	Total
Off Newfoundland:													
Area XIX:													
Bay of Islands	174				38							96	308
Off Newfoundland (Treaty Coast)												30	30
Area XX:													
Grand Bank			69	186		20		22					297
Green Bank									6				6
St. Peters Bank		22	27										49
Total	174	22	96	186	38	20		22	6			126	690
Off Canada:													
Area XIX:													
Gulf of St. Lawrence						72	189	59	100	24		26	470
Area XXI:													
Quebec Bank	117				206	140	352	206	230	106	337	110	1,804
The Gully								75					75
Sable Island Bank (Western Bank)	1,511	1,308	1,474	1,110	996	475	235	431	353	360	148	464	8,865
Cape Shore	174	37		8	38	91	43	34	740	94	304	338	1,901
Emerald Bank				22									10
La Have Bank	5	52	49	111	54		12	10	50	84	5		432
Roseway Bank	15									10			25
Browns Bank	403	33	407	1,125	376	144	670	1,069	391	149	74	160	5,301
Area XXII:													
Bay of Fundy											17		17
Total	2,225	1,730	1,930	2,376	1,670	922	1,501	1,884	1,864	844	868	1,108	18,922
Off United States:													
Area XXII:													
Georges Bank	313	536	501	173	683	1,077	1,695	858	1,086	1,422	1,108	1,441	10,893
South Channel	61	30	108	38	176	307	386	436	319	351	167	16	2,398
Off Highland Light	19	24	7		32	4	68	103	113	251	109	15	745
Off Chatham			4	7	49	8	475	266	114				923
Nantucket Shoals						3	19	101	55	12	5		195
Cashes Bank	28	33	27	70	146	36	11	15	19	92	52	84	613
Eppenes Bank		18	4	5	21	5	10						63
Flatts Bank	10	14											29
Jeffrey's Ledge	10	16	1	21									61
Middle Bank (Stellwagen)	8	26	40	19	7	41	6	15		6	11	8	187
Shore, general	675	725	1,205	1,218	1,408	1,851	1,442	1,543	1,463	1,593	1,291	1,329	15,743
Area XXIII:													
South					289	401	3	269	500	234	72	34	1,802
Total	1,127	1,322	1,905	1,551	2,811	3,733	4,115	3,606	3,669	3,964	2,815	2,937	33,652
Grand total	3,526	3,174	3,931	4,113	4,519	4,675	5,616	5,512	5,539	4,805	3,683	4,171	53,264

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.

MACKEREL FISHERY OF THE ATLANTIC COAST ⁷

Unlike the previous 2 years, in 1935 the mackerel fleet operated without quota restrictions of any kind and landed 53,142,300 pounds of mackerel, an increase of 32 percent as compared with the corresponding statistics of the preceding year, and the largest catch to be recorded since 1885. An unusual feature of this year's activity was the catching of important quantities of mackerel in the waters off southern New England in the autumn.

Of the total landings, about 11,000,000 pounds consisted of tinker size (under one pound each) and 42,000,000 pounds were of larger sizes. Practically all of the tinker mackerel were taken after the first of August. There were also landed 4,050 pounds of bull's-eye mackerel and 97,052 pounds of frigate mackerel.

Mackerel fishery of the Atlantic coast, 1935

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)		Total
	Seiners	Netters	Seiners	Netters	Seiners	Netters	
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Apr. 6-10.....	32,000						32,000
Apr. 16-20.....	90,800	100					90,900
Apr. 21-25.....	475,600	113,700					589,300
Apr. 26-30.....	718,400	66,600					785,000
May 1-5.....	1,170,100						1,170,100
May 6-10.....	1,560,000	15,800					1,575,800
May 11-15.....	723,900	166,900					890,800
May 16-20.....	52,500	211,200					344,800
May 21-25.....		93,200					529,700
May 26-31.....	79,600	53,000	1,326,200	39,700			1,498,500
June 1-5.....		4,400	3,217,900	19,700	900		3,242,900
June 6-10.....			2,606,000	3,300		3,100	2,612,400
June 11-15.....			1,856,100	10,100	3,300	13,900	1,883,400
June 16-20.....			2,005,000	1,200	3,500		2,009,700
June 21-25.....			650,800		1,093,700		1,744,500
June 26-30.....					1,971,800		1,971,800
July 1-5.....					919,300	100	919,400
July 6-10.....					1,152,700	1,500	1,154,200
July 11-15.....					2,908,600	200	2,908,800
July 16-20.....					2,180,200		2,180,200
July 21-25.....					2,261,100		2,261,100
July 26-31.....					2,947,900		2,947,900
Aug. 1-5.....					1,353,900	100	1,354,000
Aug. 6-10.....					988,300		988,300
Aug. 11-15.....					1,865,300		1,865,300
Aug. 16-20.....					1,644,800		1,644,800
Aug. 21-25.....					550,900		550,900
Aug. 26-31.....			319,500		1,842,700	400	2,162,600
Sept. 1-5.....			402,600		1,561,000		1,963,600
Sept. 6-10.....			82,900		602,900		685,800
Sept. 11-15.....			4,000		586,300		590,300
Sept. 16-20.....			148,100		466,400		614,500
Sept. 21-25.....			393,700		333,400		727,100
Sept. 26-30.....			817,900		16,000		833,900
Oct. 1-5.....			568,100		193,000		761,100
Oct. 6-10.....			327,600		27,500		355,100
Oct. 11-15.....			55,500		7,000		63,500
Oct. 16-20.....			281,000		33,600	800	315,400
Oct. 21-25.....			759,200		5,600		764,800
Oct. 26-31.....			1,734,200		21,900		1,756,100
Nov. 1-5.....			282,700			2,500	285,200
Nov. 6-10.....			562,300			6,700	569,000
Nov. 11-15.....						5,100	5,100
Nov. 16-20.....			13,900			13,000	26,900
Nov. 21-25.....			121,700			74,700	196,400
Nov. 26-30.....			74,900			79,100	154,000

⁷ This section, prepared by O. E. Sette of the Division of Scientific Inquiry, includes the landings at Cape May and Wildwood, N. J.; New York, N. Y.; Newport, R. I.; New Bedford, Woods Hole, Provincetown, Boston, and Gloucester, Mass.; and Portland and Boothbay Harbor, Maine, by purse-seine vessels, "seiners", and drift-gill-net vessels, "netters"; and such boats as fish by the same methods and on the same grounds as the vessels. It does not include the catch of the smaller boats or the catch by other forms of gear.

Mackerel fishery of the Atlantic coast, 1935—Continued

CATCH: BY AREAS IN 5-DAY PERIODS—Continued

Date	Southern (area XXIII)		Block Island (area XXII, west of Nantucket Shoals)		Gulf of Maine (area XXII, north of Nantucket Shoals)		Total
	Seiners	Netters	Seiners	Netters	Seiners	Netters	
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Dec. 1-5.....			86,200			201,800	288,000
Dec. 6-10.....						10,700	10,700
Dec. 11-15.....						99,400	99,400
Dec. 16-20.....						143,800	143,800
Dec. 21-25.....						23,500	23,500
Total.....	4,902,900	724,900	19,190,100	100,500	27,543,500	680,400	53,142,300

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

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.....	34	1,411	436	242	4,589,600
Miscellaneous vessels.....	8	351	101	11	313,300
Netters:					
Regular vessels.....	12	248	83	76	632,900
Miscellaneous boats.....	16			26	92,000
Total.....	1 54	2,010	620	355	5,627,800
BLOCK ISLAND—AREA XXII (West of Nantucket Shoals only)					
Seiners:					
Spring:					
Regular vessels.....	53	2,043	658	356	11,834,300
Miscellaneous vessels.....	5	110	46	10	165,900
Miscellaneous boats.....	2			10	152,900
Fall:					
Regular vessels.....	33	1,354	423	345	6,566,300
Miscellaneous vessels.....	12	483	154	29	470,700
Netters:					
Spring:					
Miscellaneous vessels.....	10	160	60	22	91,500
Miscellaneous boats.....	2			4	9,000
Total.....	1 70	4,150	1,341	776	19,290,600
GULF OF MAINE—AREA XXII (North of Nantucket Shoals only)					
Seiners:					
Regular vessels.....	47	1,873	600	937	24,486,200
Miscellaneous vessels.....	35	582	271	263	2,769,300
Miscellaneous boats.....	12			37	288,000
Netters:					
Summer:					
Miscellaneous vessels.....	5	58	24	8	300
Miscellaneous boats.....	10			12	19,000
Fall:					
Regular vessels.....	21	487	153	175	620,700
Miscellaneous vessels.....	6	97	42	11	15,100
Miscellaneous boats.....	6			23	25,300
Total.....	1 99	3,097	1,090	1,466	28,223,900
Total seiners.....	1 82			2,240	51,636,500
Total netters.....	1 41			357	1,505,800
Grand total.....	1 108			2,597	53,142,300

1 Exclusive of duplication and of boats.

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)^a

The yield of the commercial fisheries of the Middle Atlantic States (New York, New Jersey, Pennsylvania, and Delaware), during 1935 amounted to 279,438,100 pounds, valued at \$6,415,664 to the fishermen, representing an increase of 65 percent in volume and 33 percent in value as compared with the catch in 1933, the most recent previous year for which catch statistics are available. These fisheries gave employment to 9,620 fishermen, as compared with 8,574 in 1933.

There were 408 fishery wholesale and manufacturing establishments in the 4 States in 1935 as compared with 398 in 1933 when the most recent previous survey was made. In 1935 these establishments employed 6,143 persons, paid \$6,666,507 in salaries and wages, and produced manufactured products (canned, cured, packaged, and byproducts), valued at \$13,441,812. In 1933 the wholesale and manufacturing firms employed 5,631 persons, paid \$6,085,981 in salaries and wages, and produced manufactured products valued at \$11,219,966.

Fisheries of the Middle Atlantic States, 1935

SUMMARY OF CATCH

Product	New York		New Jersey		Pennsylvania	
	Pounds	Value	Pounds	Value	Pounds	Value
Fish.....	71,294,600	\$1,213,121	89,393,300	\$1,345,298	31,000	\$5,660
Shellfish, etc.....	13,644,700	1,922,239	18,438,900	1,498,979		
Total.....	84,939,300	3,135,360	107,832,200	2,844,277	31,000	5,660

Product	Delaware		Total	
	Pounds	Value	Pounds	Value
Fish.....	85,038,700	\$339,993	245,727,600	\$2,904,072
Shellfish, etc.....	1,626,900	90,374	33,710,500	3,511,592
Total.....	86,665,600	430,367	279,438,100	6,415,664

OPERATING UNITS: BY STATES

Item	New York	New Jersey	Pennsylvania	Delaware	Total
Fishermen:					
On vessels.....	930	1,039		530	2,499
On boats and shore:					
Regular.....	1,219	1,391		32	2,642
Casual.....	2,213	1,870	41	355	4,479
Total.....	4,362	4,300	41	917	9,620
Vessels:					
Steam.....	4	3		12	19
Net tonnage.....	485	150		1,455	2,090
Motor.....	170	185		13	368
Net tonnage.....	2,579	3,026		229	5,834
Sail.....	2	2			4
Net tonnage.....	12	17			29
Total vessels.....	176	190		25	391
Total net tonnage.....	3,076	3,193		1,684	7,953

^a 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 whose principal fishing ports are in the area but at times fish 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. For a clearer understanding of the statistics published in this section, the reader is referred to the section in the latter part of this document entitled "Statistical survey procedure."

Fisheries of the Middle Atlantic States, 1935—Continued

OPERATING UNITS: BY STATES—Continued

Item	New York	New Jersey	Pennsylvania	Delaware	Total
Boats:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Motor.....	750	1,036		44	1,830
Other.....	1,498	1,605	10	138	3,251
Accessory boats.....	85	56		36	177
Apparatus:					
Purse seines:					
Mackerel.....	2				2
Length, yards.....	1,000				1,000
Menhaden.....	11	5		12	28
Length, yards.....	3,840	1,816		6,699	12,355
Other.....	3	5			8
Length, yards.....	910	1,820			2,730
Haul seines.....	81	108	10	61	260
Length, yards.....	11,901	9,203	1,955	17,955	41,014
Gill nets:					
Anchor.....	101	3			104
Square yards.....	39,670	2,500			42,170
Drift.....	151	891		40	1,082
Square yards.....	354,750	480,662		117,875	953,287
Runaround.....	35	60		13	108
Square yards.....	79,179	181,650		3,980	264,709
Stake.....	135	160		30	325
Square yards.....	36,920	38,038		13,020	87,978
Lines:					
Hand.....	159	600		28	787
Hooks and baits.....	159	894		44	1,097
Trawl.....	2,646	373			3,019
Hooks.....	185,900	233,400			419,300
Troll.....		451			451
Hooks.....		451			451
Trot with baits or snoods.....	58	16			74
Baits or snoods.....	37,400	13,215			50,615
Trot with hooks.....	14				14
Hooks.....	2,550				2,550
Pound nets.....	295	156		22	473
Weirs.....		104			104
Stop nets.....	1	56		11	68
Square yards.....	121	54,600		1,330	56,051
Fyke nets.....	526	872		257	1,655
Dip nets.....	140	45		64	249
Cast nets.....		3		1	4
Scap nets.....	198				198
Drag nets.....	1	22			23
Yards at mouth.....	2	44			46
Drop nets.....		15			15
Otter trawls:					
Fish.....	106	66		1	173
Yards at mouth.....	2,447	1,526		23	3,996
Shrimp.....	1	1			2
Yards at mouth.....	23	32			55
Wire baskets.....		25			25
Pots:					
Crab.....		10			10
Eel.....	3,287	1,717		345	5,349
Fish.....	300	8,191			8,491
Lobster.....	5,179	12,155		115	17,449
Harpoons.....	25				25
Spears.....	146	42			188
Dredges:					
Clam.....	12	38		18	68
Yards at mouth.....	10	40		19	69
Crab.....	2	47		12	61
Yards at mouth.....	4	51		14	69
Mussel.....	9				9
Yards at mouth.....	9				9
Oyster.....	112	220		14	346
Yards at mouth.....	167	265		17	449
Scallop.....	473	17			490
Yards at mouth.....	540	57			597
Tongs:					
Oyster.....	361	100			461
Other.....	1,198	842		2	2,042
Rakes:					
Oyster.....		23			23
Other.....	376	1,286			1,662
Forks:	534	14			548
Hoes:		201			201
Gaffs:		1			1

Fisheries of the Middle Atlantic States, 1935

CATCH: BY STATES

Species	New York		New Jersey		Pennsylvania		Delaware		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH										
Alewives	358,600	\$4,383	41,300	\$233			154,900	\$2,050	554,800	\$6,666
Bluefish	1,002,700	74,296	1,959,900	117,649			13,800	1,113	2,976,400	193,058
Bonito	207,300	6,155	93,600	3,254			100	2	301,000	9,411
Butterfish	2,817,800	120,150	3,619,200	146,132			600	24	6,437,600	266,306
Carp	185,100	14,006	233,700	16,385	5,100	\$408	70,200	5,095	494,100	35,894
Catfish and bullheads	26,900	3,401	45,300	2,710			48,400	1,735	120,600	7,846
Cod	1,037,500	54,756	818,500	29,387					1,856,000	84,143
Crevalle			900	9					900	9
Croaker	84,200	1,336	7,367,000	118,730			590,800	7,538	8,042,000	127,604
Cunners			3,400	34					3,400	34
Drum:										
Black			9,300	101					9,300	101
Red or redfish			39,100	895			100	2	39,200	897
Eels:										
Common	313,200	41,685	250,500	20,914			54,900	6,081	618,600	68,680
Conger	4,000	99	16,400	405			300	4	20,700	508
Flounders	5,978,800	309,731	3,248,500	203,155			24,200	1,104	9,251,500	513,990
Frigate mackerel	49,200	862	108,500	1,272					157,700	2,134
Gizzard shad							1,600	45	1,600	45
Goosefish	58,100	1,126	13,100	65					71,200	1,191
Grayfish	68,900	1,002	44,600	891			2,000	160	115,500	2,053
Groupers			2,500	99					2,500	99
Haddock	1,323,000	60,749							1,323,000	60,749
Hake	170,400	4,389	33,700	637			5,000	28	209,100	5,054
Herring, sea	75,200	1,457	258,600	1,745					333,800	3,202
Hickory shad	1,000	24	2,500	25					3,500	49
Kingfish or "king mackerel"			13,000	533					13,000	533
King whiting or "kingfish"	23,800	2,338	46,200	2,451			700	23	70,700	4,812
Lance			1,900	254					1,900	254
Mackerel	1,510,900	40,868	1,570,800	50,376					3,081,700	91,244
Menhaden	46,390,700	89,387	49,757,700	92,623			83,454,600	292,091	179,603,000	474,101
Mullet			21,000	1,634			78,500	2,276	99,500	3,910
Mummichog	4,200	370	9,000	746					13,200	1,116
Pigfish			100	2					100	2
Pike or pickerel	100	6							100	6
Pollock	17,300	569	4,300	106					21,600	675
Pompano			4,100	1,230					4,100	1,230
Scup or porgy							12,200	205	7,095,500	134,786
Sea bass	1,898,300	47,288	5,185,000	87,292			21,900	548	2,089,100	106,104
Sea robin	411,700	29,243	1,655,500	76,313					2,089,100	106,104
Sea trout	48,500	1,298	45,100	460					91,600	1,758
Shad	476,000	39,563	818,000	83,687	10,200	3,996	24,700	4,544	1,328,900	131,790
Sharks	2,300	59	42,400	738					44,700	797

Silversides.....	68,400	2,675	1,200	600					69,600	3,278
Skates.....	47,700	836	84,200	646					131,900	1,482
Snapper, red.....			15,300	1,144					15,300	1,144
Spanish mackerel.....			23,600	1,723					23,600	1,723
Spot.....			17,700	538			1,500	75	19,200	613
Squeteagues or "sea trout":										
Gray.....	1,639,700	80,749	8,072,200	228,713			428,100	11,299	10,140,000	320,761
Spotted.....			2,700	120					2,700	120
Squirrel hake.....			25,100	2 ⁵³					25,100	253
Striped bass.....	37,100	4,781	7,700	1,247			16,700	2,207	61,500	8,235
Sturgeon.....	7,800	1,550	11,500	1,690			500	187	19,800	3,427
Suckers.....	18,800	1,325	54,000	3,324	15,700	1,256	600	18	89,100	5,923
Sunfish.....	1,000	59							1,000	59
Swellfish.....	5,000	250							5,000	250
Swordfish.....	42,600	8,850							42,600	8,850
Tautog.....	17,700	770	24,400	647			1,000	20	43,100	1,437
Thimble-eyed mackerel.....	600	6	244,600	3,526					245,200	3,532
Tilefish.....	2,494,200	94,100	100	6					2,494,300	94,106
Tomcod.....	7,300	131							7,300	131
Tuna or "horse mackerel" ¹	6,100	350	18,000	793					24,100	1,143
Whitebait.....	9,100	1,035							9,100	1,035
White perch.....	55,900	2,798	35,200	3,038			22,000	1,203	113,100	7,039
Whiting.....	2,284,000	61,794	3,340,100	33,937			5,000	32	5,629,100	95,763
Yellow perch.....	7,900	466	1,500	180			3,800	284	13,200	930
Total.....	71,294,600	1,213,121	89,363,300	1,345,298	31,000	5,660	85,038,700	339,993	245,727,600	2,904,072
SHELLFISH, ETC.										
Crabs:										
Hard.....	464,300	13,767	481,000	20,617			351,900	5,886	1,297,200	40,270
King.....			2,633,300	8,521			502,000	753	3,135,300	9,274
Soft and peelers.....	125,200	25,720	205,500	67,686			59,300	13,237	390,000	106,643
Lobsters.....	420,500	87,167	218,800	50,754			4,100	1,025	643,400	138,946
Shrimp.....	84,700	3,827	109,300	9,367					194,000	13,194
Clams:										
Hard, public ¹	1,524,700	258,665	3,326,600	479,122			38,900	4,910	4,890,200	742,697
Hard, private ¹	120,000	22,155	136,900	21,162			69,500	8,110	326,400	51,427
Soft, public ²	770,600	71,691	1,055,900	69,878					1,826,500	141,569
Soft, private ²	8,000	1,000							8,000	1,000
Surf or skimmer.....	523,300	22,825	313,900	13,829					837,200	36,654
Conchs.....	8,600	955							8,600	955
Mussels, sea.....	82,500	4,629	2,900	90			13,000	1,000	98,400	5,719
Oysters:³										
Market, public, spring.....	119,700	17,165	10,400	1,860					130,100	19,025
Market, public, fall.....	209,200	30,387	6,400	1,110					215,600	31,497
Market, private, spring.....	2,039,500	342,130	4,110,400	340,015					6,149,900	682,145
Market, private, fall.....	3,398,700	579,605	4,335,000	360,744			581,400	54,989	8,315,100	995,338

¹ Statistics on hard clams are based on yields of 8 pounds of meats to the bushel in New York, 9.76 pounds in New Jersey, and 10 pounds in Delaware.² Statistics on soft clams are based on yields of 16 pounds of meats to the bushel in New York, and 20 pounds in New Jersey.³ Statistics on oysters are based on yields of 7 pounds of meats to the bushel in New York, 8.91 pounds in New Jersey, and 7 pounds in Delaware.

Fisheries of the Middle Atlantic States, 1935—Continued

CATCH: BY STATES—Continued

Species	New York		New Jersey		Pennsylvania		Delaware		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
SHELLFISH, ETC.—continued										
Scallops:										
Bay	106,700	\$35,593							106,700	\$35,593
Sea	2,213,500	318,768	426,600	\$25,316					2,640,100	344,084
Squid	1,371,200	39,265	1,050,400	28,081			1,400	\$21	2,423,000	67,367
Turtles:										
Green			3,900	47					3,900	47
Hawksbill			200	2					200	2
Loggerhead			3,900	69					3,900	69
Snapper			7,200	374			5,400	443	12,600	817
Bloodworms	24,300	20,125	100	94					24,400	20,219
Sandworms	29,500	26,800	300	241					29,800	27,041
Total	13,644,700	1,922,239	18,438,900	1,498,979			1,626,900	90,374	33,710,500	3,511,592
Grand total	84,939,300	3,135,360	107,802,200	2,844,277	31,000	\$5,660	86,665,600	430,367	279,438,100	6,415,664

NOTE.—Of the total catch in New York, 7,200 pounds of shrimp, valued at \$727, were taken off Florida, and 131,200 pounds of fishery products, valued at \$5,932, were taken in the southern trawl fishery off southern New Jersey, Maryland, Virginia, and North Carolina. Of the total catch in New Jersey, 46,800 pounds of bluefish, valued at \$3,144; 4,100 pounds of pompano, valued at \$1,230; 15,000 pounds of Spanish mackerel, valued at \$1,200; 2,700 pounds of spotted squeteagues, valued at \$120; and 95,000 pounds of shrimp, valued at \$6,760, were taken off Florida while 2,520,800 pounds of fishery products, valued at \$90,727, were taken in the southern trawl fishery. Of the total catch in Delaware 220,500 pounds of fishery products, valued at \$5,007, were taken in the southern trawl fishery. The products of the southern trawl fishery consist principally of butterfish, croaker, flounders, scup, sea bass, gray squeteagues, and whiting.

SUPPLEMENTARY TABLE SHOWING THE 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.....	1,392,900	\$13,767	1,443,000	\$20,617	1,055,700	\$5,896	3,891,600	\$40,270
King.....do.....			658,325	8,521	125,500	753	783,825	9,274
Soft and peelers.....do.....	500,800	25,720	822,000	67,686	237,290	13,237	1,560,000	106,643
Clams:								
Hard, public.....bushels.....	190,588	358,865	340,840	479,122	3,890	4,910	535,318	742,697
Hard, private.....do.....	15,000	22,155	14,027	21,162	6,950	8,110	35,977	51,427
Soft, public.....do.....	48,162	71,691	52,795	69,878			100,957	141,569
Soft, private.....do.....	500	1,000					500	1,000
Surf or skimmer.....do.....	43,608	22,825	25,112	13,829			68,720	36,664
Conchs:.....do.....	478	955					478	955
Mussels, sea:.....do.....	8,250	4,629	223	90	1,000	1,000	9,473	5,719
Oysters:								
Market, public, spring.....do.....	17,100	17,165	1,167	1,860			18,267	19,025
Market, public, fall.....do.....	29,886	30,387	718	1,110			30,604	31,497
Market, private, spring.....do.....	291,357	342,130	461,324	340,015			752,681	682,145
Market, private, fall.....do.....	485,529	579,605	486,532	360,744	83,057	54,989	1,055,118	995,338
Scallops:								
Bay.....do.....	21,340	35,593					21,340	35,593
Sea.....do.....	368,917	318,768	72,551	25,316			441,468	344,084

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.....	22		1,108		21		1,151	
On boats and shore:								
Regular.....	7		67				74	
Casual.....			98		56		154	
Total.....	29		1,273		77		1,379	
Vessels:								
Motor.....	5						5	
Net tonnage.....	85						85	
Sail.....			106		3		109	
Net tonnage.....			2,207		39		2,246	
Total vessels.....	5		106		3		114	
Total net tonnage.....	85		2,207		39		2,331	
Boats:								
Motor.....	4		68		1		73	
Other.....	1		90		54		145	
Apparatus:								
Dredges.....	10		214		6		230	
Yards at mouth.....	14		262		7		283	
Tongs.....			146		56		202	
Rakes.....	7		18				25	
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.....	1,240	\$496	827,065	\$284,446	85,200	\$18,012	913,505	\$302,954
Seed, public, fall.....			24,465	6,502			24,465	6,502
Seed, private, spring.....	29,984	18,292	675	120			30,659	18,412
Seed, private, fall.....	10,540	10,005	675	123			11,215	10,128
Total.....	41,764	28,793	852,880	291,191	85,200	18,012	979,844	337,996

NOTE.—Of the total number of persons fishing for seed oysters, 1,260 are duplicated among those fishing for market oysters or other species. Similarly the following craft and gear are duplicated: 81 vessels, 33 motor boats, 19 other boats, 164 dredges, 34 tongs, and 8 rakes.

Industries related to the fisheries of the Middle Atlantic States, 1935

OPERATING UNITS, SALARIES, AND WAGES

Item	New York	New Jersey	Pennsylvania	Delaware	Total
Transporting:					
Persons engaged:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	60	9			69
On boats.....	2	70			72
Total.....	62	79			141
Vessels, motor.....	19	4			23
Net tonnage.....	307	71			378
Boats.....	2	61			63
Wholesale and manufacturing:					
Establishments.....	221	123	47	17	408
Persons engaged:					
Proprietors.....	131	113	44	14	302
Salaried employees.....	787	146	110	28	1,071
Wage earners:					
Average for season.....	2,487	1,422	371	490	4,770
Average for year.....	2,097	892	319	177	3,485
Paid to salaried employees.....	\$2,057,758	\$305,516	\$217,826	\$23,946	\$2,605,046
Paid to wage earners.....	\$2,869,058	\$786,618	\$314,788	\$90,997	\$4,061,461
Total salaries and wages.....	\$4,926,816	\$1,092,134	\$532,614	\$114,943	\$6,666,507
Fishermen manufacturing.....	485	73			558

PRODUCTS MANUFACTURED

Item	New York		New Jersey		Pennsylvania		Delaware	
	<i>Quantity</i>	<i>Value</i>	<i>Quantity</i>	<i>Value</i>	<i>Quantity</i>	<i>Value</i>	<i>Quantity</i>	<i>Value</i>
By manufacturing establishments:								
Buffalofish, smoked.....	854,600	\$215,950						
Butterfish, smoked.....	581,900	150,129	73,176	\$22,363	(1)	(1)		
Carp, smoked.....			54,678	21,097				
Cisco, chubs, and tullibee, smoked.....	3,405,700	1,013,710	198,247	75,389	(1)	(1)		
Cod, fresh fillets.....	2,845,000	390,830	(1)	(1)				
Flounders, fresh fillets.....								
.....pounds.....	1,287,000	224,980	(1)	(1)				
Haddock, fresh fillets.....	2,373,000	319,610	(1)	(1)				
Hake, fresh fillets.....	105,200	13,450	(1)	(1)				
Herring, sea, kippered.....								
.....pounds.....	146,600	19,140			(1)	(1)		
Lake trout, smoked.....	205,400	64,601	(1)	(1)	(1)	(1)		
Mackerel, smoked.....	446,900	66,427	10,644	2,301	(1)	(1)		
Pollock, fresh fillets.....	145,100	17,010						
Paddlefish or spoonbill cat, smoked.....	312,000	128,945						
Salmon:								
Smoked.....	6,319,600	1,863,699	382,909	130,273	(1)	(1)		
Kipperd.....	349,250	104,900	55,885	220,15	(1)	(1)		
Roe, canned.....								
.....standard cases.....	986	23,294						
Shad, smoked.....	78,200	16,038	(1)	(1)	(1)	(1)		
Sturgeon:								
Smoked.....	1,252,900	846,700	(1)	(1)	(1)	(1)		
Caviar, canned.....								
.....standard cases.....	2,832	389,063						
Whitefish:								
Smoked.....	1,505,100	450,246	166,927	54,267	(1)	(1)		
Caviar, canned.....								
.....standard cases.....	367	11,264						

¹ The production of this item is included under "Unclassified products."

Industries related to the fisheries of the Middle Atlantic States, 1935—Continued

PRODUCTS MANUFACTURED—Continued

Item	New York		New Jersey		Pennsylvania		Delaware	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
By manufacturing establishments—Continued.								
Crab, king, scrap and meal tons			187	\$4,744			(1)	(1)
Clams:								
Hard, fresh shucked gallons			(1)	(1)	3,750	\$7,500		
Soft, fresh shucked gallons			16,400	16,190				
Marine-shell products:								
Buttons..... gross	1,054,838	\$546,251	1,518,690	1,065,039	512,741	255,069		
Novelties..... gross		61,690		152,564				
Oysters, fresh shucked gallons	473,588	744,472	424,796	729,309	72,825	144,214	20,600	\$26,100
Oyster-shell products:								
Poultry feed..... tons			7,395	55,230	4,236	35,212	(1)	(1)
Lime..... do			3,012	13,868	911	3,412	(1)	(1)
Unclassified products:								
Fillets, fresh and frozen pounds	2 88,000	2 19,890	(3)	(3)				
Smoked..... do	(3)	(3)	4 263,114	4 151,209	(3)	(3)		
Canned standard cases	5 14,660	5 155,407	(3)	(3)				
Miscellaneous		6 566,923		7 1,032,726		8 369,713		9 638,454
Total		8,424,619		3,548,584		815,120		664,554
By fishermen:								
Eels, smoked..... pounds	17,600	5,640	2,700	820				
Herring, sea, smoked do			4,000	160				
Mackerel, smoked do			400	40				
Whiting, smoked do			350	35				
Scallops:								
Bay, fresh shucked gallons	14,506	43,433						
Sea, fresh shucked gallons	229,203	271,328	46,799	51,349				
Crab meat, packaged, fresh cooked..... pounds			417	313				
King crab scrap..... tons			232	5,623				
Total		320,401		58,340				
Grand total		8,745,020		3,606,924		815,120		664,554

¹ The production of this item is included under "Unclassified producers."

² Includes fresh fillets of bluefish, halibut, mackerel, salmon, and wolffish.

³ This has been included under "Miscellaneous."

⁴ Includes smoked bluefish, cod, cod fillets and steaks, eels, flounders, goosfish, haddock, lake trout, shad, sturgeon, and sea herring (bloaters).

⁵ Includes canned pickled eels, fish paste, clam products, pickled sea mussels, and terrapin, and turtle products.

⁶ Includes smoked eels; halibut and swordfish liver oil; menhaden products; miscellaneous fish meal; and mussel-shell products.

⁷ Includes fresh fillets of cod, flounders, haddock, and hake; canned oysters and clam products; salted boneless cod; fresh-shucked hard clams; menhaden products; and mussel-shell buttons.

⁸ Includes smoked butterfish, chubs, haddock fillets, finnan haddie, sea herring (bloaters and kippers), lake trout, mackerel, salmon, shad, sturgeon, and whitefish; kippered salmon and shad; and miscellaneous fish scrap.

⁹ Includes oyster-shell products, king crab scrap and meal, and menhaden products.

NOTE.—The total value of the manufactured products for the Middle Atlantic States was as follows: By manufacturing establishments, \$13,452,877; and by fishermen, \$378,741. Some of the above products may have been manufactured from fishery products imported from another State or a foreign country; therefore, they cannot be correlated directly with the catch within the State. Of the total number of persons engaged on transporting craft, 125 have been included as fishermen, and among the total number of persons engaged in the preparation of fishermen's prepared products, 552 have been included as fishermen.

NEW YORK

Fisheries of New York, 1935

OPERATING UNITS: BY GEAR

Item	Purse seines			Haul seines	Gill nets				Lines Hand
	Mack-erel	Men-haden	Other		Anchor	Drift	Run-around	Stake	
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number	Number
On vessels.....	16	237	16				19		123
On boats and shore:				58	41	66	85	11	37
Regular.....			3	96	62	207	4	71	3
Casual.....									
Total.....	16	237	19	154	103	273	78	82	163
Vessels:									
Steam.....		4							
Net tonnage.....		485							
Motor.....	2	7	2				4		16
Net tonnage.....	65	159	41				45		249
Total vessels.....	2	11	2				4		16
Total net tonnage.....	65	644	41				45		249
Boats:				13	13	7	30		19
Motor.....				80	65	133	2	48	7
Other.....			1						
Accessory boats.....	2	22	2						24
Apparatus:									
Number.....	2	11	3	81	101	151	35	135	150
Length, yards.....	1,000	3,840	910	11,901					
Square yards.....					39,670	3,4750	79,179	36,920	
Hooks, baits, or snoods.....									150

Item	Lines—Continued								
	Trawl	Trot with baits or snoods	Trot with hooks	Pound nets	Stop nets	Fyke nets	Dip nets	Scap nets	Drag nets
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number	Number
On vessels.....	90								
On boats and shore:									
Regular.....	57	16	3	140	2	24	80	4	1
Casual.....	4	43	11	14		58	60	194	
Total.....	151	59	14	154	2	92	140	198	1
Vessels, motor.....	9								
Net tonnage.....	175								
Boats:									
Motor.....	31	5		32		6	35		1
Other.....	1	54	14	121	1	70	90	198	
Accessory boats.....	55								
Apparatus:									
Number.....	2,646	58	14	295	1	526	140	198	1
Square yards.....					121				
Yards at mouth.....									2
Hooks, baits, or snoods.....	185,900	37,400	2,550						

Fisheries of New York, 1935—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Otter trawls		Pots			Harpoons	Spears	Dredges	
	Fish	Shrimp	Eel	Fish	Lobster			Clam	Crab
	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:									
On vessels.....	226		2		3	29		12	3
On boats and shore:									
Regular.....	82	2	62	24	126	27	66	11	
Casual.....	2		37		22	2	80		
Total	310	2	101	24	151	58	146	23	3
Vessels, motor	62				1	1		6	1
Net tonnage.....	877				8	10		63	13
Boats:									
Motor.....	44	1	25	12	85	14	2	6	
Other.....			63		17	1	15		
Accessory boats						3			
Apparatus:									
Number.....	106	1	3,287	300	5,179	25	146	12	2
Yards at mouth.....	2,447	23						10	4

Item	Dredges—Continued			Tongs		Rakes, other than for oysters	Forks	By hand, other than for oysters	Total, exclusive of duplication
	Mussel	Oyster	Scallop	Oyster	Other				
	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:									
On vessels.....	3	175	206	37	64				930
On boats and shore:									
Regular.....	10	37	82	192	409	149	240	27	1,219
Casual.....			360	132	744	289	294	18	2,213
Total	13	212	648	361	1,217	438	534	45	4,362
Vessels:									
Steam.....									4
Net tonnage.....									485
Motor.....	1	36	32	11	9				170
Net tonnage.....	13	647	610	61	69				2,579
Sail.....			2						2
Net tonnage.....			12						12
Total vessels	1	36	34	11	9				176
Total net tonnage	13	647	622	61	69				3,076
Boats:									
Motor.....	6	17	1	131	383	154			750
Other.....			235	84	419	143	1		1,498
Accessory boats									85
Apparatus:									
Number.....	9	112	473	361	1,198	376	534		
Yards at mouth.....	9	167	540						

Fisheries of New York, 1935—Continued

CATCH: BY GEAR

Species	Purse seines						Haul seines		Gill nets	
	Mackerel		Menhaden		Other				Anchor	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....							154,700	\$1,420	2,600	\$44
Bluefish.....							200	18	28,800	2,701
Butterfish.....					200	\$10			300	21
Carp.....							54,100	3,919	1,300	102
Catfish and bullheads.....							4,400	595		
Croaker.....						1,500	14		300	10
Eels, common.....							17,700	1,452		
Flounders.....							15,000	300		
King whiting or "kingfish".....							1,700	234	200	36
Mackerel.....	74,000	\$1,820			5,000	150			1,500	150
Menhaden.....			45,992,800	\$88,217						
Mummichog.....							1,000	115		
Scup or porgy.....					100,600	772	31,500	1,083	1,200	36
Sea bass.....					800	21				
Shad.....							10,200	874	9,300	773
Sharks.....									500	18
Silversides.....							68,400	2,675		
Squeteagues or "sea trout", gray.....					315,800	3,830	119,800	7,870	28,300	1,893
Striped bass.....							8,300	1,064	5,300	973
Sturgeon.....							100	20	4,600	1,079
Suckers.....							2,600	171	200	15
Thumble-eyed mackerel.....					600	6				
Whitebait.....							9,100	1,035		
White perch.....							200	15	21,400	1,100
Yellow perch.....							300	21	4,500	237
Crabs, hard.....							4,000	150		
Total.....	73,000	1,820	45,992,800	88,217	424,500	4,803	503,300	23,031	110,000	9,188

Species	Gill nets—Continued						Lines			
	Drift		Runaround		Stake		Hand		Trawl	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	39,300	\$624			600	\$8				
Bluefish.....			148,200	\$10,669			695,600	\$50,131		
Butterfish.....			17,900	1,152						
Carp.....	27,000	2,171			60,200	4,231				
Catfish and bullheads.....	600	28			600	60				
Cod.....							2,000	154	340,400	\$19,647
Flounders.....							1,000	40		
Haddock.....									300	15
Herring, sea.....			200	6						
King whiting or "kingfish".....										
Mackerel.....	59,500	1,835	27,000	700			100	10		
Pollock.....							4,500	175		
Scup or porgy.....							10,900	425	5,000	100
Sea bass.....							7,600	246		
Shad.....	424,000	35,658			2,000	184	19,400	2,014		
Squeteagues or "sea trout", gray.....			129,700	7,588						
Striped bass.....	5,400	720	300	30	4,600	673	13,300	1,272	11,000	870
Sturgeon.....	400	64			2,000	255				
Suckers.....	100	6			1,600	126				
Tautog.....							300	12		
Tilefish.....									2,494,200	94,100
White perch.....	2,200	61			23,900	1,065				
Yellow perch.....	2,300	129			200	20				
Crabs, hard.....							3,000	187		
Total.....	560,800	41,296	323,300	20,145	95,700	6,822	727,700	54,666	2,850,900	114,732

Fisheries of New York, 1935—Continued

CATCH: BY GEAR—Continued

Species	Lines—Continued				Pound nets		Stop nets		Fyke nets	
	Trot with baits or snoods		Trot with hooks							
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....					600	\$15			77,200	\$665
Bluefish.....					159,800	10,737				
Bonito.....					207,300	6,155				
Butterfish.....					2,605,400	106,345				
Carp.....			200	\$12			4,800	\$384	11,000	975
Catfish and bullheads.....			200	23					20,300	2,599
Cod.....					1,800	104				
Croaker.....					200	7				
Eels:										
Common.....			1,200	148	69,000	12,276			9,700	1,189
Conger.....					2,500	75				
Flounders.....					192,300	10,175			80,000	2,460
Frigate mackerel.....					49,200	862				
Grayfish.....					3,800	95				
Herring, sea.....					22,800	567				
Hickory shad.....					1,000	24				
King whiting or "king-fish".....					17,300	1,823				
Mackerel.....					1,340,100	36,017				
Menhaden.....					397,900	1,170				
Pike or pickerel.....									100	6
Pollock.....					1,400	44				
Scup or porgy.....					874,900	21,363				
Sea bass.....					59,900	6,381				
Sea robin.....					16,500	613				
Shad.....					21,900	1,412	800	60	5,500	475
Sharks.....					1,300	36				
Skates.....					5,600	70				
Squeteagues or "sea trout", gray.....					1,000,900	56,250				
Striped bass.....					12,900	1,267			300	54
Sturgeon.....					400	96				
Suckers.....									8,800	683
Sunfish.....									1,000	59
Swellfish.....					5,000	250				
Tautog.....					17,200	720			200	33
Tomcod.....									7,300	131
Tuna or "horse mackerel".....					6,100	350				
White perch.....									7,300	508
Whiting.....					263,500	7,711				
Yellow perch.....									500	50
Crabs, hard.....	377,600	\$10,870			24,600	622			900	23
Squid.....					941,800	23,100				
Total.....	377,600	10,870	1,600	183	8,324,900	306,732	5,600	444	230,100	9,916

Fisheries of New York, 1935—Continued

CATCH: BY GEAR—Continued

Species	Dip nets		Scap nets		Drug nets		Otter trawls			
	Pounds	Value	Pounds	Value	Pounds	Value	Fish		Shrimp	
							Pounds	Value	Pounds	Value
Alewives.....			83,600	\$1,607						
Bluefish.....							400	\$40		
Butterfish.....							194,000	12,622		
Carp.....			26,500	2,211						
Catfish and bullheads.....			800	90						
Cod.....							693,300	34,851		
Croaker.....							82,200	1,308		
Eels, conger.....							1,500	24		
Flounders.....							5,690,500	296,756		
Gooselish.....							58,100	1,126		
Grayfish.....							65,100	907		
Haddock.....							1,322,700	60,734		
Hake.....							170,400	4,389		
Herring, sea.....							52,200	894		
King whiting or "king-fish".....							4,500	235		
Mackerel.....							300	21		
Scup or porgy.....							882,500	23,789		
Sea bass.....							209,100	14,749		
Sea robin.....							30,000	685		
Shad.....			2,300	127						
Sharks.....							500	5		
Skates.....							42,100	766		
Squeteagues or "sea trout", gray.....										
Sturgeon.....							20,900	1,176		
Suckers.....			5,500	321			300	36		
White perch.....			900	49						
Whiting.....							2,020,500	54,083		
Yellow perch.....			100	9						
Crabs:										
Hard.....	51,000	\$1,815								
Soft and peelers.....	125,200	25,720								
Lobsters.....							2,300	343		
Shrimp.....					2,500	\$500	7,200	727	75,000	\$2,600
Conchs.....							5,000	555		
Scallops, sea.....							1,000	200		
Squid.....							429,400	16,165		
Total.....	176,200	27,535	119,700	4,423	2,500	500	11,936,000	527,172	75,000	2,600

Species	Pots						Harpoons		Spears	
	Eel		Fish		Lobster		Pounds	Value	Pounds	Value
	Pounds	Value	Pounds	Value	Pounds	Value				
Eels, common.....	133,700	\$12,447							49,900	\$7,133
Mummichog.....	3,200	255								
Sea bass.....			88,800	\$4,525	33,700	\$1,553				
Swordfish.....							42,600	\$8,850		
Lobsters.....			8,300	2,075	409,900	84,749				
Total.....	136,900	12,702	97,100	6,600	443,600	86,302	42,600	8,850	49,900	7,133

Fisheries of New York, 1935—Continued

CATCH: BY GEAR—Continued

Species	Dredges									
	Clam		Crab		Mussel		Oyster		Scallop	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Crabs, hard.....			3,200	\$100						
Clams, surf or skimmer.....	499,200	\$20,800								
Conchs.....	3,600	400								
Mussels, sea.....					49,800	\$3,000				
Oysters:										
Market, private, spring.....							1,990,500	\$334,930		
Market, private, fall.....							3,298,000	564,750		
Scallops:										
Bay.....									106,700	\$35,593
Sea.....									2,212,500	\$18,568
Total.....	502,800	21,200	3,200	100	49,800	3,000	5,288,500	899,680	2,319,200	354,161

Species	Tongs		Rakes		Forks		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Eels, common.....			32,000	\$7,040				
Clams:								
Hard, public.....	1,287,500	\$217,335	237,200	41,330				
Hard, private.....	120,000	22,155						
Soft, public.....			303,200	28,260	467,400	\$43,431		
Soft, private.....					8,000	1,000		
Surf or skimmer.....	24,100	2,025						
Mussels, sea.....							32,700	\$1,629
Oysters:								
Market, public, spring.....	119,700	17,165						
Market, public, fall.....	209,200	30,387						
Market, private, spring.....	49,000	7,200						
Market, private, fall.....	100,700	14,855						
Bloodworms.....					24,300	20,125		
Sandworms.....					29,500	26,800		
Total.....	1,910,200	311,122	572,400	76,630	529,200	91,356	32,700	1,629

Fisheries of New York, 1935—Continued

OPERATING UNITS: BY COUNTIES

Item	Al-bany	Co-lumbia	Dutch-ess	Greene	Kings	Nassau	New York	Orange	Put-nam	Rensse-laer	Rich-mond	Rock-land	Suf-folk	Ulster	West-chester
	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:															
On vessels.....					255	57	85				11		522		
On boats and shore:															
Regular.....		6	9	6	111	236		2				10	801	20	18
Casual.....	10	64	109	47	29	410		31	3	19		72	1,167	178	74
Total.....	10	70	118	53	395	703	85	33	3	19	11	82	2,490	198	92
Vessels:															
Steam.....													4		
Net tonnage.....													485		
Motor.....					51	14	10				3		92		
Net tonnage.....					790	217	319				34		1,219		
Sail.....													2		
Net tonnage.....													12		
Total vessels.....					51	14	10				3		98		
Total net tonnage.....					790	217	319				34		1,716		
Boats:															
Motor.....					52	173							525		
Other.....	8	56	91	37	18	261		24	2	13		48	749	131	60
Accessory boats.....					28	1	34					22			
Apparatus:															
Purse seines:															
Mackerel.....					1		1								
Length, yards.....					500		500								
Menhaden.....													11		
Length, yards.....													3,840		
Other.....					1	1							1		
Length, yards.....					400	300							210		
Haul seines.....	2	5	9	6	2	6		5		5		3	26	10	2
Length, yards.....	96	590	962	1,175	19	200		700		542		292	5,404	1,622	299
Gill nets:															
Anchor.....				6									32	48	1
Square yards.....			2,075										4,215	32,130	50
Drift.....		8	23	2		6		7	1	1		17	4	61	21
Square yards.....		12,000	52,000	2,400		44,500		15,200	2,200	2,000		42,200	1,600	122,150	58,500
Runaround.....					1	21									
Square yards.....					8,000	53,200							17,979		
Stake.....		4		10								2		12	107
Square yards.....		9,550		16,930								970		6,600	3,050

Fisheries of New York, 1935—Continued

CATCH: BY COUNTIES

Species	Albany		Columbia		Dutchess		Greene	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	7,800	\$157	43,700	\$782	42,960	\$790	5,200	\$102
Carp.....	4,100	234	14,900	967	14,200	1,217	40,400	2,906
Catfish and bullheads.....	1,300	157	7,400	1,040	4,900	573	2,100	229
Eels, common.....			400	41	100	9	400	33
Shad.....			23,200	1,324	105,500	7,556	5,200	360
Striped bass.....					100	11	800	80
Sturgeon.....			100	28	1,800	450		
Suckers.....	2,600	117	5,100	359	2,400	174	800	54
Sunfish.....					800	44		
White perch.....			1,600	151	3,700	253		
Yellow perch.....					100	9		
Total.....	15,800	605	90,400	4,692	176,500	11,056	54,900	3,764

Species	Kings		Nassau		New York		
	Pounds	Value	Pounds	Value	Pounds	Value	
Bluefish.....	426,200	\$31,070	111,100	\$7,369	174,600	\$13,800	
Bonito.....			20,400	770			
Butterfish.....	74,800	4,657	267,000	12,632	35,100	2,208	
Cod.....	373,000	19,324	272,500	11,276	25,000	1,250	
Croaker.....	2,300	23					
Eels.....							
Common.....	30,000	7,810	48,500	5,585			
Conger.....	1,400	22			100	2	
Flounders.....	2,874,300	148,263	712,800	40,038	267,000	12,944	
Frigate mackerel.....			17,600	308			
Goosefish.....	58,000	1,121					
Grayfish.....	60,000	825	3,900	48			
Haddock.....	366,700	16,838	300,000	13,700	25,000	1,150	
Hake.....	168,200	4,326					
Herring, sea.....	50,000	840					
Mackerel.....	19,300	1,271	165,800	4,450	51,000	1,270	
Mummichog.....	1,000	115	3,200	255			
Scup or porpy.....	222,600	4,344	31,700	990	13,400	413	
Sea bass.....	27,800	2,256	127,700	6,427	16,900	1,620	
Sea robin.....	13,000	340					
Shad.....			1,000	70			
Silversides.....			5,000	460			
Skates.....	30,200	564	11,400	160			
Squeteague or "sea trout", gray.....	308,000	3,378	165,000	8,368			
Striped bass.....			500	40			
Sturgeon.....	300	36					
Swordfish.....	700	140			500	110	
Thutog.....	100	2					
Thimble-eyed mackerel.....	600	6					
Tilefish.....	682,000	32,600			1,812,200	61,500	
Whiting.....	1,959,400	52,174	108,200	3,420	14,100	423	
Crabs.....							
Hard.....	6,200	287	1,000	65			
Soft and peelers.....			125,200	25,720			
Lobsters.....	241,200	43,403	37,000	10,008			
Shrimp.....			75,000	2,600			
Clams.....							
Hard, public.....			267,800	48,900			
Hard, private.....			56,400	11,150			
Soft, public.....			203,800	19,348			
Surf or skimmer.....	433,200	18,050	66,000	2,750			
Conechs.....	8,600	955					
Mussels, sea.....			33,300	1,667			
Oysters.....							
Market, public, spring.....			11,000	1,565			
Market, public, fall.....			20,300	2,985			
Market, private, spring.....			563,500	84,200	4,900	700	
Market, private, fall.....			808,900	120,055	47,000	6,700	
Scallops, sea.....	1,400,700	201,318	122,800	17,700	157,900	22,700	
Squid.....	283,300	11,395	54,000	1,230	100	5	
Bloodworms.....			8,600	9,000			
Sandworms.....			12,200	12,120			
Total.....		10,162,100	607,753	4,843,100	490,369	2,644,800	126,795

Fisheries of New York, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Orange		Putnam		Rensselaer		Richmond	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	2,400	\$42			9,700	\$172		
Bluefish.....							14,200	\$994
Carp.....	4,600	310	700	\$42	8,100	720		
Catfish and bullheads.....	100	15	100	4	1,700	329		
Eels, common.....	400	54	200	20				
Flounders.....							45,000	2,325
Shad.....	22,800	2,300	5,000	300	3,800	213		
Striped bass.....	500	95						
Suckers.....	400	22			400	23		
Tomcod.....			300	6				
White perch.....					600	24		
Whiting.....							25,000	750
Yellow perch.....	200	15						
Scallops, sea.....							105,000	15,500
Total.....	31,400	2,853	6,300	372	24,300	1,481	189,200	19,569

Species	Rockland		Suffolk		Ulster		Westchester	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	12,200	\$223	201,600	\$1,455	30,300	\$648	2,800	\$42
Bluefish.....			276,600	21,063				
Bonito.....			186,900	5,385				
Butterfish.....			2,440,900	100,653				
Carp.....	4,200	367			88,100	6,762	5,800	481
Catfish and bullheads.....	400	8			7,000	840	1,900	206
Cod.....			367,000	19,906				
Croaker.....			81,900	1,313				
Eels:								
Common.....	11,400	1,036	203,000	26,297	1,200	134	8,600	666
Conger.....			2,500	75				
Flounders.....			2,079,700	106,161				
Frigate mackerel.....			31,600	554				
Goosefish.....			100	5				
Grayfish.....			5,000	129				
Haddock.....			631,300	29,061				
Hake.....			2,200	63				
Herring, sea.....			25,200	617				
Hickory shad.....			1,000	24				
King whiting or "kingfish".....			23,800	2,338				
Mackerel.....			1,244,800	33,877				
Menhaden.....			46,396,700	89,387				
Pike or pickerel.....							100	6
Pollock.....			17,300	569				
Scup or porgy.....			1,627,600	41,541				
Sea bass.....			239,300	18,940				
Sea robin.....			33,500	958				
Shad.....	35,400	3,531	20,900	1,342	176,000	14,564	77,200	8,003
Sharks.....			2,300	59				
Silversides.....			63,400	2,275				
Skates.....			6,100	112				
Squeteagues or "sea trout", gray.....			1,166,700	69,003				
Striped bass.....	9,900	1,568	16,300	1,672	400	35	8,600	1,280
Sturgeon.....	100	20	2,600	625	100	6	2,800	385
Suckers.....	1,400	108			3,200	232	2,500	206
Sunfish.....	100	5			100	10		
Swellfish.....			5,000	250				
Swordfish.....			41,400	8,600				
Tautog.....			17,600	768				
Tomcod.....							7,000	125
Tuna or "horse mackerel".....			6,100	350				
Whitebait.....			9,100	1,035				
White perch.....	5,100	305	600	72	3,200	131	41,100	1,862
Whiting.....			177,300	5,027				
Yellow perch.....	6,700	363			900	79		
Crabs, hard.....			457,100	13,415				
Lobsters.....			142,300	33,756				
Shrimp.....			9,700	1,227				
Clams:								
Hard, public.....			1,256,500	209,665			400	100
Hard, private.....			63,600	11,005				
Soft, public.....			566,000	52,243			800	100
Soft, private.....			8,000	1,000				
Surf or skimmer.....			24,100	2,025				
Mussels, sea.....			49,200	2,962				

Fisheries of New York, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Rockland		Suffolk		Ulster		Westchester	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Oysters:								
Market, public, spring.....			108,700	\$15,600				
Market, public, fall.....			188,900	27,402				
Market, private, spring.....			1,471,100	257,230				
Market, private, fall.....			2,542,800	452,850				
Scallops:								
Bay.....			106,700	35,593				
Sea.....			427,100	61,550				
Squid.....			1,033,800	26,635				
Bloodworms.....			15,700	11,125				
Sandworms.....			17,300	14,680				
Total.....	86,900	\$7,534	66,137,500	1,821,524	310,500	\$23,441	159,600	\$13,462

SEED OYSTER FISHERY: BY GEAR

Item	Dredges		Rakes		Total, exclusive of duplication	
	Number	Value	Number	Value	Number	Value
OPERATING UNITS						
Fishermen:						
On vessels.....	22		7		22	
On boats and shore, regular.....					7	
Total.....	22		7		29	
Vessels, motor.....	5				5	
Net tonnage.....	85				85	
Boats:						
Motor.....			4		4	
Other.....			1		1	
Apparatus:						
Number.....	10		7			
Yards at mouth.....	14					
CATCH						
Oysters:						
Seed, public, spring.....			1,240	\$496	1,240	\$496
Seed, private, spring.....	29,984	\$18,292			29,984	18,292
Seed, private, fall.....	10,540	10,005			10,540	10,005
Total.....	40,524	28,297	1,240	496	41,764	28,793

SEED OYSTER FISHERY: BY COUNTIES

Item	Nassau		Suffolk	
	Number	Value	Number	Value
OPERATING UNITS				
Fishermen:				
On vessels.....	5		17	
On boats and shore, regular.....			7	
Total.....	5		24	
Vessels, motor.....	1		4	
Net tonnage.....	28		57	
Boats:				
Motor.....			4	
Other.....			1	
Apparatus:				
Dredges.....	2		8	
Yards at mouth.....	3		11	
Rakes.....			7	
CATCH				
Oysters:				
Seed, public, spring.....			1,240	\$496
Seed, private, spring.....	1,000	\$500	28,984	17,792
Seed, private, fall.....	750	375	9,790	9,630
Total.....	1,750	875	40,014	27,918

NOTE.—With the exception of 1 motor boat, all of the persons, craft, and gear engaged in the seed oyster fishery are duplicated among those fishing for market oysters or other species.

NEW JERSEY

Fisheries of New Jersey, 1935

OPERATING UNITS: BY GEAR

Item	Purse seines		Haul seines	Gill nets				Lines	
	Men-haden	Other		An-chor	Drift	Run-around	Stake	Hand	Trawl
	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:									
On vessels.....	105	45			8			57	20
On boats and shore:									
Regular.....			56	2	99	90	71	243	132
Casual.....			204		156	10	17	47	18
Total.....	105	45	260	2	263	100	88	347	170
Vessels:									
Steam.....	3								
Net tonnage.....	150								
Motor.....	2	5			2			10	6
Net tonnage.....	155	83			18			126	59
Total vessels.....	5	5			2			10	6
Total net tonnage.....	305	83			18			126	59
Boats:									
Motor.....			7	1	77	46	12	131	69
Other.....			104		65		24	19	
Accessory boats.....	15	7			5			22	14
Apparatus:									
Number.....	5	5	108	3	891	60	160	600	373
Length, yards.....	1,816	1,820	9,203						
Square yards.....				2,500	480,662	181,550	38,038		
Hooks, baits, or snoods.....								894	233,400

Item	Lines—Contd.		Pound nets	Weirs	Stop nets	Fyke nets	Dip nets	Cast nets	Drag nets
	Troll	Trot with baits or snoods							
	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:									
On vessels.....	13		211						
On boats and shore:									
Regular.....	77	6	105		14	33	41		15
Casual.....		12	21	19	72	45	4	3	4
Total.....	90	18	337	19	86	78	45	3	19
Vessels, motor.....	2		31						
Net tonnage.....	36		194						
Boats:									
Motor.....	106	7	18	6	13	23	5		11
Other.....		4	13	3	36	27	39		
Accessory boats.....	9		1						
Apparatus:									
Number.....	451	16	156	104	56	872	45	3	22
Square yards.....					54,600				
Yards at mouth.....									44
Hooks, baits, or snoods.....	451	13,215							

Item	Drop nets	Otter trawls		Wire baskets	Pots			
		Fish	Shrimp		Crab	Eel	Fish	Lobster
	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:								
On vessels.....		130	4					
On boats and shore:								
Regular.....		59			3	39	54	93
Casual.....	2	2		1		15	7	22
Total.....	2	191	4	1	3	54	61	115
Vessels, motor.....		36	1					
Net tonnage.....		676	20					
Boats:								
Motor.....		30		1	1	23	34	60
Other.....	1					22		
Apparatus:								
Number.....	15	66	1	25	10	1,717	8,191	12,155
Yards at mouth.....		1,526	32					

Fisheries of New Jersey, 1935—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Spears	Dredges				Tongs	
		Clam	Crab	Oyster	Scallop	Oyster	Other
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....		44	13	501	52		
On boats and shore:							
Regular.....	35	10	4	28		76	404
Casual.....	7	2		4		24	438
Total.....	42	56	17	533	52	100	842
Vessels:							
Motor.....		13	4	91	9		
Net tonnage.....		149	44	1,677	213		
Sail.....		2	2				
Net tonnage.....		17	17				
Total vessels.....		15	6	91	9		
Total net tonnage.....		166	61	1,677	213		
Boats:							
Motor.....	6	6	2	18		72	377
Other.....	36					23	397
Apparatus:							
Number.....	42	38	47	220	17	100	842
Yards at mouth.....		40	51	265	57		

Item	Rakes		Forks	Hoes	Gaffs	By hand		Total, exclusive of duplication
	Oyster	Other				Oyster	Other	
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.....								1,039
On boats and shore:								
Regular.....	19	436	9	107			89	1,391
Casual.....	4	850	5	94	1	4	248	1,870
Total.....	23	1,286	14	201	1	4	337	4,300
Vessels:								
Steam.....								3
Net tonnage.....								150
Motor.....								185
Net tonnage.....								3,026
Sail.....								2
Net tonnage.....								17
Total vessels.....								190
Total net tonnage.....								3,193
Boats:								
Motor.....	12	336		26			47	1,036
Other.....	9	889		139	1	4	212	1,605
Accessory boats								56
Apparatus:								
Number.....	23	1,286	14	201	1			

Fisheries of New Jersey, 1935—Continued

CATCH: BY GEAR

Species	Purse seines				Haul seines		Gill nets	
	Menhaden		Other		Pounds	Value	Anchor	
	Pounds	Value	Pounds	Value			Pounds	Value
Alewives					400	\$4		
Bluefish			62,000	\$4,350	1,200	72		
Bonito			1,100	44				
Butterfish			4,100	161				
Carp					93,400	6,567		
Catfish and bullheads					12,100	614		
Croaker	1,400	\$14	112,100	1,539	7,700	158		
Eels, common					51,500	3,172		
Flounders			1,300	98	11,800	766		
Frigate mackerel	3,500	35	300	3				
Herring, sea			100	1				
King whiting or "kingfish"					1,000	50		
Launce					1,900	254		
Mackerel			400	16				
Menhaden	43,441,800	76,744	789,000	1,936				
Mullet					20,900	1,632		
Mummichog					700	66		
Scup or porgy			186,900	2,443				
Sea bass			22,000	1,054				
Shad					29,100	6,225	400	\$117
Silversides					1,200	600		
Squeteagues or "sea trout", gray	13,000	250	926,200	16,806	28,800	1,756		
Striped bass					500	110		
Suckers					54,000	3,324		
Tautog			100	2				
Tuna or "horse mackerel"			1,300	26				
White perch					20,200	1,640		
Whiting			3,100	31				
Yellow perch					1,500	180		
Crabs:								
Hard					8,300	1,375		
Soft and peelers					9,500	2,670		
Total	43,459,700	77,043	2,110,000	28,510	355,700	31,235	400	117

Species	Gill nets—Continued						Lines	
	Drift		Runaround		Stake		Hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives					900	\$18		
Bluefish	30,800	\$1,371	223,700	\$11,879	3,400	320	836,200	\$44,683
Bonito	500	18	4,600	232			100	2
Butterfish	25,300	1,149	7,500	205				
Carp					5,000	350		
Cod							6,600	208
Croaker	52,700	1,108	36,600	564			15,400	325
Eels:								
Common							19,300	1,605
Conger							100	1
Flounders							11,500	600
Groupers							2,500	99
Mackerel	214,500	8,114	41,300	1,599				
Pompano							4,100	1,230
Scup or porgy	700	10	1,500	30			23,000	370
Sea bass							351,600	18,959
Shad	174,400	25,382			362,900	28,273		
Snapper, red							15,300	1,144
Spanish mackerel			15,000	1,200				
Spot	5,000	150			1,000	50		
Squeteagues or "sea trout":								
Gray	103,200	2,764	85,500	3,231	9,100	386	43,200	1,363
Spotted							2,700	120
Striped bass	2,000	235			600	125		
Sturgeon	3,500	764						
Tautog							9,500	368
White perch					11,200	1,048		
Turtles, snapper							4,500	225
Total	612,600	41,065	415,700	18,940	394,100	30,570	1,345,600	71,302

Fisheries of New Jersey, 1935—Continued

CATCH: BY GEAR—Continued

Species	Lines—Continued						Pound nets	
	Trawl		Troll		Trot with baits or snoods		Pounds	Value
	Pounds	Value	Pounds	Value	Pounds	Value		
Alewives							37,800	\$189
Bluefish			594,100	\$41,681			207,400	13,193
Bonito			9,600	491			77,700	2,467
Butterfish							3,395,600	137,056
Cod	762,700	\$27,844					42,500	1,033
Crevalle							900	9
Croaker							5,349,100	82,799
Drum:								
Black							8,900	96
Red or redfish							34,400	443
Eels:								
Common							9,300	1,381
Conger	100	1					3,100	226
Flounders							287,800	17,487
Frigate mackerel			4,800	56			99,900	1,178
Goosefish							13,100	65
Grayfish							44,500	890
Hake							7,600	112
Herring, sea							258,500	1,744
Hickory shad							2,500	25
Kingfish or "king mackerel"			12,800	524				
King whiting or "kingfish"							40,500	2,218
Mackerel			2,000	80			1,312,300	40,556
Menhaden							5,526,900	13,943
Mullet							100	2
Pollock							4,300	106
Scup or porgy							4,296,100	73,839
Sea bass							170,000	8,486
Sea robin							44,300	443
Shad							251,200	23,690
Sharks							42,300	737
Skates	2,600	13					81,600	633
Spanish mackerel							8,600	523
Spot							11,100	323
Squeteagues or "sea trout", gray							6,384,700	193,519
Squirrel hake							23,600	236
Striped bass							2,000	187
Sturgeon							5,100	687
Tautog							8,500	181
Thimble-eyed mackerel							244,600	3,526
Tuna or "horse mackerel"			9,200	505			7,500	262
White perch							500	20
Whiting							3,051,300	29,229
Crabs:								
Hard					105,000	\$3,313	85,400	1,394
King							1,233,300	5,983
Soft and peelers							900	225
Squid							967,200	25,808
Turtles:								
Green							3,900	47
Hawksbill							200	2
Loggerhead							3,900	69
Total	765,400	27,858	632,500	43,337	105,900	3,538	33,691,600	687,042

Species	Weirs		Stop nets		Fyke nets		Dipnets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives					2,200	\$22		
Carp			133,000	\$9,307				
Catfish and bullheads			5,600	336	27,600	1,760		
Drum, red or redfish					4,500	450		
Eels, common					19,100	2,183		
Flounders					39,600	1,351		
Striped bass					2,600	590		
White perch					3,300	330		
Crabs:								
Hard							54,800	\$4,691
King	1,392,000	\$2,508			8,000	30		
Soft and peelers							191,300	63,841
Turtles, snapper					2,200	124		
Total	1,392,000	2,508	138,600	9,643	109,100	6,840	246,100	68,532

Fisheries of New Jersey, 1935—Continued

CATCH: BY GEAR—Continued

Species	Cast nets		Drag nets		Drop nets		Otter trawls	
	Pounds	Value	Pounds	Value	Pounds	Value	Fish	
Bluefish							1,100	\$100
Butterfish							186,700	7,561
Carp	2,300	\$161						
Cod							6,700	302
Croaker							1,791,800	32,219
Cunners							3,400	34
Drum:								
Black							400	5
Red or redfish							200	2
Eels:								
Common							3,800	43
Conger							12,600	172
Flounders							2,896,500	182,853
Grayfish							100	1
Hake							26,100	525
Kingfish or "king mackerel"							200	9
King whiting or "kingfish"							4,700	183
Mackerel							300	11
Pigfish							100	2
Scup or porgy							676,800	10,601
Sea bass							213,300	10,293
Sea robin							800	17
Sharks							100	1
Spot							600	15
Squeteagues or "sea trout", gray							478,500	8,638
Squirrel hake							1,100	13
Sturgeon							2,900	239
Tautog							4,600	51
Tilefish							100	6
Whiting							285,700	4,677
Crabs, hard					1,700	\$167		
Lobsters							3,900	398
Shrimp			9,200	\$2,300			95,000	6,760
Squid							83,200	2,273
Total	2,300	161	9,200	2,300	1,700	167	6,781,300	268,004

Species	Otter trawls—Continued		Wire baskets		Pots					
	Shrimp				Crab		Eel		Fish	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Croaker									200	\$4
Eels:										
Common							107,200	\$8,434		
Conger									500	5
Mummichog							8,300	680		
Sea bass									874,900	36,214
Squirrel hake									400	4
Tautog									1,700	45
Crabs:										
Hard			200	\$25	12,000	\$750				
Soft and peelers			200	50	3,600	900				
Lobsters									14,200	3,391
Shrimp	5,100	\$307								
Total	5,100	307	400	75	15,600	1,650	115,500	9,114	891,900	39,663

Species	Pots—Continued		Spears		Dredges			
	Lobster				Clam		Crab	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Eels, common			40,300	\$4,096				
Sea bass	23,700	\$1,307						
Crabs, hard							199,800	\$8,490
Lobsters	200,700	46,965						
Clams:								
Hard, public					10,800	\$2,839		
Hard, private					31,600	4,358		
Surf or skimmer					313,300	13,804		
Total	224,400	48,272	40,300	4,096	355,700	21,001	199,800	8,490

Fisheries of New Jersey, 1935—Continued

CATCH: BY GEAR—Continued

Species	Dredges—Continued				Tongs		Rakes	
	Oyster		Scallop		Pounds	Value	Pounds	Value
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Crabs, hard.....					6,900	\$206	6,900	\$206
Clams:								
Hard, public.....					706,400	111,504	2,342,900	322,414
Hard, private.....	27,400	\$3,640			66,300	11,054	2,700	506
Surf or skimmer.....							600	25
Oysters:								
Market, public, spring.....					6,400	1,110	4,000	750
Market, public, fall.....					6,400	1,110		
Market, private, spring.....	3,905,500	310,650			135,600	18,925	63,800	9,600
Market, private, fall.....	4,122,200	329,935			140,200	19,798	66,600	10,050
Scallops, sea.....			426,600	\$25,316				
Total.....	8,055,100	644,225	426,600	25,316	1,068,200	163,707	2,487,500	343,551

Species	Forks		Hoes		Gaffs		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Clams:								
Hard, public.....							266,500	\$42,365
Hard, private.....							8,900	1,604
Soft, public.....			1,055,900	\$69,878				
Mussels, sea.....							2,900	90
Oysters:								
Market, private, spring.....							5,500	840
Market, private, fall.....							6,000	961
Turtles, snapper.....					500	\$25		
Bloodworms.....	100	\$94						
Sandworms.....	300	241						
Total.....	400	335	1,055,900	69,878	500	25	289,800	45,860

OPERATING UNITS: BY COUNTIES

Item	Atlan- tic	Bergen	Bur- linton	Cam- den	Cape May	Cum- berland	Gloucester
	Number	Number	Number	Number	Number	Number	Number
Fishermen:							
On vessels.....	60	3	4		247	504	
On boats and shore:							
Regular.....	316	56	34		228	13	6
Casual.....	261		72	24	328	97	17
Total.....	637	59	110	24	803	614	23
Vessels:							
Motor.....	15	1	1		53	85	
Net tonnage.....	234	15	11		820	1,705	
Boats:							
Motor.....	183	1	44		173	19	2
Other.....	315	14	28	12	295	63	12
Accessory boats.....	11				28	3	
Apparatus:							
Purse seines:							
Menhaden.....					1	1	
Length, yards.....					456	450	
Other.....	1				4		
Length, yards.....	360				1,460		
Haul seines.....	13		14	12	8	10	1
Length, yards.....	1,152		1,415	920	407	1,060	125
Gill nets:							
Drift.....	191		18		293	65	6
Square yards.....	16,260		20,490		132,918	46,239	5,595
Runaround.....					4		
Square yards.....					9,600		
Stake.....	12	15	7		2	44	
Square yards.....	1,200	22,750	180		200	5,168	
Lines:							
Hand.....	26				248	157	
Hooks or baits.....	43				479	160	
Trawl.....	85				130		
Hooks.....	67,000				84,100		

Fisheries of New Jersey, 1935—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Atlant-ic	Bergen	Bur-lington	Cam-den	Cape May	Cum-berland	Gloucester
Apparatus—Continued.							
Lines—Continued.	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Troll.....					286		
Hooks.....					286		
Trot with baits or snoods.....					5	10	
Baits or snoods.....					15	13,000	
Pound nets.....	2				73		
Weirs.....					77	27	
Stop nets.....			8	1		12	7
Square yards.....			7,675	240		8,250	20,500
Fyke nets.....	16		173	25	11	90	75
Dip nets.....	3						
Cast nets.....							2
Drop nets.....					15		
Otter trawls:							
Fish.....	19				43	1	
Yards at mouth.....	456				989	22	
Shrimp.....	1						
Yards at mouth.....	32						
Pots:							
Eel.....	38	155			130	30	
Fish.....					791		
Lobster.....	450						
Spears.....	2				2		
Dredges:							
Clam.....	2				11	4	
Yards at mouth.....	2				11	5	
Crab.....		10					
Yards at mouth.....		10					
Oyster.....	16		14			166	
Yards at mouth.....	17		16			204	
Scallop.....	10				5		
Yards at mouth.....	33				17		
Tongs:							
Oyster.....	45		20		7		
Other.....	251		40		213		
Rakes:							
Oyster.....	15		3		2		
Other.....	298		7		206	6	
Hoes.....	12						
Gaffs.....				1			

Item	Hudson	Hunter-don	Mercer	Middle-sex	Mon-mouth	Ocean	Salem
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			2	86	131	
On boats and shore:							
Regular.....				18	461	252	7
Casual.....		15	34	36	435	485	60
Total.....	2	15	34	56	982	868	73
Vessels:							
Steam.....					3		
Net tonnage.....					150		
Motor.....	1			1	6	22	
Net tonnage.....	9			8	55	169	
Sail.....					2		
Net tonnage.....					17		
Total vessels.....	1			1	11	22	
Total net tonnage.....	9			8	222	169	
Boats:							
Motor.....				12	218	356	28
Other.....		3	11	41	562	234	15
Accessory boats.....					14		
Apparatus:							
Purse seines:							
Menhaden.....					3		
Length, yards.....					910		
Haul seines.....		4	7	1	9	16	13
Length, yards.....		835	1,440	8	160	211	1,470
Gill nets:							
Anchor.....				3			
Square yards.....				2,500			

Fisheries of New Jersey, 1935—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Hudson	Hunterdon	Mercer	Middlesex	Monmouth	Ocean	Salem
Apparatus—Continued.							
Gill nets—Continued.	Number	Number	Number	Number	Number	Number	Number
Drift					296		22
Square yards					121,320		137,840
Runaround				6	31		19
Square yards				16,720	72,430	82,800	
Stake						55	25
Square yards						6,420	2,120
Lines:							
Hand					132	37	
Hooks or baits					168	44	
Trawl					56	102	
Hooks					30,400	51,900	
Troll					105	60	
Hooks					105	60	
Trot with baits or snoods							1
Baits or snoods							200
Pound nets					36	45	
Stop nets							28
Square yards							17,935
Fyke nets			15		65	268	134
Dip nets					37	5	
Cast nets							1
Drag nets						22	
Yards at mouth						44	
Otter trawls:							
Fish	1				2		
Yards at mouth	27				32		
Wire baskets						25	
Pots:							10
Crab							
Eel				230	681	453	
Fish						7,400	
Lobster					11,230	475	
Spears					23	15	
Dredges:							
Clam				4	17		
Yards at mouth				5	17		
Crab					37		
Yards at mouth					41		
Oyster						24	
Yards at mouth						28	
Scallop					2		
Yards at mouth					7		
Tongs:							
Oyster					1	27	
Other					2	336	
Rakes:							
Oyster					1	2	
Other				46	502	221	
Forks					14		
Hoes					167	22	

CATCH: BY COUNTIES

Species	Atlantic		Bergen		Burlington		Camden		Cape May	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	400	\$4								
Bluefish	93,100	4,883							697,000	\$47,436
Bonito									13,500	531
Butterfish	85,200	3,496							1,430,300	60,114
Carp					23,700	\$1,659	27,200	\$1,632		
Catfish and bullheads	2,800	140			5,800	580	2,000	200		
Cod	200,700	7,731							196,600	8,765
Croaker	66,100	1,099							3,509,400	54,166
Cunners	3,400	34								
Drum:										
Black	300	3							100	2
Red or redfish									5,300	104
Eels:										
Common	56,500	3,108	17,000	\$875	2,500	200			27,700	3,384
Conger	3,500	61							10,000	131

Fisheries of New Jersey, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Atlantic		Bergen		Burlington		Camden		Cape May	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Flounders.....	972, 400	\$53, 053							1, 891, 500	\$130, 661
Frigate mackerel.....									8, 400	104
Grayfish.....									100	1
Groupers.....									2, 500	99
Hake.....	4, 500	95							20, 100	407
Herring, sea.....	5, 000	50							10, 700	107
Kingfish or "king mackerel".....									13, 000	533
King whiting or "kingfish".....	4, 000	236							11, 600	461
Mackerel.....	25, 800	1, 113							43, 700	1, 695
Menhaden.....	601, 200	1, 510							5, 819, 400	13, 114
Mullet.....	2, 000	120							18, 900	1, 512
Mummichog.....									2, 000	50
Pigfish.....									100	2
Pollock.....									100	3
Scup or porgy.....	31, 500	442							1, 066, 600	15, 611
Sea bass.....	62, 200	3, 062							657, 400	34, 010
Sea robin.....									2, 500	34
Shad.....	1, 500	110	268, 100	\$21, 145	2, 500	\$625	12, 700	\$3, 175	2, 900	261
Sharks.....									5, 200	50
Skates.....									33, 600	168
Snapper, red.....									15, 300	1, 144
Spanish mackerel.....									5, 900	292
Spot.....	1, 800	54							6, 900	213
Squeteagues or "sea trout":										
Gray.....	187, 700	4, 107			1, 600	80			4, 765, 800	108, 635
Spotted.....									2, 700	120
Squirrel hake.....	100	1							1, 400	14
Striped bass.....	3, 600	766			200	60			100	5
Sturgeon.....									4, 100	359
Suckers.....					35, 800	2, 506	4, 800	192		
Tautog.....	9, 200	359							6, 200	82
Thimble-eyed mackerel.....									128, 600	1, 286
Tilefish.....									100	6
Tuna or "horse mackerel".....									7, 900	351
White perch.....	20, 300	1, 528			6, 200	620				
Whiting.....	21, 800	332							281, 900	4, 518
Crabs:										
Hard.....	15, 200	453	10, 800	405					5, 100	352
King.....									2, 105, 300	7, 581
Soft and peelers.....	200	36								
Lobsters.....	6, 100	1, 379							3, 900	602
Shrimp.....	5, 100	307							95, 000	6, 760
Clams:										
Hard, public.....	353, 400	54, 943			102, 600	13, 680			452, 500	82, 553
Hard, private.....	18, 100	3, 829							1, 400	517
Soft, public.....	7, 000	700								
Surf or skimmer.....	53, 700	2, 900							259, 600	10, 854
Mussels, sea.....									2, 900	90
Oysters:										
Market, public, spring.....	2, 400	240							4, 000	750
Market, public, fall.....	2, 400	240								
Market, private, spring.....	195, 900	28, 199			62, 300	8, 975			7, 500	1, 153
Market, private, fall.....	199, 400	28, 726			62, 300	8, 975			10, 000	1, 698
Scallops, sea.....	140, 500	8, 308							242, 700	13, 534
Squid.....	7, 700	219							450, 800	11, 592
Turtles:										
Green.....									100	3
Loggerhead.....									1, 400	19
Snapper.....							1, 000	50		
Total.....	3, 473, 700	217, 936	295, 900	22, 425	305, 500	37, 960	47, 700	5, 249	24, 369, 300	628, 599

Fisheries of New Jersey, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Cumberland		Gloucester		Hudson		Hunterdon		Mercer	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	900	\$18								
Bluefish.....	2,500	100								
Butterfish.....	1,100	49								
Carp.....	37,200	3,001	21,900	\$1,230			300	\$30	3,900	\$468
Catfish and bullheads.....	5,100	214	8,000	280						
Croaker.....	22,400	480								
Eels:										
Common.....	10,900	1,150	1,000	150					1,800	300
Conger.....	300	2								
Flounders.....	17,300	887			30,000	\$900				
Frigate mackerel.....	3,500	35								
Hake.....	1,500	23								
Menhaden.....	1,866,000	4,198								
Scup or porgy.....	2,100	85								
Sea bass.....	1,900	78								
Sea robin.....	100	1								
Shad.....	76,900	12,830	1,600	400			2,000	660	5,600	1,038
Spot.....	5,000	150								
Squeteagues or "sea trout" gray.....	51,200	1,315								
Squirrel hake.....	200	4								
Striped bass.....	2,100	250								
Sturgeon.....	700	230								
Suckers.....			500	40			6,000	240	6,800	340
White perch.....	4,100	338								
Whiting.....	3,700	37								
Crabs:										
Hard.....	100,000	3,000								
King.....	520,000	910								
Lobsters.....	100	7								
Clams:										
Hard, public.....	8,100	2,025								
Hard private.....	31,600	4,358								
Oysters:										
Market, private, spring.....	3,795,400	293,525								
Market, private, fall.....	4,011,300	312,658								
Squid.....	500	15								
Turtles, snapper.....	5,200	274	1,000	50						
Total.....	10,588,900	642,247	34,000	2,150	30,000	900	8,300	930	18,100	2,146

Species	Middlesex		Monmouth		Ocean		Salem	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....			38,000	\$191	2,000	\$20		
Bluefish.....	46,000	\$2,576	877,700	47,755	243,600	14,899		
Bonito.....			26,100	983	54,000	1,740		
Butterfish.....			452,300	16,459	1,650,300	66,014		
Carp.....							119,500	\$8,365
Catfish and bullheads.....							21,600	1,296
Cod.....			277,900	7,975	143,300	4,916		
Crevalle.....			900	9				
Croaker.....	24,100	361	1,751,500	30,185	1,993,500	32,439		
Drum:								
Black.....			1,500	22	7,400	74		
Red or redfish.....					29,300	341	4,500	450
Eels:								
Common.....	4,500	374	79,200	7,508	49,400	3,865		
Conger.....			800	40	1,800	171		
Flounders.....			190,600	9,427	146,700	8,227		
Frigate mackerel.....			39,900	406	56,700	727		
Goosefish.....			13,100	65				
Grayfish.....			44,500	890				
Hake.....			7,600	112				
Herring, sea.....			41,500	347	201,400	1,241		
Hickory shad.....					2,500	25		
King whiting or "kingfish".....			10,400	542	20,200	1,212		
Launce.....	400	100	1,500	154				
Mackerel.....	5,300	159	712,400	21,316	783,600	26,093		
Menhaden.....			41,222,500	73,057	248,600	744		
Mullet.....			100	2				
Mummichog.....	2,100	210	4,900	486				
Pollock.....			500	13	3,700	90		
Pompano.....			4,100	1,230				
Scup or porgy.....			2,115,700	40,555	1,969,100	30,600		
Sea bass.....			49,600	2,474	884,400	36,689		

Fisheries of New Jersey, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Middlesex		Monmouth		Ocean		Salem	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Sea robin.....			7,700	\$77	34,800	\$348		
Shad.....	400	\$117	224,300	19,951	149,800	14,800	69,700	\$8,575
Sharks.....			4,900	138	32,300	550		
Silversides.....					1,200	600		
Skates.....			26,600	309	24,000	169		
Spanish mackerel.....			15,800	1,260	1,900	171		
Spot.....			1,500	60	2,500	61		
Squeteagues or "sea trout", gray.....	29,600	1,185	1,039,300	38,605	1,997,000	74,786		
Squirrel hake.....			13,900	139	9,500	95		
Striped bass.....					1,700	166		
Sturgeon.....			2,800	441	1,100	126	2,800	534
Suckers.....							100	6
Tautog.....			3,000	60	6,000	146		
Thimble-eyed mackerel.....			48,700	934	67,300	1,306		
Tuna or "horse mackerel".....			6,100	300	4,000	142		
White perch.....							4,600	552
Whiting.....			1,777,800	17,778	1,254,900	11,272		
Yellow perch.....							1,500	180
Crabs:								
Hard.....			308,300	13,315	26,600	2,154	15,000	938
King.....			8,000	30				
Soft and peelers.....			197,900	65,630	2,900	895	4,500	1,125
Lobsters.....			186,400	43,390	22,300	5,416		
Shrimp.....					9,200	2,300		
Clams:								
Hard, public.....	76,600	11,007	1,439,900	190,811	893,500	124,103		
Hard, private.....			5,200	1,040	80,600	11,418		
Soft, public.....			1,005,400	65,695	43,500	3,483		
Surf or skimmer.....			600	75				
Oysters:								
Market, public, spring.....					4,000	870		
Market, public, fall.....					4,000	870		
Market, private, spring.....			2,100	412	47,200	7,751		
Market, private, fall.....			2,100	412	49,900	8,275		
Scallops, sea.....			43,400	3,474				
Squid.....			162,400	4,872	429,000	11,383		
Turtles:								
Green.....			2,800	28	1,000	16		
Hawksbill.....					200	2		
Loggerhead.....					2,500	50		
Bloodworms.....			100	94				
Sandworms.....			300	241				
Total.....	189,000	16,089	54,502,100	731,774	13,695,900	513,851	243,800	22,021

SEED OYSTER FISHERY: BY GEAR

Item	Dredges		Tongs		Rakes		Total, exclusive of duplication	
	Number	Value	Number	Value	Number	Value	Number	Value
OPERATING UNITS								
Fishermen:	<i>Number</i>		<i>Number</i>		<i>Number</i>		<i>Number</i>	
On vessels.....	1,108						1,108	
On boats and shore:								
Regular.....	1		61		5		67	
Casual.....			85		13		98	
Total.....	1,109		146		18		1,273	
Vessels, sail.....	106						106	
Net tonnage.....	2,207						2,207	
Boats:								
Motor.....	1		51		16		68	
Other.....			89		1		90	
Apparatus:								
Number.....	214		146		18			
Yards at mouth.....	262							
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.....	780,300	\$272,755	44,350	\$11,256	2,415	\$435	827,065	\$284,446
Seed, public, fall.....			22,050	6,068	2,415	434	24,465	6,502
Seed, private, spring.....	225	40	450	80			675	120
Seed, private, fall.....	225	41	450	82			675	123
Total.....	780,750	272,836	67,300	17,486	4,830	869	852,880	291,191

Fisheries of New Jersey, 1935—Continued

SEED OYSTER FISHERY: BY COUNTIES

Item	Atlantic		Burlington		Cumberland	
OPERATING UNITS						
Fishermen:	<i>Number</i>		<i>Number</i>		<i>Number</i>	
On vessels.....					1, 108	
On boats and shore:						
Regular.....	16		33		18	
Casual.....	10		15		73	
Total	26		48		1, 199	
Vessels, sail.....					106	
Net tonnage.....					2, 207	
Boats:						
Motor.....	12		40		16	
Other.....	13		6		71	
Apparatus:						
Dredges.....			2		212	
Yards at mouth.....			2		260	
Tongs.....	26		29		91	
Rakes.....			18			
CATCH						
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring.....	8, 625	\$1, 675	10, 640	\$1, 766	807, 800	\$281, 005
Seed, public, fall.....	1, 325	238	5, 640	1, 014	17, 500	5, 250
Seed, private, spring.....			675	120		
Seed, private, fall.....			675	123		
Total	9, 950	1, 913	17, 630	3, 023	825, 300	286, 255

NOTE.—Of the total number of persons fishing for seed oysters, 1,160 are duplicated among those fishing for market oysters or other species. Similarly the following craft and gear are duplicated: 74 sailing vessels, 30 motor boats, 11 other boats, 150 dredges, 32 tongs, and 1 rake.

PENNSYLVANIA

Fisheries of Pennsylvania, 1935 ¹

OPERATING UNITS: BY GEAR

Item	Haul seines
	<i>Number</i>
Fishermen, on boats and shore, casual.....	41
Boats, other than motor.....	10
Apparatus:	
Number.....	10
Length, yards.....	1, 955

CATCH: BY GEAR

Species	Haul seines	
	<i>Pounds</i>	<i>Value</i>
Carp.....	5, 100	\$408
Shad.....	10, 200	3, 996
Suckers.....	15, 700	1, 256
Total	31, 000	5, 660

¹ The commercial fisheries of Pennsylvania are confined to Bucks County.

DELAWARE

Fisheries of Delaware, 1935

OPERATING UNITS: BY GEAR

Item	Purse seines, menhaden	Haul seines	Gill nets			Hand lines	Pound nets
			Drift	Run-around	Stake		
Fishermen:	Number	Number	Number	Number	Number	Number	Number
On vessels.....	474						
On boats and shore:							
Regular.....		1	1	5	5		
Casual.....		248	60	21	17	20	11
Total.....	474	249	61	26	22	20	11
Vessels, steam.....	12						
Net tonnage.....	1,455						
Boats:							
Motor.....			19	3	4	5	2
Other.....		71	10	10	6	2	4
Accessory boats.....	36						
Apparatus:							
Number.....	12	61	40	13	30	28	22
Length, yards.....	6,699	17,955					
Square yards.....			117,875	3,980	13,020		
Hooks.....						44	

Item	Stop nets	Fyke nets	Dip nets	Cast nets	Otter trawls, fish	Pots	
						Eel	Lobster
Fishermen:	Number	Number	Number	Number	Number	Number	Number
On vessels.....					6		
On boats and shore:							
Regular.....		8	24			6	
Casual.....	7	29	40	1		13	12
Total.....	7	37	64	1	6	19	12
Vessels, motor.....					1		
Net tonnage.....					32		
Boats:							
Motor.....		3	10			3	3
Other.....	4	10	51			6	
Apparatus:							
Number.....	11	257	64	1	1	345	115
Square yards.....	1,330						
Yards at mouth.....					23		

Item	Dredges			Tongs, other than for oysters	By hand, other than for oysters	Total, exclusive of duplication
	Clam	Crab	Oyster			
Fishermen:	Number	Number	Number	Number	Number	Number
On vessels.....	25	15	47			530
On boats and shore:						
Regular.....						32
Casual.....	4	4		2	26	355
Total.....	29	19	47	2	26	917
Vessels:						
Steam.....						12
Net tonnage.....						1,455
Motor.....	4	3	7			13
Net tonnage.....	53	43	130			229
Total vessels.....	4	3	7			25
Total net tonnage.....	53	43	130			1,684
Boats:						
Motor.....	2	2				44
Other.....				2		138
Accessory boats.....						36
Apparatus:						
Number.....	18	12	14	2		
Yards at mouth.....	19	14	17			

Fisheries of Delaware, 1935—Continued

CATCH: BY GEAR

Species	Purse seines		Haul seines		Gill nets					
	Pounds	Value	Pounds	Value	Drift		Runaround		Stake	
					Pounds	Value	Pounds	Value	Pounds	Value
Alewives			147,200	\$1,949	800	\$20				
Bluefish			2,500	47	11,000	1,056	300	\$10		
Bonito					100	2				
Carp			45,400	3,326					9,600	\$576
Catfish and bullheads			25,500	957						
Croaker			286,000	1,845	136,000	2,040	2,000	40		
Flounders							200	8	200	8
Gizzard shad			1,000	15						
Menhaden	83,454,600	\$292,091								
Mullet							78,500	2,276		
Shad			400	80	18,400	3,390			5,900	1,074
Spot					1,500	75				
Squeteagues or "sea trout", gray			317,200	6,081	82,100	4,224	3,400	102		
Striped bass			10,200	1,095	400	37	1,000	250	1,500	375
Sturgeon					400	174				
Suckers									600	18
White perch			14,100	664	300	30	200	30	900	63
Yellow perch			300	20						
Total	83,454,600	292,091	849,800	16,079	251,000	11,048	85,600	2,716	18,700	2,114

Species	Hand lines		Pound nets		Stop nets		Fyke nets		Dip nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives							6,900	\$81		
Carp			300	\$16	12,600	\$1,033	2,000	120		
Catfish and bullheads			1,400	42			21,500	736		
Croaker	14,000	\$420					200	20		
Eels, common							17,900	1,987		
Flounders							3,600	180		
Gizzard shad			600	30						
Scup or porgy	6,000	120								
Sea bass	9,000	360								
Squeteagues or "sea trout", gray	11,700	520					300	26		
Striped bass							3,600	450		
Tautog	1,000	20								
White perch			2,700	139			3,800	277		
Yellow perch			1,100	72			2,400	192		
Crabs:										
Hard							1,800	223	220,000	\$3,520
Soft and peelers									59,300	13,237
Turtles, snapper							5,400	443		
Total	41,700	1,440	6,100	299	12,600	1,033	69,400	4,735	279,300	16,757

Species	Cast nets		Otter trawls		Pots			
	Pounds	Value	Pounds	Value	Eel		Lobster	
					Pounds	Value	Pounds	Value
Butterfish								
Carp	800	\$24						
Croaker			152,600	3,173				
Drum, red or redfish			100	2				
Eels:								
Common					37,000	\$4,094		
Conger			300	4				
Flounders			20,200	908				
Grayfish			2,000	160				
Hake			5,000	28				
King whiting or "kingfish"			700	23				
Scup or porgy			6,200	85				
Sea bass			12,900	188				
Squeteagues or "sea trout", gray			13,400	346				
Sturgeon			100	13				
Whiting			5,000	32				
Lobsters							4,100	\$1,025
Squid			1,400	21				
Total	300	24	220,500	5,007	37,000	4,094	4,100	1,025

Fisheries of Delaware, 1935—Continued

CATCH: BY GEAR—Continued

Species	Dredges						Tongs		By hand	
	Clam		Crab		Oyster		Pounds	Value	Pounds	Value
Crabs:										
Hard.....			130, 100	\$2, 143					502, 000	\$753
King.....										
Clams:										
Hard, public.....	33, 500	\$3, 290					5, 400	\$1, 620		
Hard, private.....	69, 500	8, 110								
Mussels, sea.....							13, 000	1, 000		
Oysters, market, private, fall.....					581, 400	\$54, 989				
Total.....	103, 000	11, 400	130, 100	2, 143	581, 400	54, 989	18, 400	2, 620	502, 000	753

OPERATING UNITS: BY COUNTIES

Item	Kent	New Castle	Sussex
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	50	6	474
On boats and shore:			
Regular.....		1	31
Casual.....	86	49	220
Total.....	136	56	725
Vessels:			
Steam.....			12
Net tonnage.....			1, 455
Motor.....	12	1	
Net, tonnage.....	197	32	
Total vessels.....	12	1	12
Total net tonnage.....	197	32	1, 455
Boats:			
Motor.....	9	11	24
Other.....	25	16	97
Accessory boats.....			36
Apparatus:			
Purse seines, menhaden.....			12
Length, yards.....			6, 699
Haul seines.....	13	12	36
Length, yards.....	4, 860	1, 530	11, 565
Gill nets:			
Drift.....	2	16	22
Square yards.....	1, 200	90, 900	25, 775
Runaround.....			13
Square yards.....			3, 980
Stake.....	5	2	25
Square yards.....	7, 040	600	5, 380
Lines, hand.....			28
Hooks.....			44
Pound nets.....		9	13
Stop nets.....	5	6	
Square yards.....	740	590	
Fyke nets.....	49	139	69
Dip nets.....			64
Cast nets.....	1		
Otter trawls, fish.....		1	
Yards at mouth.....		23	
Pots:			
Eel.....	25	36	284
Lobster.....			115
Dredges:			
Clam.....	18		
Yards at mouth.....	19		
Crab.....	12		
Yards at mouth.....	14		
Oyster.....	14		
Yards at mouth.....	17		
Tongs, other than for oysters.....	2		

Fisheries of Delaware, 1935—Continued

CATCH: BY COUNTIES

Species	Kent		New Castle		Sussex	
	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....					154, 100	\$2, 020
Bluefish.....	100	\$7			13, 700	1, 106
Bonito.....					100	2
Butterfish.....			600	24		
Carp.....	16, 800	1, 084	53, 300	4, 004	100	7
Catfish and bullheads.....	2, 300	69	43, 300	1, 634	800	32
Croaker.....	126, 000	734	152, 600	3, 173	312, 200	3, 631
Drum, red or redfish.....			100	2		
Eels:						
Common.....	1, 200	180	13, 000	1, 420	40, 700	4, 491
Conger.....			300	4		
Flounders.....			20, 200	908	4, 000	106
Gizzard shad.....			1, 600	45		
Grayfish.....			2, 000	160		
Hake.....			5, 000	28		
King whiting or "kingfish".....			700	23		
Menhaden.....					83, 454, 600	292, 091
Mullet.....					78, 500	2, 276
Scup or porgy.....			6, 200	85	6, 000	120
Sea bass.....			12, 900	188	9, 000	360
Shad.....	5, 900	1, 074	15, 500	2, 910	3, 300	690
Spot.....					1, 500	75
Squeteagues or "sea trout", gray.....	158, 800	3, 122	13, 400	346	255, 900	7, 831
Striped bass.....	800	78			15, 900	2, 129
Sturgeon.....			500	187		
Suckers.....					600	18
Tautog.....					1, 000	20
White perch.....	800	74	900	47	20, 400	1, 082
Whiting.....			5, 000	32		
Yellow perch.....			900	52	2, 900	232
Crabs:						
Hard.....	130, 100	2, 143	1, 800	223	220, 000	3, 520
King.....	562, 000	753				
Soft and peelers.....					59, 300	13, 237
Lobsters.....					4, 100	1, 025
Clams:						
Hard, public.....	38, 900	4, 910				
Hard, private.....	69, 500	8, 110				
Mussels, sea.....	13, 000	1, 000				
Oysters, market, private, fall.....	581, 400	54, 989				
Squid.....			1, 400	21		
Turtles, snapper.....	2, 500	250	2, 900	193		
Total.....	1, 650, 100	78, 577	356, 800	15, 629	84, 658, 700	336, 161

SEED OYSTER FISHERY: BY GEAR

Item	Dredges		Tongs		Total, exclusive of duplication	
	Number	Value	Number	Value	Number	Value
OPERATING UNITS						
Fishermen:						
On vessels.....	21				21	
On boats and shore, casual.....			56		56	
Total.....	21		56		77	
Vessels, sail.....	3				3	
Net tonnage.....	39				39	
Boats:						
Motor.....			1		1	
Other.....			54		54	
Apparatus:						
Number.....	6		56			
Yards at mouth.....	7					
CATCH						
Oysters, seed, public, spring.....	Bushels	Value	Bushels	Value	Bushels	Value
	34, 000	\$8, 500	51, 200	\$9, 512	85, 200	\$18, 012

NOTE.—The seed-oyster fishery in Delaware was confined to Kent County. Of the total number of persons fishing for seed oysters, 71 are duplicated among those fishing for market oysters or other species. Similarly the following craft and gear are duplicated: 2 sail vessels, 7 other boats, 4 dredges, and 2 tongs.

VESSEL FISHERIES AT NEW YORK CITY *

During 1935 fishing vessels of 5 net tons capacity or greater landed 39,615,000 pounds of fishery products at New York City. The landings consisted of bluefish, 1,056,000 pounds; butterfish, 552,000 pounds; cod, 5,313,000 pounds; croaker, 16,000 pounds; flounders, 12,134,000 pounds; haddock, 10,361,000 pounds; hake, 52,000 pounds; halibut, 32,000 pounds; mackerel, 3,454,000 pounds; pollock, 21,000 pounds; sea bass, 698,000 pounds; sea robin, 1,000 pounds; scup, 901,000 pounds; squeteagues or "sea trout", 3,000 pounds; swordfish, 3,000 pounds; tilefish, 2,657,000 pounds; whiting, 351,000 pounds; sea scallops, 1,989,000 pounds; and squid, 21,000 pounds. Data on the landings at New York City are also included in the catch by States.

SHAD FISHERY OF THE HUDSON RIVER

The shad fishery of the Hudson River in 1935 was prosecuted by 498 fishermen who used 259 boats, 28 haul seines, 307 gill nets, 14 stop nets, 26 scap nets, and 39 fyke nets. The total commercial catch amounted to 259,980 shad having a weight of 847,400 pounds and a value to the fishermen of \$70,636. This is an increase of 84 percent in the number of shad and 96 percent in their value as compared with 1934. The average price per pound received by fishermen in both 1934 and 1935 was about 8 cents.

Gill nets accounted for 98 percent of the weight of the shad taken, while haul seines accounted for 1 percent. Small quantities taken by stop nets, scap nets, and fyke nets accounted for the remaining 1 percent.

Statistics of the catch of shad in the Hudson River also are included in the catch data for New York and New Jersey which are published elsewhere in this report.

Shad fishery of the Hudson River, 1935

Item	New York			New Jersey			Total		
	Number	Pounds	Value	Number	Pounds	Value	Number	Pounds	Value
Fishermen:									
On boats and shore:									
Regular.....	60			78			138		
Casual.....	358			2			360		
Total.....	418			80			498		
Boats, other than motor.....	238			21			259		
Apparatus:									
Haul seines.....	28						28		
Length, yards.....	3,831						3,831		
Gill nets.....	281			26			307		
Square yards.....	317,555			36,180			353,735		
Stop nets.....	14						14		
Square yards.....	121						121		
Scap nets.....	26						26		
Fyke nets.....	39						39		
Shad caught:									
With haul seines.....	3,592	10,200	\$874				3,592	10,200	\$874
With gill nets.....	137,487	434,500	36,615	116,003	394,100	\$32,485	253,490	828,600	69,100
With stop nets.....	267	800	60				267	800	60
With scap nets.....	767	2,300	127				767	2,300	127
With fyke nets.....	1,864	5,500	475				1,864	5,500	475
Total.....	143,977	453,300	38,151	116,003	394,100	32,485	259,980	847,400	70,636

* Statistics on the landings at New York City are collected by J. H. Matthews, executive secretary, Middle Atlantic Fisheries Association.

FISHERIES OF THE CHESAPEAKE BAY STATES

(AREA XXIII)¹⁰

The yield of the commercial fisheries of the Chesapeake Bay States (Maryland and Virginia) during 1935 amounted to 265,827,300 pounds valued at \$5,524,519 to the fishermen, representing a decrease of 8 percent in volume and 7 percent in value as compared with the catch in the previous year. These fisheries gave employment to 19,116 fishermen, as compared with 20,591 in 1934.

There were 585 fishery wholesale and manufacturing establishments in the two States in 1935, as compared with 544 in 1934. In 1935 these establishments employed 13,213 persons, paid \$3,055,029 in salaries and wages, and produced manufactured products (canned, cured, packaged, and byproducts), valued at \$9,411,465. In 1934 the wholesale and manufacturing firms employed 12,517 persons, paid \$2,758,749 in salaries and wages, and produced manufactured products valued at \$7,826,195.

Fisheries of the Chesapeake Bay States, 1935

SUMMARY OF CATCH

Product	Maryland		Virginia		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
Fish.....	12,744,000	\$393,246	180,145,200	\$1,503,066	192,889,200	\$1,896,312
Shellfish, etc.....	35,491,300	1,610,335	37,446,800	2,017,872	72,938,100	3,628,207
Total.....	48,235,300	2,003,581	217,592,000	3,520,938	265,827,300	5,524,519

OPERATING UNITS: BY STATES

Item	Maryland	Virginia	Total
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	696	1,422	2,118
On boats and shore:			
Regular.....	4,907	6,045	10,952
Casual.....	2,252	3,794	6,046
Total.....	7,855	11,261	19,116
Vessels:			
Steam.....		22	22
Net tonnage.....		2,480	2,480
Motor.....		125	125
Net tonnage.....		2,057	2,057
Sail.....	140		140
Net tonnage.....	1,694		1,694
Total vessels.....	140	147	287
Total net tonnage.....	1,694	4,537	6,231
Boats:			
Motor.....	2,951	3,625	6,576
Other.....	2,360	3,795	6,155
Accessory boats.....		86	86
Apparatus:			
Purse seines, menhaden.....		29	29
Length, yards.....		8,990	8,990

¹⁰ This is the number given to this area by the North American Council on Fishery Investigations. It should be explained that there may be included under this area, craft whose principal fishing ports are in the area but at times fish elsewhere. 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. For a clearer understanding of the statistics published in this section, the reader is referred to the section in the latter part of this document entitled "Statistical survey procedure."

Fisheries of the Chesapeake Bay States, 1935—Continued

OPERATING UNITS: BY STATES—Continued

Item	Maryland	Virginia	Total
Apparatus—Continued.	<i>Number</i>	<i>Number</i>	<i>Number</i>
Haul seines.....	256	152	408
Length, yards.....	26,347	45,430	71,777
Gill nets:			
Anchor.....	189		189
Square yards.....	31,899		31,899
Drift.....	256	332	588
Square yards.....	294,666	281,395	576,061
Runaround.....		2	2
Square yards.....		2,400	2,400
Stake.....	3,095	7,380	10,475
Square yards.....	257,270	269,307	526,577
Lines:			
Hand.....	40	150	190
Hooks.....	40	150	190
Trot with baits or snoods.....	1,731	1,304	3,035
Baits or snoods.....	1,241,400	684,700	1,926,100
Pound nets.....	529	2,000	2,529
Crab pound nets.....		12	12
Stop nets.....		5	5
Square yards.....		3,100	3,100
Fyke nets.....	2,605	667	3,272
Dip nets.....	1,215	1,966	3,181
Otter trawls.....		23	23
Yards at mouth.....		688	688
Pots:			
Crab.....		46	46
Eel.....	13,597	164	13,761
Fish.....		141	141
Turtle.....		10	10
Scrapes.....	708	8	716
Yards at mouth.....	708	8	716
Dredges:			
Crab.....		211	211
Yards at mouth.....		379	379
Oyster.....	416	290	706
Yards at mouth.....	470	307	777
Tongs:			
Oyster.....	4,341	2,889	7,230
Other.....	87	660	747
Rakes:			
Oyster.....		601	601
Other.....	10	86	96
Picks.....		571	571

CATCH: BY STATES

Species	Maryland		Virginia		Total	
	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
FISH						
Alewives.....	4,229,200	\$50,974	10,973,800	\$65,096	15,203,000	\$116,070
Black bass.....	35,200	2,881			35,200	2,881
Bluefish.....	312,500	25,491	340,100	17,675	652,600	43,166
Bonito.....	500	34			500	34
Bowfin.....			5,000	150	5,000	150
Butterfish.....	226,800	7,337	2,320,500	56,562	2,547,300	63,899
Cabio or crab eater.....			48,600	2,471	48,600	2,471
Carp.....	217,800	11,774	474,200	21,227	692,000	33,001
Catfish and bullheads.....	286,000	11,318	481,800	15,880	767,800	27,198
Cod.....			400	9	400	9
Crappie.....	5,800	204			5,800	204
Croaker.....	3,399,900	42,115	23,037,800	293,092	26,437,700	335,207
Dolphin.....	100	10			100	10
Drum:						
Black.....	24,100	174	38,600	605	62,700	779
Red or redfish.....	4,000	114	34,400	802	38,400	916
Eels, common.....	247,900	16,243	161,500	16,454	409,400	32,697
Flounders.....	33,500	2,607	671,700	33,514	705,200	36,121
Gizzard shad.....	42,600	764	287,600	3,254	330,200	4,018
Hake.....			23,100	397	23,100	397
Harvestfish.....	5,100	99	146,200	2,956	151,300	3,055
Herring, sea.....			2,100	33	2,100	33
Hickory shad.....	19,600	460	53,100	1,263	72,700	1,723
King whiting or "kingfish".....	2,300	55	55,600	1,449	57,900	1,504
Mackerel.....			54,100	2,134	54,100	2,134
Menhaden.....	7,000	350	121,080,600	410,100	121,087,600	410,450

Fisheries of the Chesapeake Bay States, 1935—Continued

CATCH: BY STATES—Continued

Species	Maryland		Virginia		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
Mullet.....	17,500	\$950	36,700	\$1,418	54,200	\$2,368
Pigfish.....			11,400	357	11,400	357
Pike or pickerel.....	21,100	3,076	1,800	160	22,900	3,236
Pompano.....	100	20			100	20
Scup.....	122,500	1,238	1,934,700	27,856	2,057,200	29,094
Sea bass.....	15,000	750	211,100	8,015	226,100	8,765
Shad.....	800,000	83,777	2,982,900	275,345	3,682,900	359,122
Sharks.....			7,200	155	7,200	155
Skates.....			16,800	144	16,800	144
Spanish mackerel.....	1,500	150	36,000	2,529	37,500	2,679
Spot.....	17,800	619	407,100	14,486	424,900	15,105
Squeteague or "sea trout":						
Gray.....	1,313,290	30,477	13,443,000	163,925	14,756,290	194,402
Spotted.....	5,000	495	111,800	7,534	116,800	8,029
Striped bass.....	927,700	78,611	374,800	39,310	1,302,500	117,954
Sturgeon.....	100	70	6,200	818	6,300	888
Suckers.....	11,100	106			11,100	406
Sunfish.....	2,500	60			2,500	60
Swallowfish.....			800	16	800	16
Tautog.....	100	3	1,600	21	1,700	24
Tomcod.....			1,100	11	1,100	11
White perch.....	305,100	14,533	294,000	12,455	599,100	26,988
Whiting.....			16,100	250	16,100	250
Yellow perch.....	83,200	4,974	59,300	3,138	142,500	8,112
Total.....	12,744,000	393,246	180,145,200	1,593,066	192,889,200	1,896,312
SHELLFISH, ETC.						
Crabs:						
Hard.....	17,264,800	372,522	19,762,900	488,699	37,027,700	841,221
Soft and peelers.....	2,556,600	229,535	1,449,000	155,522	4,005,600	385,057
Lobsters.....			700	82	700	82
Clams:						
Hard, public.....	25,300	3,200	1,623,900	365,647	1,649,200	368,847
Hard, private.....			20,000	5,000	20,000	5,000
Mussels, sea.....			23,200	776	23,200	776
Oysters:						
Market, public, spring.....	4,249,400	255,660	1,303,900	78,827	5,553,300	334,487
Market, public, fall.....	2,764,100	625,175	1,937,900	123,029	4,702,000	748,204
Market, private, spring.....	267,600	31,514	5,551,700	387,946	5,819,300	419,460
Market, private, fall.....	1,302,700	109,266	5,523,700	408,020	6,826,400	517,286
Squid.....	55,000	1,275	234,500	3,544	289,500	4,819
Terrapin, diamond back.....	5,800	2,188	400	190	6,200	2,368
Turtles, snapper.....			15,000	600	15,000	600
Total.....	35,491,300	1,610,335	37,446,800	2,017,872	72,938,100	3,628,207
Grand total.....	48,235,300	2,003,581	217,592,000	3,520,938	265,827,300	5,524,519

¹ Statistics on oysters used in this table are based on yields of 6.29 pounds of meats to the bushel for market oysters in Maryland and 6.44 pounds in Virginia.

SUPPLEMENTARY TABLE SHOWING THE PRODUCTION OF CERTAIN SHELLFISH IN NUMBER AND BUSHELS

Product	Maryland		Virginia		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
Crabs:						
Hard.....number.....	51,794,400	\$352,522	59,288,700	\$488,699	111,083,100	\$841,221
Soft and peelers.....do.....	10,226,400	229,535	5,796,000	155,522	16,022,400	385,057
Clams:						
Hard, public.....bushels.....	3,162	3,200	202,988	365,647	206,150	368,847
Hard, private.....do.....			2,500	5,000	2,500	5,000
Mussels, sea.....do.....			1,933	776	1,933	776
Oysters:						
Market, public, spring.....do.....	675,580	255,660	202,469	78,827	878,049	334,487
Market, public, fall.....do.....	1,552,321	625,175	300,916	123,029	1,853,237	748,204
Market, private, spring.....do.....	42,544	31,514	862,065	387,946	904,609	419,460
Market, private, fall.....do.....	207,107	109,266	857,717	408,020	1,064,824	517,286

Fisheries of the Chesapeake Bay States, 1935—Continued

SEED OYSTER FISHERY

Item	Maryland		Virginia		Total	
OPERATING UNITS						
Fishermen:	<i>Number</i>		<i>Number</i>		<i>Number</i>	
On vessels.....	209		3		212	
On boats and shore:						
Regular.....			1,369		1,369	
Casual.....			188		188	
Total	209		1,560		1,769	
Vessels:						
Motor.....			1		1	
Net tonnage.....			6		6	
Sail.....	39				39	
Net tonnage.....	758				758	
Total vessels	39		1		40	
Total net tonnage	758		6		764	
Boats:						
Motor.....			843		843	
Other.....			280		280	
Apparatus:						
Dredges.....	78				78	
Yards at mouth.....	107				107	
Tongs.....			1,142		1,142	
Rakes.....			200		200	
CATCH						
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring.....	229,618	\$22,962	918,600	\$159,585	1,148,218	\$182,547
Seed, public, fall.....			889,100	154,715	889,100	154,715
Seed, private, spring.....			20,000	4,000	20,000	4,000
Total	229,618	22,962	1,827,700	318,300	2,057,318	341,262

NOTE.—Of the number of persons fishing for seed oysters, 1,475 are duplicated among those fishing for market oysters or other species. Similarly, the following craft and gear are duplicated: 40 vessels, 698 motor boats, 230 other boats, 78 dredges, 877 tongs, and 200 rakes.

Industries related to the fisheries of the Chesapeake Bay States, 1935

OPERATING UNITS, SALARIES, AND WAGES

Item	Maryland	Virginia	Total
Transporting:	<i>Number</i>	<i>Number</i>	<i>Number</i>
Persons engaged.....	331	691	1,022
Vessels:			
Steam.....		1	1
Net tonnage.....		103	103
Motor.....	167	314	481
Net tonnage.....	2,564	2,916	5,480
Sail.....	3		3
Net tonnage.....	85		85
Total vessels	170	315	485
Total net tonnage	2,649	3,019	5,668
Wholesale and manufacturing:			
Establishments.....	330	255	585
Persons engaged:			
Proprietors.....	432	308	740
Salaries employees.....	198	162	360
Wage earners:			
Average for season.....	6,314	5,799	12,113
Average for year.....	2,712	2,093	4,805
Paid to salaried employees.....	\$321,224	\$227,860	\$549,084
Paid to wage earners.....	\$1,408,063	\$1,097,882	\$2,505,945
Total salaries and wages	\$1,729,287	\$1,325,742	\$3,055,029
Fishermen manufacturing	62		62

Industries related to the fisheries of the Chesapeake Bay States, 1935—Continued

PRODUCTS MANUFACTURED

Item	Maryland		Virginia	
	Quantity	Value	Quantity	Value
By manufacturing establishments:				
Alewives:				
Salted:				
Corned.....pounds..	66,600	\$1,145	1,559,058	\$21,614
Pickled.....do.....	1,777,808	37,919	1,807,270	29,238
Tight-pack cut.....do.....	(¹)	(¹)	2,013,060	75,808
Tight-pack roe.....do.....	(¹)	(¹)	145,130	8,279
Canned.....standard cases..	14,884	36,562	(¹)	(¹)
Roe, canned.....do.....	5,910	40,681	11,961	84,133
Dry scrap.....tons.....	(¹)	(¹)	378	11,561
Croaker, fresh fillets.....pounds..			101,000	13,290
Menhaden products:				
Dry scrap and meal.....tons.....			14,404	424,510
Oil.....gallons.....			1,567,298	459,101
Sea bass, fresh fillets.....pounds..			68,000	10,210
Squeteagues, fresh fillets.....do.....			196,000	25,970
Crabs, blue:				
Meat, packaged, fresh cooked.....do.....	2,773,467	959,902	1,819,028	650,781
Dry scrap.....tons.....	(¹)	(¹)	1,498	25,154
Clams, hard, canned chowder.....standard cases..	55,776	155,515		
Oysters, fresh shucked.....gallons..	2,432,669	2,683,591	2,029,423	2,292,634
Oyster-shell products:				
Poultry feed.....tons.....	41,895	179,896	15,202	85,805
Lime.....do.....	23,692	33,881	8,352	31,407
Lime, "burned".....do.....			16,258	102,593
Unclassified products:				
Packaged, fresh fillets and pandressed.....pounds..			² 280,000	² 23,600
Dry scrap and meal.....tons.....	³ 850	³ 17,550	⁴ 1,310	⁴ 24,731
Oil.....gallons.....	(⁵)	(⁵)	⁶ 12,400	⁶ 2,843
Miscellaneous.....do.....		⁷ 852,166		⁸ 9,395
Total.....		4,998,808		4,412,657
By fishermen:				
Alewives:				
Pickled.....pounds.....	193,370	4,030		
Smoked.....do.....	1,000	100		
Eels, salted.....do.....	78,148	5,956		
Sturgeon roe, salted.....do.....	50	3		
Total.....	272,568	10,089		
Grand total.....		5,008,897		4,412,657

¹ The production of this item has been included under "Unclassified products."² Includes packaged fresh fillets of flounders and haddock, and pandressed croaker and squeteagues.³ Includes alewife and blue crab dry scrap.⁴ Includes miscellaneous acid and dry scrap.⁵ The production of this item has been included under "Miscellaneous."⁶ Includes alewife and miscellaneous oils.⁷ Includes salted tight-pack cut alewives, tight-pack alewife roe, and spot; alewife oil; smoked alewives, butterfish, carp, chubs, eels, herring bloaters, lake trout, salmon, sturgeon, tullibee, and whitefish; canned fish paste, oysters, oyster puree, shrimp soup, and terrapin soup; marine-shell buttons and novelties; and pearl essence.⁸ Includes canned alewives and blue crabs; and fresh-shucked hard clams.

NOTE.—The total value of manufactured products in the Chesapeake Bay States was as follows: By manufacturing establishments, \$9,411,465; and by fishermen \$10,089. Some of the above products may have been imported from another State or a foreign country; therefore, they cannot be correlated directly with the catch within the State. Of the total number of persons engaged on transporting vessels and boats, 676 have been included as fishermen, and among the total number of persons engaged in the preparation of fishermen's prepared products all have been included as fishermen.

MARYLAND

Fisheries of Maryland, 1935

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets			Lines		Pound nets	Fyke nets.
		Anchor	Drift	Stake	Hand	Trot with baits or snoods		
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>	<i>Number</i>
Regular.....	357	11	57	82	20	1,279	414	38
Casual.....	237	15	288	131		131	114	106
Total.....	594	26	345	213	20	1,410	528	144
Boats:								
Motor.....	67	16	78	108	10	1,114	176	62
Other.....	242	2	118	44		302	152	63
Apparatus:								
Number.....	256	189	256	3,095	40	1,731	529	2,605
Length, yards.....	26,347							
Square yards.....		31,899	294,666	257,270				
Hooks, baits, or snoods.....					40	1,241,400		

Item	Dip nets	Pots, eel	Scrapes	Dredges, oyster	Tongs		Rakes, other than for oysters	By hand, other than for oysters	Total, exclusive of duplication
					Oyster	Other			
Fishermen:									
On vessels.....				696					696
On boats and shore:									
Regular.....	623	126	334	139	3,591	57	10	43	4,907
Casual.....	597	38			747	30			2,225
Total.....	1,220	164	334	835	4,338	87	10	43	7,855
Vessels, sail:				140					140
Net tonnage.....				1,694					1,694
Boats:									
Motor.....		104		20	2,098	22			2,951
Other.....	1,143	33	304	41	156	57	10	5	2,360
Apparatus:									
Number.....	1,215	13,597	708	416	4,341	87	10		
Yards at mouth.....			708	470					

CATCH: BY GEAR

Species	Haul seines		Gill nets							
			Anchor		Drift		Stake			
			Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	17,700	\$216			17,300	\$220	11,200	\$178		
Black bass.....	14,500	1,209					900	64		
Bluefish.....	9,300	685			111,200	8,760	1,300	77		
Butterfish.....	600	18								
Carp.....	175,000	9,682			1,100	25	3,400	185		
Catfish and bullheads.....	59,900	2,290			300	10	2,000	88		
Crappie.....	900	45					200	8		
Croaker.....	402,400	6,593			2,200	61	4,900	111		
Drum, black.....	7,000	70								
Eels, common.....	2,000	113								
Flounders.....	300	15								
Gizzard shad.....	14,900	271					400	10		
Hickory shad.....	200	7			100	5				
King whiting or "kingfish".....	100	5								
Mullet.....					17,500	950				
Pike or pickerel.....	7,200	1,174					1,900	170		
Shad.....	1,000	58	15,400	\$1,601	228,800	24,110	78,000	8,105		
Spot.....	5,100	171			2,500	70				
Squeteagues or "sea trout":										
Gray.....	30,200	1,512			3,300	162	700	40		
Spotted.....	3,400	330								
Striped bass.....	162,500	13,209	35,000	2,787	55,900	5,236	188,800	18,176		
Suckers.....	1,300	72					400	12		
Sunfish.....	700	23					300	9		
White perch.....	46,700	2,077	300	26	6,500	342	15,100	857		
Yellow perch.....	11,500	732					1,000	58		
Crabs, soft and peelers.....	118,100	15,002								
Total.....	1,092,500	55,579	50,700	4,414	446,700	39,951	310,500	28,148		

Fisheries of Maryland, 1935—Continued

CATCH: BY GEAR—Continued

Species	Lines				Pound nets		Fyke nets	
	Hand		Trot with baits or snoods		Pounds	Value	Pounds	Value
	Pounds	Value	Pounds	Value				
Alewives.....					4,177,900	\$50,245	5,100	\$115
Black bass.....					500	50	19,300	1,558
Bluefish.....	100,000	\$10,000			90,700	5,969		
Bonito.....	400	32			100	2		
Butterfish.....					228,200	7,319		
Carp.....					15,800	676	22,500	1,206
Catfish and bullheads.....					72,800	2,890	150,000	5,990
Crappie.....					2,000	10	2,700	141
Croaker.....					2,987,700	35,264	2,700	86
Dolphin.....	100	10						
Drum:								
Black.....					17,100	104		
Red or redfish.....					4,000	114		
Eels:								
Common.....					5,500	415	11,400	695
Conger.....	600	12						
Flounders.....	20,000	2,000			13,200	592		
Gizzard shad.....					26,200	461	1,100	22
Harvestfish.....					5,100	99		
Hickory shad.....					19,300	448		
King whiting or "kingfish".....					2,200	50		
Menhaden.....					7,000	350		
Pike or pickerel.....					1,800	281	10,200	1,451
Pompano.....					100	20		
Scup.....	10,000	100			112,500	1,138		
Sea bass.....	15,000	750						
Shad.....					473,800	49,541	200	22
Spanish mackerel.....					1,500	150		
Spot.....					10,200	378		
Squeteagues or "sea trout":								
Gray.....	4,000	400			1,274,800	28,353	200	10
Spotted.....					1,600	165		
Striped bass.....					480,700	38,756	4,800	480
Sturgeon.....					400	70		
Suckers.....					1,100	53	8,600	269
Sunfish.....							1,500	28
Tautog.....	100	3						
White perch.....					127,600	6,171	108,900	5,060
Yellow perch.....					5,300	317	65,400	3,867
Crabs:								
Hard.....			17,014,000	\$346,241				
Soft and peelers.....			283,300	19,564				
Squid.....					55,000	1,275		
Total.....	150,200	13,307	17,297,300	365,805	10,219,700	231,726	414,600	21,000

Species	Dip nets		Pots, eel		Scrapes	
	Pounds	Value	Pounds	Value	Pounds	Value
Catfish and bullheads.....			1,000	\$50		
Eels, common.....			228,400	15,008		
Shad.....	2,800	\$340				
Crabs:						
Hard.....	7,500	198			243,300	\$6,083
Soft and peelers.....	1,053,700	106,856			1,101,500	88,113
Total.....	1,064,000	107,394	229,400	15,058	1,344,800	94,196

Species	Dredges		Tongs		Rakes		By hand	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Clams, hard, public.....			24,500	\$3,104	500	\$64	300	\$32
Oysters:								
Market, public, spring.....	706,600	\$43,165	3,542,800	212,495				
Market, public, fall.....	2,581,400	160,862	7,182,700	464,313				
Market, private, spring.....	80,800	13,163	186,800	18,351				
Market, private, fall.....	223,100	26,687	1,079,600	82,579				
Terrapin, diamond back.....							5,800	2,188
Total.....	3,591,900	243,877	12,016,400	780,842	500	64	6,100	2,220

Fisheries of Maryland, 1935—Continued

CATCH: BY COUNTIES

Species	Anne Arundel		Baltimore		Calvert		Caroline	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	181,000	\$2,337	41,100	\$540	164,600	\$2,041	17,900	\$195
Black bass	100	11	200	25			1,100	108
Bluefish	28,000	1,556	1,400	60	500	38		
Carp	10,300	580	4,700	226	2,100	128	6,000	540
Catfish and bullheads	5,300	217	35,500	1,201	6,200	228	8,800	336
Croaker	249,900	7,172	4,300	93	48,800	506	11,000	220
Eels, common	22,600	1,540	23,400	1,259	300	15	1,200	63
Flounders	700	42			300	15		
Gizzard shad	8,400	143	7,000	111	500	20	3,000	50
Hickory shad	4,000	83	200	2	1,100	30	100	5
Pike or pickerel	600	95	700	123	100	20	200	30
Shad	45,300	4,071	700	70	33,600	2,794	17,200	2,106
Spot	4,800	151	200	4	500	25	300	15
Squeteagues or "sea trout":								
Gray	252,200	9,155	1,300	92	4,600	246	200	10
Spotted	100	10	100	10	100	10		
Striped bass	238,900	15,305	54,400	4,778	5,300	419	64,800	6,780
Sturgeon	200	40						
Suckers	200	10			600	36	200	15
Sunfish			100	5				
White perch	6,500	349	49,900	2,439	6,200	297	9,800	346
Yellow perch	600	41	10,800	593	1,700	107	1,400	120
Crabs:								
Hard	512,600	12,522	213,000	6,300	810,000	18,200		
Soft and peelers	76,200	9,250	27,000	1,350	102,400	13,647		
Oysters:								
Market, public, spring	572,800	35,250	35,000	2,250	214,600	16,161		
Market, public, fall	1,158,300	80,234	175,000	11,250	309,700	23,507		
Market, private, spring					3,600	300		
Market, private, fall					192,600	17,254		
Total	3,379,600	180,164	686,000	32,876	1,910,000	96,042	143,200	10,939

Species	Cecil		Charles		Dorchester		Harford	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	659,400	\$7,246	53,100	\$919	202,800	\$3,004	65,700	\$673
Black bass	22,500	1,777	2,500	255	300	30	7,200	560
Bluefish	5,000	300			89,900	6,779		
Carp	32,500	2,001	44,500	2,209	9,100	383	35,000	2,506
Catfish and bullheads	68,900	2,622	19,000	816	16,100	673	27,600	1,197
Crappie	400	11	500	30			300	10
Croaker	500	25	100	2	114,000	1,608		
Drum:								
Black					500	5		
Red or redfish					2,100	79		
Eels, common	9,500	499	2,000	139	84,500	5,829	6,400	371
Flounders			100	5	5,800	249		
Gizzard shad	1,200	12	3,400	51	3,800	93	1,100	23
Hickory shad	800	21	100	2	2,100	42	100	5
Pike or pickerel	9,200	1,229	1,600	265	300	41	6,300	954
Shad	56,200	6,099	53,900	5,304	81,200	8,034	29,500	3,057
Spot			200	4	500	18		
Squeteagues or "sea trout":								
Gray			700	44	17,000	744		
Spotted					500	50		
Striped bass	17,400	1,666	64,800	7,862	74,800	7,130	10,000	1,235
Suckers	2,100	48					5,800	169
Sunfish	1,400	26					1,000	29
White perch	52,200	2,009	19,400	1,063	32,100	1,420	38,100	1,739
Yellow perch	16,100	872	1,500	97	100	8	21,700	1,281
Crabs:								
Hard			463,800	8,066	4,324,500	86,490		
Soft and peelers			4,500	600	230,800	15,450		
Oysters:								
Market, public, spring			55,100	3,671	639,900	42,596		
Market, public, fall			142,500	9,503	1,414,200	93,177		
Market, private, spring					5,900	410		
Market, private, fall			62,700	4,699	10,700	743		
Terrapin, diamond back					3,500	1,563		
Total	955,300	26,463	996,000	45,606	7,367,000	276,648	255,800	13,809

Fisheries of Maryland, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Kent		Prince Georges		Queen Annes		St. Marys	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	124, 100	\$1, 054	1, 500	\$21	1, 800	\$16	377, 200	\$4, 415
Black bass			1, 300	115				
Bluefish	1, 500	85			100	6	4, 300	263
Carp	14, 600	455	51, 100	2, 356	1, 000	80	800	26
Catfish and bullheads	30, 700	1, 104	20, 200	624	4, 400	236	200	8
Crappie			600	42	2, 000	101		
Croaker	107, 300	2, 287	300	22	1, 100	31	47, 000	840
Eels, common	22, 300	1, 654	9, 100	515	2, 300	115	700	71
Flounders	100	6					700	40
Gizzard shad	500	5	1, 200	24			8, 500	161
Hickory shad	400	12					3, 200	76
Pike or pickerel	1, 300	205	400	72	200	20		
Shad	79, 200	7, 695	5, 500	483	300	36	72, 200	7, 060
Spot	1, 300	10					100	4
Squeteagues or "sea trout":								
Gray	53, 400	2, 733	400	32	100	5	28, 100	1, 116
Spotted	800	80					1, 000	105
Striped bass	250, 300	20, 001	1, 200	136	9, 200	762	39, 400	3, 334
Sturgeon							200	30
Suckers			1, 100	61	100	4		
White perch	40, 800	2, 115	3, 000	174	4, 300	244	4, 100	240
Yellow perch	23, 300	1, 355	1, 600	134	1, 400	100		
Crabs:								
Hard	669, 700	13, 389			1, 447, 000	23, 152	609, 100	12, 182
Soft and peelers	87, 100	10, 806			79, 300	9, 982	102, 500	13, 559
Oysters:								
Market, public, spring	388, 800	19, 531			693, 800	33, 902	287, 900	19, 576
Market, public, fall	813, 000	53, 030			1, 515, 600	88, 408	384, 400	25, 503
Market, private, fall							89, 000	6, 973
Total	2, 710, 500	137, 612	98, 500	4, 811	3, 764, 000	157, 200	2, 060, 600	95, 582

Species	Somerset		Talbot		Wicomico		Worcester	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	288, 100	\$2, 940	1, 881, 300	\$23, 979	59, 100	\$884	110, 500	\$710
Bluefish	5, 200	477	66, 100	5, 277	2, 100	110	108, 400	10, 540
Bonito							500	34
Butterfish	2, 400	117	300	15	4, 100	205	220, 000	7, 000
Carp	700	28	4, 300	203	1, 100	53		
Catfish and bullheads	8, 700	507	12, 300	483	20, 800	1, 006	1, 300	62
Crappie							2, 000	10
Croaker	203, 500	1, 894	377, 700	4, 798	30, 700	516	2, 203, 700	22, 096
Dolphin							100	10
Drum:								
Black	8, 600	84					15, 000	85
Red or redfish	1, 500	30					400	5
Eels:								
Common	1, 700	120	54, 900	3, 426	3, 400	375	3, 000	240
Conger							600	12
Flounders	4, 100	155	1, 500	79	100	10	20, 100	2, 006
Gizzard shad	600	8	1, 000	20	2, 400	43		
Harvestfish							5, 100	99
Hickory shad	1, 000	30	6, 000	142			500	10
King whiting or "kingfish"	100	5					2, 200	50
Menhaden							7, 000	350
Mullet							17, 500	950
Pike or pickerel					200	22		
Pompano							100	20
Scup							122, 500	1, 238
Sea bass							15, 000	750
Shad	49, 600	6, 364	158, 300	18, 569	89, 100	9, 034	28, 200	3, 001
Spanish mackerel							1, 500	150
Spot	1, 200	48			800	28	7, 900	312
Squeteagues or "sea trout":								
Gray	17, 300	752	20, 400	1, 026	10, 200	460	907, 300	14, 062
Spotted	1, 600	150	200	20	600	60		
Striped bass	11, 200	992	62, 500	5, 834	22, 700	2, 335	800	75
Suckers					300	13	1, 000	50
Tautog							100	3
White perch	4, 800	335	16, 200	660	13, 100	723	4, 600	380
Yellow perch			2, 300	206	700	60		
Crabs:								
Hard	2, 168, 600	51, 201	4, 728, 500	94, 570	98, 000	1, 960	1, 220, 000	24, 400
Soft and peelers	1, 637, 800	131, 026	75, 000	9, 228	1, 000	60	133, 000	14, 577

U. S. BUREAU OF FISHERIES

Fisheries of Maryland, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Somerset		Talbot		Wicomico		Worcester	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Clams, hard, public							25,300	\$3,200
Oysters:								
Market, public, spring	938,300	\$54,677	356,100	\$23,375	67,100	\$4,671		
Market, public, fall	2,477,200	152,027	1,210,200	78,600	164,000	9,936		
Market, private, spring	23,000	1,232			100,600	6,709	134,600	22,863
Market, private, fall	395,600	28,047			304,700	20,313	247,400	31,237
Squid							65,000	1,275
Terrapin, diamond back	2,300	625						
Total	8,254,700	433,671	9,035,100	270,510	996,900	50,596	5,622,100	161,862

SEED OYSTER FISHERY: BY GEAR

Item	Oyster dredges
OPERATING UNITS	
	Number
Fishermen, on vessels	309
Vessels, sail	30
Net tonnage	756
Apparatus, number	74
Yards at mouth	107
CATCH	
Oysters, seed, public, spring	Bushels 229,618 Value \$22,962

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. The Maryland seed oyster fishery was carried on by vessels from Somerset, Talbot, Dorchester, Calvert, and Baltimore Counties in the open waters of Chesapeake Bay off Anne Arundel, Kent, and Queen Annes Counties.

VIRGINIA

Fisheries of Virginia, 1935

OPERATING UNITS, BY GEAR

Item	Purse seines, men-haden	Haul seines	Gill nets			Lines	
			Drift	Run-around	Stake	Hand	Trot with baits or snoods
Fishermen:	Number	Number	Number	Number	Number	Number	Number
On vessels	1,002						
On boats and shore:							
Regular		193	52		110	1	804
Casual		290	519	3	188	2	502
Total	1,002	483	571	3	298	3	1,306
Vessels:							
Steam	22						
Net tonnage	2,480						
Motor	7						
Net tonnage	631						
Total vessels	29						
Total net tonnage	3,111						
Boats:							
Motor		82	16	1	105		1,128
Other		152	306	2	131	3	174
Accessory boats	83	3					
Apparatus:							
Number	29	152	332	2	7,380	150	1,304
Length, yards	8,990	45,430					
Square yards			281,395	2,400	269,307		
Hooks, baits, or snoods						150	684,700

Fisheries of Virginia, 1935—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Pound nets	Crab pound nets	Stop nets	Fyke nets	Dip nets	Otter trawls
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....						90
On boats and shore:						
Regular.....	1,748	2	6	62	1,140	
Casual.....	304	2	4	80	826	
Total.....	2,052	4	10	142	1,966	90
Vessels:						
Motor.....						23
Net tonnage.....						385
Boats:						
Motor.....	491	2		39	57	
Other.....	417	2	5	82	1,804	
Apparatus:						
Number.....	2,000	12	5	667	1,966	23
Square yards.....			3,100			
Yards at mouth.....						688

Item	Pots				Scrapes	Dredges	
	Crab	Eel	Fish	Turtle		Crab	Oyster
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....						249	97
On boats and shore:							
Regular.....	4	9	9	1	8	55	250
Casual.....			7			13	
Total.....	4	9	16	1	8	317	347
Vessels:							
Motor.....						80	20
Net tonnage.....						771	322
Boats:							
Motor.....	2	2	3			17	125
Other.....	2	4	11	1	8	30	
Apparatus:							
Number.....	46	16	141	10	8	211	290
Yards at mouth.....					8	379	307

Item	Tongs		Rakes		Picks	By hand		Total, exclusive of duplication
	Oyster	Other	Oyster	Other		Oyster	Other	
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.....	3							1,422
On boats and shore:								
Regular.....	2,468	588	586	86	571	116	564	6,045
Casual.....	1,138	135	15				52	3,794
Total.....	3,609	723	601	86	571	116	616	11,261
Vessels:								
Steam.....								22
Net tonnage.....								2,480
Motor.....	1							125
Net tonnage.....	6							2,057
Total vessels.....	1							147
Total net tonnage.....	6							4,537
Boats:								
Motor.....	1,816	385	43	40	42		5	3,625
Other.....	582	219	389	46	456	58	119	3,795
Accessory boats.....								86
Apparatus:								
Number.....	2,889	660	601	86	571			

Fisheries of Virginia, 1935—Continued

CATCH: BY GEAR

Species	Purse seines		Haul seines		Gill nets			
	Pounds	Value	Pounds	Value	Drift		Runaround	
					Pounds	Value	Pounds	Value
Alewives.....			587,500	\$5,758	37,100	\$391		
Bluefish.....			28,300	1,297				
Bowfin.....			5,000	150				
Butterfish.....			20,100	202				
Carp.....			348,100	16,901	500	10		
Catfish and bullheads.....			85,700	3,446				
Croaker.....			611,700	6,794	200	8	40,000	\$450
Drum, red or redfish.....			1,800	37				
Eels, common.....			52,800	3,298				
Flounders.....			13,900	698				
Gizzard shad.....			64,500	735				
Harvestfish.....			20,000	150				
Hickory shad.....			1,300	49	500	5		
King whiting or "kingfish".....			1,000	30				
Menhaden.....	119,230,600	\$407,520						
Mullet.....			18,500	745	2,000	120	3,000	90
Pigfish.....			2,500	74				
Shad.....			13,300	1,612	162,000	16,180		
Spanish mackerel.....			200	20				
Spot.....			111,000	4,261	2,000	60	2,000	50
Squeteagues or "sea trout":								
Gray.....			148,700	6,466				
Spotted.....			106,300	7,231				
Striped bass.....			38,300	3,385	27,500	3,020		
White perch.....			58,500	2,648				
Yellow perch.....			9,100	613				
Total.....	119,230,600	407,520	2,348,100	66,600	231,800	19,794	45,000	590

Species	Gill nets—Con.		Lines				Pound nets	
	Stake		Hand		Trot with baits or snoods		Pounds	Value
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	7,800	\$186					10,299,000	\$58,305
Bluefish.....	1,300	63					308,700	16,197
Butterfish.....							2,241,200	54,429
Cabio or crab eater.....							48,600	2,471
Carp.....							58,200	2,055
Catfish and bullheads.....	600	20					122,700	4,318
Croaker.....	13,100	309					16,567,400	185,321
Drum:								
Black.....							38,600	605
Red or redfish.....							28,600	665
Eels, common.....							92,000	12,082
Flounders.....	200	10					239,400	9,139
Gizzard shad.....	9,200	140					194,600	2,186
Harvestfish.....							126,200	2,806
Hickory shad.....	100	2					50,900	1,205
King whiting or "kingfish".....							27,100	331
Mackerel.....							54,100	2,134
Menhaden.....							1,850,000	2,580
Mullet.....	7,200	245					5,400	178
Pigfish.....	500	10					8,400	273
Scup.....							442,100	6,677
Sea bass.....							2,700	50
Shad.....	207,800	22,691					2,490,800	233,830
Sharks.....							1,200	12
Skates.....							15,800	129
Spanish mackerel.....							35,800	2,509
Spot.....	1,300	48					277,800	9,860
Squeteagues or "sea trout":								
Gray.....	9,700	220					12,660,900	140,932
Spotted.....	100	5					5,400	298
Striped bass.....	51,800	7,117					227,900	22,759
Sturgeon.....							3,500	506
Tautog.....							1,100	15
White perch.....	1,000	71					103,300	4,544
Yellow perch.....	100	5					6,400	424
Crabs, hard.....					14,686,300	\$308,271	62,400	1,300
Squid.....							194,700	2,925
Turtles, snapper.....			7,500	\$300				
Total.....	311,800	31,142	7,500	300	14,686,300	308,271	48,892,900	784,050

Fisheries of Virginia, 1935—Continued

CATCH: BY GEAR—Continued

Species	Crab pound nets		Stop nets		Fyke nets		Dip nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....					42,400	\$456		
Carp.....			23,700	\$585	43,400	1,661		
Catfish and bullheads.....			49,000	980	153,800	5,216		
Croaker.....					52,400	1,018		
Eels, common.....					8,300	671		
Flounders.....					4,100	145		
Gizzard shad.....					19,300	193		
Hickory shad.....					300	2		
Mullet.....					600	40		
Pike or pickerel.....					1,800	160		
Shad.....					9,000	1,032		
Squeteagues or "sea trout", gray.....					15,600	476		
Striped bass.....					29,300	3,029		
White perch.....					116,000	4,992		
Yellow perch.....					43,700	2,096		
Crabs:								
Hard.....	12,000	\$300					156,000	\$2,540
Soft and peelers.....	6,000	600					1,280,700	137,998
Total.....	18,000	900	72,700	1,565	540,000	21,187	1,436,700	140,538

Species	Otter trawls		Pots					
			Crab		Eel		Fish	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bluefish.....	1,800	\$118						
Butterfish.....	59,200	1,931						
Carp.....							300	\$15
Catfish and bullheads.....							70,000	1,900
Cod.....	400	9						
Croaker.....	5,753,000	99,192						
Drum, red or redfish.....	4,000	100						
Eels, common.....	2,100	23			4,400	\$296	1,900	84
Flounders.....	414,100	23,522						
Hake.....	23,100	397						
Herring, sea.....	2,100	33						
King whiting or "kingfish".....	27,500	1,088						
Scup.....	1,492,600	21,179						
Sea bass.....	208,400	7,965						
Sharks.....	6,000	143						
Skates.....	1,000	15						
Spot.....	13,000	207						
Squeteagues or "sea trout", gray.....	608,100	15,831						
Sturgeon.....	2,700	312						
Swellfish.....	800	16						
Tautog.....	500	6						
Tomcod.....	1,100	11						
White perch.....	15,200	200						
Whiting.....	16,100	250						
Crabs:								
Hard.....			48,000	\$500				
Soft and peelers.....			7,700	804				
Lobsters.....	700	82						
Squid.....	39,800	619						
Total.....	8,693,300	173,249	55,700	1,304	4,400	296	72,200	1,999

Species	Pots—Con.		Scrapes		Dredges			
	Turtle				Crab		Oyster	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Crabs:								
Hard.....			6,000	\$90	4,792,200	\$175,698		
Soft and peelers.....			33,000	3,960				
Oysters:							2,576,300	\$186,037
Market, private, spring.....							4,546,800	338,621
Market, private, fall.....								
Turtles, snapper.....	7,500	\$300						
Total.....	7,500	300	39,000	4,050	4,792,200	175,698	7,123,100	524,658

Fisheries of Virginia, 1935—Continued

OPERATING UNITS: BY COUNTIES—Continued

Item	Glou- cester	Hen- rico	Isle of Wight	James City	King and Queen	King George	King Wil- liam	Lan- caster	Math- ews
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.....	26							469	36
On boats and shore:									
Regular.....	264		366	25		41		451	403
Casual.....	101	53	96	72	46	86	96	553	289
Total.....	391	53	462	97	46	127	96	1,473	728
Vessels:									
Steam								8	
Net tonnage.....								820	
Motor	9							9	10
Net tonnage.....	101							391	115
Total vessels.....	9							17	10
Total net tonnage.....	101							1,211	115
Boats:									
Motor.....	168		339	18	1	77		488	263
Other.....	46	27	51	39	34	66	43	387	112
Accessory boats.....								38	
Apparatus:									
Purse seines, menhaden								13	
Length, yards.....								4,230	
Haul seines.....		2			1	4	1		3
Length, yards.....		175			200	1,100	90		2,100
Gill nets:									
Drift.....	28			30	15	10	34		
Square yards.....		11,250		15,600	4,890	8,200	18,540		
Stake.....	100		2,921	1,344	401	575	201		120
Square yards.....	2,980		87,630	40,125	12,030	23,000	3,318		2,880
Lines:									
Hand.....					100				
Hooks.....					100				
Trot with baits or									
snoods.....	52		92			39		114	97
Baits or snoods.....	20,800		45,400			19,000		57,000	47,000
Pound nets.....	120		4	10		43		172	537
Crab pound nets.....									12
Fyke nets.....	11		65	24		39	4		
Dip nets.....						30		323	10
Otter trawls.....									1
Yards at mouth.....									30
Pots, fish.....						9			
Dredges:									
Crab.....	18								14
Yards at mouth.....	36								28
Oyster.....								8	8
Yards at mouth.....								13	12
Tongs:									
Oyster.....	40		319					384	27
Other.....	124								43

Item	Mid- dle- sex	Nanse- mond	New Kent	Nor- folk	North- amp- ton	North- umber- land	Prince George	Prin- cess Anne
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.....	13	3		42		550		
On boats and shore:								
Regular.....	378	79	2	69	611	979	10	61
Casual.....	557	86	44	81	40	499	42	104
Total.....	948	168	46	192	651	2,028	52	165
Vessels:								
Steam							14	
Net tonnage.....							1,660	
Motor	4	1		7			3	
Net tonnage.....	59	6		204			318	
Total vessels.....	4	1		7			17	
Total net tonnage.....	59	6		204			1,978	
Boats:								
Motor.....		363	91	1	47	245	364	74
Other.....		93	11	26	62	377	1,010	64
Accessory boats.....							48	

Fisheries of Virginia, 1935—Continued

CATCH: BY COUNTIES

Species	Accomac		Arlington		Caroline		Charles City	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	629,500	\$3,333					17,000	\$200
Bluefish.....	35,600	2,776						
Butterfish.....	487,600	15,879						
Cabio or crab eater.....	18,400	980						
Carp.....					100	\$2	6,500	154
Catfish and bullheads.....	900	36			400	12	24,200	578
Croaker.....	2,240,100	37,164						
Drum:								
Black.....	37,600	595						
Red or redfish.....	13,000	468						
Eels.....	22,500	2,200			200	13	700	37
Flounders.....	22,500	1,070						
Harvestfish.....	8,900	372						
Hickory shad.....	1,500	15						
King whiting or "kingfish".....	4,100	63						
Mackerel.....	2,100	52						
Menhaden.....	65,000	110						
Mullet.....	8,500	456						
Pigfish.....	1,400	64						
Pike or pickerel.....							400	40
Scup.....	14,300	242						
Shad.....	152,100	12,925	16,500	\$1,135			39,800	5,004
Sharks.....	200	2						
Skates.....	9,800	89						
Spanish mackerel.....	1,000	46						
Spot.....	46,900	1,925						
Squeteagues or "sea trout":								
Gray.....	1,583,300	28,438						
Spotted.....	8,400	356						
Striped bass.....	17,500	1,790					4,100	400
Sturgeon.....	300	85						
Tautog.....	400	4						
White perch.....	5,200	152			500	40	3,100	150
Yellow perch.....					200	15		
Crabs:								
Hard.....	2,076,600	47,490						
Soft and peelers.....	600,200	66,930						
Clams, hard, public.....	693,200	172,900						
Mussels, sea.....	23,200	776						
Oysters:								
Market, public, spring.....	264,600	17,976						
Market, public, fall.....	703,400	48,077						
Market, private, spring.....	614,500	48,999						
Market, private, fall.....	253,800	19,629						
Squid.....	90,300	1,355						
Terrapin, diamond back.....	400	180						
Total.....	10,758,800	535,999	16,500	1,135	1,400	82	95,800	6,563

Species	Chesterfield		Dinwiddie		Elizabeth City		Essex		Fairfax	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	20,600	\$196			252,400	\$1,270	300	\$6	1,600	\$32
Bluefish.....					63,500	2,576				
Butterfish.....					260,200	4,456				
Cabio or crab eater.....					1,700	121				
Carp.....	7,100	320			100	3	7,800	345	25,100	870
Catfish and bullheads.....	18,000	894					7,400	268	73,600	2,180
Cod.....					100	2				
Croaker.....					7,355,200	90,212	2,000	80		
Drum, red or redfish.....					2,600	56				
Eels.....	200	16			500	6	1,800	146	1,900	124
Flounders.....					280,200	15,574				
Gizzard shad.....					20,000	105	9,100	248	13,600	182
Hake.....					6,300	130				
Harvestfish.....					74,600	1,500				
Herring, sea.....					1,900	29				
Hickory shad.....	200	7								
King whiting or "kingfish".....					35,400	709				
Menhaden.....					40,000	40				
Mullet.....	200	10								
Pike or pickerel.....									900	80

Fisheries of Virginia, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Chesterfield		Dinwiddle		Elizabeth City		Essex		Fairfax	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Scup.....					985,000	\$13,999				
Sea bass.....					104,700	4,167				
Shad.....	5,800	\$672	400	\$69	207,600	21,175	400	\$55	40,500	\$2,635
Sharks.....					700	28				
Spanish mackerel.....					13,900	1,340				
Spot.....					38,200	743				
Squeteagues or "sea trout", gray.....					2,127,200	24,671	300	12		
Striped bass.....	100	8	400	48	1,500	120	1,000	112	9,600	985
Sturgeon.....					3,400	402				
Tautog.....					1,000	11				
Tomcod.....					1,100	11				
White perch.....					22,200	415	7,200	563	37,400	1,199
Whiting.....					3,700	38				
Yellow perch.....							2,100	150	24,900	1,210
Crabs, hard.....					1,596,800	53,496	19,900	548		
Lobsters.....					500	54				
Clams:										
Hard, public.....					56,000	14,000				
Hard, private.....					20,000	5,000				
Oysters:										
Market, public, spring.....							42,000	2,400		
Market, public, fall.....							25,200	1,440		
Market, private, spring.....					337,800	33,782	79,800	4,560		
Market, private, fall.....					1,017,600	101,747	63,000	3,600		
Squid.....					28,500	389				
Total.....	52,200	2,124	800	117	14,962,100	392,377	269,300	14,533	229,100	9,497

Species	Gloucester		Henrico		Isle of Wight		James City	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	144,300	\$975	1,500	\$18	25,600	\$236	9,000	\$129
Bluefish.....	31,200	1,790						
Butterfish.....	56,300	1,150						
Cabio or crab eater.....	900	36						
Carp.....			8,000	240	9,400	378	10,800	391
Catfish and bullheads.....	1,600	55	2,500	55	12,000	351	9,400	318
Croaker.....	3,413,100	44,640			42,500	836	14,200	286
Eels.....	100	5			1,800	126		
Flounders.....	68,000	2,530			500	24		
Gizzard shad.....	400	4	1,500	15	19,700	226		
Harvestfish.....	20,300	450						
King whiting or "kingfish".....	300	5						
Mullet.....					2,700	81		
Shad.....	166,800	18,030	4,400	502	55,800	7,576	65,400	6,996
Spot.....	28,600	855						
Squeteagues or "sea trout", gray.....	1,556,400	17,600			14,200	407	3,100	126
Striped bass.....	600	59	1,000	148	22,000	2,565	15,300	1,532
White perch.....	3,000	131	200	16	23,000	950	6,600	280
Crabs, hard.....	853,500	24,731			761,800	15,870		
Clams, hard, public.....	381,500	71,535						
Oysters:								
Market, public, spring.....	20,000	1,300			60,800	4,053		
Market, public, fall.....	26,000	1,650			235,500	15,700		
Market, private, spring.....	145,400	8,725			75,100	5,000		
Market, private, fall.....	39,400	2,624			8,700	586		
Total.....	6,957,700	198,880	19,100	994	1,371,100	54,965	133,800	10,068

Fisheries of Virginia, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	King and Queen		King George		King William		Lancaster	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives							1,884,300	\$10,953
Bluefish			72,700	\$1,243	14,400		11,200	594
Butterfish							9,900	327
Cabio or crab eater							2,300	100
Carp			9,800	424			1,500	30
Catfish and bullheads	600	\$20	38,300	1,680	400	20		
Croaker							380,000	3,681
Drum, black							1,000	10
Eels			7,400	614				
Flounders			2,500	79			6,800	290
Gizzard shad			78,500	807			2,300	20
Harvestfish							9,300	198
Hickory shad	500	10	3,500	104	400	9	2,000	43
Menhaden							50,832,000	174,811
Mullet			200	20	400	20		
Shad	2,600	470	32,100	4,043	11,500	1,323	119,800	8,365
Skates							4,000	20
Spanish mackerel							200	20
Spot							300	9
Squeteagues or "sea trout":								
Gray			3,500	130			333,900	5,249
Spotted							1,500	120
Striped bass	400	45	53,400	7,657	800	96	34,800	3,639
Sturgeon							600	110
Tautog							200	6
White perch	400	20	32,200	1,748	100	4	4,500	280
Yellow perch			3,100	208				
Crabs:								
Hard			338,400	5,640			1,003,200	22,800
Soft and peelers			7,600	1,260			193,800	19,400
Oysters:								
Market, public, spring							317,000	18,115
Market, public, fall							440,000	25,338
Market, private, spring							422,800	24,165
Market, private, fall							327,800	20,231
Turtles, snapper	5,000	200						
Total	9,500	765	683,200	25,657	28,000	1,702	56,347,000	338,924

Species	Mathews		Middlesex		Nansemond		New Kent	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	526,400	\$3,480	4,400	\$72	2,000	\$20	35,000	\$350
Bluefish	97,600	4,784	12,000	390				
Butterfish	155,300	5,272						
Cabio or crab eater	4,200	222						
Carp			6,000	120			5,300	208
Catfish and bullheads			2,000	40			7,600	326
Cod	100	4						
Croaker	3,618,500	31,411	208,100	1,120	3,200	64		
Drum, red or redfish	2,600	45						
Eels					200	12		
Flounders	53,200	2,162	5,100	308				
Gizzard shad							6,000	55
Hake	1,500	23						
Harvestfish	5,400	186						
Hickory shad	6,000	200	300	12				
King whiting or "kingfish"	2,200	80						
Menhaden	130,000	150	30,000	60				
Mullet	2,100	60						
Scup	117,200	1,360						
Sea bass	14,200	511						
Shad	1,048,500	99,540	2,100	305	4,300	482	10,400	1,408
Spanish mackerel	2,500	162						
Spot	41,600	791	20,200	404				

Fisheries of Virginia, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Mathews		Middlesex		Nansemond		New Kent	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Squeteagues or "sea trout":								
Gray	2,928,600	\$40,860	7,400	79				
Spotted	16,100	665	10,000	550				
Striped bass	15,800	1,038	13,200	906	400	\$40	900	\$95
Sturgeon	100	7						
White perch	300	6	500	25	2,100	52	2,500	162
Whiting	3,300	50						
Yellow perch					1,800	70		
Crabs:								
Hard	1,581,300	35,930	1,048,200	20,833	264,000	6,000		
Soft and peelers	30,000	3,000	50,400	7,400				
Clams, hard, public	30,800	7,700						
Oysters:								
Market, public, spring	600	40	504,100	28,805	3,400	300		
Market, public, fall	10,300	686	241,400	13,800	1,300	84		
Market, private, spring	181,100	15,502	190,700	14,480	87,800	7,300		
Market, private, fall	297,200	25,428	122,500	10,635	160,400	14,730		
Squid	1,600	35						
Total	10,928,200	281,390	2,478,600	100,344	530,900	29,154	67,700	2,604

Species	Norfolk		Northampton		Northumberland		Prince George	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	57,000	\$465	71,000	\$675	5,758,800	\$23,770	30,800	\$256
Bluefish	3,000	180	32,200	1,951	30,900	1,320		
Butterfish	59,600	829	1,231,600	27,197	15,700	251		
Cabio or crab eater	200	10	19,100	963	1,700	35		
Carp					16,400	388	20,600	487
Catfish and bullheads							115,800	2,307
Croaker	232,500	3,197	1,633,800	26,561	757,900	10,799		
Drum, red or redfish	3,000	60	9,100	114	2,900	35		
Eels	1,500	15	55,500	8,881	1,300	112	1,700	68
Flounders	67,900	2,553	34,100	1,365	15,000	444		
Gizzard shad							4,500	33
Hake	11,100	194						
Harvestfish	20,000	150	7,700	100				
Hickory shad	6,000	90	200	8	20,000	368	500	25
King whiting or "kingfish"			1,200	36				
Mackerel			52,000	2,082				
Menhaden					69,983,600	234,929		
Mullet	3,000	150	7,800	157				
Pigfish	2,700	88	1,000	15				
Scup	146,900	2,242	427,600	6,431				
Sea bass	58,400	2,166	2,700	50				
Shad	70,600	7,873	9,200	755	617,000	54,519	12,500	1,229
Sharks			1,000	10				
Skates			2,000	20				
Spanish mackerel	12,000	600	4,800	221				
Spot	70,000	3,560	113,900	4,572	2,400	64		
Squeteagues or "sea trout":								
Gray	91,000	1,203	3,709,700	17,628	419,100	8,354	1,100	55
Spotted	3,000	150	4,200	281	2,500	102		
Striped bass	500	50	2,100	150	65,500	5,880		
Sturgeon	900	108						
White perch			7,500	78	3,000	180	1,200	40
Whiting	8,000	147					300	9
Yellow perch								
Crabs:								
Hard	972,000	24,300	1,670,000	42,000	2,935,300	55,905		
Soft and peelers			261,200	26,436	296,500	30,160		
Clams, hard, public			148,500	35,712				
Oysters:								
Market, public, spring			900	56	5,800	331		
Market, public, fall			2,200	160	78,100	4,675		
Market, private, spring	1,848,900	117,085	844,800	62,135	262,400	16,123		
Market, private, fall	2,874,300	183,958	75,200	5,070	194,000	12,043		
Squid	6,600	132	104,400	1,570				
Total	6,630,600	351,555	10,848,200	273,440	81,485,800	465,787	189,000	4,509

Fisheries of Virginia, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Princess Anne		Prince William		Richmond		Southampton	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	80,000	\$900	22,000	\$200	29,900	\$606	446,000	\$4,200
Bluefish.....	10,600	622			100	4		
Bowfin.....	5,000	150						
Butterfish.....	4,100	122			1,500	90		
Cabio or crab eater.....	100	4						
Carp.....	262,000	13,600	23,300	960	25,000	997		
Catfish and bullheads.....	5,000	150	34,300	1,782	78,000	2,388		
Croaker.....	508,000	6,531			5,300	210		
Drum, red or redfish.....	800	12						
Eels.....	50,000	3,000	5,200	488	3,200	223		
Flounders.....	4,400	140			500	26		
Gizzard shad.....	25,000	250	2,200	22	47,600	725		
Hickory shad.....			500	5	1,300	67		
King whiting or "kingfish".....	1,000	30						
Mullet.....	8,200	326			600	48		
Pigfish.....	6,300	190						
Pike or pickerel.....			500	40				
Shad.....	7,200	703	23,600	2,241	9,300	1,462	3,200	320
Spanish mackerel.....	1,200	100						
Spot.....	25,000	1,175			100	5		
Squeteagues, or "sea trout":								
Gray.....	185,800	8,100			7,100	399		
Spotted.....	31,100	2,160						
Striped bass.....			20,500	2,330	20,700	2,121		
White perch.....	20,000	1,120	35,400	1,659	14,200	1,017		
Yellow perch.....	8,000	240	4,000	230	5,900	396		
Crabs, hard.....	516,000	10,750			56,100	1,520		
Clams, hard, public.....	5,900	2,200						
Oysters:								
Market, public, spring.....					26,000	1,533		
Market, public, fall.....					21,200	1,209		
Market, private, spring.....	5,000	295			60,700	3,469		
Market, private, fall.....	19,100	3,585			58,500	3,340		
Turtles, snapper.....					10,000	400		
Total.....	1,803,800	56,455	171,500	9,957	482,800	22,255	449,200	4,520

Species	Stafford		Surry		Warwick		Westmoreland		York	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Alewives.....	1,000	\$20	8,900	\$82	15,100	\$125	808,300	\$8,024	4,000	\$30
Bluefish.....					2,600	114	3,000	240	6,600	334
Butterfish.....					24,000	541			14,700	448
Carp.....	8,100	390	19,400	844			1,900	76		
Catfish and bullheads.....	21,300	1,405	13,300	405			15,200	610		
Cod.....									200	3
Croaker.....			1,000	20	809,200	13,830	20,200	308	1,493,000	22,142
Drum, red or redfish.....					100	3			300	9
Eels.....	1,200	84	600	48	100	2	3,900	234		
Flounders.....					30,800	1,858			80,200	5,091
Gizzard shad.....	500	5	10,700	97			46,000	460		
Hake.....					4,200	50				
Herring, sea.....									200	4
Hickory shad.....							10,200	300		
King whiting, or "kingfish".....					3,200	119			8,200	407
Mullet.....									3,000	90
Scup.....					173,900	2,139			69,800	1,443
Sea bass.....					18,000	679			13,100	442
Shad.....	66,600	5,366	4,500	548	16,200	1,790	31,400	3,193	24,800	2,636
Sharks.....									5,300	115
Skates.....									1,000	15
Spanish mackerel.....					400	40				
Spot.....					9,000	143			10,900	240
Squeteagues or "sea trout":										
Gray.....					119,200	1,777	136,800	4,104	215,300	4,733
Spotted.....									35,000	3,150
Striped bass.....	6,900	700	5,100	590	4,100	400	42,000	4,481	14,600	1,325
Sturgeon.....					400	33			500	73
Swellfish.....									800	16
White perch.....	18,600	882	1,900	60	5,600	200	24,100	994	2,500	32
Whiting.....					900	11			200	4
Yellow perch.....	8,800	592					200	18		

Fisheries of Virginia, 1935—Continued

CATCH: BY COUNTIES—Continued

Species	Stafford		Surry		Warwick		Westmoreland		York	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Crabs:										
Hard.....	36,000	\$900			55,600	\$1,020	577,500	\$10,100	3,400,700	\$108,866
Soft and peelers.....							9,300	936		
Lobsters.....					200	28				
Clams, hard, public.....									308,000	61,600
Oysters:										
Market, public, spring.....					40,300	2,688	18,400	1,230		
Market, public, fall.....							153,300	10,210		
Market, private, spring.....					11,600	775	4,900	326	378,400	25,225
Market, private, fall.....							9,200	614	3,000	200
Squid.....					900	27			2,200	36
Total.....	169,000	10,344	65,400	\$2,694	1,345,600	28,392	1,915,800	44,458	6,096,500	238,709

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 vessels.....	3						3	
On boats and shore:								
Regular.....	1,129		200		40		1,369	
Casual.....	188						188	
Total.....	1,320		200		40		1,560	
Vessels:								
Motor.....	1						1	
Net tonnage.....	6						6	
Boats:								
Motor.....	843						843	
Other.....	80		200				280	
Apparatus, number.....	1,142		200					
CATCH								
Oysters:								
Seed, public, spring.....	898,600	\$155,785	15,000	\$3,000	5,000	\$800	918,600	\$159,585
Seed, public, fall.....	874,100	152,115	5,000	1,000	10,000	1,600	889,100	154,715
Seed, private, spring.....			20,000	4,000			20,000	4,000
Total.....	1,772,700	307,900	40,000	8,000	15,000	2,400	1,827,700	318,300

SEED OYSTER FISHERY: BY COUNTIES

Item	Accomac		Elizabeth City		Gloucester	
	Number	Value	Number	Value	Number	Value
OPERATING UNITS						
Fishermen:						
On boats and shore:						
Regular.....	152		45		155	
Casual.....					62	
Total.....	152		45		217	
Boats:						
Motor.....	66		20		144	
Other.....			10		20	
Apparatus, tongs.....	93		36		219	
CATCH						
Oysters:						
Seed, public, spring.....	66,200	\$9,980	27,000	\$4,050	164,300	\$24,645
Seed, public, fall.....	61,600	9,340	27,000	4,050	164,200	24,630
Total.....	127,800	19,320	54,000	8,100	328,500	49,275

Fisheries of Virginia, 1935—Continued

SEED OYSTER FISHERY: BY COUNTIES—Continued

Item	Isle of Wight		Mathews		Nansemond	
OPERATING UNITS						
Fishermen:	<i>Number</i>		<i>Number</i>		<i>Number</i>	
On vessels.....					3	
On boats and shore:						
Regular.....	339		17		72	
Casual.....	30		30		63	
Total.....	369		47		138	
Vessels:						
Motor.....					1	
Net tonnage.....					6	
Boats:						
Motor.....	289		20		67	
Other.....	30					
Apparatus, tongs.....	319		37		96	
CATCH						
Oysters:	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>	<i>Bushels</i>	<i>Value</i>
Seed, public, spring.....	267,700	\$61,155	27,700	\$4,150	96,200	\$14,425
Seed, public, fall.....	259,300	59,895	27,800	4,170	89,800	13,470
Total.....	527,000	121,050	55,500	8,320	186,000	27,895

Item	Norfolk		Northampton		Warwick		York	
OPERATING UNITS								
Fishermen:	<i>Number</i>		<i>Number</i>		<i>Number</i>		<i>Number</i>	
On boats and shore:								
Regular.....	24		205		249		111	
Casual.....			3					
Total.....	24		208		249		111	
Boats:								
Motor.....	4		4		161		68	
Other.....	20		200					
Apparatus:								
Tongs.....	24		8		199		111	
Rakes.....			200					
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.....	12,000	\$1,800	15,000	\$3,000	159,200	\$23,880	83,300	\$12,500
Seed, public, fall.....			17,000	2,800	159,200	23,880	83,200	12,480
Seed, private, spring.....			20,000	4,000				
Total.....	12,000	1,800	52,000	9,800	318,400	47,760	166,500	24,980

NOTE.—Of the total number of persons fishing for seed oysters, 1,266 are duplicated among those fishing for market oysters or other species. Similarly, the following craft and gear are duplicated: 1 vessel, 698 motorboats, 230 other boats, 877 tongs, and 200 rakes.

SHAD AND ALEWIFE FISHERIES OF THE POTOMAC RIVER

The catch of shad in the Potomac River in 1935 amounted to 199,646 in number, 631,171 pounds in weight, and their total value to the fishermen was \$55,791. The catch of alewives for the same season amounted to 11,142,750 in number, with a total weight of 4,457,100 pounds, and a value to the fishermen of \$26,650. These figures show an increase of 11 percent in the weight and 17 percent in the value of shad as compared with 1934, and an increase of 120 percent in weight and 64 percent in the value of alewives.

Approximately 66 percent of the shad, in weight, were taken with pound nets, and 34 percent, with gill nets. More than 99½ percent of the alewives were taken with pound nets, only a small quantity being taken with gill nets.

Statistics of the catch of shad and alewives in Potomac River are also included in the catch data for Maryland and Virginia which are published elsewhere in this report.

Shad and alewife fisheries of the Potomac River, 1935

Item	Maryland			Virginia			Total		
	Number	Pounds	Value	Number	Pounds	Value	Number	Pounds	Value
Fishermen on boats and shore									
Regular.....	14			299			313		
Casual.....	108			129			237		
Total.....	222			428			550		
Boats									
Motor.....	44			130			174		
Other.....	24			118			142		
Apparatus									
Pound nets.....	32			293			325		
Gill nets.....	791			629			1,420		
Square yards.....	143,843			103,110			246,953		
Shad caught:									
With pound nets.....	8,646	29,672	\$3,343	127,929	393,109	\$34,027	136,566	414,772	\$37,370
With gill nets.....	15,419	52,499	5,014	47,661	163,900	13,407	63,080	216,369	18,421
Total.....	24,065	82,171	8,357	175,590	549,009	47,434	199,646	631,171	55,791
Alewives caught:									
With pound nets.....	555,750	222,300	2,738	10,532,000	4,212,900	23,712	11,087,750	4,435,100	26,450
With gill nets.....				55,000	22,000	200	55,000	22,000	200
Total.....	555,750	222,300	2,738	10,587,000	4,234,900	23,912	11,142,750	4,457,100	26,650

TRADE IN FISHERY PRODUCTS IN WASHINGTON, D. C.¹¹

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 firms have stalls in this market, 2 are located in the immediate vicinity of the market, 3 have stalls in the Center Market, located at Fifth and K Streets NW., and 2 are located in other parts of the city. Altogether there are 23 firms which employ 121 persons who received \$136,560 in salaries and wages during 1935. Of the total employees 86 were regularly employed. These firms conduct mainly a wholesale business although some retail trade is carried on.

The facilities for handling fish and oysters from boats and vessels that may land at the wharf are good, but only a comparatively small quantity are brought into the city by this method. In the fall and winter, considerable quantities of shell oysters are landed, but most of the oysters handled in Washington are brought in already shucked from Maryland and Virginia, by trucks and other transportation facilities.

During the year 1935 the receipts of fresh and frozen fishery products as received at the municipal fish wharf amounted to 12,187,970 pounds. This is an increase of 23 percent as compared with 1934, and an increase of 24 percent as compared with the 5-year average.

During 1935 two firms in Washington, D. C., smoked fishery products, and one firm produced shucked oysters. The total value of the products produced by these firms amounted to \$22,960.

¹¹ Trade of fishery products handled at the municipal wharf, Washington, D. C., are reported to the Bureau by agents of the Health Department, District of Columbia.

Fishery products received at Municipal Fish Wharf and Market, Washington, D. C., 1935

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Alewives (river herring)	4,900	14,300	108,000	236,600	274,205	6,700							644,705
Bluefish	5,300	4,500	4,800	27,700	40,200	10,000	11,600	21,200	31,400	48,700	20,800	22,800	249,000
Butterfish	3,100	7,700	1,400	29,800	56,500	90,000	75,000	31,200	18,600	14,700	9,300	500	337,800
Carp	12,800	4,100	17,100	26,150	23,350	12,050	6,500	5,600	12,800	13,900	18,300	10,050	162,700
Catfish	1,400	2,000	20,300	14,900	26,300	28,260	11,600	13,600	9,300	9,300	12,100	5,100	154,160
Cod	1,400	1,300	1,700	2,000	2,800		1,000	1,200	200	1,500	1,300	1,200	15,600
Croaker	115,800	130,000	288,500	405,100	467,400	307,600	406,000	499,400	228,000	217,000	156,600	169,000	3,370,400
Drum, red or redfish	300		100	6,300					400	400	1,000	9,300	17,400
Fels	100	200	2,100	2,525	1,540	800	100	300	700	800	700	1,000	10,865
Flounders	38,600	47,000	36,925	21,325	23,550	17,725	17,600	22,400	17,900	26,100	18,100	16,640	303,865
Gizzard shad	6,800	4,400	6,000	1,600				325	6,600	4,200	16,700	7,600	54,225
Haddock	43,065	42,240	48,985	52,090	30,700	30,100	28,050	32,100	34,850	47,505	36,650	22,410	448,745
Hake	1,400	500	1,300								1,800	6,200	11,200
Halibut	5,800	8,200	7,700	5,700	15,200	13,450	13,400	10,400	5,200	12,100	5,700	7,200	110,050
Hickory shad or "jacks"	3,800	2,750	550	500									7,600
Kingfish or "king mackerel"			2,500	2,800	3,400			400		1,800	2,400	1,600	14,900
Mackerel	21,800	27,600	15,500	18,700	35,350	33,300	25,450	23,200	17,400	21,000	16,100	35,800	291,200
Menhaden									4,600	72,600		200	77,400
Mullet	8,700	5,900	3,800			800	200	2,200	2,200	13,800	6,200	13,150	56,950
Perch	10,400	12,100	50,400	44,000	17,800	12,400	3,700	1,350	2,700	9,400	10,200	7,300	181,750
Pike or pickerel			400	150					400	600	600	1,100	3,250
Pollock	200							200	400	100	200	200	1,300
Pompano				100	100		100		400				700
Salmon	3,800	6,400	3,900	4,700	9,800	9,200	13,600	8,200	4,100	7,300	9,200	6,100	86,300
Scup or porgy	37,100	36,200	51,300	21,600	4,200	4,200	6,600	7,600	9,000	2,000		1,200	181,000
Sea bass	36,500	53,100	28,800	26,200	22,200	11,800	13,400	12,300	9,900	5,100	4,500	3,800	227,600
Shad	14,320	27,100	100,480	145,100	188,110	13,800				18,700	6,600	3,000	517,210
Sheepshead											200		200
Skates											100		100
Smelt	935	3,385	5,160	1,610					75	250	300	4,505	16,220
Snapper, red	200	600	900	1,100	400	500	7,000	200	300	700	1,300	1,350	14,550
Spot		400			2,200	3,600	800	2,600	18,200	53,800	8,100	12,200	101,900
Squeteagues or "sea trout"	92,600	82,400	98,100	125,900	351,400	278,200	272,000	219,000	344,800	290,800	98,400	126,800	2,380,400
Striped bass	7,000	4,600	35,900	29,300	12,400	2,100	5,500	8,550	22,700	53,100	34,700	15,900	231,750
Sturgeon	373			40	665	310	190			172	29		1,779
Swordfish	400	300	375	300	285	350	580	1,460	817	750	711	1,970	8,298
Tilefish	100		300		600	400					100		1,500
Tuna									200				200
Whitefish	200						100		300	1,000	600		2,200
Whiting				1,700							800	18,000	20,500
Yellowtail									400				400

Fishery products received at Municipal Fish Wharf and Market, Washington, D. C., 1935—Continued

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U. S. BUREAU OF FISHERIES

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Crabs:													
Hard.....		1,000		200	10,200	58,100	84,500	96,400	28,600	7,500			286,500
Soft.....			2,475	1,530	5,310	19,665	9,135	9,675	9,495	3,285	45		60,615
Meat.....	2,605	2,645	3,410	9,465	23,900	44,175	55,800	53,125	41,045	19,055	10,750	6,610	272,585
Sea crawfish or "spiny lobster":													
Alive.....	75	525	500	50					100	50	200		1,500
Meat.....	160	55	285	60					50		85	350	1,045
Lobsters:													
Alive.....	480	500	325	575	3,750	5,775	3,725	3,225	390	575	451	350	20,121
Meat.....	25	80	525	78					203	80	170	500	1,661
Shrimp:													
Green.....	9,875	7,250	5,500	11,625	15,750	33,750	25,500	33,000	15,000	16,438	14,625	10,625	198,938
Cooked.....	4,470	3,360	3,655	5,160	12,500	19,750	6,725	7,000	2,455	3,580	3,900	7,425	79,980
Squid.....	700	200	300	1,000	4,200	1,600	400						9,200
Clams, hard.....	4,096	3,648	3,872	5,440	9,056	8,224	7,424	8,128	7,392	7,360	4,320	4,736	¹ 73,696
Oysters:													
In the shell (meat).....	28,966	30,310	35,378	12,894	1,890				7,182	37,639	50,232	50,554	² 255,045
Opened (meat).....	82,644	73,194	50,225	18,795					33,162	83,808	92,348	114,642	³ 548,818
Scallops.....	968	1,424	2,568	5,392	8,120	9,080	7,720	5,744	2,120	3,640	2,768	5,416	54,960
Frogs.....				80					84		30		194
Terrapin.....		72											72
Turtles.....					4,140	828					200		5,168
Total.....	614,257	653,538	1,032,293	1,327,934	1,709,471	1,088,592	1,120,999	1,141,366	951,236	1,132,217	680,884	735,183	12,187,970

¹ 9,212 bushels.

² 36,435 bushels.

³ 62,722 gallons.

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

FISHERIES OF THE SOUTH ATLANTIC AND GULF STATES

(South Atlantic, Area XXIV; Gulf, Area XXV)¹²

The most recent complete fishery statistics for the South Atlantic and Gulf States (North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas) are those collected for the year 1934. In that year the yield of the commercial fisheries amounted to 447,913,900 pounds, valued at \$9,993,660 to the fishermen, representing an increase of 49 percent in volume and 55 percent in value as compared with the catch in 1932, the most recent previous year for which statistics are available. Detailed statistics of these fisheries for 1934 appear in "Fishery Industries of the United States, 1935", Appendix II to the Report of the United States Commissioner of Fisheries for the fiscal year 1936. A summary of these fisheries appears in the following tables.

Fisheries of the South Atlantic and Gulf States, 1934

OPERATING UNITS: BY STATES

Item	North Carolina	South Carolina	Georgia	Florida
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	723	20	139	870
On boats and shore:				
Regular.....	2,620	596	381	5,461
Casual.....	2,012	877	468	1,177
Total	5,355	1,493	988	7,508
Vessels:				
Motor.....	93	5	46	202
Net tonnage.....	1,340	67	421	3,316
Sail.....	30			
Net tonnage.....	298			
Total vessels	123	5	46	202
Total net tonnage	1,638	67	421	3,316
Boats:				
Motor.....	1,344	94	122	2,064
Other.....	1,829	762	423	2,966
Accessory boats.....	112		6	18
Apparatus:				
Purse seines:				
Menhaden.....	31		2	5
Length, yards.....	7,940		600	1,475
Other.....	1			1
Length, yards.....	175			350
Haul seines:				
Common.....	412	27	8	116
Length, yards.....	53,160	3,880	800	39,455
Long.....	87			75
Length, yards.....	86,475			50,300
Gill nets:				
Anchor.....	1,840	190	47	26
Square yards.....	1,128,700	129,296	11,375	38,600
Drift.....	220	285	165	105
Square yards.....	469,170	217,120	103,540	185,790
Runaround.....	159	16	12	2,259
Square yards.....	66,730	4,050	3,570	1,820,749
Stake.....	4,931		5	6
Square yards.....	388,205		1,800	2,340
Trammel nets.....				181
Square yards.....				129,839
Lines:				
Hand.....	81	175	39	1,549
Hooks.....	172	495	39	2,155
Troll.....	45			1,029
Hooks.....	45			1,137

¹² These are the numbers given to these areas by the North American Council on Fishery Investigations. The catch in the Mississippi River and tributaries is not included in this section. For a clearer understanding of the statistics published in this section, the reader is referred to the section in the latter part of this document entitled "Statistical survey procedure."

Fisheries of the South Atlantic and Gulf States, 1934—Continued

OPERATING UNITS: BY STATES—Continued

Item	North Carolina	South Carolina	Georgia	Florida
Apparatus—Continued.				
Lines—Continued.	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Trot with baits or snoods	423	6	32	20
Baits or snoods	342,800	4,500	10,080	6,740
Trot with hooks	50		40	106
Hooks	6,200		2,840	42,366
Pound nets	1,522			17
Weirs	12			
Wheels	33			
Stop nets				9
Square yards				15,670
Fyke nets	480			
Dip nets:				
Common	480			57
Drop				24
Cast nets			10	18
Otter trawls:				
Fish				2
Yards at mouth				63
Shrimp	130	50	149	264
Yards at mouth	2,634	1,009	3,248	5,324
Pots:				
Crab			48	1,648
Eel	750			40
Fish	730		50	3,020
Sea crawfish				958
Spears	65	20		31
Dredges:				
Clam				1
Oyster	143		3	4
Yards at mouth	147		3	4
Scallops				6
Yards at mouth				11
Tongs, oyster	249	11	90	391
Rakes, other than for oysters	431	2		2
Forks				52
Grabs		317	20	28
Coquina scoops				1
Hooks, sponge				241
Diving outfits				53

Item	Alabama	Mississippi	Louisiana	Texas	Total
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels	122	557	369	114	2,914
On boats and shore:					
Regular	436	917	4,529	1,068	16,006
Casual	125	232	626	459	5,976
Total	683	1,706	5,524	1,641	24,896
Vessels:					
Motor	34	144	151	35	710
Net tonnage	339	1,905	1,056	345	8,781
Sail					31
Net tonnage					296
Total vessels	34	144	151	35	744
Total net tonnage	339	1,905	1,056	345	9,087
Boats:					
Motor	184	341	1,698	462	6,306
Other	160	361	1,243	345	8,081
Accessory boats			62		194
Apparatus:					
Purse seines:					
Menhaden					31
Length, yards					10,011
Other					
Length, yards					52
Haul seines:					
Common	8	1	95	23	69
Length, yards	4,350	300	21,404	2,500	125,847
Long					16
Length, yards					136,77
Gill nets:					
Anchor					2,10
Square yards					1,307,97

Fisheries of the South Atlantic and Gulf States, 1934—Continued

OPERATING UNITS: BY STATES—Continued

Item	Alabama	Mississippi	Louisiana	Texas	Total
Apparatus—Continued.					
Gill nets—Continued.	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Drift.....					773
Square yards.....					973,620
Runaround.....				84	2,530
Square yards.....				18,344	1,913,463
Stake.....	16			215	8,172
Square yards.....	2,430			53,662	448,457
Trammel nets.....	57	27	75	85	428
Square yards.....	18,745	7,370	13,569	40,240	209,793
Lines:					
Hand.....	126	159	242	256	2,727
Hooks.....	204	178	253	256	3,852
Troll.....				17	1,091
Hooks.....				17	1,199
Trot with baits or snoods.....	38	99	390	36	1,044
Baits or snoods.....	7,640	19,200	83,035	13,200	467,255
Trot with hooks.....	112		4	68	390
Hooks.....	11,550		1,800	52,150	116,900
Pound nets.....					1,539
Weirs.....					12
Wheels.....					33
Stop nets					9
Square yards.....					15,670
Fyke nets.....	10				490
Dip nets:					
Common.....			159	6	702
Drop.....		120	13,399		13,513
Cast nets		64	178	1	271
Otter trawls:					
Fish.....					2
Yards at mouth.....					63
Shrimp.....	190	366	1,611	319	3,049
Yards at mouth.....	2,067	4,658	19,354	5,066	43,390
Brush traps.....			25,250		25,250
Pots:					
Crab.....					1,666
Eel.....					790
Fish.....	78				3,878
Sea crawfish.....					956
Spears	60	72		105	373
Dredges					
Clam.....					1
Oyster.....	9	398	57	48	642
Yards at mouth.....	9	398	58	53	672
Scallops.....					6
Yards at mouth.....					11
Tongs, oyster.....	106	224	758	196	2,025
Rakes, other than for oysters.....					435
Forks.....					52
Grabs.....					365
Coquina scoops.....					1
Hooks, sponge.....					241
Diving outfits.....					53

CATCH BY STATES

Species	North Carolina		South Carolina		Georgia	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Alewives.....	14,897,000	\$60,901				
Black bass.....	1,500	75				
Bluefish.....	1,766,500	63,515	3,000	\$180		
Bowfin.....	600	6				
Butterfish.....	43,500	745				
Carp.....	108,600	4,316				
Catfish and bullheads.....	162,000	3,173			52,500	\$3,130
Cero.....	4,400	220				
Croaker.....	7,662,000	91,058			7,000	380
Drum, red or redfish.....	132,500	2,750	3,500	105	2,500	125
Kels.....	44,300	2,043				
Flounders.....	967,500	42,150	31,500	1,775	3,300	96
Gizzard shad.....	24,000	230				
Grunts.....			9,100	273		
Harvestfish or "starfish".....	830,000	12,325				
Hickory shad.....	99,700	4,624	4,500	450	16,900	1,042
King whiting or "kingfish".....	302,000	7,260	14,000	420	12,000	280

Fisheries of the South Atlantic and Gulf States, 1934—Continued

CATCH: BY STATES—Continued

Species	North Carolina		South Carolina		Georgia	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH—continued						
Menhaden.....	106,651,100	\$355,503			18,751,500	\$63,859
Mullet.....	3,889,300	105,289	700,000	\$19,000	59,000	2,600
Pigfish.....	92,000	1,130				
Pike or pickerel.....	1,200	68				
Pinfish or sailors choice.....	180,000	900				
Pompano.....	400	60				
Sea bass.....	75,400	3,045	106,200	4,560	23,000	690
Shad.....	1,274,000	193,187	208,600	31,290	232,000	38,400
Sharks.....			12,000	120		
Sheepshead.....	3,700	80				
Spadefish.....	6,000	150				
Spanish mackerel.....	47,700	2,358				
Spot.....	4,788,000	73,035	10,500	315	13,000	460
Squeteagues or "sea trout":						
Gray.....	7,729,400	180,588	2,000	130		
Spotted.....	1,849,100	96,165	13,500	945	56,000	4,480
Striped bass.....	362,000	35,675				
Sturgeon.....	1,600	160	50,000	3,500	11,600	928
Sunfish.....	100	1				
White perch.....	522,200	22,343				
Yellow perch.....	17,200	480				
Total.....	154,567,900	1,395,596	1,168,400	63,063	19,233,900	116,490
SHELLFISH, ETC.						
Crabs:						
Hard ¹	4,543,600	67,238	8,000	160	483,500	7,252
Soft and peelers.....	251,400	36,210				
Shrimp.....	2,563,900	30,367	1,801,400	54,042	6,842,900	203,127
Clams:						
Hard, public ²	338,000	33,647	47,000	5,862		
Octopus.....			1,500	90		
Oysters: ³						
Market, public, spring.....	436,700	18,117	1,329,100	41,347		
Market, public, fall.....	699,300	33,125	471,500	17,684		
Market, private, spring.....	21,700	1,550	614,600	22,169	327,600	16,588
Market, private, fall.....	3,000	300	446,700	20,574	241,100	14,773
Scallops, bay.....	36,000	6,000				
Terrapin, diamond back.....	400	75	3,000	300	11,900	1,280
Total.....	8,894,000	276,629	4,722,800	162,228	7,907,000	243,020
Grand total.....	163,461,900	1,672,225	5,891,200	225,291	27,140,900	359,510

Species	Florida		Alabama		Mississippi	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Alewives.....	214,900	\$1,055				
Amberjack.....	4,000	80				
Black bass.....	422,900	25,195				
Bluefish.....	1,933,900	100,675	28,600	\$754		
Blue runner or hardtail.....	181,100	3,074	2,900	58		
Buffalofish.....			18,600	744		
Cabio or crab eater.....	7,400	181				
Catfish and bullheads.....	2,854,200	93,477	120,600	7,636	30,300	\$606
Cigarfish.....	4,500	90				
Crappie.....	462,300	11,956				
Crevalle.....	111,000	1,565	2,600	58		
Croaker.....	52,400	1,194	21,200	386	13,600	339
Dolphin.....	8,000	240				
Drum:						
Black.....	100,100	2,165	700	20	3,800	56
Red or redfish.....	1,016,900	24,277	64,700	2,442	73,000	2,886
Eels.....	18,400	553				
Flounders.....	74,800	3,142	35,900	2,718	42,000	2,411
Groupers.....	3,341,400	79,490	151,200	3,356	55,000	1,251
Grunts.....	40,300	1,138				
Hickory shad.....	42,900	352				
Hogfish.....	6,000	180				
Jewfish.....	13,400	408				
Kingfish or "king mackerel".....	2,638,100	116,097				
King whiting or "kingfish".....	324,600	7,844	4,800	90	3,600	81
Mackerel.....	200	9				
Menhaden.....	38,983,400	121,643				

See footnotes at end of table.

Fisheries of the South Atlantic and Gulf States, 1934—Continued

CATCH: BY STATES—Continued

Species	Florida		Alabama		Mississippi	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH—continued						
Mojarro.....	19, 100	\$391				
Mullet.....	23, 966, 300	641, 127	1, 168, 200	\$28, 387	644, 500	\$14, 222
Muttonfish.....	198, 900	8, 839				
Paddlefish or spoonbill cat.....			600	36		
Permit.....	1, 700	34				
Pigfish.....	94, 800	1, 823				
Pinfish or sailors choice.....	81, 000	620				
Pompano.....	437, 500	78, 134	1, 800	270		
Porgies.....	38, 500	934				
Sawfish.....	17, 500	35				
Sea bass.....	52, 000	2, 022				
Sea catfish.....	105, 000	210				
Shad.....	782, 200	66, 986				
Sharks.....	3, 217, 500	8, 535				
Sheepshead.....	605, 900	13, 266	8, 000	305	23, 000	920
Skates.....	175, 000	350				
Snapper:						
Mangrove.....	228, 700	7, 017				
Red.....	4, 067, 800	224, 271	950, 500	51, 859	123, 200	6, 720
Snook or sergeantfish.....	421, 800	9, 946				
Spanish mackerel.....	6, 734, 200	271, 787	11, 900	533		
Spot.....	85, 100	1, 687	7, 700	141		
Squeteagues or "sea trout":						
Gray.....	10, 000	500				
Spotted.....	3, 083, 200	163, 275	137, 500	9, 153	146, 900	8, 814
White.....	14, 300	296	7, 600	176	153, 500	3, 838
Sturgeon.....	1, 000	60	8, 400	912		
Sunfish.....	617, 500	13, 544				
Tenpounder.....	27, 500	482	1, 200	12		
Tripletail.....	600	12				
Tuna or "horse mackerel".....	4, 300	161				
Turbot.....	1, 500	45				
Wahoo.....	2, 000	60				
White perch.....	18, 200	728				
Yellowtail.....	81, 400	4, 677				
Total.....	97, 899, 100	2, 117, 934	2, 755, 200	110, 046	1, 312, 400	42, 155
SHELLFISH, ETC.						
Crabs:						
Hard ¹	182, 800	3, 474	257, 400	3, 677	902, 700	7, 114
King.....	500, 000	600				
Soft and peelers.....			1, 600	312	4, 200	720
Stone.....	80, 600	5, 737				
Sea crawfish or spiny lobster.....	351, 300	17, 166				
Shrimp.....	16, 292, 200	497, 870	4, 556, 600	115, 176	15, 329, 800	292, 522
Clams:						
Coquina.....	5, 800	975				
Hard, public ¹	535, 000	26, 082				
Conchs.....	2, 500	75				
Oysters: ¹						
Market, public, spring.....	827, 400	40, 572	195, 500	11, 509	3, 749, 800	244, 374
Market, public, fall.....	509, 700	30, 573	164, 600	9, 685	1, 154, 100	65, 416
Market, private, spring.....	361, 800	16, 656	5, 400	450		
Market, private, fall.....	337, 100	13, 830	26, 300	2, 190		
Scallops:						
Bay.....	74, 100	6, 596				
Sea.....	120, 200	17, 891				
Terrapin, diamond back.....			1, 400	361		
Turtles:						
Green.....	4, 600	244				
Soft shell.....	61, 200	707				
Sponges:						
Grass.....	45, 400	24, 699				
Sheepswool.....	458, 500	720, 277				
Velvet.....	200	110				
Wire.....	14, 400	7, 894				
Yellow.....	136, 800	84, 690				
Total.....	20, 901, 600	1, 516, 788	5, 208, 800	143, 360	20, 840, 600	610, 168
Grand total.....	118, 800, 700	3, 634, 722	7, 964, 000	253, 406	22, 153, 000	662, 301

See footnotes at end of table.

Fisheries of the South Atlantic and Gulf States, 1934—Continued

CATCH: BY STATES—Continued

Species	Louisiana		Texas		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Alewives					15,111,900	\$91,956
Amberjack					4,000	80
Black bass					424,400	25,270
Bluefish					3,732,000	165,124
Blue runner or hardtail					184,000	3,132
Bowfin					600	6
Buffalofish					18,600	744
Butterfish					43,500	745
Cabio or crab eater					7,400	181
Carp					108,600	4,316
Catfish and bullheads	197,000	\$6,870	63,100	\$1,712	3,480,300	116,624
Cero					4,400	220
Cigarfish					4,500	90
Crappie					462,300	11,956
Creville	1,100	35			114,700	1,658
Croaker	300,900	15,177	296,100	9,333	8,374,000	117,767
Dolphin					8,000	240
Drum:						
Black	198,500	7,128	2,252,700	59,648	2,555,800	69,020
Red or redfish	492,500	28,200	1,579,100	95,433	3,364,700	156,220
Eels					62,700	2,596
Flounders	24,300	1,895	97,700	8,469	1,297,000	62,655
Garfish	500	2			500	2
Gizzard shad					24,000	230
Groupers	18,400	770	3,700	80	3,569,700	84,946
Grunts					49,400	1,411
Harvestfish or "starfish"					820,000	12,325
Hickory shad					157,600	6,478
Hogfish					6,000	180
Jewfish	5,000	140	28,300	695	46,700	1,243
Kingfish or "king mackerel"	13,400	445	9,600	384	2,661,100	116,926
King whiting or "kingfish"					661,000	16,063
Mackerel					200	9
Menhaden					164,386,000	541,005
Mojarro					19,100	391
Mullet	18,000	276	39,600	792	30,484,900	811,695
Muttonfish					198,900	8,839
Paddlefish or spoonbill cat					600	36
Permit					1,700	34
Piefish					186,800	2,953
Pike or pickerel					1,200	66
Pinfish or sailors choice					211,000	1,520
Pompano			2,400	327	442,100	78,791
Pories					38,500	934
Sawfish					17,500	35
Sea bass					256,600	10,317
Sea catfish					105,000	210
Shad					2,496,800	329,863
Sharks					3,229,500	8,655
Sheepshead	267,500	14,556	290,800	9,785	1,198,900	38,912
Skates					175,000	350
Snapper:						
Mangrove					228,700	7,017
Red	79,000	4,550	635,400	36,092	5,855,900	323,492
Snook or sergeantfish			6,500	565	428,300	10,511
Spadefish					6,000	150
Spanish mackerel	1,900	96	173,600	11,001	6,969,300	285,775
Spot	1,900	67			4,906,200	75,705
Squeteagues or "sea trout":						
Gray					7,741,400	181,218
Spotted	1,073,000	87,046	2,351,700	173,413	8,710,900	543,291
White	444,900	11,038	110,200	2,961	730,500	18,299
Striped bass					362,000	35,675
Sturgeon					72,600	5,560
Sunfish					517,600	13,545
Tenpounder					28,700	494
Tripletail	200	4			800	16
Tuna or "horse mackerel"					4,300	161
Turbot					1,500	45
Wahoo					2,000	60
White perch					540,400	23,071
Yellow perch					17,200	480
Yellowtail					81,400	4,677
Total	3,138,000	178,297	7,940,500	410,680	288,015,400	4,434,261

Fisheries of the South Atlantic and Gulf States, 1934—Continued

CATCH: BY STATES—Continued

Species	Louisiana		Texas		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
SHELLFISH, ETC.						
Crabs:						
Hard ¹	11,676,500	\$163,942	258,100	\$12,764	18,012,600	\$265,561
King.....					500,000	600
Soft and peelers.....	651,200	85,569			908,400	122,811
Stone.....					80,600	5,737
Sea crawfish or spiny lobster.....					351,300	17,166
Shrimp.....	55,572,300	1,442,370	16,358,600	383,054	119,317,700	3,068,528
Clams:						
Coquina.....					5,800	975
Hard, public ²					920,000	65,591
Conchs.....					2,500	75
Octopus.....					1,500	90
Oysters: ³						
Market, public, spring.....	1,043,700	79,316	689,700	54,084	8,271,900	489,319
Market, public, fall.....	276,400	34,205	622,100	51,120	3,897,700	241,808
Market, private, spring.....	1,972,700	132,580			3,303,800	189,993
Market, private, fall.....	2,298,900	168,214			3,353,100	219,881
Scallops:						
Bay.....					110,100	12,596
Sea.....					120,200	17,891
Terrapin, diamond back.....					16,700	2,016
Turtles:						
Green.....					4,600	244
Loggerhead.....	3,500	70			3,500	70
Soft shell.....					61,200	797
Sponges:						
Grass.....					45,400	24,699
Sheepswool.....					458,500	720,257
Velvet.....					200	110
Wire.....					14,400	7,894
Yellow.....					136,800	84,690
Total.....	73,495,200	2,106,266	17,928,500	500,962	159,898,500	5,559,399
Grand total.....	76,633,200	2,284,563	25,869,000	911,642	447,913,900	9,993,660

¹ Statistics on hard crabs used in this table are based on yields of 4 pounds per dozen in North Carolina and South Carolina; 6 pounds in Georgia; 6.28 pounds in Florida; 7 pounds in Alabama; 6.09 pounds in Mississippi; 5.43 pounds in Louisiana; and 5.5 pounds in Texas.

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 oysters used in this table are based on yields of 5.58 pounds of meats per bushel in North Carolina; 4.74 in South Carolina; 5.88 in Georgia; 3.57 in Florida; 3.29 in Alabama; 2.22 in Mississippi; 4.32 in Louisiana; and 4.41 in Texas.

NOTE.—The catch for Mississippi includes the following products taken by Mississippi craft in Louisiana waters: Shrimp, 8,374,100 pounds, valued at \$166,360; oysters, market, spring, 3,667,700 pounds of meats, valued at \$237,876; and oysters, market, fall, 938,100 pounds, valued at \$49,790. Of the total catch for Florida all of the mackerel and sea scallops were taken off the coast of New York. In addition 114,600 pounds of bluefish, valued at \$3,938, and 1,300 pounds of tuna or "horse mackerel", valued at \$41, were taken in the same waters. The seed oyster fishery was prosecuted in this section only in North Carolina where 12 regular fishermen using 6 sailboats and 12 dredges took 17,450 bushels of seed oysters, valued at \$2,617, from public beds. All of these fishermen, craft, and gear were duplicated among those in the fisheries for market oysters or other species.

Industries related to the fisheries of the South Atlantic and Gulf States

OPERATING UNITS, SALARIES, AND WAGES, 1934

Item	North Carolina	South Carolina	Georgia	Florida
Transporting:				
Persons engaged:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	87	104	23	56
On boats.....	11	58	10	86
Total	98	162	33	142
Vessels:				
Motor.....	48	10	7	31
Net tonnage.....	427	120	86	456
Sail.....		33		
Net tonnage.....		301		
Total vessels	48	43	7	31
Total net tonnage	427	421	86	456
Boats.....	9	58	5	88
Wholesale and manufacturing:				
Establishments.....	84	31	29	241
Persons engaged:				
Proprietors.....	104	40	37	253
Salaried employees.....	21	18	15	157
Wage earners:				
Average for season.....	1,269	564	945	1,796
Average for year.....	465	223	235	916
Paid to salaried employees.....	\$55,397	\$34,020	\$31,001	\$242,609
Paid to wage earners.....	\$219,778	\$112,743	\$127,355	\$544,963
Total salaries and wages	\$275,175	\$146,763	\$158,356	\$787,572
Fishermen manufacturing	267	8	14	402

Item	Alabama	Mississippi	Louisiana	Texas	Total
Transporting:					
Persons engaged:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	10		117		397
On boats.....		10	6		181
Total	10	10	123		578
Vessels:					
Motor.....	5		56		157
Net tonnage.....	37		505		1,631
Sail.....					33
Net tonnage.....					301
Total vessels	5		56		190
Total net tonnage	37		505		1,932
Boats.....		5	3		168
Wholesale and manufacturing:					
Establishments.....	20	40	103	43	591
Persons engaged:					
Proprietors.....	15	37	109	42	637
Salaried employees.....	31	56	85	26	409
Wage earners:					
Average for season.....	357	2,382	4,452	1,543	13,308
Average for year.....	178	874	1,031	278	4,200
Paid to salaried employees.....	\$34,046	\$86,119	\$138,963	\$52,963	\$675,118
Paid to wage earners.....	\$67,951	\$302,140	\$634,720	\$189,044	\$2,198,694
Total salaries and wages	\$101,997	\$388,259	\$773,683	\$242,007	\$2,873,812
Fishermen manufacturing	122	61	50	63	987

Industries related to the fisheries of the South Atlantic and Gulf States—Continued

PRODUCTS MANUFACTURED

Item	North Carolina		South Carolina		Georgia		Florida	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
By manufacturing establishments:								
Alewife roe, canned standard cases	12, 249	\$81, 231						
Groupers:								
Fresh filets..... pounds							60, 082	\$12, 538
Fresh steaks..... do							356, 561	53, 259
Menhaden products:								
Acid scrap..... tons	5, 271	84, 106					6, 297	104, 826
Dry scrap..... do	2, 802	81, 970			(1)	(1)	3, 964	112, 722
Meal..... do	1, 192	41, 754					2, 330	86, 292
Oil..... gallons	356, 331	96, 771			(1)	(1)	259, 899	73, 336
Mullet, salted ² pounds	507, 300	22, 419					337, 800	17, 290
Snapper, fresh steaks..... do							10, 000	2, 000
Crab meat, packaged, fresh cooked ² pounds	437, 042	143, 437			57, 500	\$15, 095	16, 700	6, 300
Shrimp:								
Cooked and peeled ² do					(1)	(1)		
Canned standard cases					177, 795	838, 991	(1)	(1)
Sea crawfish meat, packaged, fresh cooked ² pounds							56, 500	21, 738
Clams, hard, canned chowder standard cases							1, 168	4, 702
Marine-shell products, novelties								7, 175
Miscellaneous novelties								2, 725
Oysters:								
Fresh shucked ² gallons	109, 645	93, 945	(1)	(1)	32, 207	32, 742	115, 667	150, 770
Canned standard cases			85, 891	\$336, 748	(1)	(1)	(1)	(1)
Shell products:								
Poultry feed..... tons	(1)	(1)	(1)	(1)			49, 980	224, 290
Lime..... do	326	1, 534					(1)	(1)
Unclassified products:								
Packaged fresh and frozen ³ pounds	4 43, 165	4 6, 884	(5)	(5)	(5)	(5)	6 64, 814	6 14, 127
Canned standard cases					(5)	(5)	7 61, 349	7 329, 916
Miscellaneous ³		\$24, 602		\$ 74, 970		10 81, 447		11 18, 012
Total		678, 653		411, 718		968, 275		1, 242, 018
By fishermen:								
Alewives:								
Corned..... pounds	3, 542, 000	37, 090						
Tight-pack cut..... do	54, 200	2, 168						
Tight-pack roe..... do	103, 700	5, 185						
Mullet:								
Salted..... do	10, 000	400					4, 500	1, 175
Smoked..... do							153, 700	9, 222
Roe, salted..... do							10, 319	13, 298
Oysters, fresh shucked..... gallons	4, 850	3, 790	957	957	7, 335	7, 335		
Scallops, bay, fresh shucked gallons	4, 000	8, 000					7, 260	7, 560
Crab meat, packaged, fresh cooked..... pounds							5, 295	1, 733
Total		56, 632		957		7, 335		32, 988
Grand total		735, 286		412, 675		975, 610		1, 275, 006

¹ This item has been included under "Unclassified products."

² Data are for 1934.

³ Both 1934 and 1935 data are included in these items.

⁴ Includes fresh filets of bluefish, croaker, red drum, flounders, king whiting, mullet, sea bass, and squeteagues.

⁵ This item has been included under "Miscellaneous."

⁶ Includes fresh filets of bluefish, mullet, red snapper, Spanish mackerel, and squeteagues; frozen filets of bluefish, groupers, mullet, red snapper, Spanish mackerel, and squeteagues; fresh steaks of cabio, cero, red drum, and snook; frozen steaks of groupers, and snook; and fresh-shucked scallops.

⁷ Includes canned shrimp, hard-clam products, coquina-clam broth, conch chowder, oysters, fish chowder, and turtle products.

⁸ Includes corned alewives, salted spot, and oyster-shell poultry feed.

⁹ Includes fresh-shucked oysters and oyster-shell poultry feed.

¹⁰ Includes cooked and peeled, and pickled shrimp; canned oysters; and menhaden products.

¹¹ Includes salted mullet roe; smoked filets of king whiting, mullet, and Spanish mackerel; shark hides, ans, and oil; king crab scrap; fish meal; and oyster-shell lime.

Industries related to the fisheries of the South Atlantic and Gulf States—Continued

PRODUCTS MANUFACTURED—Continued

Item	Alabama		Mississippi		Louisiana		Texas	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
By manufacturing establishments:								
Groupers, fresh steaks								
pounds.....	(1)	(1)	(1)	(1)				
Mullet, salted ².....do								
Snapper, fresh steaks.....do	(1)	(1)						
Crab meat, packaged, fresh								
cooked ².....pounds			77,500	\$20,025	350,778	\$72,144		
Shrimp:								
Fresh and frozen pack-								
aged ².....pounds							2,299,800	\$379,467
Cooked and peeled ²								
pounds.....			592,415	130,332			61,399	11,162
Sun dried ².....do					1,762,974	265,344		
Canned								
standard cases	59,634	\$233,408	280,052	1,171,223	469,813	2,011,537	(1)	(1)
Meal.....tons					2,131	45,793		
Oysters:								
Fresh shucked ²								
gallons.....	15,390	19,238	54,631	92,873	207,248	313,993	74,506	109,345
Canned								
standard cases	25,717	103,700	241,809	982,539	37,905	151,898		
Shell products:								
Poultry feed.....tons	(1)	(1)	5,220	21,675	(1)	(1)	21,398	66,872
Lime.....do	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Unclassified products:								
Packaged, fresh and								
frozen ³.....pounds	(5)	(5)						
Canned								
standard cases			(5)	(5)	(5)	(5)	(5)	(5)
Miscellaneous ³		¹² 20,021		¹³ 2,130		¹⁴ 415,573		¹⁵ 301,083
Total.....		376,367		2,420,797		3,276,282		867,929
By fishermen:								
Mullet, salted.....pounds	10,000	500						
Oysters, fresh shucked								
gallons.....	11,360	11,915	2,614	2,614			8,929	10,867
Crab meat, packaged, fresh								
cooked.....pounds	19,700	4,925					3,860	641
Shrimp, sun dried.....do					7,500	825		
Total.....		17,340		2,614		825		11,008
Grand total.....		393,707		2,423,411		3,277,107		878,937

¹ This item has been included "Unclassified products."

² Data for 1934.

³ Both 1934 and 1935 data are included in these items.

⁵ This item has been included under "Miscellaneous."

¹² Includes fresh filets of red snapper and squeteagues; fresh steaks of groupers and red snapper; and oyster-shell products.

¹³ Includes salted mullet, canned shrimp soup, and oyster-shell lime.

¹⁴ Includes canned crawfish, frog, and turtle products, and oyster-shell products.

¹⁵ Includes canned shrimp and oyster-shell lime.

NOTE.—Unless otherwise indicated data are for 1935. The total value of the manufactured products for the South Atlantic and Gulf States was as follows: By manufacturing establishments, \$10,242,039; and by fishermen, \$129,700. Some of the above products may have been manufactured from products imported from another State or country, therefore, they cannot be correlated directly with the catch within the State.

SPONGES SOLD AT THE EXCHANGE, TARPON SPRINGS, FLA.

During 1935 sponges handled on the exchange at Tarpon Springs, Fla., amounted to 388,888 pounds, valued at \$620,156. This is a decrease of 22 percent in quantity and 8 percent in value as compared with the transactions on the exchange during 1934. Of the total sponges sold on the exchange during 1935, 110,694 pounds, valued at \$272,685, were large wool; 23,061 pounds, valued at \$36,351, were medium and small wool; 136,424 pounds, valued at \$218,933, were wool rags; 80,311 pounds, valued at \$67,027, were yellow; 21,660 pounds, valued at \$15,600, were grass; and 16,738 pounds, valued at \$9,560, were wire. It is estimated that sponges valued at \$4,000 were sold outside the exchange.

FISHERIES OF THE PACIFIC COAST STATES ¹³

The yield of the commercial fisheries of the Pacific Coast States (Washington, Oregon, and California) during 1935 amounted to 1,676,236,200 pounds, valued at \$23,088,810 to the fishermen, representing an increase of 8 percent in volume and 16 percent in value as compared with the catch in the previous year. These fisheries gave employment to 20,583 fishermen as compared with 19,232 in 1934.

There were 337 fishery wholesale and manufacturing establishments in the three States in 1935 as compared with 323 in 1934. During 1935 these establishments employed 14,750 persons, paid \$6,531,351 in salaries and wages, and produced manufactured products (canned, cured, packaged, and byproducts) valued at \$51,243,348. In 1934 the wholesale and manufacturing firms employed 13,220 persons, paid \$7,031,444 in salaries and wages, and produced manufactured products, valued at \$41,007,888.

Fisheries of the Pacific Coast States, 1935

SUMMARY OF CATCH

Product	Washington		Oregon	
	Pounds	Value	Pounds	Value
Fish.....	114,732,100	\$5,370,790	82,780,900	\$1,895,550
Shellfish, etc.....	9,354,200	957,876	2,611,400	181,264
Total.....	124,086,300	6,328,666	85,392,300	2,076,814

Product	California		Total	
	Pounds	Value	Pounds	Value
Fish.....	1,450,642,000	\$13,674,149	1,648,155,000	\$20,940,489
Shellfish, etc.....	10,392,000	854,526	22,357,000	1,993,666
Whale products.....	5,723,600	154,655	5,723,600	154,655
Total.....	1,466,757,600	14,683,330	1,676,236,200	23,088,810

¹³ 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. For a clearer understanding of the statistics published in this section the reader is referred to the section in the latter part of this document entitled "Statistical survey procedure."

Fisheries of the Pacific Coast States, 1935—Continued

OPERATING UNITS: BY STATES

Item	Washington ¹				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.....	3, 376	61	15	3, 452	95	18	113
On boats and shore.....	1, 795	4, 362	820	6, 977	2, 249	1, 450	3, 699
Total.....	5, 171	4, 423	835	10, 429	2, 344	1, 468	3, 812
Vessels:							
Motor.....	550	32	5	587	48	10	58
Net tonnage.....	10, 967	255	53	11, 275	402	88	490
Sail.....	3			3			
Net tonnage.....	1, 346			1, 346			
Total vessels.....	553	32	5	590	48	10	58
Total net tonnage.....	12, 313	255	53	12, 621	402	88	490
Boats:							
Motor.....	762	414	516	1, 692	1, 091	964	2, 055
Other.....	306	184	11	501	78	133	211
Accessory boats.....	297			297			
Apparatus:							
Purse seines:							
Salmon.....	218			218			
Length, yards.....	130, 364			130, 364			
Sardine ²	18			18			
Length, yards ²	6, 590			6, 590			
Haul seines.....	³ 177	³ 5	²	² 184	44	7	51
Length, yards.....	³ 12, 454	³ 325	251	³ 13, 030	24, 945	1, 167	26, 112
Gill nets:							
Drift.....	302	203	411	916	814	486	1, 300
Square yards.....	458, 350	370, 988	1, 142, 580	1, 971, 918	2, 578, 752	691, 092	3, 269, 844
Set.....	⁴ 6	⁴ 110		⁴ 116	139	865	1, 004
Square yards.....	1, 440	26, 950		28, 390	38, 808	328, 700	367, 508
Lines:							
Trawl, set, and hand.....	28, 159		468	28, 627	559	174	733
Hooks.....	595, 755		11, 250	607, 005	13, 408	5, 525	18, 933
Troll.....	1, 635	585	112	2, 332	874	714	1, 588
Hooks.....	7, 357	2, 632	398	10, 387	3, 933	3, 213	7, 146
Pound nets.....	⁴ 2			⁴ 2	51		51
Brush weirs.....	6			6			
Dip nets.....	15	55	213	283	264		264
Reef nets.....	18			18			
Beam trawls.....	11			11			
Yards at mouth.....	65			65			
Otter trawls.....	34			34	1	1	2
Yards at mouth.....	476			476	15	30	45
Traps:							
Crab.....	2, 970	3, 563		6, 533		13, 144	13, 144
Crawfish.....					1, 156		1, 156
Octopus.....	486			486			
Tongs, rakes, and shovels.....	620	3, 914		4, 534		208	208
Dredges, oyster.....		⁴		⁴			
Yards at mouth.....		8		8			

¹ Statistics for stationary gear in Washington are not comparable with those for previous years, since a State law effective in 1935 prohibited the taking of salmon and steelhead trout with pound nets, set nets, and fish wheels, in all districts of the State; and with haul seines in the Columbia River district. However, the law did not affect Indians fishing on their reservations.

² Used in the Oregon pilchard fishery by Washington purse seine vessels. See Oregon coast tables for catch statistics.

³ Includes the seines formerly shown as drag bag nets.

⁴ Fished only on Indian reservations.

Fisheries of the Pacific Coast States, 1935—Continued

OPERATING UNITS: BY STATES—Continued

Item	California						Grand total
	North- ern district	San Fran- cisco district	Monte- rey district	San Pedro district	San Diego 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.....	17	496	496	1,765	748	3,522	7,087
On boats and shore.....	263	905	559	822	271	2,820	13,496
Total.....	280	1,401	1,055	2,587	1,019	6,342	20,583
Vessels:							
Steam.....		2				2	2
Net tonnage.....		41				41	41
Motor.....	10	50	52	194	83	389	1,034
Net tonnage.....	79	1,283	1,389	7,217	4,909	14,877	26,642
Sail.....		2				2	5
Net tonnage.....		824				824	2,170
Total vessels.....	10	54	52	194	83	393	1,041
Total net tonnage.....	79	2,148	1,389	7,217	4,909	15,742	28,853
Boats:							
Motor.....	189	560	225	423	112	1,509	5,256
Other.....	1	35	32	71	3	142	854
Accessory boats.....		105	72	165	50	392	689
Apparatus:							
Purse seines:							
Mackerel.....				4		4	4
Length, yards.....				1,560		1,560	1,560
Salmon.....							218
Length, yards.....							130,364
Sardine.....		14	23	72	1	110	128
Length, yards.....		5,540	7,398	27,169	312	40,419	47,009
Tuna.....		1	6	70		77	77
Length, yards.....		600	3,480	40,822		44,902	44,902
Lampara nets:							
Mackerel.....				58	12	70	70
Length, yards.....				26,062	3,600	29,662	29,662
Sardine.....		18	35	53	16	122	122
Length, yards.....		4,822	9,905	23,646	5,280	43,653	43,653
Other.....		2	22	4		28	28
Length, yards.....		800	5,125	1,780		7,705	7,705
Haul seines.....		1				1	236
Length, yards.....		135				135	39,277
Gill nets:							
Drift:							
Barracuda.....				14	7	21	21
Square yards.....				152,096	41,640	193,736	193,736
Salmon.....		121				121	2,337
Square yards.....		417,995				417,995	5,659,757
Shad.....		163				163	163
Square yards.....		572,871				572,871	572,871
Set:							
"California halibut".....			7			7	7
Square yards.....			18,527			18,527	18,527
Salmon.....							1,120
Square yards.....							395,898
Sea bass.....				28	17	45	45
Square yards.....				100,043	93,448	193,491	193,491
Miscellaneous.....	12	39	73	27	7	158	158
Square yards.....	9,000	55,957	130,348	23,817	8,872	227,994	227,994
Trammel nets.....				33	14	47	47
Square yards.....				163,309	141,787	305,096	305,096
Lines:							
Trawl, set, and hand.....	268	787	785	1,898	1,084	4,822	34,182
Hooks.....	27,365	39,464	75,262	283,842	50,832	476,765	1,102,703
Troll.....	870	1,094	1,446	1,685	485	5,580	9,500
Hooks.....	3,851	5,003	2,265	1,685	485	13,289	30,822
Pound nets.....							53
Brush weirs.....							6
Fyke nets.....		1,628				1,628	1,628
Dip nets.....	28	2				30	577
Bag nets, shrimp.....		10				10	10
Length, yards.....		7,733				7,733	7,733
Reef nets.....							18
Paranzella nets.....		8		3		11	11
Yards at mouth.....		133		50		183	183
Beam trawls.....		18				18	29
Yards at mouth.....		120				120	186

Fisheries of the Pacific Coast States, 1935—Continued

OPERATING UNITS: BY STATES—Continued

Item	California						Grand total
	North- ern dis- trict	San Fran- cisco district	Monte- rey dis- trict	San Pedro district	San Diego district	Total	
Apparatus—Continued.	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Other trawls.....			5			5	41
Yards at mouth.....			125			125	646
Traps:							
Crab.....	440	5,442	107			5,989	25,666
Crawfish.....							1,156
Sea crawfish.....				5,485	773	6,258	6,258
Octopus.....			28			28	514
Harpoons:							
Swordfish and turtles.....				45	12	57	57
Whales.....		2				2	2
Tongs, rakes, and shovels.....	16	109	38	73	2	238	4,980
Abalone outfits.....		1	17	3		21	21
Dredges, oyster.....							4
Yards at mouth.....							8

CATCH: BY STATES

Species	Washington		Oregon	
	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
FISH				
Carp.....	124,300	\$2,797	7,600	\$190
Cod ²	9,285,400	131,042		
Flounders:				
"Sole".....	2,406,000	61,348	45,600	1,163
Other.....	191,700	4,039	23,500	382
Grayfish.....	277,500	527		
Halibut.....	25,948,600	2,070,883	549,400	38,658
Herring.....	694,500	9,047	42,900	644
"Lingcod".....	1,201,600	33,823	108,400	2,732
Perch.....	95,500	2,999	20,300	305
Pilchard or sardine.....	12,400	186	52,464,100	236,094
Rockfishes.....	453,900	15,164	48,800	1,502
Sablefish.....	3,073,500	114,369	90,800	2,859
Salmon:				
Blueback, red or sockeye.....	4,811,700	476,812	42,400	4,047
Chinook or king.....	11,459,400	767,590	12,315,700	856,128
Chum or keta.....	8,411,700	229,693	1,199,900	15,374
Humpback or pink.....	26,177,200	602,530		
Silver or coho.....	16,147,900	750,085	13,227,500	616,586
Shad.....	65,800	1,842	745,600	22,020
Smelts:				
Eulachon.....	2,805,900	46,215	163,900	4,215
Other.....	552,400	21,702	2,500	38
Steelhead trout.....	514,300	27,505	1,593,700	88,927
Striped bass.....			27,800	1,890
Sturgeon.....	20,900	592	59,900	1,736
Tuna and tunalike fishes, albacore.....			600	60
Total.....	114,732,100	5,370,790	82,780,900	1,895,550
SHELLFISH, ETC.				
Crabs.....	1,550,700	107,311	2,360,700	150,226
Crawfish, fresh water.....			79,300	7,928
Shrimp.....	124,500	8,417		
Clams:				
Hard.....	822,600	52,528		
Razor.....	935,400	144,764	77,700	12,953
Mixed.....			74,900	4,167
Octopus.....	69,200	2,436		
Oysters:				
Eastern, market.....	700	297		
Japanese, market.....	5,477,200	435,437	9,900	780
Native, market.....	326,700	201,581	8,900	5,210
Scallops, bay.....	15,400	3,861		
Squid.....	19,200	824		
Trepang.....	12,600	420		
Total.....	9,354,200	957,876	2,611,400	181,264
Grand total.....	124,086,300	6,328,666	85,392,300	2,076,814

Fisheries of the Pacific Coast States, 1935—Continued

CATCH: BY STATES—Continued

Species	California ¹		Total	
	Pounds	Value	Pounds	Value
FISH				
Anchovies.....	179,000	\$3,098	179,000	\$3,098
Barracuda.....	2,617,800	111,093	2,617,800	111,093
Cabrilla.....	121,500	5,314	121,500	5,314
Carp.....	104,200	1,466	236,100	4,453
Catfish.....	289,600	32,461	289,600	32,461
Cod ²	5,101,900	71,510	14,387,300	202,552
Flounders:				
"California halibut".....	1,575,900	115,495	1,575,900	115,495
"Sole".....	9,164,300	498,682	11,619,900	561,193
Other.....	1,404,000	62,481	1,619,200	66,902
Flyingfish.....	37,900	1,351	37,900	1,351
Grayfish.....	555,100	11,841	832,600	12,368
Groupers.....	31,400	1,729	31,400	1,729
Hake.....	74,300	810	74,300	810
Halibut.....	869,600	61,605	27,367,600	2,171,146
Hardhead.....	78,000	4,038	78,000	4,038
Herring.....	928,900	5,065	1,666,300	14,756
Horse mackerel.....	9,983,900	42,737	9,983,900	42,737
Kingfish.....	768,700	17,566	768,700	17,566
"Lingcod".....	1,011,400	38,539	2,321,400	75,094
Mackerel.....	146,427,200	1,119,886	146,427,200	1,119,886
Marlin.....	18,600	923	18,600	923
Mullet.....	13,700	955	13,700	955
Perch.....	246,700	11,054	362,500	14,358
Pilchard or sardine.....	1,115,736,200	4,369,820	1,168,212,700	4,606,100
Pompano.....	5,800	2,719	5,800	2,719
Rock bass.....	364,600	21,337	364,600	21,337
Rockfishes.....	4,827,900	179,676	5,330,600	196,342
Rudderfish.....	34,800	1,724	34,800	1,724
Sablefish.....	2,833,900	84,569	5,998,200	201,797
Salmon:				
Blueback, red or sockeye.....			4,854,100	480,859
Chinook or king.....	5,657,300	346,769	29,432,400	1,970,487
Coho or keta.....			9,611,600	245,067
Humpback or pink.....			26,177,200	602,530
Silver or coho.....			29,375,400	1,366,671
Sculpin.....	80,000	5,341	80,000	5,341
Sea bass:				
Black.....	630,800	33,691	630,800	33,691
White.....	1,069,800	65,997	1,069,800	65,997
Shad.....	1,602,300	44,942	2,413,700	68,804
Sheepshead.....	188,000	6,403	188,000	6,403
Skates.....	306,500	3,257	306,500	3,257
Smelts:				
Eulachon.....			2,969,800	50,430
Other.....	875,500	40,614	1,430,400	62,354
Spanish mackerel.....	4,600	206	4,600	206
Splittail.....	37,600	728	37,600	728
Squawfish.....	1,600	53	1,600	53
Steelhead trout.....			2,103,000	116,432
Striped bass.....	502,100	41,300	529,900	43,190
Sturgeon.....			80,800	2,328
Suckers.....	44,400	562	44,400	562
Swordfish.....	669,300	74,051	669,300	74,051
Tomcod.....	700	11	700	11
Tuna and tunalike fishes:				
Albacore.....	2,447,500	199,513	2,448,100	199,573
Bluefin.....	25,173,100	1,145,467	25,173,100	1,145,467
Bonito.....	7,896,500	229,316	7,896,500	229,316
Skipjack or striped tuna.....	17,197,200	688,453	17,197,200	688,453
Yellowfin.....	72,251,600	3,619,585	72,251,600	3,619,585
Whitebait.....	169,900	8,693	169,900	8,693
Whitefish.....	57,800	3,481	57,800	3,481
Yellowtail.....	8,148,700	233,667	8,148,700	233,667
Other fish.....	222,400	2,505	222,400	2,505
Total.....	1,450,642,000	13,674,149	1,648,155,000	20,940,489
SHELLFISH, ETC.				
Crabs.....	3,692,700	376,624	7,604,100	634,161
Crawfish, fresh water.....			79,300	7,928
Sea crawfish or spiny lobster.....	1,344,800	213,462	1,344,800	213,462
Shrimp.....	3,447,500	52,626	3,572,000	61,043
Abalone.....	774,200	115,319	774,200	115,319
Clams:				
Hard.....	30,700	8,069	853,300	60,597
Pismo.....	48,900	10,341	48,900	10,341
Razor.....			1,013,100	157,717

¹ Includes the catch taken off Latin America.² All of the cod reported for California and most of the Washington catch were taken off Alaska.

Fisheries of the Pacific Coast States, 1935—Continued

CATCH: BY STATES—Continued

Species	California		Total	
	Pounds	Value	Pounds	Value
SHELLFISH, ETC.—continued				
Clams—Continued.				
Soft.....	47,500	\$10,214	47,500	\$10,214
Mixed.....			74,900	4,167
Octopus.....	81,200	4,946	150,400	7,382
Oysters:				
Eastern, market.....	64,000	30,848	64,700	31,145
Japanese, market.....	40,000	7,842	5,527,100	444,059
Native, market.....	2,800	1,334	338,400	206,125
Scallops, bay.....			13,400	3,861
Squid.....	816,000	22,820	835,200	22,644
Turtles.....	1,700	81	1,700	81
Trepang.....			12,600	420
Total.....	10,302,000	854,526	22,357,600	1,908,666
WHALE PRODUCTS				
Whale meat.....	3,272,000	65,440	3,272,000	65,440
Whale oil.....	2,451,600	89,215	2,451,600	89,215
Total.....	5,723,600	154,655	5,723,600	164,655
Grand total.....	1,466,757,600	14,683,330	1,676,236,200	23,088,810

Industries related to the fisheries of the Pacific Coast States, 1935

OPERATING UNITS, SALARIES, AND WAGES

Item	Washington	Oregon	California	Total
Transporting:	Number	Number	Number	Number
Persons engaged, on vessels.....	156	42		198
Vessels, motor.....	67	19		86
Net tonnage.....	1,676	261		1,937
Wholesale and manufacturing:				
Establishments.....	118	59	160	337
Persons engaged:				
Proprietors.....	68	48	245	361
Salaried employees.....	245	123	597	965
Wage earners:				
Average for season.....	3,668	1,077	8,679	13,424
Average for year.....	1,211	491	3,502	5,204
Paid to salaried employees.....	\$530,645	\$167,872	\$177,838	\$876,285
Paid to wage earners.....	\$1,183,052	\$477,919	\$3,994,095	\$5,655,066
Total salaries and wages.....	\$1,713,697	\$645,721	\$4,171,933	\$6,531,351
Fishermen manufacturing.....	120		134	254

Industries related to the fisheries of the Pacific Coast States, 1935—Continued

PRODUCTS MANUFACTURED

Item	Washington		Oregon		California	
	Quantity	Value	Quantity	Value	Quantity	Value
By manufacturing firms:						
Barracuda, fresh fillets.....pounds..					765,000	\$97,350
Cabrilla, fresh fillets.....do.....					45,000	5,775
Cod, salted, boneless, including absolutely boneless.....pounds..	1,412,190	\$175,644	(1)	(1)	(1)	(1)
Flounders, fresh fillets.....do.....	385,903	49,275	(1)	(1)	2,539,240	420,874
Grayfish, fresh fillets.....do.....					150,000	15,000
Halibut:						
Fresh fillets.....do.....					411,325	75,374
Frozen steaks.....do.....	240,590	34,684				
“Lingcod”, fresh fillets.....do.....	(1)	(1)	(1)	(1)	160,000	19,875
Mackerel:						
Canned.....standard cases..					1,795,724	4,845,119
Meal.....tons.....					4,391	113,595
Oil.....gallons.....					267,347	75,520
Pilchard:						
Canned “sardines”.....standard cases..					2,420,055	6,237,262
Meal.....tons.....			4,792	\$108,689	91,054	2,529,793
Oil.....gallons.....			1,178,257	315,432	20,556,908	6,343,533
Rockfishes, fresh fillets.....pounds..			(1)	(1)	1,020,000	126,375
Sablefish:						
Fresh fillets.....do.....					410,000	41,000
Kippered.....do.....	233,877	37,941	(1)	(1)	(1)	(1)
Salted.....do.....	362,459	23,856				
Salmon:						
Frozen steaks.....do.....	20,838	2,898				
Salted:						
Mild cured.....do.....	3,054,150	594,820	1,294,437	253,085	1,780,154	426,735
Eggs for caviar.....do.....	287,184	34,129				
Kippered.....do.....	1,676,466	291,739	(1)	(1)		
Smoked.....do.....	29,279	6,575	67,147	17,768	242,893	89,688
Canned:						
Blueback, red or sockeye standard cases..	60,053	811,510	812	11,722		
Chinook or king.....do.....	67,349	736,244	153,938	1,832,628		
Silver or coho.....do.....	88,871	652,841	87,565	750,933		
Humpback or pink.....do.....	376,659	1,606,474				
Chum or keta.....do.....	25,359	101,414	19,532	70,786		
Steelhead trout.....do.....	2,514	21,789	12,116	110,789		
Oil.....gallons.....	(1)	(1)	28,488	24,398		
Eggs for bait, canned.....standard cases..	3,132	58,931	(1)	(1)		
Sea bass:						
Black, fresh fillets.....pounds..					380,000	46,200
White, fresh fillets.....do.....					226,600	35,238
Shad:						
Canned.....standard cases..	(1)	(1)	3,862	14,137	(1)	(1)
Roe canned.....do.....	(1)	(1)	1,069	31,030	(1)	(1)
Sheepshead, fresh fillets.....pounds..					55,000	8,250
Swordfish, fresh fillets and steaks.....pounds..					390,000	93,600
Totauva, fresh fillets.....do.....					750,000	120,000
Tuna and tunalike fishes:						
Canned:						
Albacore.....standard cases..					122,222	778,393
Bluefin.....do.....					409,534	1,965,593
Bonito.....do.....					145,180	603,798
Striped.....do.....					285,433	1,313,337
“Tonno”.....do.....					160,848	1,025,954
Yellowfin.....do.....					1,293,550	6,762,805
Yellowtail.....do.....					94,061	373,849
Meal.....tons.....					8,330	219,610
Oil.....gallons.....					127,660	22,648
Crabs:						
Meat, packaged, fresh cooked.....pounds..	52,200	20,252	269,116	92,078		
Canned.....standard cases..			401	7,895		
Sea crawfish meat, packaged, fresh cooked.....pounds..					902,113	218,504
Abalone, steaks.....do.....					740,000	231,844

† The production of this item has been included under “Unclassified products.”

Industries related to the fisheries of the Pacific Coast States, 1935—Continued

PRODUCTS MANUFACTURED—Continued

Item	Washington		Oregon		California	
	Quantity	Value	Quantity	Value	Quantity	Value
By manufacturing firms—Continued.						
Clams, hard:						
Fresh shucked.....gallons..	3,752	\$4,525	(¹)	(¹)		
Canned:						
Whole.....standard cases..	16,605	68,280				
Minced.....do.....	16,026	74,673				
Chowder.....do.....	480	1,686				
Juice and nectar.....do.....	3,216	6,786				
Shells, ground for poultry feed.....tons.....	2,656	26,273				
Clams, razor, canned:						
Whole.....standard cases..	1,152	10,327	51	\$408		
Minced.....do.....	40,872	344,558	1,012	7,106		
Juice.....do.....			70	246		
Oysters:						
Eastern, fresh shucked					6,857	\$33,360
gallons.....						
Japanese:						
Fresh shucked.....do.....	322,186	410,101	71,186	93,623	4,571	11,209
Canned.....standard cases..	88,062	384,423				
Native, fresh shucked						
gallons.....	23,397	146,016	5,734	38,266	274	1,455
Shell products:						
Poultry feed.....tons.....	2,720	25,380	(¹)	(¹)	13,273	73,139
Unclassified products:						
Packaged.....pounds.....	191,400	17,169	13,656	1,775	(⁶)	(⁶)
Salted.....do.....	1,110,274	74,946	(⁴)	(⁴)	1,352,720	147,396
Smoked.....do.....	(⁴)	(⁴)	747,072	8,025	366,427	65,853
Canned:						
Cat and dog food						
standard cases.....					450,917	1,269,129
Other.....do.....	11,813	75,181	10,793	10,583	11,924	11,77,726
Meal.....tons.....	19,922	42,976	(⁴)	(⁴)	2,133	47,315
Oil.....gallons.....	172,983	2,278,289	(⁴)	(⁴)	(⁴)	(⁴)
Miscellaneous.....		13,068		13,405		171,148,897
Total.....		9,285,673		3,819,705		38,157,970
By fishermen:						
Cod, green salted.....pounds..	2,839,818	127,837			1,581,593	71,190
Cod, tongues.....do.....	10,526	842			6,400	320
Shrimp:						
Dried.....do.....					192,237	28,836
Meal or bran.....do.....					389,550	3,896
Total.....	2,850,344	128,679			2,169,780	104,242
Grand total.....		9,394,352		3,819,705		38,262,212

¹ The production of this item has been included under "Unclassified products."

² Includes fresh fillets of "lingcod"; frozen fillets of flounders; fresh-packaged shrimp; and fresh-shucked bay scallops.

³ Includes fresh fillets of flounders, "lingcod", and rockfishes, and fresh-shucked hard clams.

⁴ This has been included under "Miscellaneous."

⁵ Includes green salt cod in process, partly boned; spiced herring; and salted salmon.

⁶ Includes salted barracuda, herring, pilchards, salmon, black and white sea bass, and yellowtail, pickled and spiced herring; boneless salt cod; and green salt cod in process, partly boned.

⁷ Includes kippered sablefish, salmon, and sturgeon; and smoked shad, smelt, and sturgeon.

⁸ Includes smoked chub, mackerel, and miscellaneous fish; and kippered sablefish.

⁹ Includes canned shad and shad roe, sturgeon roe, sea cucumber, and oyster soup.

¹⁰ Includes canned salmon eggs for bait and kippered sturgeon.

¹¹ Includes canned abalone products; shad and shad roe; and squid.

¹² Includes salmon, salmon egg, oyster, and miscellaneous fish meals.

¹³ Includes abalone, shrimp, and miscellaneous fish meals.

¹⁴ Includes salmon and miscellaneous fish and liver oils.

¹⁵ Includes smoked herring blotters; oyster-shell lime; and kelp products.

¹⁶ Includes salmon and salmon-egg meal; salmon-egg oil; salted sturgeon caviar; marine-shell novelties; and oyster-shell products.

¹⁷ Includes packaged, cooked, and peeled shrimp; dried shrimp; whale, sperm, and miscellaneous liver oils; marine-shell novelties; oyster-shell lime; liquid glue; and kelp products.

NOTE.—The total value of manufactured products in the Pacific Coast States was as follows: By manufacturing establishments, \$51,243,348; and by fishermen, \$232,921. Some of the above products may have been imported from another State or a foreign country; therefore, they cannot be correlated directly with the catch within the State. All of the persons engaged in the preparation of fishermen's manufactured products have also been included as fishermen.

WASHINGTON

Fisheries of Washington, 1935

CATCH: BY DISTRICTS

Species	Puget Sound district		Coastal district		Columbia River district	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Carp.....						
Cod ¹	9,285,400	\$131,042			124,300	\$2,797
Flounders:						
"Sole".....	2,402,200	61,254			3,800	94
Other.....	191,700	4,039				
Grayfish.....	277,500	527				
Halibut.....	25,883,000	2,065,099	4,300	\$237	61,300	5,547
Herring.....	694,500	9,047				
"Lingcod".....	1,150,500	32,729	40,100	736	11,000	358
Perch.....	95,500	2,999				
Pilchard or sardine.....	12,400	186				
Rockfishes.....	431,100	14,461	5,500	108	17,300	595
Sablefish.....	2,883,200	107,805			190,300	6,564
Salmon:						
Blueback, red or sockeye.....	4,310,900	426,996	475,300	47,527	25,500	2,289
Chinook or king.....	4,969,300	326,706	2,274,200	147,322	4,215,900	293,562
Chum or keta.....	7,198,200	212,385	855,800	12,837	357,700	4,471
Humpback or pink.....	26,176,000	602,501	1,200	29		
Silver or coho.....	11,586,800	528,311	3,411,900	166,900	1,149,200	54,874
Shad.....					65,800	1,842
Smelt:						
Eulachon.....			36,300	835	2,769,600	45,380
Surf or silver.....	453,700	18,057	98,700	3,645		
Steelhead trout.....			49,900	3,298	464,400	24,207
Sturgeon.....					20,900	592
Total	98,001,900	4,544,144	7,253,200	383,474	9,477,000	443,172
SHELLFISH, ETC.						
Crabs.....	251,700	12,837	1,299,000	94,474		
Shrimp.....	124,500	8,417				
Clams:						
Hard:						
Butter.....	376,700	22,062				
Little neck.....	445,900	30,466				
Razor.....			935,400	144,764		
Octopus.....	69,200	2,436				
Oysters:						
Eastern, market.....			700	297		
Japanese, market.....	1,283,700	99,954	4,193,500	335,483		
Native, market.....	319,900	198,347	6,800	3,234		
Scallops, bay.....	15,400	3,861				
Squid.....	19,200	824				
Trepang.....	12,600	420				
Total	2,918,800	379,624	6,435,400	578,252		
Grand total	100,920,700	4,923,768	13,688,600	961,726	9,477,000	443,172

¹ Nearly all of the cod were taken off Alaska.² Steelhead trout shown for the coastal district of Washington were taken on Indian reservations.

Fisheries of the Puget Sound district of Washington, 1935

OPERATING UNITS: BY GEAR

Item	Purse seines		Haul seines ²	Gill nets		Lines		Pound nets ³	Brush weirs
	Salmon	Sar-dine ¹		Drift	Set ³	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>	<i>Number</i>
On vessels.....	1,704	184	26	311	6	1,322	293	4	7
On boats and shore.....	14	-----	513	-----	-----	55	276	-----	-----
Total.....	1,718	184	539	311	6	1,377	569	4	7
Vessels:									
Motor.....	215	18	7	-----	-----	169	154	-----	-----
Net tonnage.....	4,933	771	73	-----	-----	4,603	1,182	-----	-----
Sail.....	-----	-----	-----	-----	-----	3	-----	-----	-----
Net tonnage.....	-----	-----	-----	-----	-----	1,346	-----	-----	-----
Total vessels.....	215	18	7	-----	-----	172	154	-----	-----
Total net tonnage.....	4,933	771	73	-----	-----	5,949	1,182	-----	-----
Boats:									
Motor.....	3	-----	112	302	6	42	173	2	2
Other.....	-----	-----	85	-----	-----	30	-----	-----	3
Accessory boats.....	218	18	-----	-----	-----	71	-----	-----	-----
Apparatus:									
Number.....	218	18	177	302	6	28,159	1,635	2	6
Length, yards.....	130,364	6,590	12,454	-----	-----	-----	-----	-----	-----
Square yards.....	-----	-----	-----	468,350	1,440	-----	-----	-----	-----
Hooks.....	-----	-----	-----	-----	-----	595,755	7,357	-----	-----

Item	Dip nets	Reef nets	Beam trawls	Otter trawls	Traps		Tongs and rakes, oyster	Shovels	Total, exclusive of duplication
					Crab	Octopus ⁴			
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.....	15	56	24	105	99	27	203	474	3,376
On boats and shore.....	-----	-----	2	3	-----	-----	-----	-----	1,795
Total.....	15	56	26	108	99	27	203	474	5,171
Vessels:									
Motor.....	-----	-----	10	33	-----	-----	-----	-----	550
Net tonnage.....	-----	-----	88	510	-----	-----	-----	-----	10,967
Sail.....	-----	-----	-----	-----	-----	-----	-----	-----	3
Net tonnage.....	-----	-----	-----	-----	-----	-----	-----	-----	1,346
Total vessels.....	-----	-----	10	33	-----	-----	-----	-----	553
Total net tonnage.....	-----	-----	88	510	-----	-----	-----	-----	12,313
Boats:									
Motor.....	11	18	1	1	92	10	48	-----	762
Other.....	4	36	-----	-----	7	17	134	-----	306
Accessory boats.....	-----	-----	-----	-----	-----	-----	-----	-----	297
Apparatus:									
Number.....	15	18	11	34	2,970	486	146	474	-----
Yards at mouth.....	-----	-----	65	476	-----	-----	-----	-----	-----

¹ Operated in the Oregon pilchard fishery. See Oregon coast tables for catch statistics.² Includes the seines formerly shown as drag bag nets.³ Fished only on Indian reservations.⁴ Operating units in the octopus fishery were previously included with set lines.

Fisheries of the Puget Sound district of Washington, 1935—Continued

CATCH: BY GEAR

Species	Purse seines		Haul seines ¹		Gill nets			
	Pounds	Value	Pounds	Value	Drift		Set ²	
FISH			100	\$2	Pounds	Value	Pounds	Value
Cod.....								
Flounders:								
" Sole ".....			500	13				
Other.....			6,400	129				
Herring.....			113,400	2,041				
"Lingcod".....	300	\$9	3,700	114				
Perch.....			89,300	2,813				
Pilchard or sardine.....			12,400	186				
Rockfishes.....	200	6	7,700	269				
Salmon: ³								
Blueback, red or sockeye.....	4,216,000	417,644			54,400	\$5,386	1,200	\$119
Chinook or king.....	901,500	39,666	1,400	84	1,222,800	53,803	17,200	757
Chum or keta.....	6,705,200	197,803			397,200	11,757	79,600	2,348
Humpback or pink.....	25,427,100	585,238			381,500	8,801		
Silver or coho.....	7,034,800	289,834	600	30	918,100	37,826	40,500	1,669
Smelt, surf or silver.....			453,700	18,057				
Total.....	44,285,100	1,530,200	689,200	23,738	2,974,000	117,573	138,500	4,893
SHELLFISH								
Squid.....			19,200	824				
Grand total.....	44,285,100	1,530,200	708,400	24,562	2,974,000	117,573	138,500	4,893

Species	Lines				Pounds net ⁴		Brush weirs	
	Trawl, set, and hand ⁵		Troll		Pounds	Value	Pounds	Value
FISH	Pounds	Value	Pounds	Value				
Cod.....	9,157,500	\$127,837	300	\$6				
Flounders:								
" Sole ".....	1,100	26						
Grayfish.....	277,500	527						
Halibut.....	25,846,900	2,062,413	26,500	1,854			575,800	\$6,909
Herring.....								
"Lingcod".....	744,400	23,366	45,300	819				
Perch.....	100	3						
Rockfishes.....	347,900	12,491	4,900	103				
Sablefish.....	2,873,700	107,425						
Salmon: ⁶								
Blueback, red or sockeye.....			600	55				
Chinook or king.....			2,717,400	227,600	91,300	\$4,017		
Humpback or pink.....			28,400	665				
Silver or coho.....			3,522,100	196,039				
Total.....	39,249,100	2,334,088	6,345,500	427,141	91,300	4,017	575,800	6,909

¹ Includes the catch of drag bag nets previously shown separately.

² Fished only on Indian reservations.

³ In addition, the vessels of the Pacific coast halibut fleet landed about 670,000 pounds of halibut, sablefish, and "lingcod" livers valued at \$270,000 at Seattle.

⁴ These cod were taken off Alaska.

⁵ Statistics on the catch of salmon, except those taken by troll lines, are reported to the State in number rather than pounds. The factors used in the above table for converting number of salmon to weight in pounds were as follows: Blueback, red or sockeye, 7 pounds; chinook or king, 22 pounds; chum or keta, 10 pounds; humpback or pink, 4.5 pounds; and silver or coho, 8 pounds.

Fisheries of the Puget Sound district of Washington, 1935—Continued

CATCH: BY GEAR—Continued

Species	Dip nets		Reef nets		Beam trawls		Otter trawls	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Cod							127,500	\$3,197
Flounders:								
"Sole"							2,400,600	61,215
Other							185,300	3,910
Halibut							9,600	832
Herring	5,300	\$97						
"Lingcod"							356,800	8,421
Perch							6,100	183
Rockfishes							70,400	1,529
Sablefish							9,500	380
Salmon: ⁶								
Blueback, red or sockeye			38,700	\$3,792				
Chinook or king			17,700	779				
Chum or keta			16,200	477				
Humpback or pink			339,000	7,797				
Silver or coho			70,700	2,913				
Total	5,300	97	482,300	15,758			3,165,800	79,730
SHELLFISH								
Shrimp					124,500	\$8,417		
Octopus							900	31
Scallops, bay ¹⁰					15,400	3,861		
Trepang					12,600	420		
Total					152,500	12,698	900	31
Grand total	5,300	97	482,300	15,758	152,500	12,698	3,166,700	79,761

Species	Traps				Tongs and rakes		Shovels	
	Crab		Octopus ⁴					
SHELLFISH								
Crabs ⁷	251,700	\$12,837						
Clams, hard: ⁸							376,700	\$22,062
Butter							445,900	30,466
Little neck								
Octopus			68,300	\$2,405				
Oysters: ⁹								
Japanese, market					1,283,700	\$99,954		
Native, market					319,900	198,347		
Total	251,700	12,837	68,300	2,405	1,603,600	298,301	822,600	52,528

⁴ The catch of octopus was previously shown under set lines.

⁶ Statistics on the catch of salmon, except those taken by troll lines, are reported to the State in number rather than pounds. The factors used in the above table for converting number of salmon to weight in pounds were as follows: Blueback, red or sockeye, 7 pounds; chinook or king, 22 pounds; chum or keta, 10 pounds; humpback or pink, 4.5 pounds; and silver or coho, 8 pounds.

⁷ The weight of crabs shown is based on an average of 20 pounds per dozen.

⁸ Statistics on hard clams are based on yields of 28 percent edible meats for butter clams and 24 percent for little neck clams.

⁹ Statistics on oysters are based on yields of 18 percent edible meats for native oysters and 14 percent for Japanese oysters.

¹⁰ The weight of bay scallops is based on a yield of 17 percent edible meat.

NOTE.—Statistics of the catch by haul seines, set nets, and pound nets in this table are not comparable with those for previous years since a State initiative effective in 1935 prohibited the use in Puget Sound of these gears for the taking of salmon except by Indians on reservations.

Fisheries of the coastal district of Washington, 1935

OPERATING UNITS: BY GEAR

Item	Haul seines ¹	Gill nets		Lines, troll	Dip nets	Traps, crab	Tongs and rakes, oyster	Dredges, oyster	Shovels	Total, exclusive of duplication
		Drift	Set							
	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:										
On vessels.....				43		10		8		61
On boats and shore.....	26	254	110	146	55	106	194		3,752	4,362
Total	26	254	110	189	55	116	194	8	3,752	4,423
Vessels, motor				25		5		2		32
Net tonnage.....				198		44		13		255
Boats:										
Motor.....		203	67	92	8	62	40			414
Other.....	5		43				136			184
Apparatus:										
Number.....	5	203	110	585	55	3,563	162	4	3,752	
Length, yards.....	325									
Square yards.....		370,988	26,950							
Yards at mouth.....								8		
Hooks.....				2,632						

CATCH: BY GEAR

Species	Haul seines ¹		Gill nets				Lines, troll	
			Drift		Set ²			
			Pounds	Value	Pounds	Value		
FISH								
Halibut.....							4,300	\$237
"Lineod".....							40,100	736
Rockfishes.....							5,500	108
Salmon: ³								
Blueback, red or sockeye.....					451,600	\$45,157		
Chinook or king.....			696,900	\$38,328	268,900	14,792	1,308,400	94,202
Chum or keta.....			600,700	9,010	254,800	3,822	300	5
Humpback or pink.....					200	5	1,000	24
Silver or coho.....			500,800	22,534	974,300	43,844	1,936,800	100,522
Smelt, surf or silver.....	85,100	\$3,233						
Steelhead trout ⁴					49,900	3,298		
Total	85,100	3,233	1,798,400	69,872	1,999,700	110,918	3,296,400	195,834

Species	Dip nets		Traps		Dredges, tongs, and rakes		Shovels	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Salmon: ³								
Blueback, red or sockeye.....	23,700	\$2,370						
Smelt:								
Eulachon.....	36,300	835						
Surf or silver.....	13,600	412						
Total	73,600	3,617						
SHELLFISH								
Crabs ⁵			1,299,000	\$94,474				
Clams, razor ⁶							935,400	\$144,764
Oysters: ⁷								
Eastern, market.....					700	\$297		
Japanese, market.....					4,193,500	335,483		
Native, market.....					6,800	3,234		
Total			1,299,000	94,474	4,201,000	339,014	935,400	144,764
Grand total	73,600	3,617	1,299,000	94,474	4,201,000	339,014	935,400	144,764

¹ Previously shown as drag bag nets.

² Set nets were fished only on Indian reservations.

³ Statistics on the catch of salmon except those taken by troll lines are reported to the State in number rather than pounds. The factors used in the above table for converting number of salmon to weight in pounds were as follows: Blueback red, or sockeye, 5 pounds; chinook or king, 23 pounds; chum or keta, 10 pounds; humpback or pink, 4 pounds; silver or coho, 10 pounds; and steelhead trout, 9 pounds.

⁴ Steelhead trout shown in this table were taken on Indian reservations

⁵ The weight of crabs shown in this table is based on an average of 22 pounds per dozen.

⁶ The weight of razor clams shown is based on a yield of 42 percent of edible meats.

⁷ The statistics on oysters used in this table are based on yields of 14 percent edible meats for Japanese and native oysters, and 13 percent for eastern oysters.

NOTE.—A State law effective in 1935 prohibited the use of certain gear in the salmon fishery, except for Indians fishing on their reservations. This eliminated the Washington coast pound net fishery and restricted set nets to Indian reservations.

Fisheries of the Columbia River district of Washington, 1935

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets, drift	Lines		Dip nets	Total, exclusive of duplication
			Trawl and set	Troll		
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....			11	4		15
On boats and shore.....	5	604	18	41	213	820
Total.....	5	604	29	45	213	835
Vessels, motor.....			3	2		5
Net tonnage.....			34	19		53
Boats:						
Motor.....	2	411	18	25	102	516
Other.....	2				9	11
Apparatus:						
Number.....	2	411	468	112	213	
Length, yards.....	251					
Square yards.....		1, 142, 580				
Hooks.....			11, 250	398		

CATCH: BY GEAR¹

Species	Haul seines		Gill nets, drift		Lines				Dip nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH										
Carp.....	124, 300	\$2, 797								
Flounders, "sole".....			1, 700	\$34	2, 100	\$60				
Haiibut.....					61, 300	5, 547				
"Linecod".....					11, 000	358				
Rockfishes.....					17, 300	595				
Sablefish.....					190, 300	6, 564				
Salmon:										
Blueback, red or sockeye.....			4, 500	309					21, 000	\$1, 890
Chinook or king.....			3, 753, 000	269, 465			42, 100	\$3, 225	420, 800	20, 872
Chum or keta.....			357, 700	4, 471						
Silver or coho.....			647, 700	29, 147			501, 500	25, 727		
Shad.....			65, 800	1, 842						
Smelt.....			76, 200	2, 286					2, 693, 400	43, 094
Steelhead trout.....			362, 600	13, 218			100	6	101, 700	4, 983
Sturgeon.....	600	18	17, 300	484	3, 000	90				
Total.....	124, 900	2, 815	5, 286, 500	327, 346	265, 000	13, 214	543, 700	28, 958	3, 236, 900	70, 839

¹ A State law effective in 1935 prohibited the use of stationary gear in the salmon fishery, except by Indians fishing on their reservations. This eliminated the use of set gill nets, pound nets, fish wheels, and haul seines for catching salmon in the Columbia River district of Washington. As a result of these gear restrictions the catch of salmon on the Washington side of the Columbia River showed a considerable decrease as compared with previous years.

OREGON

Fisheries of Oregon, 1935

CATCH: BY DISTRICTS

Species	Columbia River district		Coastal district	
	Pounds	Value	Pounds	Value
FISH				
Carp.....	7,600	\$190		
Flounders:				
" Sole".....			10,800	\$289
Other.....	34,800	874	23,500	382
Halibut.....	456,000	32,304	93,400	6,354
Herring.....			42,900	644
"Lingcod".....	59,000	1,587	49,400	1,145
Perch.....			20,300	305
Pilchard or sardine.....			52,464,100	236,094
Rockfishes.....	37,300	1,141	11,500	361
Sablefish.....	70,200	2,224	20,600	635
Salmon:				
Blueback, red or sockeye.....	42,400	4,047		
Chinook or king.....	11,200,700	783,435	1,115,000	72,693
Chum or Keta.....	452,700	5,660	747,200	9,714
Silver or coho.....	4,152,600	203,397	9,074,900	413,189
Shad.....	354,500	10,287	391,100	11,733
Smelts:				
Eulachon.....	163,900	4,215		
Other.....			2,500	38
Steelhead trout.....	1,288,700	66,297	310,000	22,630
Striped bass.....			27,800	1,890
Sturgeon.....	58,700	1,700	1,200	36
Tuna, albacore.....			600	60
Total.....	18,374,100	1,117,358	64,406,800	778,192
SHELLFISH				
Crabs.....			2,360,700	150,226
Crawfish, fresh water.....	79,300	7,928		
Clams:				
Razor.....			77,700	12,953
Mixed.....			74,900	4,167
Oysters:				
Japanese, market.....			9,900	780
Native, market.....			8,900	5,210
Total.....	79,300	7,928	2,532,100	173,336
Grand total.....	18,453,400	1,125,286	66,938,900	951,528

Fisheries of the Columbia River district of Oregon, 1935

OPERATING UNITS: BY GEAR

Item	Haul seines	Gill nets		Lines		Pound nets	Dip nets	Otter trawls	Traps, crawfish	Total, exclusive of duplication
		Drift	Set	Trawl and set	Troll					
Fishermen:										
On vessels.....				16	79					95
On boats and shore.....	518	1,186	73	56	146	58	264	3	24	2,249
Total.....	518	1,186	73	72	225	58	264	3	24	2,344
Vessels, motor:				4	44					48
Net tonnage.....				63	339					402
Boats:										
Motor.....	25	814	63	50	122	29	8	1	20	1,091
Other.....	44		10	6		18			4	78
Apparatus:										
Number.....	44	814	139	559	874	51	264	1	1,156	
Length, yards.....	24,945									
Square yards.....		2,578,752	38,808							
Yards at mouth.....								15		
Hooks.....				13,408	3,933					

Fisheries of the Columbia River district of Oregon, 1935—Continued

CATCH: BY GEAR

Species	Haul seines		Gill nets				Lines	
			Drift		Set		Trawl and set	
			Pounds	Value	Pounds	Value	Pounds	Value
FISH	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Carp.....	7,600	\$190						
Flounders, "sole".....							14,800	\$474
Hallbut.....							456,000	32,304
"Lingcod".....							57,800	1,551
Rockfishes.....							37,000	1,132
Sablefish.....							70,200	2,224
Salmon:								
Blueback, red or sockeye.....	20,900	2,060	10,700	\$949	2,200	\$195		
Chinook or king.....	2,168,500	155,698	7,347,000	527,515	62,500	4,488		
Chum or keta.....	45,600	563	360,400	4,505	4,100	51		
Silver or coho.....	258,100	11,615	981,000	44,145	5,600	252		
Shad.....	180,100	5,403	174,000	4,872	200	6		
Smelt, eulachon.....			132,700	3,716				
Steelhead trout.....	500,200	25,230	471,300	24,979	15,600	827		
Sturgeon.....	700	21	30,700	860	500	15	26,200	786
Total.....	3,181,100	200,810	9,507,800	611,541	90,700	5,834	662,000	38,471

Species	Lines—Con.		Pound nets		Dip nets		Otter trawls		Traps	
	Troll									
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH										
Flounders, "sole".....							20,000	\$400		
"Lingcod".....							1,200	36		
Rockfishes.....							300	9		
Salmon:										
Blueback, red or sockeye.....			3,900	\$390	4,700	\$423				
Chinook or king.....	233,300	\$17,871	403,100	28,943	986,300	48,920				
Chum or keta.....			43,000	538	200	3				
Silver or coho.....	2,623,700	134,596	282,800	12,726	1,400	63				
Shad.....			200	6						
Smelt, eulachon.....					31,200	499				
Steelhead trout.....	100	6	181,700	9,630	114,800	5,625				
Sturgeon.....			600	18						
Total.....	2,857,100	152,473	915,300	52,251	1,138,600	55,533	21,500	445		
SHELLFISH										
Crawfish, fresh water.....									79,300	\$7,928
Grand total.....	2,857,100	152,473	915,300	52,251	1,138,600	55,533	21,500	445	79,300	7,928

NOTE.—Strikes by fishermen using gill nets on the lower Columbia River between Aug. 1 and 11, and Aug. 20 and 25 permitted a considerable portion of the fall run of salmon to escape, as the peak of this run was observed between Aug. 20 and 25.

Fisheries of the coastal district of Oregon, 1935

OPERATING UNITS: BY GEAR¹

Item	Haul seines	Gill nets		Lines		Otter trawls	Traps, crab	Tongs and rakes, oyster	Shovels	Total, exclusive of duplication
		Drift	Set	Trawl and set	Troll					
	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:										
On vessels.....				7	15	3				18
On boats and shore.....	24	486	380	22	178		253	5	203	1,450
Total.....	24	486	380	29	193	3	253	5	203	1,468
Vessels, motor.....				2	9	1				10
Net tonnage.....				24	72	16				88
Boats:										
Motor.....	7	366	236	20	132		253	2		964
Other.....	7		123	2				3		133
Apparatus:										
Number.....	7	486	865	174	714	1	13,144	5	203	
Length, yards.....	1,167									
Square yards.....		691,092	328,700							
Yards at mouth.....						30				
Hooks.....				5,525	3,213					

¹ In addition there was a combined fleet of 52 Washington and California purse-seine vessels operating in the Oregon coast pilchard fishery. These vessels were manned by a total of 546 fishermen and had an aggregate tonnage of 2,549 net tons. Of the total vessels, 18 were Washington purse seiners, and 34 were from California. For detailed statistics regarding the operating units in this fishery refer to the gear tables in the Washington and California sections of this report.

CATCH: BY GEAR

Species	Purse seines ¹		Haul seines		Gill nets, drift and set		Lines	
	Pounds	Value	Pounds	Value	Pounds	Value	Trawl and set	
FISH								
Flounders:								
“Sole”.....							3,200	\$80
Other.....			10,300	\$154	7,200	\$108	1,300	26
Halibut.....							91,200	6,202
Herring.....			16,700	251	26,200	393		
“Lingcod”.....							18,800	508
Perch.....			18,200	273	2,100	32		
Pilchard or sardine.....	52,464,100	\$236,094						
Rockfishes.....							9,900	297
Sablefish.....							20,400	632
Salmon:								
Chinook or king.....					831,100	50,946		
Chum or keta.....					747,200	9,714		
Silver or coho.....					5,418,400	238,409		
Shad.....					391,100	11,733		
Smelt.....			1,100	17	1,400	21		
Steelhead trout.....					310,000	22,630		
Striped bass.....					27,800	1,890		
Sturgeon.....					1,200	36		
Total.....	52,464,100	236,094	46,300	695	7,763,700	335,912	144,800	7,745

¹ The Oregon coast pilchard fishery was prosecuted entirely by Washington and California purse-seine vessels.

Fisheries of the coastal district of Oregon, 1935—Continued

CATCH: BY GEAR—Continued

Species	Lines—Contd.		Otter trawls		Traps		Tongs and rakes		Shovels	
	Troll									
FISH	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Flounders:										
"Solé".....			7,600	\$209						
Other.....			4,700	94						
Halibut.....	1,700	\$122	500	30						
"Lingcod".....	26,700	481	3,900	156						
Rockfishes.....			1,600	64						
Sablefish.....	200	3								
Salmon:										
Chinook or king.....	283,900	21,747								
Silver or coho.....	3,656,500	174,780								
Tuna, albacore.....	600	60								
Total.....	3,960,600	197,193	18,300	553						
SHELLFISH										
Crabs.....					2,360,700	\$150,226				
Clams:										
Razor ¹									77,700	\$12,953
Mixed ²									74,900	4,167
Oysters:										
Japanese, market.....							9,900	\$780		
Native, market.....							8,900	5,210		
Total.....					2,360,700	150,226	18,800	5,990	152,600	17,120
Grand total.....	3,969,600	197,193	18,300	553	2,360,700	150,226	18,800	5,990	152,600	17,120

¹ The weight of razor clams is that of edible meats, based on a yield of 42 percent of the round weight.

² Mixed clams consist principally of Eastern soft-shell clams. The weight shown is that of edible meats, based on a yield of 21 percent of the round weight.

NOTE.—A strike of troll fishermen on the Oregon coast halted operations in this fishery from May 1 to June 23.

CALIFORNIA

Fisheries of California, 1935

CATCH: BY DISTRICTS

Species	Northern district		San Francisco district ¹		Monterey district	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Anchovies.....			74,600	\$1,491	76,400	\$1,246
Carp.....			104,200	1,466		
Catfish.....			289,600	32,461		
Cod ¹			5,101,900	71,510		
Flounders:						
"California halibut".....			18,400	1,659	41,900	3,678
"Solé".....	2,632,700	\$142,979	5,400,600	308,435	618,900	31,851
Other.....	297,400	13,663	996,400	42,857	96,900	4,113
Grayfish.....	5,200	26	145,900	792	9,000	91
Hake.....	900	9	61,900	619	5,700	70
Halibut.....	848,200	59,936	19,000	1,335		
Hardhead.....			78,000	4,038		
Herring.....	7,600	88	792,100	3,960	47,300	360
Horse mackerel.....					146,400	3,389
Kingfish.....			13,100	391	250,400	8,428
"Lingcod".....	491,600	16,999	409,100	16,363	106,700	5,014
Mackerel.....			16,300	335	5,472,000	51,577
Perch.....	9,700	241	132,300	5,293	39,400	1,491
Pilchard or sardine.....			433,481,500	1,725,267	376,150,600	1,484,173
Pompano.....					200	124
Rockfishes.....	461,300	17,983	538,300	21,531	2,194,200	72,279
Sablefish.....	1,609,200	50,631	126,500	4,428	560,300	10,222
Salmon.....	3,495,900	219,648	1,941,700	106,483	219,700	20,638

¹ The catch of cod was taken off Alaska.

Fisheries of California, 1935—Continued

CATCH: BY DISTRICTS—Continued

Species	Northern district		San Francisco district		Monterey district	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH—continued						
Sculpin.....			400	\$8	9,900	\$102
Sea bass, white.....			400	41	1,200	126
Shad.....			1,602,200	44,940	100	2
Skates.....	4,500	\$46	239,600	2,396	32,100	427
Smelt.....	24,800	894	323,100	19,335	213,000	9,328
Spittail.....			37,600	728		
Squawfish.....			1,600	53		
Striped bass.....			502,100	41,300		
Suckers.....			44,400	562		
Tomcod.....	300	3	400	8		
Tuna and tunalike fishes:						
Albacore.....					683,400	50,205
Bonito.....					400	21
Whitebait.....	127,500	5,434	30,700	2,459	11,700	800
Other fish.....	93,000	1,016	115,600	1,167	8,800	99
Total.....	10,109,800	529,496	452,639,500	2,463,711	386,996,600	1,759,854
SHELLFISH						
Crabs.....	157,900	10,041	3,495,300	364,096	26,700	2,115
Shrimp.....			3,444,800	52,034	2,400	582
Abalone.....			3,800	625	531,200	90,737
Clams:						
Hard.....	10,400	928	14,100	5,792		
Pismo.....					5,800	1,409
Soft.....			47,500	10,214		
Octopus.....	1,800	73	24,000	1,440	55,300	3,430
Oysters, market:						
Eastern.....			64,000	30,848		
Japanese.....			30,900	4,202	9,100	3,640
Native.....			2,400	1,214	400	120
Squid.....					783,100	22,333
Total.....	170,100	11,042	7,126,600	470,375	1,414,000	124,366
WHALE PRODUCTS						
Whale meat.....			3,272,000	65,440		
Whale oil.....			2,451,600	89,215		
Total.....			5,723,600	154,655		
Grand total.....	10,279,900	540,538	465,489,700	3,088,741	388,410,600	1,884,220

Species	San Pedro district					
	Off California		Off Latin America		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Anchovies.....	28,000	\$361			28,000	\$361
Barracuda.....	1,922,200	68,155	249,100	\$22,531	2,171,300	90,686
Cabrilla.....			67,400	3,224	67,400	3,224
Flounders:						
"California halibut".....	605,000	47,869	240,000	16,954	845,000	64,823
"Sole".....	510,800	15,310	100	3	510,900	15,313
Other.....	13,300	1,948			13,300	1,948
Flyingfish.....	37,900	1,351			37,900	1,351
Grayfish.....	331,500	10,382	1,000	41	332,500	10,423
Groupers.....			21,000	1,285	21,000	1,285
Hake.....	5,300	92	500	20	5,800	112
Halibut.....	2,400	334			2,400	334
Herring.....	400	21			400	21
Horse mackerel.....	9,836,000	39,333			9,836,000	39,333
Kingfish.....	501,200	8,622			501,200	8,622
"Lingcod".....	1,800	108			1,800	108
Mackerel.....	131,673,400	997,635			131,673,400	997,635
Marlin.....	14,200	682			14,200	682
Mullet.....	500	32			500	32
Perch.....	61,100	3,908			61,100	3,908
Pilchard or sardine.....	292,001,800	1,110,565			292,001,800	1,110,565
Pompano.....	5,600	2,595			5,600	2,595

Fisheries of California, 1935—Continued

CATCH: BY DISTRICTS—Continued

Species	San Pedro district					
	Off California		Off Latin America		Total	
FISH—continued	Pounds	Value	Pounds	Value	Pounds	Value
Rock bass	163,800	\$9,939	5,000	\$325	168,800	\$10,264
Rockfishes	1,216,000	48,355	11,500	465	1,227,500	48,820
Rudderfish	34,800	1,724			34,800	1,724
Sablefish	522,700	18,908			522,700	18,908
Sculpin	62,400	4,792			62,400	4,792
Sea bass:						
Black	12,100	515	405,600	22,388	417,700	22,903
White	604,700	36,008	230,600	15,480	835,300	51,488
Sheepshead	184,100	6,264	300	13	184,400	6,277
Skates	12,400	207			12,400	207
Smelt	307,900	10,693	300	9	308,200	10,702
Spanish mackerel			4,400	203	4,400	203
Swordfish	434,500	51,748	13,300	1,418	447,800	53,166
Tuna and tunalike fishes:						
Albacore	1,505,400	128,989	100	8	1,505,500	128,997
Bluefin	17,839,200	812,865	5,872,200	264,584	23,711,400	1,077,449
Bonito	1,298,800	35,261	4,310,900	129,340	5,609,700	164,601
Skipjack or striped tuna	58,800	2,353	3,451,800	138,481	3,510,600	140,834
Yellowfin	42,100	2,077	20,526,800	1,026,888	20,568,900	1,028,965
Whitefish	33,700	2,177	6,800	402	40,500	2,579
Yellowtail	466,300	12,430	1,772,800	56,401	2,239,100	68,831
Other fish	4,200	180	800	43	5,000	223
Total	462,356,300	3,494,788	37,192,300	1,700,506	499,548,600	5,195,294
SHELLFISH						
Crabs	12,800	372			12,800	372
Sea crawfish or spiny lobster	289,000	50,904	125,200	22,787	414,200	73,691
Shrimp	300	10			300	10
Abalone	239,400	23,957			239,400	23,957
Clams:						
Hard	6,200	1,439			6,200	1,439
Pismo	39,600	8,363			39,600	8,363
Octopus	100	3			100	3
Squid	32,900	487			32,900	487
Total	620,300	85,535	125,200	22,787	745,500	108,322
Grand total	462,976,600	3,580,323	37,317,500	1,723,293	500,294,100	5,303,616

Species	San Diego district					
	Off California		Off Latin America		Total	
FISH	Pounds	Value	Pounds	Value	Pounds	Value
Barracuda	81,700	\$3,913	364,800	\$16,494	446,500	\$20,407
Cabrilla			54,100	2,090	54,100	2,090
Flounders:						
"California halibut"	145,000	9,625	525,600	35,710	670,600	45,335
"Sole"	1,100	98	100	6	1,200	104
Grayfish	54,000	428	8,500	81	62,500	509
Groupers			10,400	444	10,400	444
Herring	81,500	636			81,500	636
Horse mackerel	1,500	15			1,500	15
Kingfish	3,900	122	100	3	4,000	125
"Lingcod"	1,300	34	900	21	2,200	55
Mackerel	8,104,600	61,538	1,160,900	8,801	9,265,500	70,339
Marlin	4,300	233	100	8	4,400	241
Mullet	13,200	923			13,200	923
Perch	1,200	41	3,000	80	4,200	121
Pilehard or sardine	14,098,400	49,774	3,900	41	14,102,300	49,815
Rock bass	166,300	9,720	29,500	1,353	195,800	11,073
Rockfishes	171,600	7,748	235,000	11,315	406,600	19,063
Sablefish	7,500	193	7,700	187	15,200	380
Sculpin	5,600	361	1,700	78	7,300	439
Sea bass:						
Black	5,100	273	208,000	10,510	213,100	10,788
White	46,000	3,106	188,900	11,236	232,900	14,342
Sheepshead	2,800	99	800	27	3,600	126
Skates	13,700	142	4,200	39	17,900	181
Smelt	4,300	246	2,100	109	6,400	355
Spanish mackerel			200	3	200	3
Swordfish	180,500	17,109	41,000	3,776	221,500	20,885

Fisheries of California, 1935—Continued

CATCH: BY DISTRICTS—Continued

Species	San Diego district					
	Off California		Off Latin America		Total	
FISH—continued	Pounds	Value	Pounds	Value	Pounds	Value
Tuna and tunalike fishes:						
Albacore.....	197,400	\$15,469	61,200	\$4,842	258,600	\$20,311
Bluefin.....	656,600	31,181	805,100	36,837	1,461,700	68,018
Bonito.....	964,600	26,449	1,321,800	38,245	2,286,400	64,694
Skipjack or striped tuna.....	1,849,100	73,969	11,837,500	473,650	13,686,600	547,619
Yellowfin.....	486,900	24,344	51,195,800	2,566,276	51,682,700	2,590,620
Whitefish.....	6,400	325	10,900	577	17,300	902
Yellowtail.....	116,300	3,318	5,793,300	161,518	5,909,600	164,836
Total.....	27,472,400	341,437	73,875,100	3,384,357	101,347,500	3,725,794
SHELLFISH, ETC.						
Sea crawfish or spiny lobster.....	82,600	13,638	848,000	126,133	930,600	139,771
Clams, Pismo.....			3,500	569	3,500	569
Turtles.....			1,700	81	1,700	81
Total.....	82,600	13,638	853,200	126,783	935,800	140,421
Grand total.....	27,555,000	355,075	74,728,300	3,511,140	102,283,300	3,866,215

CATCH: BY WATERS

Species	Off California		Off Latin America	
	Pounds	Value	Pounds	Value
FISH				
Anchovies.....	179,000	\$3,098		
Barracuda.....	2,003,900	72,068	613,900	\$39,025
Cabrilla.....			121,500	5,314
Carp.....	104,200	1,466		
Catfish.....	289,600	32,461		
Cod ¹	5,101,900	71,510		
Flounders:				
"California halibut".....	810,300	62,831	765,600	52,664
"Sole".....	9,164,100	498,673	200	9
Other.....	1,404,000	62,481		
Flyingfish.....	37,900	1,351		
Grayfish.....	545,600	11,719	9,500	122
Groupers.....			31,400	1,729
Hake.....	73,800	790	500	20
Halibut.....	869,600	61,605		
Hardhead.....	78,000	4,038		
Herring.....	928,900	5,065		
Horse mackerel.....	9,983,900	42,737		
Kingfish.....	768,600	17,563	100	3
"Lingcod".....	1,010,500	38,518	900	21
Mackerel.....	145,266,300	1,111,085	1,160,900	8,801
Marlin.....	18,500	915	100	8
Mullet.....	13,700	955		
Perch.....	243,700	10,974	3,000	80
Pilchard or sardine.....	1,115,732,300	4,369,779	3,900	41
Pompano.....	5,800	2,719		
Rock bass.....	330,100	19,659	34,500	1,678
Rockfishes.....	4,581,400	167,896	246,500	11,780
Rudderfish.....	34,800	1,724		
Sablefish.....	2,826,200	84,382	7,700	187
Salmon.....	5,657,300	346,769		
Sculpin.....	78,300	5,263	1,700	78
Sea bass:				
Black.....	17,200	793	613,600	32,898
White.....	652,300	39,281	417,500	26,716
Shad.....	1,602,300	44,942		
Sheepshead.....	186,900	6,363	1,100	40
Skates.....	302,300	3,218	4,200	39
Smelt.....	873,100	40,496	2,400	118
Spanish mackerel.....			4,600	206
Splittail.....	37,600	728		
Squawfish.....	1,600	53		
Striped bass.....	502,100	41,300		
Suckers.....	44,400	562		
Swordfish.....	615,000	68,857	54,300	5,194
Tomcod.....	700	11		

¹ The catch of cod was taken off Alaska.

Fisheries of California, 1935—Continued

CATCH: BY WATERS—Continued

Species	Off California		Off Latin America	
	Pounds	Value	Pounds	Value
FISH—continued				
Tuna and tunalike fishes:				
Albacore.....	2,386,200	\$194,663	61,300	\$4,850
Bluefin.....	18,495,800	844,046	6,677,300	301,421
Bonito.....	2,263,800	61,731	5,632,700	167,565
Skipjack or striped tuna.....	1,907,900	76,322	15,289,300	612,131
Yellowfin.....	529,000	26,421	71,722,600	2,563,164
Whitebait.....	169,900	8,693		
Whitefish.....	40,100	2,502	17,700	979
Yellowtail.....	582,600	15,748	7,566,100	217,919
Other fish.....	221,600	2,462	800	43
Total.....	1,339,574,600	8,589,286	111,067,400	6,064,963
SHELLFISH, ETC.				
Crabs.....	3,092,700	376,624		
Sea crawfish or spiny lobster.....	371,600	64,542	973,200	148,920
Shrimp.....	3,447,500	52,626		
Abalone.....	774,200	115,319		
Clams:				
Hard.....	30,700	8,099		
Pismo.....	45,400	9,772	3,500	569
Soft.....	47,500	10,214		
Octopus.....	81,200	4,946		
Oysters, market:				
Eastern.....	64,000	30,848		
Japanese.....	40,000	7,842		
Native.....	2,900	1,334		
Squid.....	816,000	22,820		
Turtles.....			1,700	81
Total.....	9,413,600	704,956	978,400	149,570
WHALE PRODUCTS				
Whale meat.....	3,272,000	65,440		
Whale oil.....	2,451,600	89,215		
Total.....	5,723,600	154,655		
Grand total.....	1,354,711,800	9,448,897	112,045,800	6,214,433

Fisheries of the northern district of California, 1935

OPERATING UNITS: BY GEAR

Item	Gill nets	Lines		Dip nets	Traps, crab	Shovels	Total, exclusive of duplication
		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>
On vessels.....		14	17		1		17
On boats and shore.....	10	85	190	28	24	16	263
Total.....	10	99	207	28	25	16	280
Vessels, motor.....		8	10		1		10
Net tonnage.....		66	79		9		79
Boats:							
Motor.....	8	67	167		22		189
Other.....	1						1
Apparatus:							
Number.....	12	268	870	28	440	16	
Square yards.....	9,000						
Hooks.....		27,365	3,851				

Fisheries of the northern district of California, 1935—Continued

CATCH: BY GEAR

Species	Gill nets		Lines			
	Pounds	Value	Set and hand		Troll	
				Pounds	Value	Pounds	Value
FISH						
Flounders:						
" Sole "			400	\$17		
Other	8,400	\$353				
Hallbut			757,700	53,555	8,400	\$521
Herring	7,000	88				
"Lingcod"			243,800	7,760	34,100	682
Perch	9,500	235	100	4		
Rockfishes			155,000	4,472	1,900	39
Sablefish			1,012,500	30,797		
Salmon					3,495,900	219,648
Smelt	15,600	614				
Whitebait	100	5				
Other fish			11,300	198	500	6
Total	41,400	1,295	2,210,800	96,812	3,540,800	220,896
SHELLFISH						
Octopus			1,800	73		
Grand total	41,400	1,295	2,212,600	96,885	3,540,800	220,896

Species	Dip nets		Paranzella nets		Traps		Shovels	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Flounders:								
" Sole "			2,632,300	\$142,962				
Other			288,800	13,210				
Grayfish			5,200	26				
Hake			900	9				
Hallbut			82,100	5,860				
"Lingcod"			213,700	8,548				
Perch	100	\$2						
Rockfishes			304,400	13,472				
Sablefish			566,700	19,834				
Skates			4,500	46				
Smelt	9,200	280						
Tomcod			300	3				
Whitebait	127,400	5,429						
Other fish			81,200	812				
Total	136,700	5,711	4,180,100	204,782				
SHELLFISH								
Crabs			1,900	116	156,000	\$9,925		
Clams, hard							10,400	\$9.28
Total			1,900	116	156,000	9,925	10,400	9.28
Grand total	136,700	5,711	4,182,000	204,898	156,000	9,925	10,400	9.28

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

Fisheries of the San Francisco district of California, 1935

OPERATING UNITS: BY GEAR

Item	Purse seines		Lampara and ring nets		Haul seines	Gill nets	
	Sardine	Tuna	Sardine	Other		Drift, salmon	Drift, shad
	Number	Number	Number	Number	Number	Number	Number
Fishermen:							
On vessels	156	11	137	23			
On boats and shore			37		5	215	292
Total	156	11	174	23	5	215	292
Vessels:							
Motor	14	1	13	2			
Net tonnage	855	55	151	21			
Boats:							
Motor			5		1	113	158
Other					1	8	5
Accessory boats	14	1	18	2			
Apparatus:							
Number	14	1	18	2	1	121	164
Length, yards	5,540	600	4,822	800	135		
Square yards						417,965	572,871

Fisheries of the San Francisco district of California, 1935—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Gill nets —Con.		Lines		Fyke nets	Dip nets	Bag nets, shrimp	Paran- zella nets
	Other	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.....		100	74				23	80
On boats and shore.....	55	39	174		75	2	20	
Total.....	55	139	248		75	2	43	80
Vessels:								
Motor.....		4	16				5	16
Net tonnage.....		42	234				31	230
Sail.....		2						
Net tonnage.....		824						
Total vessels.....		6	16				5	16
Total net tonnage.....		866	234				31	230
Boats:								
Motor.....	31	19	166		40	1	5	
Other.....					14	1		
Accessory boats.....		72						
Apparatus:								
Number.....	39	787	1,094	1,628	2	10	8	
Length, yards.....						7,733		
Square yards.....	55,957							
Yards at mouth.....								133
Hooks.....		39,464	5,003					

Item	Beam trawls	Traps, crab	Har- poons, whaling	Rakes and tongs, oyster	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.....		2	16				496
On boats and shore.....	18	280		25	84	2	905
Total.....	18	282	16	25	84	2	1,401
Vessels:							
Steam.....			2				2
Net tonnage.....			41				41
Motor.....		1					50
Net tonnage.....		16					1,283
Sail.....							2
Net tonnage.....							824
Total vessels.....		1	2				54
Total net tonnage.....		16	41				2,143
Boats:							
Motor.....	18	277		10	11	1	560
Other.....				14	1		35
Accessory boats.....							105
Apparatus:							
Number.....	18	5,442	2	25	84	1	
Yards at mouth.....	120						

Fisheries of the San Francisco district of California, 1935—Continued

CATCH: BY GEAR

Species	Purse seines		Lampara and ring nets		Haul seines		Gill nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Anchovies.....			74,400	\$1,487			200	\$4
Carp.....					73,900	\$935		
Flounders, other.....			200	10			200	8
Hardhead.....					65,400	2,983		
Herring.....			136,700	683			655,400	3,277
Kingfish.....			3,500	104				
"Lingcod".....			300	11				
Mackerel.....			16,300	335				
Perch.....			26,100	1,044			106,200	4,249
Pilchard or sardine.....	397,897,700	\$1,571,845	35,564,200	153,226			19,600	196
Salmon.....							888,900	42,053
Sea bass, white.....			100	11			300	30
Shad.....							1,602,200	44,940
Smelt.....			24,400	1,461			296,300	17,731
Splittail.....					27,200	272		
Squawfish.....							700	22
Striped bass.....							502,100	41,300
Tuckers.....					40,700	407		
Whitebait.....			10,600	848			1,400	111
Other fish.....							100	6
Total	397,897,700	1,571,845	35,856,800	159,220	207,200	4,597	4,073,600	153,927

Species	Lines				Fyke nets		Dip nets	
	Set and hand		Troll					
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Carp.....					30,300	\$531		
Catfish.....	24,500	\$2,458			265,100	30,003		
Cod.....	5,101,900	71,510						
Flounders:								
"California halibut".....	700	63	500	\$43				
"Sole".....	7,200	436						
Other.....	1,400	27						
Grayfish.....	15,600	140	100	1				
Halibut.....	18,900	1,321						
Hardhead.....					12,600	1,055		
"Lingcod".....	233,900	9,356	700	30				
Rockfishes.....	310,900	12,437	100	4				
Sablefish.....	46,400	1,623						
Salmon.....			1,052,800	64,430				
Culpin.....	400	8						
Smelt.....							2,400	\$143
Splittail.....					10,400	456		
Squawfish.....					900	31		
Tuckers.....					3,700	155		
Whitebait.....							18,700	1,500
Other fish.....	4,900	50			100	6		
Total	5,766,700	99,429	1,054,200	64,508	323,100	32,237	21,100	1,643
SHELLFISH								
Octopus.....	22,700	1,365						
Grand total	5,789,400	100,794	1,054,200	64,508	323,100	32,237	21,100	1,643

Fisheries of the San Francisco district of California, 1935—Continued

CATCH: BY GEAR—Continued

Species	Bag nets		Paranzella nets		Beam trawls		Traps	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Flounders:								
"California halibut"			17, 200	\$1, 553				
"Sole"			5, 393, 400	307, 999				
Other			994, 600	42, 812				
Grayfish			130, 200	651				
Hake			61, 900	619				
Halibut			100	14				
Kingfish			9, 600	287				
"Lingcod"			174, 200	6, 966				
Rockfishes			227, 300	9, 090				
Sablefish			80, 100	2, 805				
Skates			239, 600	2, 396				
Totncod			400	8				
Other fish			110, 500	1, 105				
Total			7, 437, 100	376, 305				
SHELLFISH								
Crabs			45, 400	4, 725			3, 449, 900	\$359, 375
Shrimp	2, 245, 400	\$33, 917			1, 199, 400	\$18, 117		
Octopus			1, 300	75				
Total	2, 245, 400	33, 917	46, 700	4, 800	1, 199, 400	18, 117	3, 449, 900	359, 375
Grand total	2, 245, 400	33, 917	7, 485, 800	381, 105	1, 199, 400	18, 117	3, 449, 900	359, 375

Species	Harpoons		Rakes and tongs		Shovels		Abalone outfits	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
SHELLFISH								
Abalone							3, 600	\$625
Clams:								
Hard					14, 100	\$5, 702		
Soft					47, 500	10, 214		
Oysters, market:								
Eastern			64, 000	\$30, 848				
Japanese			30, 900	4, 202				
Native			2, 400	1, 214				
Total			97, 300	36, 264	61, 600	15, 916	3, 600	625
WHALE PRODUCTS								
Whale meat	3, 272, 000	\$65, 440						
Whale oil	2, 451, 600	89, 215						
Total	5, 723, 600	154, 655						
Grand total	5, 723, 600	154, 655	97, 300	36, 264	61, 600	15, 916	3, 600	625

Fisheries of the Monterey district of California, 1935

OPERATING UNITS: BY GEAR

Item	Purse seines		Lampara and ring nets		Gill nets			
	Sardine	Tuna	Sardine	Other	Set, "California halibut"	Set, crab	Drift, sea bass	Other
Fishermen:								
On vessels	257	70	169	68				
On boats and shore			223	89	10	32	1	
Total	257	70	392	157	10	32	1	
Vessels, motor	23	6	15	8				
Net tonnage	1, 123	297	161	116				
Boats:								
Motor			20	14	6	26	1	
Other					1			
Accessory boats	23	6	35	22				
Apparatus:								
Number	23	6	35	22	7	26	1	
Length, yards	7, 398	3, 480	9, 905	5, 125				
Square yards					18, 527	91, 042	3, 200	36, 100

Fisheries of the Monterey district of California, 1935—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Lines		Otter trawls	Traps		Rakes and tongs, oyster	Shovels	Abalone outfits	Total, exclusive of duplication
	Set and hand	Troll		Crab	Octopus				
	Number	Number	Number	Number	Number	Number	Number	Number	Number
Fishermen:									
On vessels.....	3	7	22					74	406
On boats and shore.....	178	204	7	8	2	6	32	11	559
Total.....	181	211	29	8	2	6	32	85	1,055
Vessels, motor.....	2	5	4					15	52
Net tonnage.....	19	80	104					113	1,389
Boats:									
Motor.....	141	185	1	7	2	1	5	2	225
Other.....	16					3	13		32
Accessory boats.....									72
Apparatus:									
Number.....	785	1,446	5	107	28	6	32	17	
Yards at mouth.....			125						
Hooks.....	75,262	2,265							

CATCH: BY GEAR

Species	Purse seines		Lampara and ring nets		Gill nets	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH			75,000	\$1,224	1,400	\$22
Anchovies.....						
Flounders:						
"California halibut".....	100	\$6	800	69	29,400	2,584
"Solé".....					3,600	119
Other.....			300	14	10,300	308
Herring.....	19,000	142	19,700	148	8,600	70
Horse mackerel.....	28,900	660	115,800	2,645	500	27
Kingfish.....	200	6	102,800	3,459	115,800	3,809
"Lingcod".....					1,300	63
Mackerel.....	290,100	2,101	4,672,400	35,043	2,800	84
Perch.....			8,660	345	26,600	988
Pilchard or sardine.....	284,396,400	1,119,860	91,752,800	364,299	1,400	14
Pompano.....					200	124
Rockfishes.....			100	2	700	28
Sculpin.....					1,500	15
Sea bass, white.....	100	6	100	14	1,000	106
Shad.....					100	2
Skates.....					5,100	70
Smelt.....			39,700	1,736	119,600	5,241
Tuna and tunalike fishes, bonito.....	400	21				
Whitebait.....			10,900	744	800	56
Total.....	284,725,200	1,122,802	96,799,000	409,742	330,700	13,820
SHELLFISH						
Crabs.....					26,000	2,062
Octopus.....					100	6
Squid.....	1,900	55	780,000	22,243	1,200	35
Total.....	1,900	55	780,000	22,243	27,300	2,103
Grand total.....	284,727,100	1,122,857	97,579,000	431,985	358,000	15,923

Fisheries of the Monterey district of California, 1935—Continued

CATCH: BY GEAR—Continued

Species	Lines				Paranzella nets ¹	
	Set and hand		Troll			
FISH	Pounds	Value	Pounds	Value	Pounds	Value
Flounders:						
"California halibut".....	2,700	\$232	200	\$19	8,700	\$768
"Sole".....	29,500	973			585,800	30,759
Other.....	37,900	1,761			48,400	2,030
Grayfish.....					9,000	91
Hake.....					5,700	70
Horse mackerel.....	1,200	57				
Kingfish.....	27,600	929			4,000	135
"Lingcod".....	97,800	4,600	1,700	82	5,900	269
Mackerel.....	516,300	14,338	400	11		
Perch.....	3,400	127			800	31
Rockfishes.....	2,146,100	70,584	800	24	46,500	1,641
Sablefish.....	553,900	10,095			6,400	127
Salmon.....			219,700	20,638		
Sculpin.....	8,400	87				
Skates.....	9,000	123			18,000	234
Smelt.....	53,500	2,342			200	9
Tuna and tunalike fishes, albacore.....			683,400	50,205		
Other fish.....	400	14			8,400	85
Total.....	3,487,700	106,262	906,200	70,979	747,800	36,249
SHELLFISH						
Crabs.....					100	5
Octopus.....	10,500	653				
Total.....	10,500	653			100	5
Grand total.....	3,498,200	106,915	906,200	70,979	747,900	36,254

Species	Traps		Rakes and tongs		Shovels		Abalone outfits	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
SHELLFISH								
Crabs.....	600	\$48						
Shrimp.....	2,400	582						
Abalone.....							531,200	\$90,737
Clams, Pismo.....					5,800	\$1,409		
Octopus.....	44,700	2,771						
Oysters, market:								
Japanese.....			9,100	\$3,640				
Native.....			400	120				
Total.....	47,700	3,401	9,500	3,760	5,800	1,409	531,200	90,737

¹ Includes the catch by otter trawls.

Fisheries of the San Pedro district of California, 1935

OPERATING UNITS: BY GEAR

Item	Purse seines			Lampara and ring nets			Gill nets		
	Mack-erel	Sar-dine	Tuna	Mack-erel	Sar-dine	Other	Drift, barra-cuda	Set, sea bass	Other
Fishermen:	Number	Number	Number	Number	Number	Number	Number	Number	Number
On vessels.....	39	768	748	574	516	12	9	4	2
On boats and shore.....				38	48	15	23	51	28
Total.....	39	768	748	612	564	27	32	55	30
Vessels, motor.....	4	72	70	54	48	1	3	2	1
Net tonnage.....	123	3,143	3,109	1,008	949	18	20	14	8
Boats:									
Motor.....				4	5	3	11	23	13
Other.....								3	6
Accessory boats.....	4	72	70	58	53	4			
Apparatus:	Number	Number	Number	Number	Number	Number	Number	Number	Number
Number.....	4	72	70	58	53	4	14	28	27
Length, yards.....	1,560	27,169	40,822	26,062	23,646	1,780			
Square yards.....							152,096	100,043	23,817

Fisheries of the San Pedro district of California, 1935—Continued

OPERATING UNITS: BY GEAR—Continued

Item	Trammel nets	Lines		Paranzella nets	Traps, sea crawfish	Harpoons, swordfish	Shovels	Abalone outfits	Total, exclusive of duplication
		Set and hand	Troll						
Fishermen:									
On vessels.....	14	469	32	6	14	48	5	5	1,765
On boats and shore.....	60	448	329	12	202	72	68	7	822
Total.....	74	917	361	18	216	120	73	12	2,587
Vessels, motor.....	5	69	13	2	7	11	1	1	194
Net tonnage.....	49	2,991	109	26	55	133	9	9	7,217
Boats:									
Motor.....	28	275	248	4	115	34	6	2	423
Other.....		47			15		14		71
Accessory boats.....		37						1	165
Apparatus:									
Number.....	33	1,898	1,685	3	5,485	45	73	3	
Square yards.....	163,309								
Yards at mouth.....				50					
Hooks.....		283,842	1,685						

CATCH OFF CALIFORNIA: BY GEAR

Species	Purse seines		Lampara and ring nets		Gill nets		Trammel nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Anchovies.....			28,000	\$361				
Barracuda.....	227,300	\$8,049	1,470,200	51,001	159,000	\$6,832	100	\$4
Flounders:								
"California halibut".....	200	14	700	65	600	52	379,900	32,068
"Sole".....			200	12			1,800	101
Other.....			200	13			100	11
Flyingfish.....	200	8	3,500	126	34,200	1,217		
Grayfish.....	2,600	80	7,200	226	43,300	1,229	51,600	1,532
Herring.....					400	21		
Horse mackerel.....	1,182,300	4,727	8,653,200	34,597	500	9		
Kingfish.....	200	3	402,600	6,927	1,200	21	100	2
"Lingcod".....							100	6
Mackerel.....	19,115,400	144,730	109,119,900	826,203	40,500	820		
Marlin.....							8,600	416
Mullet.....					500	32		
Perch.....			52,000	3,436	4,200	164		
Pilchard or sardine.....	180,711,300	687,287	111,289,100	423,258	1,400	20		
Pompano.....			5,600	2,595				
Rock bass.....	1,800	111	20,200	1,254	3,300	174	1,800	109
Rockfishes.....			300	13			100	5
Rudderfish.....	200	9	32,100	1,588	1,900	94		
Sablefish.....			200	7				
Sculpin.....			100	6			200	11
Sea bass:								
Black.....	400	19	1,800	79	1,600	63	1,600	68
White.....	205,400	11,902	249,000	14,303	144,300	9,422	400	23
Sheepshead.....			1,100	38	200	8	3,000	100
Skates.....							5,800	121
Smelt.....	600	19	273,000	9,381	29,800	1,133		
Swordfish.....	600	71						
Tuna and tunalike fishes:								
Albacore.....	20,700	1,771	5,600	476	200	18		
Bluefin.....	15,671,400	713,426	2,145,900	97,689	200	14		
Bonito.....	432,300	11,735	488,100	13,250	5,900	165	2,400	66
Yellowfin.....			100	5				
Whitefish.....			400	25			100	5
Yellowtail.....	150,700	4,018	284,700	7,590	2,300	62		
Other fish.....			600	24	300	19	300	16
Total.....	217,773,600	1,587,979	234,535,600	1,494,548	475,800	21,589	458,000	34,664
SHELLFISH								
Sea crawfish or spiny lobster.....							3,700	673
Squid.....	5,000	93	27,700	391	200	3		
Total.....	5,000	93	27,700	391	200	3	3,700	673
Grand total.....	217,728,600	1,588,072	234,563,300	1,494,939	476,000	21,592	461,700	35,337

Fisheries of the San Pedro district of California, 1935—Continued

CATCH OFF CALIFORNIA: BY GEAR—Continued

Species	Lines				Paranzella nets	
	Set and hand		Troll			
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Barracuda.....	36, 800	\$1, 276	28, 800	\$993		
Flounders:						
"California halibut".....	32, 300	2, 780			191, 300	\$12, 890
"Sole".....	5, 900	331			502, 900	14, 866
Other.....	13, 000	1, 924				
Grayfish.....	221, 800	7, 148	3, 300	105	1, 700	62
Hake.....	5, 300	92				
Halibut.....	2, 400	334				
Kingfish.....	96, 800	1, 664				
"Lingcod".....	1, 700	102				
Mackerel.....	3, 397, 600	25, 882				
Perch.....	3, 400	208				
Rock bass.....	84, 700	5, 181				
Rockfishes.....	1, 215, 200	48, 323				
Rudderfish.....	600	33				
Sablefish.....	521, 400	18, 879			1, 100	22
Sculpin.....	59, 000	4, 538				
Sea bass:						
Black.....	6, 700	286				
White.....	5, 000	313			600	45
Sheepshead.....	60, 400	2, 103			100	3
Skates.....	3, 200	66			3, 400	20
Smelt.....	4, 500	160				
Swordfish.....	400	43				
Tuna and tunalike fishes:						
Albacore.....	555, 200	47, 576	923, 700	79, 148		
Bluefin.....	14, 700	1, 174	7, 000	562		
Bonito.....	180, 700	4, 905	189, 400	5, 140		
Skipjack or striped tuna.....	58, 700	2, 348	100	5		
Yellowfin.....	14, 100	698	27, 900	1, 374		
Whitefish.....	31, 600	2, 041				
Yellowtail.....	19, 600	521	9, 000	239		
Other fish.....	2, 900	116	100	5		
Total.....	6, 655, 600	181, 045	1, 189, 300	87, 571	701, 100	27, 908
SHELLFISH						
Octopus.....	100	3				
Grand total.....	6, 655, 700	181, 048	1, 189, 300	87, 571	701, 100	27, 908

Species	Traps		Harpoons		Shovels		Abalone outfits	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Kingfish.....	300	\$5						
Marlin.....			5, 600	\$266				
Perch.....	1, 500	100						
Rock bass.....	52, 000	3, 110						
Rockfishes.....	400	14						
Sculpin.....	3, 100	237						
Sheepshead.....	119, 300	4, 012						
Swordfish.....			433, 500	51, 634				
Whitefish.....	1, 600	106						
Total.....	178, 200	7, 584	439, 100	51, 900				
SHELLFISH								
Crabs.....	12, 800	372						
Sea crawfish or spiny lobster.....	285, 300	50, 231						
Shrimp.....	300	10						
Abalone.....							239, 400	\$23, 957
Clams:								
Hard.....					6, 200	\$1, 439		
Pismo.....					39, 600	8, 363		
Total.....	298, 400	50, 613			45, 800	9, 802	239, 400	23, 957
Grand total.....	476, 600	58, 197	439, 100	51, 900	45, 800	9, 802	239, 400	23, 957

Fisheries of the San Pedro district of California, 1935—Continued

CATCH OFF LATIN AMERICA: BY GEAR

Species	Purse seines		Gill nets		Trammel nets	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Barracuda.....	222,900	\$20,157	8,100	\$730		
Cabrilla.....	100	3				
Flounders:						
"California halibut".....	600	41			239,400	\$16,913
"Sole".....					100	3
Grayfish.....					300	10
Rock bass.....	300	20	800	54		
Sea bass:						
Black.....	10,100	556	300	18	1,000	54
White.....	124,000	8,325	71,500	4,803	100	8
Smelt.....			300	9		
Spanish mackerel.....	100	5				
Swordfish.....	100	15				
Tuna and tunalike fishes:						
Bluefin.....	5,872,200	264,584				
Bonito.....	4,271,600	128,150	100	4	700	20
Skipjack or striped tuna.....	281,900	11,275				
Yellowfin.....	2,255,600	112,781				
Yellowtail.....	1,077,300	26,932	3,300	144		
Other fish.....	200	7	100	4		
Total	14,117,000	572,851	84,500	5,766	241,000	17,008

Species	Lines				Traps		Harpoons	
	Set and hand		Troll					
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Barracuda.....	10,600	\$962	7,500	\$682				
Cabrilla.....	67,300	3,221						
Grayfish.....	700	31						
Grouper.....	21,000	1,285						
Marlin.....							500	\$20
Rock bass.....	3,900	251						
Rockfishes.....	11,500	465						
Sea bass:								
Black.....	394,200	21,760						
White.....	35,000	2,344						
Sheepshead.....	300	13						
Spanish mackerel.....	4,300	198						
Swordfish.....							13,200	1,403
Tuna and tunalike fishes:								
Albacore.....	100	8						
Bonito.....	38,500	1,166						
Skipjack or striped tuna.....	3,169,900	127,206						
Yellowfin.....	18,271,200	914,107						
Whitefish.....	6,800	402						
Yellowtail.....	692,100	29,321	100	4				
Other fish.....	500	32						
Total	22,727,900	1,102,772	7,600	686			13,700	1,423
SHELLFISH								
Sea crawfish or spiny lobster.....					125,200	\$22,787		
Grand total	22,727,900	1,102,772	7,600	686	125,200	22,787	13,700	1,423

Fisheries of the San Diego district of California, 1935—Continued

OPERATING UNITS: BY GEAR

Item	Purse seines, sardine	Lampara and ring nets		Gill nets			Trammel nets
		Mackerel	Sardine	Drift, barracuda	Set, sea bass	Other	
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	10	110	129	4	4	4	4
On boats and shore.....		10	29	18	42	9	38
Total.....	10	120	158	22	46	13	42
Vessels, motor.....	1	11	13	1	1	1	1
Net tonnage.....	36	86	99	5	5	5	5
Boats:							
Motor.....		1	3	6	16	5	13
Other.....						1	
Accessory boats.....	1	11	13				
Apparatus:							
Number.....	1	12	16	7	17	7	14
Length, yards.....	312	3,600	5,280				
Square yards.....				41,640	93,448	8,872	141,787

Item	Lines		Traps, sea crawfish	Harpoons, swordfish	Shovels	Total, exclusive of duplication
	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.....	668	28	4	24	2	748
On boats and shore.....	174	98	38	18		271
Total.....	842	126	42	42	2	1,019
Vessels, motor.....	77	8	2	6		83
Net tonnage.....	4,860	63	14	57		4,900
Boats:						
Motor.....	67	71	22	6		112
Other.....	1		2			3
Accessory boats.....	37				1	60
Apparatus:						
Number.....	1,084	485	773	12	2	
Hooks.....	50,832	485				

CATCH OFF CALIFORNIA: BY GEAR

Species	Purse seines		Lampara and ring nets		Gill nets		Trammel nets	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Barracuda.....	3,900	\$186	27,300	\$1,307	19,100	\$915	142,600	\$9,460
Flounders, "California halibut".....							20,200	160
Grayfish.....					32,200	256		
Herring.....			400	4	81,100	632		
Horse mackerel.....			1,500	15				
Kingfish.....					500	18		
Mackerel.....	478,800	3,591	7,132,200	53,491	3,100	61	500	11
Mullet.....					13,200	923		
Perch.....			300	9	800	29		
Pilehead or sardine.....	1,382,700	4,842	12,715,400	44,889	300	3		
Rock bass.....			1,600	94	1,000	57	100	4
Rockfishes.....			500	23				
Sea bass:								
Black.....					700	40	300	14
White.....			400	26	42,100	2,854		
Skates.....					1,300	14	11,900	123
Smelt.....			100	6	4,200	240		
Tuna and tunalike fishes:								
Bluefin.....	257,400	12,226	384,900	18,279				
Bonito.....			283,800	7,780	2,100	56	100	4
Skipjack or striped tuna.....	8,000	317						
Yellowtail.....	2,400	69	49,000	1,425	100	3	100	3
Total.....	2,133,200	21,271	20,598,300	127,348	201,800	6,101	175,800	9,785
SHELLFISH								
Sea crawfish or spiny lobster.....							100	14
Grand total.....	2,133,200	21,271	20,598,300	127,348	201,800	6,101	175,900	9,799

Fisheries of the San Diego district of California, 1935—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>				
Barracuda.....	24,000	\$1,148	7,400	\$357				
Flounders:								
"California halibut".....	2,400	159						
"Sole".....	1,100	98						
Grayfish.....	1,600	12						
Kingfish.....	1,300	39			2,100	\$65		
"Lingcod".....	1,300	34						
Mackerel.....	490,000	4,384						
Marlin.....	600	31					3,700	\$202
Perch.....	100	3						
Rock bass.....	32,000	1,871	400	26	131,200	7,668		
Rockfishes.....	170,800	7,712			300	13		
Sablefish.....	7,500	193						
Sculpin.....	4,500	292			1,100	69		
Sea bass:								
Black.....	4,100	224						
White.....	3,200	211	300	15				
Sheepshead.....	500	16			2,300	83		
Skates.....	500	5						
Swordfish.....							180,500	17,109
Tuna and tunalike fishes:								
Albacore.....	45,600	3,573	151,800	11,896				
Bluefin.....	10,300	487	4,000	189				
Bonito.....	132,200	3,626	546,400	14,983				
Skipjack or striped tuna.....	1,840,000	73,607	1,100	45				
Yellowfin.....	449,800	22,490	37,100	1,854				
Whitefish.....	6,400	325						
Yellowtail.....	40,100	1,143	23,700	675				
Total.....	3,269,900	121,683	772,200	30,040	137,000	7,898	184,200	17,311
SHELLFISH								
Sea crawfish or spiny lobster.....					82,500	13,624		
Grand total.....	3,269,900	121,683	772,200	30,040	219,500	21,522	184,200	17,311

CATCH OFF LATIN AMERICA: BY GEAR

Species	Purse seines		Lampara and ring nets		Gill nets	
	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>	<i>Pounds</i>	<i>Value</i>
FISH						
Barracuda.....			136,300	\$6,165	18,300	\$828
Grayfish.....					3,500	35
Mackerel.....			957,900	7,185		
Perch.....			3,000	80		
Pilchard or sardine.....			3,900	41		
Rock bass.....			3,000	135		
Sea bass:						
Black.....					2,500	125
White.....			5,900	352	162,600	9,773
Smelt.....			500	27	1,600	82
Tuna and tunalike fishes:						
Bluefin.....	29,700	\$1,337	617,000	27,763		
Bonito.....	114,000	3,297	104,500	3,024	1,800	53
Skipjack or striped tuna.....	13,300	532				
Yellowfin.....	622,700	31,215				
Whitefish.....			100	7		
Yellowtail.....	1,200	32	52,200	1,456	1,200	\$32
Total.....	780,900	36,413	1,884,300	46,235	191,500	10,923

Fisheries of the San Diego district of California, 1935—Continued

CATCH OFF LATIN AMERICA: BY GEAR—Continued

Species	Trammel nets		Lines			
			Set and hand		Troll	
FISH	Pounds	Value	Pounds	Value	Pounds	Value
Barracuda.....			185,300	\$8,377	24,900	\$1,124
Cabrilla.....			54,100	2,090		
Flounders:						
"California halibut".....	516,700	\$35,107	8,900	603		
"Sole".....			100	6		
Grayfish.....	2,500	25	1,000	8	1,500	13
Grouper.....			10,400	444		
Kingfish.....			100	3		
"Lingcod".....			900	21		
Mackerel.....			203,000	1,616		
Rock bass.....	100	6	26,400	1,212		
Rockfishes.....			235,000	11,315		
Sablefish.....			7,700	187		
Sculpin.....			1,700	78		
Sea bass:						
Black.....	4,000	203	201,500	10,182		
White.....	600	39	16,800	1,012	1,000	60
Sheepshead.....			800	27		
Skates.....	3,600	34	600	5		
Spanish mackerel.....			200	3		
Tuna and tunalike fishes:						
Albacore.....			54,800	4,336	6,400	506
Bluefin.....			157,300	7,684	1,100	53
Bonito.....	1,000	29	1,004,400	29,060	96,100	2,782
Skipjack or striped tuna.....			11,824,200	473,118		
Yellowfin.....			50,569,100	2,534,860	4,000	201
Whitefish.....			10,800	570		
Yellowtail.....	600	18	5,645,700	157,403	92,400	2,577
Total.....	529,100	35,461	70,220,800	3,244,220	227,400	7,316

Species	Traps		Harpoons		Shovels	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Marlin.....			100	\$8		
Swordfish.....			41,000	3,776		
Total.....			41,100	3,784		
SHELLFISH, ETC.						
Sea crawfish or spiny lobster.....	848,000	\$126,133				
Clams, Pismo.....					3,500	\$569
Turtles.....			1,700	81		
Total.....	848,000	126,133	1,700	81	3,500	569
Grand total.....	848,000	126,133	42,800	3,865	3,500	569

HALIBUT FISHERY OF THE PACIFIC COAST

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 1935, the total catch of halibut by vessels of both nationalities amounted to 45,772,000 pounds, valued at \$3,252,000. This is a decrease of 1 percent in volume but an increase of 10 percent in value as compared with the catch and its value in 1934. Of the total catch in 1935, 78 percent was taken by United States craft and 22 percent by Canadian craft. Considered according to ports of landing, 49 percent was landed at Seattle, Wash.; 37 percent at Canadian ports; and 14 percent at ports in Alaska.

NOTE.—These statistics are compiled from data collected by the International Fisheries Commission for Washington and British Columbia, and by Bureau agents for Alaska. The weights of the above species represent the fish after evisceration and removal of heads.

Halibut fishery of the Pacific Coast, 1935

UNITED STATES OPERATING UNITS: BY FLEET CLASSIFICATION

Item	Washington Fleet	Alaska Fleet	Total
Regular halibut vessels:			
Number.....	141	78	219
Net tonnage.....	4,055	1,072	5,127
Crew.....	1,039	336	1,375
Dories.....	5		5
Skates of lines.....	4,087	1,480	5,567
Vessels in other fisheries but landing one or more fares of halibut:			
Number.....	25	40	65
Net tonnages.....	526	570	1,096
Crew.....	144	132	276
Skates of lines.....	560	549	1,109
Regular halibut boats:			
Number.....	1	29	30
Crew.....	3	68	71
Skates of lines.....	12	406	418
Boats in other fisheries but landing one or more fares of halibut:			
Number.....		67	67
Crew.....		117	117
Skates of lines.....		368	368

CATCH OF ALL SPECIES: 1 BY UNITED STATES VESSELS AND BOATS

Fleet classification	Landed in--						Total	
	Seattle, Washington		British Columbia		Alaska		Pounds	Value
	Pounds	Value	Pounds	Value	Pounds	Value		
WASHINGTON FLEET								
Regular vessels:								
Halibut.....	21,341,441	\$1,747,599	2,657,775	\$188,786	991,718	\$65,564	24,990,934	\$2,001,949
Sablefish.....	2,762,331	103,496	16,067	396	36,191	854	2,814,589	104,746
"Lingcod".....	604,405	19,344					604,405	19,344
Rockfishes.....	256,445	9,655					256,445	9,655
Total.....	24,964,622	1,880,094	2,673,842	189,182	1,027,909	66,418	28,666,373	2,135,694
Other vessels and boats:								
Halibut.....	669,597	47,969	71,001	4,682	28,315	1,714	768,913	54,365
Sablefish.....	48,370	2,293					48,370	2,293
"Lingcod".....	64,411	1,701					64,411	1,701
Rockfishes.....	6,431	200					6,431	200
Total.....	788,809	52,163	71,001	4,682	28,315	1,714	888,125	58,559
ALASKA FLEET								
Regular vessels:								
Halibut.....	250,807	21,692	4,003,594	266,687	3,856,824	227,285	8,111,225	515,664
Sablefish.....	2,205	180	99,735	2,954	585,098	13,170	687,038	66,301
"Lingcod".....	5,825	150			843	16	6,668	166
Rockfishes.....	323	10			3,363	72	3,686	82
Total.....	259,160	22,032	4,103,329	269,641	4,446,128	240,543	8,808,617	582,216
Other vessels and boats:								
Halibut.....			194,631	10,121	1,499,824	82,060	1,694,455	92,181
Sablefish.....					233	5	233	5
Total.....			194,631	10,121	1,500,057	82,065	1,694,688	92,186
COMBINED FLEETS								
Regular vessels:								
Halibut.....	21,592,248	1,769,291	6,661,369	455,473	4,848,542	292,849	33,102,159	2,517,613
Sablefish.....	2,764,536	103,676	115,802	3,350	621,289	14,024	3,501,627	121,050
"Lingcod".....	610,230	19,494			843	16	611,073	19,510
Rockfishes.....	256,768	9,665			3,363	72	259,131	9,737
Total.....	25,223,782	1,902,126	6,777,171	458,823	5,474,037	309,961	37,474,990	2,667,910

1 Includes 856,069 pounds of halibut valued at \$84,521 landed at Seattle, and 5,500 pounds valued at \$427 landed in British Columbia after January 1, 1936, which were part of the 1935 quota.

Halibut fishery of the Pacific Coast, 1935—Continued

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

Fleet classification	Landed in—						Total	
	Seattle, Washington		British Columbia		Alaska		Pounds	Value
COMBINED FLEETS—contd.								
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.....	669,597	\$47,969	265,632	\$14,863	1,528,139	\$63,774	2,463,368	\$146,546
Sablefish.....	48,370	2,293			233	6	48,603	2,299
"Lingcod".....	64,411	1,701					64,411	1,701
Rockfishes.....	6,431	200					6,431	200
Total.....	788,809	52,163	265,632	14,863	1,528,372	83,779	2,582,813	150,746
All vessels and boats:								
Halibut.....	22,291,845	1,817,200	6,927,001	470,276	6,376,081	376,623	35,565,827	2,694,159
Sablefish.....	2,812,906	105,969	802	3,350	621,522	14,029	3,550,290	123,348
"Lingcod".....	674,641	21,197			843	16	675,484	21,211
Rockfishes.....	293,159	9,897			3,363	72	296,562	9,967
Grand total.....	26,072,551	1,954,289	7,012,843	473,626	7,002,409	390,740	40,057,803	2,818,655

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	
	Seattle, Wash- ington		British Columbia		Alaska		Quantity	Value
WASHINGTON FLEET								
Regular halibut vessels.....	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Other vessels and boats.....	670	47	71	5	28	2	769	54
Total.....	22,011	1,795	2,729	193	1,020	68	25,780	2,056
ALASKA FLEET								
Regular halibut vessels.....	251	22	4,003	267	3,957	227	8,111	516
Other vessels and boats.....			195	10	1,500	82	1,695	92
Total.....	251	22	4,198	277	5,357	309	9,806	608
COMBINED FLEETS								
Regular halibut vessels.....	21,592	1,770	6,661	435	4,849	293	33,102	2,818
Other vessels and boats.....	670	47	396	15	1,526	84	2,464	146
Total.....	22,262	1,817	6,927	470	6,377	377	35,566	2,664
British Columbia fleet.....			10,200	587	6	1	10,206	588
Grand total.....	22,262	1,817	17,127	1,057	6,383	378	45,772	3,252

NOTE.—In addition to the above, it is estimated that about 1,004,000 pounds of halibut, sablefish, "lingcod", and rockfish livers, valued at about \$444,000, were landed at Pacific coast ports during 1935.

VESSEL FISHERIES AT SEATTLE, WASH.

A total of 48,290,785 pounds of fishery products, valued at \$3,008,581, were handled by Seattle wholesale dealers during 1935, exclusive of quantities received by transporting vessels or by rail from Alaska or Canada. This represents an increase of 9 percent in both volume and value as compared with the volume and value of the products handled during the preceding year. Of the total quantity handled, 25,156,522 pounds, valued at \$1,869,768, were landed by fishing vessels—an increase of 5 percent in volume and 13 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 23,134,263 pounds, valued at \$1,138,813, which is an increase of 13 percent in volume and 3 percent in value.

Fishery products landed by United States vessels at Seattle, Wash., 1935 ¹

BY FISHING GROUNDS

Fishing grounds	Trips	Halibut				Sablefish		"Lingcod"		Rockfishes		Total	
		No. 1		No. 2		Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
		Number	Pounds	Value	Pounds									Value
West of Cape Spencer.....	491	9,405,019	\$797,004	6,186,756	\$485,028	156,295	\$5,916	8,204	\$167	32,798	\$978	15,789,072	\$1,289,093
South of Cape Spencer.....	698	3,401,468	278,512	2,412,533	172,195	2,656,611	100,053	666,437	21,028	230,401	8,887	9,367,450	580,675
Total.....	1,189	12,806,487	1,075,516	8,599,289	657,223	2,812,906	105,969	674,641	21,195	263,199	9,865	25,156,522	1,869,768

BY MONTHS

Months	Trips	Halibut				Sablefish		"Lingcod"		Rockfishes		Total	
		No. 1		No. 2		Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
		Number	Pounds	Value	Pounds									Value
January.....	22					1,666	\$129	99,516	\$4,708	57,827	\$2,932	159,009	\$7,769
February.....	8					18,821	1,386	19,407	1,310	19,407	1,310	38,228	2,696
April.....	71	804,172	\$65,433	340,544	\$25,167	2,754	84	40,846	1,349	4,748	166	1,193,064	92,199
May.....	196	2,175,312	144,320	1,318,852	79,959	23,433	1,682	131,713	3,218	14,167	392	3,663,477	229,571
June.....	139	1,390,999	101,642	1,185,993	78,011	150,808	7,913	91,059	2,086	21,826	621	2,839,785	190,273
July.....	140	1,459,121	107,358	1,188,190	78,671	154,546	6,504	54,077	1,067	23,675	510	2,879,609	194,110
August.....	132	1,508,549	119,447	1,052,401	75,584	248,229	9,201	43,907	886	18,393	466	2,871,479	205,584
September.....	141	1,209,153	115,968	852,289	74,273	856,935	30,763	35,507	749	34,270	883	2,988,154	222,636
October.....	146	1,418,717	156,978	883,451	89,459	907,812	32,148	33,250	1,315	32,145	1,160	3,275,375	281,060
November.....	123	1,818,568	163,455	1,004,320	84,638	374,943	13,901	93,342	3,077	25,082	926	3,316,255	265,997
December.....	71	1,022,796	100,915	773,249	71,461	91,780	3,644	32,603	1,354	11,659	499	1,932,087	177,873
Total.....	1,189	12,806,487	1,075,516	8,599,289	657,223	2,812,906	105,969	674,641	21,195	263,199	9,865	25,156,522	1,869,768

¹ Halibut fleet.

NOTE.—No fish were landed by the fleet during March because of a fishermen's strike.

The above tabulation does not include 856,069 pounds of halibut valued at \$84,521, and 70,365 pounds of sablefish, "lingcod", and rockfishes, valued at \$3,435, landed after January 1, 1936 but caught before the close of the halibut season on Dec. 26, 1935.

Fishery products received by Seattle wholesale dealers, 1935, by months¹

Species	January	February	March	April	May	June
Flourders:						
"SOLE"	Pounds 113,151 Value \$3,395	Pounds 139,976 Value \$3,612	Pounds 81,642 Value \$2,869	Pounds 214,063 Value \$7,725	Pounds 2,09,979 Value \$8,580	Pounds 187,304 Value \$8,918
Other	Pounds 26,528 Value 532	Pounds 28,516 Value 572	Pounds 8,041 Value 2,583	Pounds 5,112 Value 1,113	Pounds 141 Value 141	Pounds 618 Value 618
Hallbut	Pounds 10,700 Value 571	Pounds 25,853 Value 1,137	Pounds 64,245 Value 3,739	Pounds 11,212 Value 1,803	Pounds 16,223 Value 974	Pounds 32,183 Value 1,931
"Lingcod"	Pounds 3,779 Value 151	Pounds 7,041 Value 272	Pounds 16,915 Value 659	Pounds 72,577 Value 2,973	Pounds 23,667 Value 566	Pounds 79,303 Value 1,628
Perch	Pounds 18,690 Value 389	Pounds 25,887 Value 796	Pounds 6,335 Value 211	Pounds 59,947 Value 814	Pounds 12,163 Value 637	Pounds 3,072 Value 130
Rockfishes						
Chinook or king	Pounds 1,169 Value 171	Pounds 3,646 Value 1,382	Pounds 60,180 Value 11,281	Pounds 189,869 Value 29,355	Pounds 294,569 Value 19,297	Pounds 706,278 Value 30,119
Humpback or pink						
Silver or coho	Pounds 15,563 Value 821	Pounds 13,910 Value 163	Pounds 18,050 Value 171	Pounds 1,470 Value 117	Pounds 13,280 Value 796	Pounds 31,092 Value 1,867
Crabs	Pounds 37,921 Value 4,312	Pounds 69,645 Value 5,263	Pounds 60,811 Value 3,011	Pounds 71,760 Value 6,307	Pounds 65,420 Value 3,566	Pounds 43,600 Value 2,830
Octopus	Pounds 6,780 Value 292	Pounds 3,002 Value 156	Pounds 1,311 Value 61	Pounds 2,884 Value 112	Pounds 1,771 Value 142	Pounds 3,132 Value 95
Total	Pounds 255,262 Value 10,750	Pounds 349,576 Value 17,877	Pounds 360,886 Value 27,537	Pounds 640,884 Value 49,772	Pounds 705,416 Value 36,650	Pounds 1,300,339 Value 72,636

Species	July	August	September	October	November	December	Total
Flourders:							
"SOLE"	Pounds 313,975 Value \$6,519	Pounds 334,974 Value \$9,762	Pounds 195,894 Value \$3,918	Pounds 118,380 Value \$2,812	Pounds 59,982 Value \$1,692	Pounds 83,789 Value \$2,514	Pounds 2,082,569 Value \$53,146
Other	Pounds 33,548 Value 515	Pounds 39,735 Value 565	Pounds 4,000 Value 7	Pounds 985 Value 16	Pounds 1,135 Value 22	Pounds 6,059 Value 127	Pounds 78,415 Value 1,574
Hallbut	Pounds 33,548 Value 2,068	Pounds 39,735 Value 2,524	Pounds 4,000 Value 306	Pounds 240 Value 740	Pounds 22 Value 15	Pounds 22 Value 15	Pounds 142,754 Value 10,015
"Lingcod"	Pounds 113,514 Value 2,155	Pounds 62,764 Value 1,159	Pounds 31,198 Value 613	Pounds 16,020 Value 460	Pounds 10,538 Value 305	Pounds 12,167 Value 413	Pounds 321,786 Value 16,028
Perch	Pounds 1,407 Value 42	Pounds 4,700 Value 118	Pounds 4,127 Value 123	Pounds 6,868 Value 206	Pounds 3,263 Value 154	Pounds 3,628 Value 114	Pounds 69,631 Value 2,191
Rockfishes	Pounds 6,368 Value 137	Pounds 7,167 Value 133	Pounds 8,089 Value 263	Pounds 12,378 Value 311	Pounds 14,417 Value 396	Pounds 26,269 Value 823	Pounds 73,732 Value 5,042
Sablefish	Pounds 2,075	Pounds 11,182	Pounds 427	Pounds 3,827	Pounds 131	Pounds 95	Pounds 20,272
Salmon:							
Blueback, red or sockeye	Pounds 426 Value 35	Pounds 128,151 Value 16,326	Pounds 14,563 Value 2,042	Pounds 112 Value 14	Pounds 14 Value 14	Pounds 143,282 Value 18,417	Pounds 479,479 Value 53,200
Chinook or king	Pounds 1,120,655 Value 81,998	Pounds 1,388,624 Value 100,640	Pounds 552,123 Value 30,572	Pounds 290,198 Value 17,879	Pounds 68,275 Value 4,128	Pounds 4,749,479 Value 32,517	Pounds 8,392,381 Value 168,923
Chum or keta	Pounds 80 Value 4	Pounds 580 Value 11	Pounds 31,167 Value 641	Pounds 2,235,219 Value 79,813	Pounds 3,123,280 Value 97,202	Pounds 2,080 Value 52	Pounds 1,610,806 Value 37,465
Humpback or pink	Pounds 2,170 Value 43	Pounds 1,071,596 Value 24,071	Pounds 508,004 Value 12,614	Pounds 28,638 Value 671	Pounds 2,313 Value 64	Pounds 2,080 Value 52	Pounds 6,948,645 Value 308,301
Silver or coho	Pounds 389,335 Value 18,112	Pounds 1,502,330 Value 78,622	Pounds 1,253,533 Value 70,268	Pounds 2,445,660 Value 137,383	Pounds 831,439 Value 43,069	Pounds 290,700 Value 18,263	Pounds 6,948,645 Value 308,301
Smelt	Pounds 46,563 Value 1,455	Pounds 78,518 Value 2,698	Pounds 87,506 Value 3,145	Pounds 61,823 Value 2,536	Pounds 24,962 Value 1,203	Pounds 43,889 Value 1,988	Pounds 436,946 Value 16,600
Crabs	Pounds 15,300 Value 1,441	Pounds 7,620 Value 952	Pounds 7,080 Value 708	Pounds 72,282 Value 4,828	Pounds 130,312 Value 9,747	Pounds 110,886 Value 8,003	Pounds 711,637 Value 53,288
Octopus	Pounds 959 Value 38	Pounds 1,965 Value 79	Pounds 3,680 Value 148	Pounds 4,257 Value 171	Pounds 9,350 Value 318	Pounds 6,978 Value 318	Pounds 51,088 Value 1,768
Total	Pounds 2,049,946 Value 114,119	Pounds 4,640,571 Value 274,489	Pounds 2,704,967 Value 134,966	Pounds 3,295,007 Value 258,246	Pounds 4,281,310 Value 158,284	Pounds 563,149 Value 32,735	Pounds 23,184,263 Value 1,186,813

¹ This tabulation does not include fish received from Alaska or Canada or vessels in the halibut fleet.
² 34,309 dozen.

LAKE FISHERIES ¹⁴

The most recent complete fishery statistics for the Great Lakes including the international lakes of northern Minnesota, are those collected for the year 1934. In that year the catch in these waters by United States craft only, amounted to 96,411,200 pounds, valued at \$5,123,735 to the fishermen, representing an increase of 29 percent in volume and 26 percent in value as compared with the catch in the previous year. Detailed statistics of these fisheries for 1934 appear in "Fishery industries of the United States, 1935", Appendix II to the Report of the United States Commissioner of Fisheries for the fiscal year 1936.

Lake fisheries, 1934

OPERATING UNITS: BY STATES

Item	New York	Pennsylvania	Ohio	Michigan
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
On vessels.....	78	111	97	794
On boats and shore:				
Regular.....	113	41	567	1,849
Casual.....	91	56	347	974
Total	282	208	1,011	3,617
Vessels:				
Steam.....	4	12	6	34
Net tonnage.....	94	307	201	578
Motor.....	14	9	13	188
Net tonnage.....	117	80	130	1,961
Total vessels	18	21	19	222
Total net tonnage	211	387	331	2,539
Boats:				
Motor.....	69	26	216	909
Other.....	68	41	100	549
Accessory boats.....				16
Apparatus:				
Haul seines.....	3	11	78	114
Length, yards.....	260	1,210	43,672	40,140
Gill nets:				
"Shoal", 2¼ to 3¾ inches.....	3,506	5,762	6,934	9,711
Square yards.....	449,710	646,633	1,013,154	2,042,359
"Shoal", 4 to 6 inches.....	2,721	3,542	760	27,912
Square yards.....	652,540	903,620	120,000	7,481,234
Trammel nets.....				116
Square yards.....			4,640	
Lines:				
Troll.....				31
Hooks.....				31
Trot.....	65	32		1,278
Hooks.....	32,360	4,800		488,070
Pound nets.....			6	880
Trap nets.....	192	67	3,798	3,608
Fyke nets.....	113		243	989
Crowfoot bars.....				605
Picks.....				142
Diving outfits.....				16

¹⁴ The statistics of the catch presented herewith were obtained principally from records of the various State fishery agencies. 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, 1934—Continued

OPERATING UNITS: BY STATES—Continued

Item	Indiana	Illinois	Wisconsin	Minnesota	Total
Fishermen:					
On vessels.....	18	72	533		1,703
On boats and shore:					
Regular.....	23	9	529	398	9,529
Casual.....	61		654	164	2,347
Total.....	102	81	1,716	562	7,579
Vessels:					
Steam.....	1		19		76
Net tonnage.....	22		514		1,716
Motor.....	4	18	163		414
Net tonnage.....	57	251	1,985		4,581
Total vessels.....	5	18	187		490
Total net tonnage.....	79	251	2,499		6,297
Boats:					
Motor.....	56	4	297	143	1,720
Other.....	1	1	257	333	1,350
Accessory boats.....			2		18
Apparatus:					
Haul seines.....			48		254
Length, yards.....			13,066		98,348
Gill nets:					
"Shoal", 2¼ to 3¾ inches.....	848	2,034	14,893	3,366	47,054
Square yards.....	200,968	488,920	3,250,555	938,480	9,030,779
"Shoal", 4 to 6 inches.....	687	1,014	12,638	1,684	50,958
Square yards.....	206,240	260,860	3,415,100	653,940	13,693,534
Trammel nets.....			7		123
Square yards.....			660		5,300
Lines:					
Troll.....					31
Hooks.....					31
Trot.....			571	363	2,309
Hooks.....			187,205	14,520	726,955
Pound nets.....	5		354	70	1,343
Trap nets.....					7,665
Fyke nets.....			1,383	93	2,821
Crawfish pots.....			2,710		2,710
Crowfoot bars.....	42		38		685
Picks.....					142
Diving outfits.....					16

CATCH: BY STATES

Species	New York		Pennsylvania		Ohio	
	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike.....	612,100	\$38,285	2,131,600	\$101,215	5,765,100	\$305,548
Bowfin.....	500	5			5,400	108
Burbot.....	10,400	234	200	4	247,600	5,945
Carp.....	35,100	1,191	1,900	57	1,061,890	20,175
Catfish and bullheads.....	74,600	5,918	3,700	197	497,200	30,686
Cisco.....	10,100	1,000	70,000	7,000	30,100	1,204
Eels.....	64,900	1,970	400	8		
Goldfish.....					60,100	450
Lake herring.....	126,300	11,360				
Lake trout.....	13,700	1,760	300	30		
Mooneye.....	200	3			24,400	244
Pike or pickerel (jacks).....	14,900	1,045				
Rock bass.....	6,100	144				
Sauger.....					737,900	32,467
Sheepshead.....			10,500	210	2,157,700	36,681
Sturgeon.....	23,500	6,489	1,000	330	10,400	2,081
Sucker "mullet".....	91,900	2,965	23,700	590	853,300	17,066
Sunfish.....	17,900	364				
White bass.....	2,400	78	55,700	2,230	616,400	22,185
Whitefish:						
Common.....	118,200	14,880	462,900	64,440	278,900	36,546
Menominee.....	200	12				
Yellow perch.....	170,100	7,577	798,300	30,580	13,252,500	542,638
Yellow pike.....	38,400	3,642	12,100	1,210	1,167,200	88,713
Mussel shells.....					904,000	13,560
Pearls and slugs.....						457
Total.....	1,431,500	98,922	3,572,300	208,101	27,670,000	1,156,754

¹ From tributary streams.

Lake fisheries, 1934—Continued

CATCH: BY STATES—Continued

Species	Michigan		Indiana		Illinois	
	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin	3,100	\$31				
Buffalo fish			1,000	\$45		
Burbot	13,800	250				
Carp	1,425,500	27,094	2,400	72		
Catfish and bullheads	118,800	6,006				
Chubs	1,561,100	150,249	352,300	33,500	827,700	\$65,900
Cisco	800	34				
Goldfish	7,700	58				
Lake herring	7,502,400	150,334	50,000	1,700	50,700	1,000
Lake trout	6,312,000	768,477	88,400	9,300	225,200	21,800
Mooneye	600	9				
Pike or pickerel (jacks)	24,400	1,951				
Rock bass	17,100	1,230				
Sauger	154,000	13,019				
Sheepshead	68,600	1,256				
Smelt	18,000	780				
Steelhead trout			1,600	250		
Sucker "mullet"	3,664,600	85,359	600	18		
White bass	13,400	482				
Whitefish:						
Common	4,890,800	628,245	3,900	470	700	84
Menominee	166,500	8,927				
Yellow perch	859,200	58,949	50,100	4,028	102,400	3,600
Yellow pike	1,832,700	217,715	1,300	140		
Mussel shells ¹	1,744,100	32,254	150,000	2,250		
Pearls and slugs ¹		1,420				
Total	30,392,700	2,143,729	701,600	51,773	1,206,700	91,784

Species	Wisconsin		Minnesota		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
Blue pike					8,268,800	\$115,648
Bowfin					9,000	114
Buffalo fish					2,000	45
Burbot	32,200	\$322	91,300	8,200	3,700	6,982
Carp	1,308,500	16,358	11,300	373	3,819,700	69,960
Catfish and bullheads	48,900	3,185	46,000	1,809	789,200	47,831
Chubs	4,366,800	390,400	40,900	4,125	1,148,800	63,274
Cisco					111,000	9,238
Crappie			1,000	73	1,000	73
Eels					6,000	1,978
Goldfish					67,800	508
Lake herring	8,194,700	136,078	8,018,600	139,729	23,940,700	410,399
Lake trout	3,201,500	367,854	269,700	30,545	10,111,700	1,199,762
Mooneye			500	6	27,700	292
Pike or pickerel (jacks)	69,100	5,481	450,400	9,038	578,800	18,175
Rock bass					23,200	1,374
Sauger			282,500	11,299	1,171,000	57,685
Sheepshead					2,200,800	8,147
Smelt	1,013,700	15,300			1,059,900	16,080
Steelhead trout					2,600	250
Sturgeon			1,600	371	36,500	9,271
Sucker "mullet"	855,200	28,068	127,200	1,655	5,616,700	137,707
Sunfish					17,000	364
Tullibee			155,500	389	155,500	389
White bass					687,600	24,975
Whitefish:						
Common	336,800	43,473	181,800	15,430	6,276,000	803,268
Menominee	60,500	3,391	1,800	127	2,290,000	12,457
Yellow perch	818,500	45,031	48,300	1,978	16,099,400	664,381
Yellow pike	22,700	2,300	1,007,000	79,180	4,081,400	262,900
Crawfish	35,600	3,200			3,600	3,200
Mussel shells ¹	336,300	3,260			3,134,400	51,324
Pearls and slugs ¹						1,877
Total	20,701,000	1,063,687	10,735,400	286,785	96,411,200	1,123,735

¹ From tributary streams.

Industries related to the fisheries of the Lake States

OPERATING UNITS, SALARIES, AND WAGES, 1934

Items	New York	Pennsylvania	Ohio	Michigan	Indiana and Illinois ¹	Wisconsin	Minnesota	Total
	Number	Number	Number	Number	Number	Number	Number	Number
Transporting:								
Persons engaged.....			12	3				15
Vessels, motor.....			7	1				8
Net tonnage.....			93	21				114
Wholesale and manufacturing:								
Establishments.....	15	7	48	58	56	43	11	248
Persons engaged:								
Proprietors.....	13	9	45	45	26	29	6	173
Salaried employees.....	26	7	72	81	227	74	34	521
Wage earners:								
Average for season.....	109	73	442	434	458	568	89	2,173
Average for year.....	64	28	239	190	383	201	47	1,152
Paid to salaried employees.....	\$36,186	\$18,752	\$175,880	\$136,311	\$561,706	\$83,855	\$38,466	\$1,061,156
Paid to wage earners.....	\$74,940	\$31,187	\$302,250	\$196,739	\$535,691	\$201,532	\$49,384	\$1,391,723
Total salaries and wages.....	\$111,126	\$49,939	\$478,130	\$333,050	\$1,097,397	\$285,387	\$87,850	\$2,442,879
Fishermen manufacturing.....				72		121	342	535

¹ One firm in Indiana has been included with Illinois.

PRODUCTS MANUFACTURED

Item	New York		Pennsylvania		Ohio		Michigan	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
By manufacturing establishments:								
Carp, smoked..... pounds.....					4,600	\$950		
Chubs, smoked..... do.....	(1)	(1)			115,400	21,750	500,600	\$132,364
Cisco, smoked..... do.....					(1)	(1)		
Herring, lake:								
Fresh fillets ² do.....							(1)	(1)
Salted..... do.....							1,462,900	54,103
Smoked..... do.....	(1)	(1)					(1)	(1)
Lake trout, smoked..... do.....					3,500	1,175	62,230	13,545
Pike:								
Fresh fillets ² do.....	219,542	\$51,257	268,745	\$45,470	1,311,328	277,617		
Frozen fillets ² do.....	(1)	(1)	(1)	(1)	309,843	64,603		
Salmon, smoked..... do.....	(1)	(1)			23,800	5,860	(1)	(1)
Sturgeon, smoked..... do.....	(1)	(1)			12,160	8,605		
Tullibee, smoked..... do.....	(1)	(1)			249,400	43,860	(1)	(1)
Whitefish, smoked..... do.....	(1)	(1)			57,100	11,975	50,530	10,720
Yellow perch:								
Fresh fillets ² do.....	(1)	(1)	30,743	5,399	430,361	87,185		
Frozen fillets ² do.....			(1)	(1)	86,640	16,896		
Unclassified products:								
Fillets, fresh and frozen ² pounds.....	\$14,004	\$3,230	\$31,440	\$5,245	(5)	(5)	(5)	(5)
Smoked..... do.....	\$216,600	\$47,940					(5)	(5)
Miscellaneous ¹¹ do.....					12,31,269	12,6,275	13,220,540	13,56,756
Total.....	450,146	102,457	330,928	56,114	2,635,401	546,751	2,296,800	261,488
By fishermen:								
Lake herring, salted..... pounds.....							251,300	8,795
Lake trout, salted..... do.....							25,000	1,240
Total..... do.....							276,300	10,035
Grand total.....	450,146	102,457	330,928	56,114	2,635,401	546,751	2,573,100	271,523

See footnotes at end of table.

Industries related to the fisheries of the Lake States—Continued

PRODUCTS MANUFACTURED—Continued

Item	Illinois		Wisconsin		Minnesota	
	Quantity	Value	Quantity	Value	Quantity	Value
By manufacturing establishments:						
Alewives:						
Pickled..... pounds	202, 500	\$28, 750				
Spiced..... do			383, 500	\$54, 925	(1)	(1)
Carp, smoked..... do	(1)	(1)	(1)	(1)		
Chubs, smoked..... do	1, 653, 290	379, 319	901, 297	176, 692	23, 600	\$4, 160
Cisco, smoked..... do	17, 545	4, 564				
Herring, lake:						
Fresh fillets ² do			99, 000	8, 440		
Salted..... do			2, 393, 180	78, 652		
Smoked..... do	(1)	(1)	675, 000	44, 250	(1)	(1)
Lake trout:						
Fresh fillets ² do	(1)	(1)	8, 000	1, 750		
Smoked..... do	78, 256	19, 128	177, 120	35, 574	(1)	(1)
Pike:						
Fresh fillets ² do	1, 124, 496	246, 130	52, 000	11, 200		
Frozen fillets ² do			(1)	(1)		
Salmon:						
Kipperd..... do	24, 454	7, 850			(1)	(1)
Smoked..... do	628, 400	219, 625	77, 977	12, 850	(1)	(1)
Sturgeon, smoked..... do	3, 157	2, 479				
Tullibee, smoked..... do	91, 444	17, 423	(1)	(1)	(1)	(1)
Whitefish, smoked..... do	(1)	(1)	(1)	(1)	(1)	(1)
Yellow perch, fresh fillets ² do	557, 872	123, 000	89, 500	20, 350		
Unclassified products:						
Fillets, fresh and frozen ² do	⁶ 45, 116	⁸ 6, 525	⁷ 26, 200	⁷ 4, 760		
Smoked..... do	⁹ 30, 886	⁹ 6, 623	¹⁰ 45, 264	¹⁰ 7, 157	(5)	(5)
Miscellaneous ¹¹ do				¹⁴ 67, 507		¹⁵ 37, 565
Total	4, 457, 416	1, 066, 416		524, 107		41, 725
By fishermen:						
Chubs, smoked..... pounds			26, 000	4, 940		
Lake herring, salted..... do			892, 540	31, 425	600, 000	21, 000
Lake trout, smoked..... do			2, 500	450		
Total do			921, 040	36, 815	600, 000	21, 000
Grand total	4, 457, 416	1, 066, 416		560, 922		62, 725

¹ This item has been included under "Unclassified products."

² Data are for 1935.

³ Includes fresh fillets of yellow perch and frozen fillets of pike.

⁴ Includes fresh fillets of sheepshead and whitefish; and frozen fillets of pike and yellow perch.

⁵ The production of this item is included under "Miscellaneous."

⁶ Includes fresh fillets of lake trout, suckers, white bass, and whitefish.

⁷ Includes fresh fillets of sauger and whitefish; and frozen fillets of pike.

⁸ Includes smoked butterfish, chubs, eels, lake herring, salmon, sturgeon, tullibee, and whitefish.

⁹ Includes smoked buffalofish, carp, sea herring, sablefish, shad, and whitefish.

¹⁰ Includes smoked carp, tullibee, and whitefish, and Bismark herring.

¹¹ Both 1934 and 1935 data are included in this item.

¹² Includes fresh fillets of white bass; and smoked cisco and sablefish.

¹³ Includes fresh fillets of lake herring; and smoked carp, lake herring, mackerel, menominee, salmon, and tullibee.

¹⁴ Includes spiced chubs and sea herring; canned whitefish caviar; and burbot-liver oil.

¹⁵ Includes smoked lake herring, lake trout, salmon, tullibee, and whitefish; kippered salmon; pickled alewives; and burbot-liver oil.

NOTE.—Unless otherwise indicated the data are for 1934. The total value of the manufactured products for the Lake States was as follows: By manufacturing establishments, \$2,599,058; and by fishermen, \$67,850. Some of the above products may have been manufactured from products imported from another State or country; therefore, they cannot be correlated directly with the catch within the State. Of the total number of persons engaged in the preparation of fishermen's manufactured products, 224 have also been included as fishermen and 6 of the persons shown on transporting craft have also been included as fishermen. This should be considered when computing the total number of persons in the fishery industries, exclusive of duplication.

FISHERIES OF THE MISSISSIPPI RIVER AND TRIBUTARIES ¹⁵

The most recent complete catch statistics of the fisheries for the States of the Mississippi River and tributaries are those collected for the year 1931. 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 quantity and 36 percent in value as compared with the quantity and value of the catch in 1922 when the most recent preceding survey was made. Detailed statistics of the fisheries of the Mississippi River and tributaries for 1931 appear in "Fishery Industries of the United States, 1932" by R. H. Fiedler, appendix III to the Report of the Commissioner of Fisheries for the fiscal year 1933. A summary of these fisheries in 1931 as well as certain data for 1935 appear in the following tables.

Fisheries of the Mississippi River and tributaries, 1931

OPERATING UNITS: BY STATES

Item	Ala- bama	Arkan- sas	Illi- nois	Indi- ana	Iowa	Kansas	Ken- tucky	Louis- iana	Minne- sota
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>	<i>Number</i>	<i>Number</i>
Regular.....	104	1,453	708	20	245	35	89	1,402	160
Casual.....	131	1,524	1,318	1,735	645	88	440	3,108	578
Total.....	235	2,977	2,026	1,755	893	123	529	4,510	738
Boats:									
Motor.....	32	907	676	544	309	18	92	1,225	65
Other.....	190	2,359	957	1,189	457	123	420	2,369	446
Apparatus:									
Haul seines.....		16	127	50	133		24	377	113
Length, yards.....		7,308	33,975	5,170	36,339		2,057	85,166	49,968
Anchor gill nets.....		4						74	9
Square yards.....		2,800						17,400	9,999
Trammel nets.....		31	28	3		90		78	
Square yards.....		3,899	4,890	360		9,026		19,696	
Lines:									
Trot.....	449	5,327	1,312	320	1,158	17	627	5,757	186
Hooks.....	35,980	455,600	124,715	16,767	186,250	360	37,395	1,392,200	41,800
Pounds nets.....					2				27
Fyke nets.....	610	5,346	9,852	335	1,981	189	1,231	5,908	74
Dip nets.....			22		10			159	
Traps:									
Crawfish.....								18	
Shrimp.....								88	
Baskets			3,769						
Mussel dredges.....		426	14						
Yards at mouth.....		286	10						
Crowfoot bars.....	168	1,038	840	1,092	464		256	10	192
Tongs.....		159		72				5	
Rakes.....		70							
Forks.....		102	33	1,278		29		5	
Grabs.....								2,232	

¹⁵ For a clearer understanding of the statistics published in this section, the reader is referred to the section in the latter part of the document entitled "Statistical survey procedure."

Fisheries of the Mississippi River and tributaries, 1931—Continued

OPERATING UNITS: BY STATES—Continued

Item	Mississippi	Missouri	Nebraska	Ohio	Oklahoma	South Dakota	Tennessee	Texas	Wisconsin	Total
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>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Regular.....	211	177			5		327	5	202	5, 153
Casual.....	198	170	290	49	19	67	206	41	112	10, 731
Total.....	409	347	299	49	24	67	533	46	314	15, 884
Boats:										
Motor.....	138	84	30			2	138	6	160	4, 426
Other.....	329	304	187	49	18	34	467	42	180	10, 120
Apparatus:										
Haul seines.....	10	47	12	2	2	11			83	1, 013
Length, yards.....	6, 885	5, 688	906	180	60	1, 948			20, 149	255, 779
Anchor gill nets.....	4	1			3				6	101
Square yards.....	800	160			990				13, 488	45, 637
Trammel nets.....	17	104	115				52			518
Square yards.....	2, 867	14, 668	4, 833				3, 560			63, 799
Lines:										
Hand.....							67			67
Hooks.....							67			67
Trot.....	847	516		19	29	18	464	80	3	17, 129
Hooks.....	72, 155	34, 600		900	1, 075	3, 600	41, 690	14, 500	125	2, 459, 112
Pound nets.....									345	374
Fyke nets.....	2, 591	1, 872	290	76	85	68	1, 735	70	222	32, 541
Dip nets.....										191
Traps:										
Crawfish.....										18
Shrimp.....	350									438
Baskets.....										3, 769
Spears.....							12			12
Mussel dredges.....										410
Yards at mouth.....										299
Crowfoot bars.....							230		190	4, 490
Tongs.....		9								245
Rakes.....										70
Forks.....										1, 447
Grabs.....										2, 232

CATCH: BY STATES

Species	Alabama		Arkansas		Illinois		Indiana	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Bowfin.....			700	\$28	8, 308	\$241		
Buffalofish.....	21, 330	\$2, 342	2, 182, 446	131, 474	911, 609	51, 893	85, 045	\$8, 156
Carp.....	11, 000	1, 118	808, 206	27, 268	4, 878, 744	128, 221	157, 641	10, 162
Catfish and bullheads.....	81, 200	8, 850	1, 077, 343	93, 150	647, 696	68, 890	35, 370	5, 302
Crappie.....	9, 772	1, 004	11, 325	227				
Eels.....					4, 985	322		
Mooneye.....					1, 000	20		
Paddlefish or spoonbill cat.....	3, 938	338	93, 200	2, 159	104, 846	5, 480	16, 492	1, 734
Quillback or "American carp".....	7, 657	875	6, 830	676	17, 532	608	30, 312	1, 436
Sheepshead.....	45, 909	4, 972	676, 358	29, 877	177, 709	11, 321	38, 740	3, 711
Sturgeon, shovelnose.....	575	70			39, 766	3, 448	3, 013	292
Sucker "mullet".....	5, 752	609	3, 309	235	25, 130	1, 087	16, 797	1, 156
White bass.....					1, 200	92		
Yellow pike.....							4, 550	693
Total.....	187, 153	20, 178	4, 859, 717	285, 094	6, 818, 525	271, 623	387, 960	32, 632
SHELLFISH, ETC.								
Mussel shells.....	1, 635, 000	10, 132	10, 872, 790	108, 819	7, 429, 528	82, 891	7, 328, 736	105, 632
Pearls.....				3, 137		190		125
Slugs.....		2, 444		14, 401		11, 835		18, 788
Turtles:								
Snapper.....					14, 577	696	500	25
Soft shell.....							400	20
Total.....	1, 635, 000	12, 576	10, 872, 790	126, 357	7, 444, 105	95, 615	7, 329, 636	124, 590
Grand total.....	1, 822, 153	32, 754	15, 732, 507	411, 451	14, 262, 630	367, 238	7, 717, 596	157, 222

Fisheries of the Mississippi River and tributaries, 1931—Continued

CATCH: BY STATES—Continued

Species	Iowa		Kansas		Kentucky		Louisiana ¹	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Bowfin	91, 825	\$3, 759					5, 715	\$114
Buffalofish	746, 615	59, 705	24, 325	\$2, 222	164, 558	\$14, 429	8, 784, 314	263, 261
Carp	1, 594, 244	80, 134	117, 489	10, 956	113, 461	8, 124	204, 743	4, 127
Catfish and bullheads	467, 340	48, 593	770	111	131, 777	17, 043	6, 602, 987	528, 579
Eels	325	15					200	6
Garfish							72, 450	791
Mooneye	1, 100	28			990	105		
Paddlefish or spoonbill cat	9, 400	638			18, 322	1, 617	495, 544	21, 508
Pike or pickerel	4, 700	470						
Quillback or "American carp"	60, 450	1, 339	100	11	11, 355	984	20, 700	431
Sauger					2, 365	451		
Sheepshead	343, 449	17, 619			52, 560	6, 782	1, 976, 600	39, 577
Sturgeon, shovelnose	17, 650	1, 663	175	24	2, 967	380		
Sucker "mullet"	36, 550	822			10, 294	1, 331		
Yellow pike					70	18		
Total	3, 373, 648	214, 785	142, 859	13, 324	508, 719	51, 244	18, 163, 253	858, 394
SHELLFISH, ETC.								
Crawfish							29, 248	292
Shrimp							38, 503	2, 423
Mussel shells	4, 366, 219	65, 685	312, 562	2, 713	1, 113, 032	8, 786	50, 000	375
Pearls		7, 244						
Slugs		13, 924		636		852		
Frogs							872, 651	130, 612
Terrapin	19, 100	377						
Turtles:								
Snapper	2, 000	40					58, 013	2, 244
Soft shell	17, 000	340					1, 700	34
Total	4, 404, 319	87, 610	312, 562	3, 349	1, 113, 032	9, 638	1, 050, 115	135, 980
Grand total	7, 777, 967	302, 395	455, 421	16, 673	1, 621, 751	60, 882	19, 213, 368	994, 374

Species	Minnesota		Mississippi		Missouri		Nebraska	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Bowfin	16, 598	\$282			17, 000	\$520		
Buffalofish	257, 431	15, 092	1, 511, 126	\$63, 824	178, 991	16, 414	18, 104	\$1, 813
Carp	2, 151, 119	97, 756	225, 276	6, 730	433, 117	33, 356	93, 032	9, 305
Catfish and bullheads	53, 804	4, 841	635, 049	42, 384	91, 430	15, 487	34, 174	5, 135
Eels			250	20	1, 055	53		
Minnnows					525	209		
Paddlefish or spoonbill cat			158, 821	5, 879	40, 103	2, 917		
Quillback or "American carp"	17, 246	519	2, 157	42	13, 672	946		
Sheepshead	152, 545	7, 938	106, 844	2, 576	38, 186	3, 773		
Sturgeon, shovelnose	1, 634	115	100	3	17, 282	1, 703		
Sucker "mullet"	65, 273	1, 955			2, 275	292		
Total	2, 715, 650	128, 498	2, 639, 623	121, 458	833, 636	75, 670	145, 310	16, 253
SHELLFISH, ETC.								
Shrimp			10, 000	1, 500				
Mussel shells	782, 630	7, 827			94, 000	1, 193		
Pearls		157						
Slugs		1, 174				118		
Turtles, snapper			100	3				
Total	782, 630	9, 158	10, 100	1, 503	94, 000	1, 311		
Grand total	3, 498, 280	137, 656	2, 649, 723	122, 961	927, 636	76, 981	145, 310	16, 253

¹ According to statistics compiled by the Department of Conservation of the State of Louisiana and published in the Twelfth Biennial Report of that Department, the catch of commercial fresh-water fish taken in Louisiana during 1935 was as follows: Catfish, 4,364,180 pounds, valued at \$349,134; gaspergou, 1,658,940 pounds, valued at \$82,947; spoonbill cat, 622,030 pounds, valued at \$43,541; buffalofish, 9,673,935 pounds, valued at \$483,696; terrapins, 8,370 dozens, valued at \$167,420; fresh-water turtles, 849,000 pounds, valued at \$127,735; frogs, 2,529,095 pounds, valued at \$632,274; fresh-water shrimp, 21,938,610 pounds, valued at \$264,475; crayfish, 1,250,690 pounds, valued at \$87,548; "baby" green turtles, 6,129,235 in number, valued at \$61,292; and miscellaneous products, 30,450 pounds, valued at \$1,827.

Fisheries of the Mississippi River and tributaries, 1931—Continued

CATCH: BY STATES—Continued

Species	Ohio		Oklahoma		South Dakota		Tennessee	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Black bass.....							14,000	\$1,680
Buffalofish.....	6,433	\$662	21,605	\$2,142	38,926	\$3,894	478,592	34,247
Carp.....	14,370	1,543	4,268	425	52,836	2,642	247,841	9,594
Catfish and bullheads.....	4,380	811	4,935	695	13,500	3,528	271,753	24,750
Crappie.....					1,392	70	18,652	1,658
Eels.....							163	25
Paddlefish or spoonbill cat.....			5,332	533	400	40	5,034	301
Quillback or "American carp".....	1,195	119	1,950	195	4,364	220	6,065	843
Sheepshead.....	1,318	224	1,550	155	697	70	197,670	10,465
Sturgeon, shovelnose.....	558	72					3,706	393
Sucker "mullet".....	2,902	268			2,246	112	8,323	1,119
Sunfish.....							21,850	1,094
White bass.....							2,100	106
Yellow pike.....	325	60						
Total.....	31,481	3,759	39,640	4,145	114,361	10,576	1,275,749	86,275
SHELLFISH, ETC.								
Mussel shells.....	154,000	3,005					2,157,000	15,604
Pearls.....								28
Slugs.....		380						1,724
Frogs.....							2,250	270
Terrapin.....							70	14
Total.....	154,000	3,313					2,159,320	17,640
Grand total.....	185,481	7,072	39,640	4,145	114,361	10,576	3,435,069	103,915

Species	Texas		Wisconsin		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
FISH						
Black bass.....					14,000	\$1,680
Bowfin.....			288,170	\$4,355	428,316	9,299
Buffalofish.....	73,000	\$2,190	268,001	13,528	15,772,451	687,288
Carp.....	6,900	138	777,474	23,800	11,891,761	455,399
Catfish and bullheads.....	47,800	3,824	65,539	5,825	10,266,847	877,798
Crappie.....					41,141	2,959
Eels.....					6,978	441
Garfish.....					72,450	791
Minnows.....					525	209
Mooneye.....					3,090	153
Paddlefish or spoonbill cat.....					951,152	43,134
Pike or pickerel.....					4,700	470
Quillback or "American carp".....	500	10	66,353	2,032	268,438	11,286
Sauger.....					2,365	451
Sheepshead.....	10,300	206	84,409	3,692	3,904,844	142,938
Sturgeon, shovelnose.....					87,426	8,163
Sucker "mullet".....			135,984	3,696	314,835	12,682
Sunfish.....					21,850	1,094
White bass.....					3,300	198
Yellow pike.....					4,945	771
Total.....	138,500	6,368	1,685,930	56,928	44,061,714	2,257,204
SHELLFISH, ETC.						
Crawfish.....					29,248	292
Shrimp.....					48,503	3,923
Mussel shells.....			959,200	8,946	37,254,697	421,611
Pearls.....				555		11,436
Slugs.....				2,012		68,216
Frogs.....					874,901	130,882
Terrapin.....					19,170	391
Turtles:						
Snapper.....					75,190	3,008
Soft shell.....					19,100	394
Total.....			959,200	11,513	38,320,809	640,153
Grand total.....	138,500	6,368	2,645,130	68,441	82,382,523	2,897,357

Industries related to the fisheries of the Mississippi River and tributaries

OPERATING UNITS, SALARIES, AND WAGES, 1931

Item	Arkansas	Illinois	Indiana	Iowa	Kentucky	Louisiana
Transporting:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Persons engaged.....	13				11	5
Vessels, motor.....	4				2	2
Net tonnage.....	69				15	20
Wholesale and manufacturing:						
Establishments.....	6	38	4	61	11	22
Persons engaged:						
Proprietors.....	3	42	1	52	8	24
Salaried employees.....	9	3	5	79	20	14
Wage earners:						
Average for season.....	152	331	140	2,500	261	70
Average for year.....	72	235	93	2,179	159	68
Paid to salaried employees.....	\$11,417	\$9,520	\$6,820	\$141,346	\$33,159	\$12,400
Paid to wage earners.....	\$53,593	\$145,683	\$51,444	\$1,417,678	\$81,643	\$37,700
Total salaries and wages.....	\$64,920	\$155,203	\$58,264	\$1,559,024	\$114,802	\$50,100
Fishermen manufacturing.....		4	2			200

Item	Minnesota and North Dakota	Mississippi	Missouri and Oklahoma	Nebraska and Kansas	Ohio and Pennsylvania	Tennessee	Wisconsin	Total
Transporting:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Persons engaged.....								29
Vessels, motor.....								8
Net tonnage.....								104
Wholesale and manufacturing:								
Establishments.....	13	6	21	3	13	11	8	217
Persons engaged:								
Proprietors.....	11	7	24	3	17	9	3	204
Salaried employees.....	27	3	125	8	37	15	10	355
Wage earners:								
Average for season.....	112	26	328	52	175	90	38	4,275
Average for year.....	112	26	261	52	145	52	29	3,483
Paid to salaried employees.....	\$55,200	\$16,000	\$291,874	\$17,400	\$95,878	\$34,884	\$12,998	\$738,896
Paid to wage earners.....	\$81,500	\$22,382	\$202,944	\$45,580	\$138,817	\$38,177	\$24,483	\$2,341,534
Total salaries and wages.....	\$136,700	\$38,382	\$494,818	\$62,980	\$234,695	\$73,061	\$37,481	\$3,080,430
Fishermen manufacturing.....		7	3					216

PRODUCTS MANUFACTURED

Item	Indiana		Iowa, Illinois, and Missouri		Louisiana	
	Quantity	Value	Quantity	Value	Quantity	Value
By manufacturing establishments:						
Salmon, smoked..... pounds.....			240,000	\$48,800		
Sturgeon, smoked..... do.....			162,000	39,140		
Mussel-shell products:						
Buttons ¹ gross.....			10,376,669	2,991,761		
Poultry feed ² tons.....			6,231	35,112		
Lime ² do.....			1,714	2,971		
Unclassified ²				72,214		
Unclassified, smoked..... pounds.....			83,000	14,440		
Total.....				3,204,438		
By fishermen:						
Alligator hides..... pounds.....					88,356	\$7,363
Carp, smoked..... do.....			667	67		
Paddlefish roe, salted..... do.....	450	\$180	900	540		
Sheepshead, smoked..... do.....			617	77		
Sturgeon:						
Smoked..... do.....			1,333	400		
Roe, salted..... do.....			35	32		
Total.....	450	180	3,552	1,116	88,356	7,363
Grand total.....	450	180		3,205,554	88,356	7,363

² Data are for 1935.³ Includes mussel-shell stucco and novelties.¹ Includes smoked buffalofish and tullibees.

Industries related to the fisheries of the Mississippi River and tributaries—Contd.

PRODUCTS MANUFACTURED—Continued

Item	Minnesota and Nebraska		Mississippi		Ohio, Tennessee, and Pennsylvania	
	Quantity	Value	Quantity	Value	Quantity	Value
By manufacturing establishments:						
Chubs, smoked.....pounds..					106,600	\$26,650
Salmon, smoked.....do.....	(1)	(1)			(1)	(1)
Sturgeon, smoked.....do.....	(1)	(1)				
Whitefish, smoked.....do.....	255,000	\$47,200			(1)	(1)
Unclassified, smoked.....do.....	66,600	19,793			184,900	50,555
Total.....	321,600	66,993			291,500	77,205
By fishermen:						
Paddlefish roe, salted.....pounds..			245	\$92		
Total.....			245	92		
Grand total.....	321,600	66,993	245	92	291,500	77,205

¹ The production of this item is included under "unclassified products."

² Includes smoked eels, salmon, and sturgeon.

³ Includes smoked buffalo fish, butterfish, carp, lake trout, paddlefish, sablefish, salmon, tullibees, and whitefish.

NOTE.—Unless otherwise indicated the data are for 1931. The total value of the manufactured products for the States of the Mississippi River and tributaries was as follows: By manufacturing establishments, \$3,348,636; and by fishermen, \$8,751. Some of the products may have been manufactured from fishery products imported from another State or a foreign country; therefore, they cannot be correlated directly with the catch within the State.

LAKE PEPIN

Fisheries of Lake Pepin, 1935

OPERATING UNITS: BY GEAR

Item	Haul seines	Anchor gill nets	Trammel nets	Trot lines	Pound nets	Fyke nets	Total, exclusive of duplication
Fishermen:							
Regular.....	Number 6	Number 30	Number 2	Number	Number 8	Number 2	Number 46
Casual.....	12	40	8	36	8	6	79
Total.....	18	70	10	36	16	8	125
Boats:							
Motor.....	5	42	10	32	8	10	72
Other.....	5	12		4	8	2	31
Apparatus:							
Number.....	5	66	14	66	8	340	
Length, yards.....	2,032						
Square yards.....		212,888	1,966				
Hooks.....				6,600			

CATCH: BY GEAR

Species	Haul seines		Anchor gill nets		Trammel nets		Trot lines	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin.....	500	\$10	2,000	\$40				
Buffalofish.....	8,200	328	18,500	740	2,000	\$80		
Carp.....	92,000	2,760	596,000	17,880	7,000	210	4,800	\$144
Catfish and bullheads.....	4,700	470	1,800	180	1,000	100	10,100	1,010
Mooneye.....	2,000	40						
Sheepshead.....	5,800	290	25,500	1,275	500	25	2,500	125
Sucker "mullet".....	3,000	60	10,500	210				
Turtles, snapper.....	1,000	20	200	4				
Total.....	117,200	3,978	654,500	20,329	10,500	415	17,400	1,279

Fisheries of Lake Pepin, 1935—Continued

CATCH: BY GEAR—Continued

Species	Pound nets		Fyke nets		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin.....	500	\$10			3,000	\$60
Buffalofish.....	2,000	80	1,000	\$40	31,700	1,268
Carp.....	100,000	3,000	4,000	120	803,800	24,114
Catfish and bullheads.....	100	10	7,000	700	24,700	2,470
Mooneye.....					2,000	40
Sheepshead.....	7,000	350	3,000	150	44,300	2,215
Sucker "mullet".....	20,000	400			33,500	670
Turtles, snapper.....			500	10	1,700	34
Total.....	129,600	3,850	15,500	1,020	944,700	30,871

OPERATING UNITS: BY STATES

Item	Illinois	Minnesota	Wisconsin	Total for lake
	Number	Number	Number	Number
Fishermen:				
Regular.....	2		44	46
Casual.....	17	4	58	79
Total.....	19	4	102	125
Boats:				
Motor.....	17	3	52	72
Other.....	6	1	24	31
Apparatus:				
Haul seines.....		1	4	5
Length, yards.....		535	1,497	2,032
Gill nets, anchor.....			66	66
Square yards.....			212,888	212,888
Trammel nets.....	14			14
Square yards.....	1,966			1,966
Lines, trot.....	40	9	17	66
Hooks.....	4,000	900	1,700	6,600
Pound nets.....			8	8
Fyke nets.....	340			340

CATCH: BY STATES

Species	Illinois		Minnesota		Wisconsin		Total for lake	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin.....					3,000	\$60	3,000	\$60
Buffalofish.....	3,000	\$120	500	\$20	28,200	1,128	31,700	1,268
Carp.....	12,000	360	6,500	195	785,300	23,559	803,800	24,114
Catfish and bullheads.....	12,000	1,200	2,800	280	9,900	990	24,700	2,470
Mooneye.....					2,000	40	2,000	40
Sheepshead.....	4,000	200	1,600	80	33,700	1,935	44,300	2,215
Sucker "mullet".....			1,000	20	32,500	650	33,500	670
Turtles, snapper.....	500	10			1,200	24	1,700	34
Total.....	31,500	1,890	12,400	595	900,800	28,386	944,700	30,871

LAKE KEOKUK

Fisheries of Lake Keokuk, 1935

OPERATING UNITS: BY GEAR

Item	Haul seines	Trammel nets	Trot lines	Fyke nets	Total, exclusive of duplication
	Number	Number	Number	Number	Number
Fishermen:					
Regular.....	10	2	2	13	19
Casual.....	44	30	42	76	111
Total.....	54	32	44	89	130
Boats:					
Motor.....	17	19	26	59	72
Other.....	17	3	17	36	53
Apparatus:					
Number.....	18	33	102	1,180	
Length, yards.....	2,169				
Square yards.....		7,799			
Hooks.....			9,825		

Fisheries of Lake Keokuk, 1935—Continued

CATCH: BY GEAR

Species	Haul seines		Trammel nets		Trot lines		Fyke nets		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin.....	3,500	\$70					500	\$10	4,000	\$80
Buffalofish.....	49,000	1,960	9,500	\$380			44,000	1,765	120,500	4,105
Carp.....	200,300	6,009	57,000	1,710	9,700	\$291	119,200	3,576	386,200	11,586
Catfish and bullheads.....	10,500	1,050	6,300	630	19,500	1,950	84,000	8,400	120,300	12,030
Eels.....							100	5	100	5
Paddlefish or spoonbill cat.....	8,700	870	2,000	200					10,700	1,070
Sheepshead.....	62,400	3,120	22,500	1,125	4,200	210	30,500	1,525	119,600	5,980
Sturgeon, shovelnose.....		225		22					225	22
Sucker "mullet".....	1,000	20							1,000	20
Turtles, snapper.....	4,400	88			1,500	30			5,900	118
Total.....	340,025	13,209	97,300	4,045	34,900	2,481	278,300	15,281	750,525	35,016

OPERATING UNITS: BY STATES

Item	Illinois	Iowa	Total for lake
Fishermen:	<i>Number</i>	<i>Number</i>	<i>Number</i>
Regular.....	7	12	19
Casual.....	47	64	111
Total.....	54	76	130
Boats:			
Motor.....	31	41	72
Other.....	26	27	53
Apparatus:			
Haul seines.....	2	16	18
Length, yards.....	335	1,834	2,169
Trammel nets.....	15	18	33
Square yards.....	2,000	5,799	7,799
Trot lines.....	77	5	102
Hooks.....	9,700	125	9,825
Fyke nets.....	585	595	1,180

Species	Illinois		Iowa		Total for lake	
	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin.....	900	\$18	3,100	\$62	4,000	\$80
Buffalofish.....	29,500	1,185	73,000	2,920	102,500	4,105
Carp.....	116,000	3,480	270,200	8,106	386,200	11,586
Catfish and bullheads.....	67,500	6,750	52,800	5,280	120,300	12,030
Eels.....			100	5	100	5
Paddlefish or spoonbill cat.....	8,000	800	2,700	270	10,700	1,070
Sheepshead.....	46,200	2,310	73,400	3,670	119,600	5,980
Sturgeon, shovelnose.....			225	22	225	22
Sucker "mullet".....	500	10	500	10	1,000	20
Turtles, snapper.....	2,000	40	3,900	78	5,900	118
Total.....	270,600	14,593	479,925	20,423	750,525	35,016

MISSISSIPPI RIVER BETWEEN LAKE PEPIN AND LAKE KEOKUK

Fisheries of the Mississippi River between Lake Pepin and Lake Keokuk, 1935

OPERATING UNITS: BY GEAR

Item	Haul seines	Anchor gill nets	Trammel nets	Trot-lines	Fyke nets	Dip nets	Total, exclusive of duplication
Fishermen:							
Regular.....	Number 110	Number 8	Number 17	Number	Number 123	Number	Number 198
Casual.....	280	8	49	163	385	19	581
Total.....	390	16	66	163	508	19	770
Boats:							
Motor.....	114	9	50	130	397		474
Other.....	109	2	2	40	90		208
Apparatus:							
Number.....	108	9	58	167	7,742	19	
Length, yards.....	19,883						
Square yards.....		19,402	7,322				
Hooks.....				17,800			

CATCH: BY GEAR

Species	Haul seines		Anchor gill nets		Trammel nets		Trot lines	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin.....	110,490	\$2,880	3,606	\$72	3,100	\$62		
Buffalofish.....	576,100	23,714	27,500	1,180	63,000	2,520		
Carp.....	1,614,500	49,335	68,700	2,061	124,200	3,726	24,000	\$720
Catfish and bullheads.....	67,800	6,780	1,800	180	8,550	855	43,500	4,350
Eels.....					100	10		
Mooneye.....	38,900	778	1,000	20				
Paddlefish or spoonbill cat.....	5,750	575			100	10		
Pike or pickerel.....	5,450	272			100	5		
Sheepshead.....	372,700	18,635	10,600	530	25,900	1,345	13,300	661
Sturgeon, shovelnose.....	6,600	660			24,400	2,440	100	10
Sucker "mullet".....	71,300	1,426	3,500	70	5,300	106		
Turtles:								
Snapper.....	19,600	392					700	14
Soft shell.....	10,000	200					100	2
Total.....	2,959,190	105,647	116,700	4,113	254,750	11,079	81,700	5,757

Species	Fyke nets		Dip nets		Total	
	Pounds	Value	Pounds	Value	Pounds	Value
Bowfin.....	1,200	\$24			148,390	\$3,038
Buffalofish.....	320,900	12,926	7,500	\$300	995,000	40,640
Carp.....	575,000	17,220	7,500	225	2,443,900	73,287
Catfish and bullheads.....	510,300	51,035			632,000	63,200
Eels.....	1,050	110			1,150	120
Mooneye.....					39,900	738
Paddlefish or spoonbill cat.....	150	15			6,000	600
Pike or pickerel.....					5,550	277
Sheepshead.....	138,000	6,900	4,200	210	564,700	28,281
Sturgeon, shovelnose.....					31,100	3,110
Sucker "mullet".....	20,100	402			100,200	2,004
Turtles:						
Snapper.....	1,000	20			21,300	426
Soft shell.....	650	13			10,750	215
Total.....	1,568,400	88,665	19,200	735	4,999,940	215,996

Fisheries of the Mississippi River between Lake Pepin and Lake Keokuk, 1935—Con.

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.....	29	98	8	63	198
Casual.....	157	216	45	163	581
Total.....	186	314	53	226	779
Boats:					
Motor.....	122	217	22	113	474
Other.....	54	82	17	55	208
Apparatus:					
Haul seines.....	22	32	7	47	108
Length, yards.....	3,300	5,265	1,351	9,967	19,883
Gill nets, anchor.....			3	6	9
Square yards.....			4,665	14,737	19,402
Trammel nets.....	6	52			58
Square yards.....	796	6,526			7,322
Lines, trot.....	84	47	23	13	167
Hooks.....	9,500	4,700	2,300	1,300	17,800
Fyke nets.....	2,425	4,189		1,128	7,742
Dip nets.....		19			19

CATCH: BY STATES

Species	Illinois		Iowa		Minnesota		Wisconsin		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>	<i>Pounds</i>	<i>Value</i>
Bowfin.....	7,600	\$152	55,700	\$1,114	2,500	\$50	82,590	\$1,722	148,390	\$3,038
Buffalofish.....	191,000	7,850	412,400	16,496	43,000	1,950	348,600	14,344	995,000	40,640
Carp.....	373,000	11,160	889,100	26,673	135,800	4,074	1,046,000	31,380	2,443,900	73,287
Catfish and bullheads.....	155,800	15,580	310,800	31,080	9,900	990	155,500	15,550	632,000	63,200
Eels.....	200	20	800	80			150	20	1,150	120
Mooneye.....	500	10	3,000	60	1,500	30	34,900	698	39,900	798
Paddlefish or spoon-bill cat.....	2,250	225	3,650	365			100	10	6,000	600
Pike or pickerel.....			5,550	277					5,550	277
Sheepshead.....	129,900	6,491	216,900	10,895	50,800	2,540	167,100	8,355	564,700	28,281
Sturgeon, shovelnose.....			31,100	3,110					31,100	3,110
Sucker "mullet".....	10,300	206	35,000	700	10,500	210	44,400	888	100,200	2,004
Turtles:										
Snapper.....	1,400	28	7,200	144	800	16	11,900	238	21,300	426
Soft shell.....	1,000	20	4,950	99			4,800	96	10,750	215
Total.....	872,950	41,742	1,976,150	91,093	254,800	9,860	1,896,040	73,301	4,999,940	215,996

FISHERIES OF ALASKA ¹⁶

The commercial catch of fishery products in Alaska during 1935, exclusive of whales, amounted to 638,335,513 pounds, valued at \$8,702,783, which is a decrease of 21 percent in volume and 26 percent in value as compared with the catch in 1934. Of the total catch in 1935, 434,003,732 pounds, valued at \$6,969,791, consisted of salmon; 201,789,468 pounds, valued at \$1,586,032, other fish; and 2,542,313 pounds, valued at \$146,960, shellfish. In addition, 394 whales were taken. These fisheries gave employment to 9,208 fishermen, 1,551 persons on transporting craft, and 11,861 persons in fisheries whole-sale and manufacturing industries—a total of 22,620 persons, which is a decrease of 14 percent as compared with the number employed in 1934.

¹⁶ 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 Fishery and Fur-Seal Industries in 1935, by Ward T. Bower, Appendix 1 to the Report of the Commissioner of Fisheries for the fiscal year 1936.

Fisheries of Alaska, 1935

SUMMARY: BY DISTRICTS

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Number	Value	Number	Value	Number	Value	Number	Value
PERSONS ENGAGED								
In fishing.....	4,995		2,807		1,406		9,208	
In transporting.....	810		649		92		1,551	
In wholesale and manufacturing industries.....	6,474		4,151		1,236		11,861	
Total.....	12,279		7,607		2,734		22,620	
CRAFT EMPLOYED								
Vessels fishing.....	743		90		12		845	
Boats fishing.....	2,301		1,250		438		3,989	
Vessels transporting.....	194		138		24		356	
Scows, houseboats, pile drivers, etc.....	289		241		44		574	
Total.....	3,527		1,719		518		5,764	
CATCH								
Fish:	<i>Pounds</i>		<i>Pounds</i>		<i>Pounds</i>		<i>Pounds</i>	
Salmon.....	237,146,123	\$3,886,902	161,451,305	\$2,417,484	35,406,304	\$665,405	434,003,732	\$6,969,791
Other.....	116,312,703	1,158,322	78,017,180	390,413	7,459,585	37,297	201,789,468	1,586,032
Shellfish.....	1,502,451	92,320	1,039,862	54,640			2,542,313	146,960
Total.....	354,961,277	5,137,544	240,508,347	2,862,537	42,865,889	702,702	638,335,513	8,702,783
Whales.....	<i>Number</i>		<i>Number</i>		<i>Number</i>		<i>Number</i>	
			137		257		394	
WHOLESALE AND MANUFACTURING								
Establishments.....	99		100		29		228	
PRODUCTS AS PREPARED FOR MARKET								
Salmon.....	159,627,985	15,242,757	87,248,107	9,480,330	15,373,519	2,600,433	262,249,611	27,332,520
Herring.....	42,780,662	1,050,748	33,428,511	1,135,848	4,938,520	187,496	81,147,693	2,374,092
Halibut.....		607,845					9,805,680	607,845
Cod.....			121,139	5,675	26,598	1,138	147,737	6,813
Trout.....	32,882	2,405					32,882	2,405
Sablefish.....	565,446	22,839					565,446	22,839
Flounders.....	250,000	3,750					250,000	3,750

Rockfishes.....	5,344	189					5,344	189
Clams.....	16,680	3,934	428,871	193,647			445,551	197,581
Shrimp.....	382,435	128,414	1,432	486			383,867	128,900
Crabs.....	407,498	131,699	92,040	31,629			499,538	163,328
Whales.....			3,979,167	147,958	6,394,950	242,426	10,374,117	390,384
Total.....	213,874,612	17,194,580	125,299,267	10,995,573	26,733,587	3,040,493	365,907,466	31,230,646

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.....	4,995	2,807	1,406	9,208	Gill nets.....	359	993	1,078	2,430
Vessels fishing:					Yards.....	56,850	135,352	91,544	283,746
Steam.....		3	4	7	Beam trawls.....	11	1		12
Net tonnage.....		207	340	547	Wheels.....			297	297
Motor.....	743	87	8	838	Lines:				
Net tonnage.....	9,191	1,893	214	11,298	Hand lines (cod fishery).....		26	2	28
Boats fishing:					Troll lines (salmon fishery).....	3,523	2		3,525
Motor.....	945	280	32	1,257	Skates of lines (halibut fishery).....	1,886			1,886
Other.....	1,356	970	406	2,732	Crab pots.....	3,490	295		3,785
Apparatus:					Herring pounds.....	5	6		11
Traps.....	280	167		447	Herring pound seines.....	11	1		12
Purse seines.....	617	235	8	860					
Yards.....	195,494	55,920	3,800	255,214					
Haul seines.....	6	190		196					
Yards.....	1,200	35,884		37,084					

Fisheries of Alaska, 1935- Continued

CATCH: BY DISTRICTS

[Estimated round weight and value to the fishermen]

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
FISH								
Salmon:								
Blueback, red or sockeye.....	13, 249, 852	\$398, 095	34, 821, 640	\$925, 171	25, 443, 992	\$616, 695	73, 515, 484	\$1, 939, 961
Chinook or king.....	12, 829, 140	310, 456	1, 915, 560	51, 551	1, 235, 200	7, 669	16, 009, 900	369, 676
Chum or keta.....	45, 751, 869	527, 980	30, 492, 045	298, 673	8, 654, 544	39, 309	84, 898, 458	865, 962
Humpback or pink.....	151, 238, 030	2, 368, 327	89, 871, 844	1, 061, 667		448	241, 110, 322	3, 429, 998
Silver or coho.....	14, 077, 232	282, 044	4, 320, 216	80, 422	72, 120	1, 728	18, 469, 568	364, 194
Herring.....	104, 258, 864	521, 294	77, 657, 102	388, 286	7, 370, 925	36, 854	189, 286, 891	946, 434
Halibut.....	10, 895, 200	607, 845					10, 895, 200	607, 845
Cod.....			360, 078	2, 127	88, 660	443	448, 738	2, 570
Trout:								
Dolly Varden.....	29, 206	1, 585					29, 206	1, 585
Steelhead.....	11, 896	820					11, 896	820
Sablefish.....	831, 538	22, 839					831, 538	22, 839
Flounders.....	277, 777	3, 750					277, 777	3, 750
Rockfishes.....	8, 222	189					8, 222	189
Total.....	353, 458, 826	5, 045, 224	239, 468, 485	2, 807, 897	42, 865, 889	702, 702	635, 793, 200	8, 555, 823
SHELLFISH								
Crabs:								
King.....	1, 920	140					1, 920	140
Dungeness.....	781, 634	65, 710	178, 260	15, 814			959, 894	81, 524
Shrimp.....	687, 337	25, 683	3, 860	97			691, 197	25, 780
Clams:								
Butter.....	31, 560	787					31, 560	787
Razor.....			857, 742	38, 729			857, 742	38, 729
Total.....	1, 502, 451	92, 320	1, 039, 862	54, 640			2, 542, 313	146, 960
Grand total.....	354, 961, 277	5, 137, 544	240, 508, 347	2, 862, 537	42, 865, 889	702, 702	638, 335, 513	8, 702, 783

NOTE.—In addition to the above, 394 whales were taken in Alaska waters. The round weight and value to fishermen cannot be determined, but the products amounted to 10,374,117 pounds, valued at \$390,384.

Industries related to the fisheries of Alaska, 1935

TRANSPORTING

Item	Southeast Alaska	Central Alaska	Western Alaska	Total	Item	Southeast Alaska	Central Alaska	Western Alaska	Total
Persons engaged.....	<i>Number</i> 810	<i>Number</i> 649	<i>Number</i> 92	<i>Number</i> 1,551	Vessels transporting—Continued.				
Vessels transporting:					Motor.....	<i>Number</i> 194	<i>Number</i> 138	<i>Number</i> 23	<i>Number</i> 355
Steam.....			1	1	Net tonnage.....	5,658	4,840	597	11,095
Net tonnage.....			3,474	3,474	Scows, houseboats, pile drivers, etc.....	289	241	44	574

WHOLESALE AND MANUFACTURING

Item	Southeast Alaska	Central Alaska	Western Alaska	Total
Persons engaged.....	<i>Number</i> 6,474	<i>Number</i> 4,151	<i>Number</i> 1,236	<i>Number</i> 11,861
Establishments:				
Handling fresh and frozen fish.....	52	2		54
Curing fish.....	39	55	21	115
Canning fish.....	53	53	9	115
Manufacturing byproducts.....	9	11	1	21
Total (exclusive of duplication).....	99	100	29	228

Industries related to the fisheries of Alaska, 1935—Continued

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)	2,943,017	\$167,784	8,019	\$643			2,951,036	\$168,427
Salmon (for fox feed)			8,400	42			8,400	42
Herring (for bait)	2,059,055	22,059	273,750	2,665			2,332,805	24,724
Halibut	5,936,134	363,525					5,936,134	363,525
Trout	16,470	1,135					16,470	1,135
Sablefish	80,516	4,428					80,516	4,428
Flounders	250,000	3,750					250,000	3,750
Crabs:								
Meat	93,908	35,904	43,908	17,703			137,906	53,607
Whole in shell	31,442	2,582	5,820	307			37,262	2,889
Shrimp:								
Meat	371,029	126,355	856	204			371,885	126,649
Whole in shell	9,777	1,407					9,777	1,407
Total	11,791,438	728,929	311,353	21,654			12,132,791	750,583
FROZEN								
Salmon (for food)	4,266,834	270,178					4,266,834	270,178
Salmon (for bait)	240,930	1,205					240,930	1,205
Herring (for bait)	3,626,670	25,788					3,626,670	25,788
Herring (for food)			40,000	1,200			40,000	1,200
Halibut	3,869,546	244,320					3,869,546	244,320
Trout	16,412	1,270					16,412	1,270
Sablefish	478,769	18,093					478,769	18,093
Rockfishes	5,344	189					5,344	189
Shrimp	1,629	652					1,629	652
Total	12,506,134	561,695	40,000	1,200			12,546,134	562,895
CURED								
Salmon:								
Mild cured	4,308,000	857,603	20,000	2,370	114,400	\$13,720	4,442,400	873,098
Pickled	49,200	4,908	312,800	35,832	534,175	54,418	896,175	95,188
Dry salted	38,100	4,471	21,800	1,982			59,900	6,453
Dried					1,436,000	114,980	1,436,000	114,980
Caviar	17,000	2,100					17,000	2,100
Herring:								
Pickled (for food):								
Scotch cure	2,187,000	116,612	9,343,325	543,055	3,412,425	148,397	14,942,750	806,064
Norwegian cure			4,000	360			4,000	360
Roused			108,150	3,245	1,211,320	31,548	1,319,470	34,788
Spiced	1,000	160					1,000	160
Dry salted					314,775	7,551	314,775	7,551

Cod:									
Dry salted.....			80,210	3,417	26,598	1,138	106,808	4,555	
Pickled.....			32,789	1,130			32,789	1,130	
Stockfish.....			8,140	1,128			8,140	1,128	
Sablefish, pickled.....	6,161	318					6,161	318	
Total.....	6,606,461	986,172	9,931,214	592,499	7,049,693	371,732	23,587,368	1,950,403	
CANNED									
Salmon:									
Blueback, red or sockeye.....	7,652,592	1,557,285	18,440,784	3,607,639	12,764,832	2,379,726	38,858,208	7,544,650	
Chinook or king.....	533,184	113,502	1,174,176	196,746	40,080	6,471	1,747,440	316,719	
Chum or keta.....	25,965,504	2,059,941	14,501,904	1,170,418	473,136	38,712	40,940,544	3,269,071	
Humpback or pink.....	105,602,880	9,263,266	50,112,096	4,157,181	192	15	155,715,168	13,420,462	
Silver or coho.....	6,839,664	916,789	2,278,128	299,034	10,704	1,411	9,128,496	1,217,234	
Miscellaneous fish.....	1,080	225					1,080	225	
Clams.....	16,680	3,934	428,871	193,647			445,551	197,581	
Crabs.....	282,058	93,213	42,312	13,619			324,370	106,832	
Shrimp.....			576	192			576	192	
Total.....	146,893,642	14,008,155	86,978,847	9,638,476	13,288,944	2,426,335	247,161,433	26,072,966	
BYPRODUCTS									
Fertilizer:									
Salmon.....	900,000	13,500	271,900	3,263			1,171,900	16,763	
Whale.....			1,070,000	12,950	1,608,000	18,590	2,678,000	31,540	
Meal, herring.....	18,108,962	216,744	12,014,194	140,984			30,123,156	357,728	
Oil:									
Salmon.....	270,000	10,000	97,500	5,200			367,500	15,200	
Herring.....	16,797,975	669,385	11,645,092	444,339			28,443,067	1,113,724	
Whale.....			2,324,542	116,300	3,925,200	196,260	6,249,742	312,560	
Sperm.....			584,625	18,708	861,750	27,576	1,446,375	46,284	
Total.....	36,076,937	909,629	28,007,853	741,744	6,394,950	242,426	70,479,740	1,893,799	
Grand total.....	213,874,612	17,194,580	125,299,267	10,995,573	26,733,587	3,040,493	365,907,466	31,230,646	

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 1935 amounted to 6,382,681 pounds, valued at \$377,123 (including 6,000 pounds, valued at \$500, landed by Canadian vessels).

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

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
Salmon:								
Blueback, red or sockeye.....	159,429	\$1,557,285	384,183	\$3,607,639	265,934	\$2,379,726	809,546	\$7,544,650
Chinook or king.....	11,108	113,502	24,462	196,746	835	6,471	36,405	316,719
Chum or keta.....	540,948	2,059,941	302,123	1,170,418	9,857	38,712	852,928	3,269,071
Humpback or pink.....	2,200,060	9,263,266	1,044,002	4,157,181	4	15	3,244,066	13,420,462
Silver or coho.....	142,493	916,789	47,461	290,034	223	1,411	190,177	1,217,234
Miscellaneous fish.....	22	225					22	225
Clams.....	1,052	3,934	28,591	193,647			29,643	197,581
Crabs.....	5,876	93,213	882	13,619			6,758	106,832
Shrimp.....			33	192			33	192
Total.....	3,060,988	14,008,155	1,831,737	9,638,476	276,853	2,426,335	5,169,578	26,072,966

¹ The pack of salmon, miscellaneous fish, and crabs has been converted to "standard cases" of 48 1-pound cans, clams to "standard cases" of 48 No. 1 5-ounce cans, and shrimp to "standard cases" of 48 5 $\frac{3}{4}$ -ounce cans.

Supplementary table showing the output of byproducts in tons and gallons

Item	Southeast Alaska		Central Alaska		Western Alaska		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Fertilizer:								
Salmon..... tons.....	450	\$13,500	136	\$3,263			586	\$16,763
Whale..... do.....			535	12,950	804	\$18,590	1,339	31,540
Meal, herring..... do.....	9,054	216,744	6,007	140,984			15,016	357,728
Oil:								
Salmon..... gallons.....	36,000	10,000	13,000	5,200			49,000	15,200
Herring..... do.....	2,239,730	669,385	1,552,679	444,339			3,792,409	1,113,724
Whale..... do.....			309,939	116,300	523,360	196,260	833,299	312,560
Sperm..... do.....			77,950	18,708	114,900	27,576	192,850	46,284
Total.....		909,629		741,744		242,426		1,893,799

STATISTICAL SURVEY PROCEDURE

In order that those who use the statistical data contained in this report and previous reports of the Division of Fishery Industries may be informed as to the source of the figures and methods for their collection, it has been deemed advisable to outline in considerable detail the statistical survey procedure followed by the Division. This procedure has been developed over a period of years, and changes in method have been made at times where such changes have appeared to work toward general improvement. While the surveys in the several sections are not made in the same manner owing to varying facilities and records in different States, an attempt has been made to make the data collected by various methods in the producing areas comparable with respect to the same year as well as over a period of years. Throughout the entire plan it has been the intention to coordinate State and Federal fishery statistical work so that there will be as little duplication of effort as possible. The procedure will be discussed under two main heads—"Sectional surveys" and "Local and special surveys."

SECTIONAL SURVEYS

Statistical surveys of the fisheries and fishery industries of the various sections of the United States occupy by far the greatest part of the time of the statistical personnel of the Division. It is in the course of these surveys that the statistical and marketing agents visit the individual fishing localities of the various States to collect statistics of the volume of the catch of fish and its value, employment in fishing, quantity of fishing gear, number and classification of fishing and transporting craft, employment in wholesale and manufacturing establishments, and the volume and value of manufactured fishery products and byproducts. The various phases of these surveys are discussed in detail in the sections following.

History.—The first comprehensive statistical survey of the fisheries and fishery industries of the United States was made for the year 1880 by George Brown Goode, Assistant Director of the U. S. National Museum and associates, with the cooperation of the Commissioner of Fisheries and the Superintendent of the Tenth Census. Data for specific fisheries or restricted sections for years prior to 1880 were also collected in this early survey and recorded in Mr. Goode's reports. The survey for 1880, however, did not include the Mississippi River and tributaries. Periodic general surveys of a limited number of States or limited areas of the United States were made for various of the intervening years between 1880 and 1908 and from 1909 to 1928. In 1908 a survey of the entire United States was made. The next general survey of the entire United States was not made until 1931 although complete data for all sections excluding the Mississippi River and tributaries were collected for 1929 and 1930 and complete data on the catch and operating units of the fisheries were collected for 1932. In the latter survey, however, lack of sufficient funds prohibited collection of data on wholesale and manufacturing firms except those data collected as a part of the canned fishery products and byproducts surveys. Complete general canvasses were made of the New England, Middle Atlantic, Chesapeake, and Pacific States for 1933 and 1935, and complete data on the

catch of the fisheries of the Lakes States were collected for 1933. Complete general surveys also were made of the Chesapeake, South Atlantic, Gulf, Pacific, and Lakes States for 1934.

Following is a summary indicating the years for which statistics were collected on the fisheries and fishery industries in the various sections. Figures for the more recent years are available for free distribution from the Bureau in bulletin form, but figures for the earlier years are available only in the various printed reports of the Bureau. These reports are available for reference in the Bureau's library and at many public libraries.

In the New England States statistics on the catch of the marine fisheries and those conducted in the coastal rivers and bays of these States were collected for the years 1880, 1887, 1888, 1889, 1898, 1902, 1905, 1908, 1919, 1924, 1928, 1929, 1930, 1931, 1932, 1933, and 1935. For most of these years data on operating units and wholesale and manufacturing trade also were collected. In addition to the above, a partial statistical survey was made for the entire section in 1892; a partial survey of the fisheries in Maine, New Hampshire, and Massachusetts for the fiscal year 1897; the lobster fishery for 1900 and 1913; the oyster fishery for 1910; the shad and alewife fisheries for 1896; the menhaden industry for 1912; the fisheries of Massachusetts for 1879; and the fisheries of Connecticut for 1925 and 1926.

Statistics on the catch of the marine fisheries and those conducted in the coastal rivers and bays of the Middle Atlantic States were collected for the years 1880, 1887, 1888, 1889, 1890, 1891, 1897, 1898, 1901, 1904, 1908, 1921, 1926, 1929, 1930, 1931, 1932, 1933, and 1935. Data on operating units and wholesale and manufacturing trade also were collected for most of these years. In addition to these a statistical survey was made of the coastal fisheries of these States in 1915; catch in all States except New York, in 1892; the shad and alewife fisheries in 1896; the shad fisheries of the Delaware River in 1910; the shad fisheries of the Chesapeake Bay and tributaries in 1909; the menhaden industry in 1912; the lobster fisheries in 1900 and 1913; and the oyster fishery in 1911. The years for which statistics are available on the shad fishery of the Hudson River are given in the section entitled "Shad and alewife fisheries."

In the Chesapeake Bay States statistics on the catch of the marine fisheries and those conducted in coastal rivers and bays of these States were collected for the years 1880, 1887, 1888, 1890, 1891, 1897, 1901, 1904, 1908, 1920, 1925, 1929, 1930, 1931, 1932, 1933, 1934, and 1935. Data on operating units and wholesale and manufacturing trade also were collected for most of these years. In addition to the above, a statistical survey was made of the crab fishery for 1915; the oyster fishery and menhaden industry for 1912; and the shad and alewife fisheries for 1896, 1909, and 1915. The years for which statistics of the shad and alewife fisheries of the Potomac River are available are given in the section entitled "Shad and alewife fisheries."

In the South Atlantic and Gulf States statistics on the catch of the marine fisheries and those conducted in the coastal rivers and bays of these States were collected for the years 1880, 1888, 1889, 1890, 1897, 1902, 1908, 1918, 1923, 1927, 1928, 1929, 1930, 1931, 1932, and 1934. Data on operating units and wholesale and manufacturing trade also were collected for most of these years. In addition to the above, a statistical survey was made of the fisheries of these States, excluding

Florida and Alabama, for 1887; the shad fishery of the South Atlantic States for 1910; the shad and alewife fisheries of the South Atlantic States for 1896; the sturgeon fishery of Florida for 1900; the menhaden industry of the South Atlantic States for 1912; the shrimp fishery for 1916; the oyster fishery of the South Atlantic States for 1910; and the oyster fishery of the Gulf States for 1911.

In the Pacific Coast States statistics on the catch of the marine fisheries and those conducted in the coastal rivers and bays of these States were collected for the years 1880, 1888, 1892, 1895, 1899, 1904, 1908, 1915, and for all the years from 1922 to 1935, inclusive. These surveys have usually included data on operating units and wholesale and manufacturing trade. In addition to the above, statistics were obtained on the fisheries of California from 1918 to 1921, inclusive, and for the oyster fishery in 1912.

Statistics on the catch of the fisheries of the Great Lakes were collected for the years 1880, 1885, 1890, 1893, 1899, 1903, 1908, and for all the years from 1913 to 1934, inclusive. Statistics of the operating units and of the wholesale and manufacturing trade were collected for most of the years when canvasses were made from 1880 to 1908 and in 1917 and 1922 as well as in most of the years from 1926 to 1934, inclusive. In addition to the above a survey was made of the fisheries of Lake Ontario and of certain fisheries in other lakes for the year 1897.

Statistics of the catch of the fisheries of the Mississippi River and its tributaries were collected for the years 1894, 1899, 1903, 1908, 1922, and 1931. In addition, figures have been obtained of the fisheries of Lakes Pepin and Keokuk for the years 1914 and 1917 and the years from 1927 to 1935, inclusive, and of the fisheries of the Mississippi River between Lakes Pepin and Keokuk for the years 1929 to 1935, inclusive.

Statistics also were collected on the fisheries of certain interior waters, other than the fisheries of the Great Lakes and the Mississippi River and its tributaries, for the years 1894, 1895, 1900, and 1902.

Statistical agents.—The statistics contained in this volume have been collected by a corps of trained statistical and marketing agents which comprises a part of the permanent staff of the Division of Fishery Industries of the Bureau. Most of these men have been with the Bureau for a period of 5 years or more. In the main they are college graduates and were recruited through civil-service examination. While in college, most of the men pursued biological or technical courses largely in fishery work which has especially suited them for coping with the many biological and technical aspects encountered in canvassing the fisheries. This training has been especially helpful in identification of the species which, because of the many local names applied to a particular species, causes considerable confusion.

Period covered.—In conducting the fishery statistical surveys, agents are dispatched to the districts to be surveyed as early in the calendar year as they can be spared from the tabulation and preparation for publication of their previous season's work. They collect statistics of fishery operations for the year preceding that in which they are working; and, since their field work occupies the greater part of the year, it is usually at least a year from the end of the calendar year for which they are collecting data until the figures are published. Most of the figures are collected for the calendar year. Where there are variations from this general practice, explanatory notes appear in the tables.

Prior to 1930, statistics on the catch of oysters in the Atlantic and Gulf States were collected for the oyster season; that is, from September to April, inclusive. Beginning with 1930 and down to the present, they have been collected on the basis of the calendar year.

Scope.—The scope of the coastal statistical surveys includes canvasses of the commercial fisheries of the oceans and bays and of the 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 cover canvasses of the fisheries of the Mississippi River proper as well as all of its tributaries wherein commercial fishing for either fish, crustaceans, or mollusks is prosecuted. Statistics of the fisheries of the Great Lakes cover canvasses of the fisheries prosecuted in the Lakes proper, adjacent bays, and the international lakes of northern Minnesota, as well as rivers which sustain a commercial fishery having outlets into these waters. Surveys for statistics of the wholesale and manufacturing fishery industries cover such plants located in the coastal, river, and lake areas adjacent to the waters mentioned above.

Methods of collection.—Several methods for the collection of fishery statistics are employed, each of which has been carefully studied to obtain the best results with the available personnel and funds. In most instances the agents obtain lists of the names of fishing vessels, names or numbers of motor boats, and names of owners of these craft from local customs officials. Also it often is possible to obtain the names of licensed commercial fishermen and occasionally some statistics on the catch from several of the State fishery agencies; from other State, county, or city agencies; or from private organizations.

With such preliminary records as are available for their guidance the agents then visit each fishing community in their field unless their preliminary records are so complete that personal visits in some areas may be eliminated. While it is impossible for the few agents available for this work 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 most of the more important inshore fishermen.

In the Great Lakes and Pacific Coast States such exceptional cooperation has been obtained in recent years from the State fishery agencies in the collection of statistics that only fragmentary surveys need be made by the Bureau's agents to obtain the necessary data. Also the State fishery agencies in Maryland and Virginia recently have developed very complete statistical systems which greatly facilitate the Bureau's canvasses in these States.

As regards the fisheries of 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 records of the State fishery agency. To obtain data on the number of fishermen, boats, vessels, and gear the Bureau conducts such personal surveys among the fishermen as may be necessary to supplement the State records.

Bureau agents are stationed at Seattle, Wash., and Terminal Island, Calif., who survey the fisheries of the Pacific Coast States. As a rule they obtain figures on the volume of the catch from the records.

of the several State fishery agencies. In most cases the value of the catch is derived from dealers' records and sometimes from estimates of prices. In Washington and Oregon the offshore fisheries are surveyed separately by the Bureau's agent to obtain the number of operating units, catch, and value of the catch. Statistics of the wholesale fishery industry for this section are obtained largely by personal interviews of the agents.

In the administration of the Alaska fisheries the Bureau obtains sworn statements concerning their activities from those prosecuting the fisheries in this area. These statements are compiled by the Alaska Division of this Bureau.

Statistics of the volume of the catch of fish of the Pacific Coast and Great Lakes States are usually shown in weights as landed, which may be in the round or dressed condition. Statistics on the volume of the catch of fish taken in the remainder of the United States are shown in round weight.

The figures in the tables for shellfish represent the weight of the meats in the case of univalve and bivalve mollusks and gastropods, and the round weight of crustaceans and such mollusks as squid and octopus.

Shore and vessel fisheries.—In general, statistics of the shore fisheries as collected by the agents include data on the number of casual and regular fishermen; number and tonnage of motor and other fishing boats and accessory boats; kind and quantity of gear used, and the volume, value, and method of capture of each species caught by boats (for our purpose craft of less than 5 net tons' capacity are called "boats") for each locality or group of localities. This method is not followed in some sections where the availability of data collected by the State fishery agencies obviates the necessity of detailed locality surveys.

Statistics of the vessel fisheries include data on the number of the crew, rig of vessel, net tonnage, kind and quantity of gear used, accessory boats carried, and volume, value, and method of capture of each species caught by each vessel (for our purpose craft of 5 net tons' capacity or more are called "vessels"). As in the shore fisheries, the availability of figures collected by State fishery agencies may eliminate the necessity of our agents collecting these data for each vessel.

All persons engaged in commercial fishing operations are included as fishermen. For our purpose these have been divided into "regular" and "casual" fishermen. Regular fishermen are those who receive more than one-half of their annual income from fishing; and casual fishermen are those whose principal business is something other than fishing, and who receive less than one-half of their annual compensation from fishing.

The catch of fish is credited to the principal port of arrival and departure of the craft rather than its point of ownership, registration, documentation, or its port of landing. This accounts for catches of fish being shown in areas where they are not common since fishing vessels frequently fish in areas far from their principal fishing port.

Wholesale and manufacturing trade.—All persons or firms engaged in the wholesale buying and selling of fishery products or who produce manufactured fishery products are surveyed under this title. Where the business of fishing and wholesaling or manufacturing is combined,

that part of the business devoted to either of the latter two phases, is included in the wholesale and manufacturing survey and the part devoted to fishing is included in the shore or vessel fisheries. If a wholesale business is conducted with no manufacturing and the business is so small that the full time of one man over the whole year or season is not required, it is then disregarded as a wholesale business. If commodities other than fishery products are handled, the persons engaged, and salaries and wages paid, are prorated; and only that part concerned with fishery products is included. If such a firm requires less than the full time of one man over the whole year or season and if it does not manufacture, it is not included in the canvass. Retail firms that manufacture or whose wholesale business exceeds the retail part are included. Persons or firms engaged in the motor trucking of fishery products are included as wholesalers if they are engaged in wholesale buying and selling.

Buyers for a central firm are not canvassed as wholesale dealers unless they ship direct to the firm's customers from the buying point.

Fishermen or fishing concerns, except manufacturers, who do not buy fishery products are not included under this heading except that oyster-shucking firms are included provided shuckers are employed and irrespective of whether all or part of the oysters used are taken from the firms' privately owned beds.

Manufacturing concerns include those which prepare packaged fishery products; salted, spiced, smoked, dried, or otherwise cured fishery products; canned fishery products; or fishery byproducts.

Fishermen who manufacture are surveyed to obtain the number of persons so employed and the volume and value of the products prepared.

In collecting statistics of manufacturing firms, the agents obtain data on the production for each plant in producing areas of products as marketed by the plant. Such products are usually "final" and in form for consumption; however, the products may be "intermediate" and require further processing before reaching the consumer markets. An outstanding example of an intermediate product is green-salted ground fish which almost invariably is further processed before final marketing. In reviewing the statistics of manufactured products it should be observed that intermediate products are not shown where they are prepared to the final stage in the original plant. An exception to this rule, however, is in the case of the production of mild-cured salmon, which on account of its importance is shown in its entirety, whether further processed in the producing plant or not. In this connection it should also be stated that several of the byproducts for which statistics are shown may be intermediate, and the plants producing the final products are not surveyed by this Bureau. Outstanding among such products are marine-animal oils, scrap, and meal.

Statistics of persons engaged in wholesale and manufacturing establishments are reported in three groups: Proprietors, salaried employees, and wage earners.

Proprietors represent those persons who devote their time to the conduct of the enterprise and receive their compensation in the form of profits. Managers of branch houses are not classified as proprietors.

Salaried employees usually include those persons paid by the week or month, while wage earners usually consist of those paid on a per

diem or piece-work basis. This, however, is not true in all cases, since the distinction between these two classes depends primarily on the character of the work done rather than the unit of time employed for calculating rates of pay. In general, office employees are classified as salaried employees. Other employees, including plant workmen, are classed as wage earners. Plant foremen or superintendents are classified as salaried employees unless they are principally engaged in manual labor, in which case they are classified as wage earners. Active officers of corporations are classified as salaried employees. Statistics of wage earners are shown in two forms: The average number employed during the operating season; and the average number employed during the year (the monthly average for the year).

Transporting trade.—Statistics are obtained on the number of the crew and number of boats and vessels engaged in transporting fishery products from the fishing grounds to port or from port to port. However, if a craft is engaged in catching fish at any time of the year it is included as a fishing craft rather than as a transporter.

Publication of data.—Statistics of employment in the fisheries, craft and gear engaged, catch and value of catch, and certain data on industries related to the fisheries are summarized and published in bulletin form as soon as possible after completion of each survey. Later the figures in more detail are included in the annual reports of the Division.

LOCAL AND SPECIAL SURVEYS

Landings at certain important United States ports.—Statistics of the landings of aquatic products at the principal New England ports (Boston and Gloucester, Mass., and Portland, Maine) are obtained in a similar manner. An agent is permanently stationed at Boston, Mass., and another is assigned to the ports of Gloucester, Mass., and Portland, Maine. Their duties include the obtaining of figures daily on the quantity of fish landed by each fishing vessel, the value of such fish landed, information concerning the date of departure and arrival of the vessel, and they also indicate the grounds from which the fish were taken and gear used in their capture. These data are forwarded to the Bureau, where compilations are made. Products of American fisheries received duty free at Boston and Gloucester, Mass., and Portland, Maine, from the treaty coasts of Newfoundland, Magdalen Islands, and Labrador are included in the landings at these ports; however, they are not included in the catch in sectional fishery surveys of the New England States unless they represent a catch by United States vessels. Statistics of these landings are released monthly and annually in bulletin form and detailed data are published in the annual reports of this Division. Data on the landings at Boston, and Gloucester, Mass., have been collected annually since 1893, and those for Portland, Maine, since June 1915. Some data are available for Boston and Gloucester prior to 1893.

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. Statistics of these landings at Seattle are released monthly and annually in bulletin form and detailed data are published in the annual reports of this Division. Statistics of the landings by fishing vessels at Seattle have been collected since June 1915 and certain data on products received by Seattle wholesale dealers since December 1915.

Statistics of the fishery products handled at the municipal wharf, Washington, D. C., are reported to the Bureau by agents of the Health Department in Washington. They are not published in bulletin form, but a summary of the year's activities is published in the annual reports of the Division. Data on products handled at the municipal wharf are available since 1921.

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 Bureau agents, who in recent years have been stationed at other Atlantic ports where mackerel are landed. These agents obtain data on the volume of mackerel landed in a manner similar to that used to obtain figures 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 craft of under 5 net tons' capacity using this type of gear. 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. Statistics of this fishery are available from 1905 to 1935, inclusive.

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. Much of the data required for these surveys are available from the State fishery agencies.

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 reports of the Division.

Statistics of the shad fishery of the Hudson River are available for 1896, 1897, 1898, 1901, 1904, 1910, and from 1915 to 1935, inclusive, while data for the shad fishery of the Potomac River are available for 1896, 1901, 1904, 1909, 1915, and from 1919 to 1935, inclusive. Statistics of the alewife fishery of the Potomac River are available for 1896, 1909, 1915, and from 1919 to 1935, inclusive.

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., and detailed statistics are published in the annual reports of the Division. Statistics of the landings of halibut at Pacific coast ports have been collected since 1925.

Canned fishery products and byproducts.—Beginning in 1921, the Bureau has made annual surveys for statistics of the canned fishery

products and byproducts industries of every section. 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 the Bureau obtains by mail, so far as possible, the production of canned fishery products or byproducts from each plant in the United States engaged in this business. Where it is impossible to obtain reports by mail the report is obtained by personal visit by the Bureau's agents. They obtain statistics of the production and value of the production for each commodity. Statistics of the canned fishery products and byproducts produced in Alaska are received on the same statements obtained by the Bureau that include statistics of their general fishery operations.

An annual statistical bulletin is issued on this trade, and detailed statistics of the output are published in the annual reports of the Division. In addition to the data obtained on the output of these products annually since 1921, data also usually were obtained prior to 1921 for the years the various sections were surveyed.

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.

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 the statistics of the canned fishery products and byproducts industries. These statistics are released in bulletin form annually and detailed statistics are published in the annual reports of the Division. Statistics of the production of packaged fish are available for 1926 and the years from 1928 to 1935, inclusive.

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, and detailed statistics are published in the annual reports of this Division. Statistics of cold-storage holdings of fishery products have been published since 1917 and data on quantities of fish frozen, for the years from 1920 to 1925, inclusive, and from 1928 to 1935, inclusive.

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. Statistics of the transactions on the sponge exchange are available for 1913, 1914, and for the years from 1917 to 1935, inclusive.

Foreign fishery trade.—Statistics of the foreign fishery trade are obtained from compilations made by the Bureau of Foreign and Domestic Commerce, Department of Commerce. Statistics of all known fishery products imported or exported have been assembled in one table and published annually in the reports of the Division in recent years. For earlier years they are available in the reports of

the Bureau of Foreign and Domestic Commerce, the Bureau of Statistics, the Department of Commerce and Labor, and the Treasury Department.

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 in the fisheries, 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.

Incidental catch.—The term "incidental catch" refers to the catch of certain species by a type of gear which ordinarily does not capture 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 converted 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.

Confidential data.—The statistical data collected by the Division are confidential and are not released except by approval of the Washington office. Statistics of production of wholesale and manufacturing firms are published only for commodities or geographical areas where the production of three or more concerns may be grouped. Every effort is made to publish only those figures which will not reveal individual enterprise.

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 certain 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 meats, 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 are included supplementary tables for most of the sections, which give data 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 meats to the bushel. However, more recent investigations have shown considerable variation from this figure. There follows a table which gives the results of these studies 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*¹

State	Capacity of State bushel	Variation from United States standard bushel		Market oysters	
		Cubic inches	Percent	Yield per State bushel	Yield per standard bushel
				Pounds of meats	Pounds of meats
Massachusetts	2,150.4			6.57	6.57
Rhode Island	2,150.4			7.31	7.31
Connecticut	2,150.4			8.00	8.00
New York	2,150.4			7.00	7.00
New Jersey	2,257.3	+106.9	+5.0	8.91	8.49
Delaware	2,257.3	+106.9	+5.0	7.00	6.67
Maryland	2,801.5	+650.1	+30.2	6.29	4.83
Virginia	3,003.4	+853.0	+39.7	6.44	4.61
North Carolina	2,801.9	+651.5	+30.3	5.58	4.28
South Carolina	4,071.5	+1,921.1	+89.3	4.74	2.50
Georgia	2,753.4	+603.0	+28.0	5.88	4.59
Florida	3,214.1	+1,063.7	+49.4	3.57	2.39
Alabama	2,826.2	+675.8	+31.4	3.29	2.50
Mississippi	2,826.2	+675.8	+31.4	2.22	1.69
Louisiana	2,148.4	-2.0	-0.1	4.32	4.32
Texas	2,700.0	+549.6	+25.6	4.41	3.51

¹ Data on yield for the New England, Middle Atlantic, and Chesapeake States are for 1935. Other data on yield are for 1934.

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*¹

State	Clams, hard		Clams, soft		Clams, surf	Clams, razor	Mus-sels, sea	Peri-winkles and cockles	Scal-lops, bay	Scal-lops, sea	Conchs
	Pub-lic	Pri-vate	Pub-lic	Pri-vate							
Maine	11		15				12	15		6	
New Hampshire			15								
Massachusetts	11.01	11	13.64		17	31.68		18	6.13	6	
Rhode Island	16	16	20					18	7	7	
Connecticut	10	10	14.94						5.75		
New York	8	8	16	16	12		10		5	6	18
New Jersey	9.76	9.76	20		12.5		13			5.88	
Delaware	10	10					13				
Maryland	8										
Virginia	8	8					12				
North Carolina	8								6		
South Carolina	8										
Florida	8								5.3	6	5

¹ Data for the New England, Middle Atlantic, and Chesapeake States are for 1935. Other data are for 1934.

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 and peelers (New York, Maryland, and Virginia).	To convert number of crabs to weight in pounds, divide by 4.
Crabs, soft and peelers (Louisiana).	To convert number of crabs to weight in pounds, divide by 2.53.
Crabs, soft and peelers (other States).	To convert number of crabs to weight in pounds, divide by 3.
Crabs, hard (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 1.91.
Crabs, hard (Alabama).....	To convert number of crabs to weight in pounds, divide by 1.71.
Crabs, hard (Mississippi)....	To convert number of crabs to weight in pounds, divide by 1.97.
Crabs, hard (Louisiana)....	To convert number of crabs to weight in pounds, divide by 2.21.
Crabs, hard (Texas).....	To convert number of crabs to weight in pounds, divide by 2.18.
Crabs, hard (other States)....	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 1.25.
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.
Pollock, salted.....	To convert to fresh-gutted weight, multiply by 1.90.
Sponges, dried (Florida):	
Large wool.....	To convert number of bunches to weight in pounds, multiply by 3.5.
Medium wool.....	To convert number of bunches to weight in pounds, multiply by 1.75.
Small wool.....	To convert number of bunches to weight in pounds, multiply by 1.
Wool rags.....	To convert number of bunches to weight in pounds, multiply by 2.25.
Grass.....	To convert number of bunches to weight in pounds, multiply by 1.
Wire.....	To convert number of bunches to weight in pounds, multiply by 1.5.
Yellow.....	To convert number of bunches to weight in pounds, multiply by 1.25.

COMMON AND SCIENTIFIC NAMES OF FISHERY PRODUCTS

In order to prevent misunderstanding in 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	See tuna.	<i>Pomolobus pseudoharengus</i> .
Alewives	{ Branch herring, wall-eyed or big-eyed herring. Blueback, glut herring	<i>Pomolobus aestivalis</i> . <i>Seriola</i> species.
Amberjack		{ <i>Engraulis mordax</i> . <i>Anchoiella delicatissima</i> . <i>Anchoiella compressa</i> .
Anchovies		{ <i>Pomacanthus arcuatus</i> . <i>Angelichthys isabellta</i> .
Angelfish		{ <i>Sphyaena argentea</i> (Pacific coast). <i>Sphyaera barracuda</i> (Atlantic coast).
Barracuda		<i>Micropterus dolomieu</i> . <i>Micropterus sclimoides</i> .
Black bass	{ Smallmouth bass. Largemouth bass	<i>Pomatomus saltatrix</i> . <i>Stizostedion glaucum</i> .
Bluefish	Tailor	<i>Caranx crysos</i> .
Blue pike	Pike perch, blue pickerel (Canada)	<i>Sarda sarda</i> .
Blue runner or hardtail	Runner	{ <i>Sarda chilienis</i> . <i>Amia calva</i> .
Bonito		<i>Ictiobus</i> species.
Bowfin		<i>Ameiurus</i> species.
Buffalofish		<i>Poronotus triacanthus</i> .
Bullhead		<i>Leta maculosa</i> .
Butterfish	Dollarfish	<i>Rachycentron canadus</i> .
Burbot	Lawyer, ling	<i>Epinephelus analogus</i> (Pacific coast).
Cabio	Coalfish, crab eater, cobia	<i>Cyprinus carpio</i> .
Cabrilla	Rock bass	<i>Siluridae</i> species.
Carp	German carp	<i>Scomberomorus regalis</i> .
Catfish		All <i>Leucichthys</i> except <i>artedi</i> (in Great Lakes).
Cero		<i>Decapterus</i> species.
Chubs	Tullibee in Canada; longjaw, bluefin, blackfin in United States.	<i>Leucichthys artedi</i> (Lake Erie only).
Cigarfish	Sead	{ <i>Gadus macrocephalus</i> (Pacific coast). <i>Gadus callarias</i> (Atlantic coast).
Cisco	Herring in Canada	<i>Cynoscion zanthulum</i> .
Cod	Codfish	<i>Pomoxis annularis</i> .
Corbina	Orange mouth corbina	<i>Pomoxis sparoides</i> .
Crappie	{ White crappie. Black crappie, strawberry bass, calico bass.	<i>Caranx hippos</i> .
Crevalle		<i>Micropogon undulatus</i> .
Croaker	Crocus, hardhead	<i>Tautoglabrus adspersus</i> .
Cunner	Chogset, blue perch, bergall	<i>Brosmius brosme</i> .
Cusk		<i>Trichiurus lepturus</i> .
Cutlassfish	Ribbonfish	<i>Salvelinus parkeri</i> .
Dolly Varden trout	Salmon trout, bull trout	<i>Coryphaena hippurus</i> .
Dolphin		
Drum:		
Black		<i>Pogonias cromis</i> .
Red	Channel bass, redfish, spotted bass	<i>Sciaenops ocellatus</i> .
Eels:		
Common		<i>Anguilla rostrata</i> .
Conger		{ <i>Leptocephalus conger</i> . <i>Gymnothorax</i> species.
Flounders	{ Dabs, blackbacks, lemon sole, winter flounder, summer flounder. Halibut, "California" "Sole"	<i>Pleuronectidae</i> species.
Flyingfish		<i>Paralichthys californicus</i> .
Frigate mackerel	"Boo Hoo"	<i>Psettichthys melanostictus</i> (Pacific coast).
Garfish	See sea gar	<i>Cypsilurus californicus</i> .
Gizzard shad	Nanny shad, mud shad	<i>Aucis thazard</i> .
Goldeye		<i>Dorosoma cepedianum</i> .
Goldfish	Sand perch	<i>Hiodon</i> species.
Goosefish		<i>Carassius auratus</i> .
Grayfish	{ Dogfish. Spiny dog. Smooth dog	<i>Lophius piscatorius</i> .
Groupers	"Sea bass"	<i>Squalus sucklii</i> (Pacific coast).
Grunts		<i>Squalus acanthias</i> .
Haddock	Margatefish, sailors choice (Key West)	<i>Mustelus mustelus</i> .
Hagfish	Slimefish	{ <i>Epinephelus</i> species. <i>Myxosteroperca</i> species.
		<i>Haemulon</i> species.
		<i>Melanogrammus aeglefinus</i> .
		<i>Myzine glutinosa</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
Sea bass	{ Black jewfish or black sea bass. Black sea bass. White sea bass.	<i>Stereolepis gigas</i> (Pacific coast). <i>Centropristes striatus</i> (Atlantic coast). <i>Cynoscion nobilis</i> (Pacific coast).
Sea catfish	Gafftopsail.	<i>Bagre marina</i> .
Sea gar	Needlefish, billfish, houndfish	<i>Tylosurus</i> species. <i>Prionotus</i> species.
Sea robin		<i>Alosa sapidissima</i> .
Shad	American shad.	<i>Carcharodon</i> species; <i>Mustelus</i> species; <i>Carcharhinus</i> species; <i>Sphyrna</i> species.
Sharks		<i>Archosargus probatocephalus</i> (Atlantic coast).
Sheepshead		<i>Aplodinotus grunniens</i> (fresh water). <i>Pimelometopon pulcher</i> (Pacific coast).
Silver perch	Drum, fresh water.	<i>Bairdiella chrysura</i> .
Silversides	Redfish, flat head.	<i>Menidia</i> species.
Skates	Sand perch.	Raja species.
Skipper	Spearing	<i>Scomberesox saurus</i> .
Smelts	Billfish.	<i>Osmernus mordax</i> (Atlantic coast). Argentinidae species (Pacific coast).
Snapper:	{ Eulachon	<i>Thalichthys pacificus</i> .
Mangrove	Gray snapper	<i>Lutjanus griseus</i> .
Red		<i>Lutjanus Blackfordii</i> .
Snook	Robalo, sergeantfish.	<i>Centropomus undecimalis</i> .
Spadefish	Porgy (N. C.)	<i>Chætodipterus faber</i> .
Spanish mackerel		<i>Scomberomorus maculatus</i> .
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> .
Spotted	Spotted weakfish, spotted trout.	<i>Cynoscion nebulosus</i> .
White	Sand trout.	<i>Cynoscion arenarius</i> .
Squirrelfish		<i>Diplctrum formosum</i> .
Squirrel hake	See hake.	
Steelhead trout	Salmon trout	<i>Salmo gairdneri</i> .
Striped bass	Rockfish, rock	<i>Roccus lincolni</i> .
Sturgeon		<i>Acipenser</i> species.
Sturgeon, shovelnose		<i>Scaphirhynchus platyrhynchus</i> .
Sucker	Fresh-water mullet	<i>Catostomus</i> species.
Sunfish	Bream, perch	(<i>Lepomis</i> species). Centrarchidae species.
Surffishes	Perch	Embiotocidae species.
Swellfish	Puffer, swell toad, balloonfish, globe-fish.	<i>Sphæroides maculatus</i> .
Swordfish		<i>Xiphias gladius</i> .
Tai		<i>Calumus brachysomus</i> .
Tautog	Blackfish, oysterfish	<i>Tautoga onitis</i> .
Tenpounder	Elops	<i>Elops saurus</i> .
Thimble-eyed mackerel	Bullseye	<i>Scomber colias</i> .
Tilefish		<i>Lopholatilus chamaeleonticeps</i> .
Tomcod		<i>Microgadus tomcod</i> (Atlantic coast). <i>Microgadus proximus</i> (Pacific coast).
Tripletail		<i>Lobotes surinamensis</i> .
Tullibee	See chubs.	
Tuna and tunalike fishes:		
Albacore	Longfin tuna	<i>Germo alalunga</i> .
Bluefin	{ Tuna, leaping tuna (Pacific coast). "Horse mackerel" (Atlantic coast).	<i>Thunnus salsus</i> . <i>Thunnus secundodorialis</i> . (<i>Sarda sarda</i> (Atlantic coast)). <i>Sarda chilensis</i> (Pacific coast).
Bonito		<i>Euthynnus pelayus</i> .
Skipjack	Striped tuna	<i>Neothynnus macropterus</i> .
Yellowfin	Greenland halibut	<i>Reinhardtius hippoglossoides</i> (off New England).
Turbot	American turbot	<i>Balistes carolinensis</i> (off Florida).
White bass	White lake bass	<i>Roccus chrysops</i> .
Whitebait	Small fry of any fish.	
Whitefish:		
Common		<i>Coregonus clupeaformis</i> (Great Lakes).
Menominee		<i>Caulolatilus princeps</i> (Pacific coast).
White perch		<i>Prosopium quadrilaterale</i> .
Whiting	Silver hake	<i>Morone americana</i> (Atlantic coast).
Wolfish		<i>Merluccius bilinearis</i> .
Yellow perch		<i>Anarhichas lupus</i> .
Yellow pike	Wall-eyed pike, pike perch, dore	<i>Perca flavescens</i> .
Yellowtail		<i>Stizostedion ritzeum</i> . (<i>Ogurus chrysurus</i> (Atlantic coast)). <i>Seriola dorsalis</i> (Pacific coast).

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
Crabs:		
Hard.....	{Hard-shell crab, blue crab..... Dungeness crab.....	<i>Callinectes sapidus</i> . <i>Cancer magister</i> (Pacific coast). <i>Cancer irroratus</i> (Atlantic coast).
Soft and peelers.....	{Rock crab, hard crab..... Soft-shelled crab, blue crab.....	<i>Callinectes sapidus</i> . <i>Paralithodes camtschatica</i> (Pacific coast).
King.....		<i>Limulus</i> (Atlantic coast).
King or horseshoe.....		<i>Menippe mercenaria</i> .
Stone.....		
Crawfish:		
Fresh-water.....	Crayfish.....	{ <i>Cambarus</i> species (Atlantic coast). <i>Astacus</i> species (Pacific coast).
Sea.....	Rock lobster, crayfish.....	{ <i>Panulirus argus</i> (Atlantic coast). <i>Panulirus interruptus</i> (Pacific coast).
Lobsters:		
Common.....		<i>Homarus americanus</i> (Atlantic coast).
Spiny.....	(See sea crawfish.)	
Shrimp.....		{ <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). <i>Halotis</i> species.
Abalone.....		
Clams:		
Cockle.....		<i>Cardium corbis</i> (Pacific coast). <i>Saxidomus nuttall</i> .
Hard.....	{Butter..... Round clam, cherrystone, quahog, little neck.....	{ <i>Tivela stultorum</i> (Pacific coast). <i>Venus mercenaria</i> (Atlantic coast). <i>Venus morfoni</i> (Florida coast). <i>Tivela stultorum</i> (Pacific coast). <i>Ensis</i> species (Atlantic coast). <i>Siliqua patula</i> (Pacific coast).
Pismo.....		<i>Mya arenaria</i> .
Razor.....		<i>Macra solidissima</i> .
Soft.....	Soft shell clam, sand clam, nannynose, mannose.	<i>Natica heros</i> (Atlantic coast).
Surf.....	Skimmer.....	{ <i>Strombus</i> species. <i>Busycon</i> species. <i>Donax variabilis</i> .
Cockles.....	Moonshell.....	
Conchs.....		
Coquina.....	Pompano shells.....	
Mussels:		
Sea.....		{ <i>Mytilus californianus</i> (Pacific coast). <i>Mytilus edulis</i> . <i>Quadrula</i> species. <i>Lampsilis</i> species. <i>Unio</i> species. <i>Symphynota</i> species.
Fresh water.....		<i>Octopus punctatus</i> (Pacific coast).
Octopus.....		
Oysters:		
Eastern.....		<i>Ostrea virginica</i> .
Western.....	Olympia.....	<i>Ostrea turida</i> (Pacific coast).
Japanese (introduced).	Pacific.....	<i>Ostrea gigas</i> .
Periwinkles.....		<i>Littorina</i> species.
Scallops:		
Bay.....		{ <i>Pecten irradians</i> (Atlantic coast). <i>Pecten aequisulcatus</i> (Pacific coast). <i>Pecten magellanicus</i> .
Sea.....		{ <i>Loligo opalescens</i> (Pacific coast). <i>Loligo pealei</i> (Atlantic coast). Echinoidea. <i>Malaclemmys</i> species.
Squid.....		
Sea urchins.....		
Terrapin.....	Diamond-back terrapin.....	
Turtles:		
Green.....		<i>Chelonia mydas</i> .
Loggerhead.....		<i>Thalassochelys caretta</i> .
Hawksbill.....		<i>Chelonia inbriicata</i> .
Snapping.....	Hard shell, alligator turtle.....	{ <i>Chelydra serpentina</i> . <i>Macrochelys lacertina</i> . Trionyx species.
Soft shell.....		<i>Rana</i> species.
Frogs.....		<i>Chironurus crispus</i> .
Irish moss.....		<i>Macrocystis</i> species; <i>Nereocystis</i> species; <i>Pelagophycus</i> species; <i>Alaria</i> species.
Kelp.....		
Sponges:		
Glove.....		<i>Spongia graminea</i> (Hyatt) <i>Euspongia officianalis</i> (L.).
Grass.....		<i>Hippospongia equina cerebriiformis</i> .
Sheepswool.....		<i>Hippospongia canaliculata gossypina</i> .
Yellow.....		<i>Hippospongia equina elastica</i> .
Trepang.....	Sea cucumber.....	<i>Cucumaris frondosa</i> ; <i>Thyone briareus</i> .