

DEPARTMENT OF COMMERCE  
BUREAU OF FISHERIES  
HENRY O'MALLEY, Commissioner

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# FISHERY INDUSTRIES OF THE UNITED STATES

REPORT OF THE  
DIVISION OF FISHERY INDUSTRIES  
FOR 1922

By HARDEN F. TAYLOR  
*Assistant in Charge*

(With the collaboration of the division staff)

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APPENDIX V TO THE REPORT OF THE U. S. COMMISSIONER  
OF FISHERIES FOR 1923



Bureau of Fisheries Document No. 954

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By HARDEN F. TAYLOR, *Assistant in Charge.*<sup>2</sup>

(With the collaboration of the division staff.)

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<sup>1</sup> Appendix V to the Report of the U. S. Commissioner of Fisheries for 1923. B. F. Doc. 954.

<sup>2</sup> Lewis Radcliffe was in charge of the Division of Fishery Industries until November 15, 1922.

## INTRODUCTION.

The depression that existed in the fishery industries in 1920 and 1921 was, in some respects, relieved in 1922. The vessel landings in New England showed a slight increase in quantity, but because of lower prices the aggregate value was slightly less than that of 1921. At Seattle both quantity and value were about the same as for 1921, although the distribution of catch among the species was considerably different. The products of the fisheries of California amounted to 168,969,733 pounds, an increase of 32.3 per cent over the 127,728,623 pounds in 1921. The amount of fish frozen was 75,453,674 pounds, a decrease of 4.9 per cent from the amount frozen in 1921. The cold-storage holdings, especially in the latter part of the year, were smaller than they had been for several years. The indications are that this decrease in freezing and cold storage is due to a better market demand rather than to poorer supply.

There were some gratifying increases in the canning of fishery products. There was a decrease in canned shrimp; all other canned fishery products for which statistics are available increased. The canned salmon increase was due entirely to Alaska; there was a sharp decrease in the pack in the Pacific Coast States. The total pack of canned salmon was 5,234,898 cases, valued at \$38,420,717, an increase of 45.4 per cent in quantity and 53.1 per cent in value over 1921. The pack of all canned fishery products amounted to 10,094,549 cases, valued at \$60,464,947, an increase of 35.2 per cent in quantity and 29.6 per cent in value. The exports of canned fish in 1922 were 88,416,266 pounds, valued at \$10,271,740, which is equivalent to 18 per cent in quantity and 17 per cent in value of the total pack.

The market surveys of Boston and Seattle brought forth some interesting and significant facts. Particularly significant is the fact that over half of the total amount of fish landed at Boston is consumed in Massachusetts, and over 80 per cent is consumed in Massachusetts and neighboring States. This indicates that little advantage is taken of the potential markets inland by the New England fisheries. From Seattle, however, the bulk of the shipments are to the interior and eastern markets.

## SUMMARY OF OPERATIONS.

During the year, statistical canvasses were made of the fisheries of New York, New Jersey, Pennsylvania, and Delaware for 1921, and the take of shad and alewives in the Potomac and Hudson Rivers in 1922, and of the canned fisheries products and by-products of the United States for 1922. The last was confined to the number of plants operated, the raw products utilized, and the quantity and value of the finished products. The landings of the vessel fisheries at the ports of Boston and Gloucester, Mass., Portland, Me., and Seattle, Wash., have been collected as heretofore, and published as monthly and annual bulletins. In addition, there have been published monthly bulletins showing the amount of the several species of fish frozen and held in cold storage in the several sections of the country. The results of the canvasses mentioned, and summary analyses of the freezing and cold-storage data are embodied in the present report, together with quantity of fishery products taken in

California in 1922, the fishery products received at the Municipal Fish Wharf and Market, Washington, D. C.

Market surveys were made of the two primary producing markets of Seattle and Boston, and the results published as documents of this bureau.

In fisheries technology, notable progress has been made in net preservation, brine freezing of fish, and in the methods of canning sardines.

#### PUBLICATIONS OF THE DIVISION.

During the calendar year 1922 the following publications, prepared in this division, were issued. This list does not include the monthly statistical bulletins for Boston and Gloucester, Mass.; Portland, Me.; and Seattle, Wash.

##### DOCUMENTS.

Principles involved in the preservation of fish by salt; by Harden F. Taylor, 8°, 22 pp., Document No. 919.

Deductions concerning the air bladder and the specific gravity of fishes; by Harden F. Taylor, royal 8°, 6 pp., Document No. 921.

Trade in fresh and frozen fishery products and related marketing considerations in Seattle, Wash.; by L. T. Hopkinson, 8°, 16 pp., Document No. 930.

Fisheries and market for fishery products in Mexico, Central America, South America, West Indies, and Bermudas; by Lewis Radcliffe, 8°, 105 pp., 1 text fig., Document No. 931.

Fishery industries of the United States. Report of the division of statistics and methods of the fisheries for 1921; by Lewis Radcliffe, 8°, 136 pp., 8 figs., Document No. 932.

##### ECONOMIC CIRCULARS.

Trade in fresh and frozen fishery products and related marketing considerations in Minneapolis and St. Paul, Minn.; by L. T. Hopkinson, 8°, 21 pp., Economic Circular No. 55.

##### STATISTICAL BULLETINS.

Statement, by fishing grounds and by months, of quantities and values of certain fishery products landed at Seattle, Wash., by American fishing vessels during the calendar year 1921. Statistical Bulletin No. 516.

Statement, by months, of the quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American and Canadian fishing vessels, during the calendar year 1921. Statistical Bulletin No. 517.

Statement, by fishing grounds, of the quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American and Canadian fishing vessels, during the calendar year 1921. Statistical Bulletin No. 518.

Fisheries of Maryland and Virginia, 1920. Statistical Bulletin No. 520.

Canned fishery products and by-products of United States and Alaska, 1921. Statistical Bulletin No. 526.

#### IMPROVEMENTS IN MERCHANDISING FISHERY PRODUCTS.

There has been evident, particularly for the past year or two, an increasing perception by the fish industry of the necessity for better methods of merchandising fish. This field of activity includes not only technical methods of preparing, shipping, and handling fish, but also favorable publicity that will increase the demand for and consumption of fish.

## FILLETING FISH.

Perhaps the most conspicuous expression of this growing demand for better technical methods is to be found in the recent development of filleting fish at the point of production. The practice began in New England, by way of an effort to stimulate a better demand for haddock, and has since been taken up at New York and other points.

The haddock are split, the backbone is removed, and the fillets are brined about 20 minutes in strong brine. Some cracked ice is added to the brine, if necessary, to keep it cool. After having been brined, the fillets are each wrapped in a vegetable parchment paper and are laid in pans or other vessel to be stored over night in a cold room. The temperature of the room is above 32° F., so as not to freeze the fillets. Pans of fillets, without lids, are stacked one above the other so as to press the fillets firmly, but not excessively.

Next morning the fillets are packed in tinned lard cans, each can containing about 30 pounds of the fillets. The lid is put on and the can is put into a wooden packing case, surrounded by cracked ice. These cans are shipped to retailers, delicatessens, butchers, and others, who dispose of one or more cans in each week's trade.

A variation in this practice is, instead of wrapping each fillet individually, to pack the fillets in the can in layers, following each layer with a cut circle of parchment paper.

Among the advantages of filleting fish are: (1) The entire piece purchased by the housewife is edible, and the price charged for it is fully competitive without making any allowance for waste; (2) there is no scaling, gutting, and cleaning to be done—a very disagreeable task to most women; (3) the shipping weight of the fish is reduced; (4) the waste, which is usually around 50 per cent of the round fish, remains in the hands of the producer, where it may be possible to use it economically; (5) fillets receive a more careful and cleanly handling all along the line, from producer to consumer, for the reason that they are wrapped, are more delicate, and will not endure the rough handling that round fish are subjected to.

It might be supposed that the retail customer would object to this method of distributing the fish, on the ground that he has little or no means of determining the identity of the fish, or judging its quality, since the distinguishing marks of both identity and quality are gone. Yet such an objection, if it exists, has not prevented a very rapid growth in the past year of this method of distributing fresh fish.

## MARKET SURVEYS.

During 1922 the bureau continued its surveys of the fish industry of important or representative cities. In 1921, the surveys were of consuming markets; in 1922, two primary producing markets, Seattle and Boston, were studied, Seattle for 1921, and Boston for the month of September, 1922.

Seattle, with a population of 315,312, is the principal landing port for the northern Pacific fisheries. More than 83 per cent of the fish business is in salmon and halibut. The remaining business is in sablefish, rockfish, smelts, crabs, oysters, and shrimp, with 26 others in moderate or limited demand. There are 19 wholesalers and 48 retailers in Seattle, a ratio of 1 retailer to each 6,569 people. The pro-

duction of fish (that is, fish landed) at Seattle amounted to 45,246,000 pounds. Of fresh and frozen fish, 29,778,000 pounds were shipped to points in the United States and foreign countries. Part of this was in less-than-carload shipments, but 635 full carloads went forward from Seattle in 1921, 78.5 per cent of which went to seven cities—Chicago, New York, Kansas City, Boston, Omaha, St. Louis, and Buffalo. Fish were frozen in Seattle in 1921 to the extent of 12,025,501 pounds. Thirteen carloads of oysters were received into Seattle from eastern points.

Boston, with a population of 748,060, is the principal landing port for the fisheries of the North Atlantic. It is also the greatest fishing port in the United States and is one of the world's fishing ports. More than 80 per cent of its fishing business, on the basis of quantity, is in cod, haddock, halibut, mackerel, swordfish, and lobsters, a very different group of fish from those prominent in Seattle. A moderate or limited business is also done in alewives, butterfish, carp, flounders, salmon, smelts, suckers, clams, crabs, oysters, and some 54 other species. In Boston there were 108 wholesale fish dealers and 171 retailers, there being 1 retailer for each 6,926 people. The production or landings of fish in the year ended September 30, 1922, was 101,949,725 pounds, valued at \$4,051,350. In the month of September, 1922, the following products were landed at Boston: Fish, 13,244,074 pounds; lobsters, 616,355 pounds; clams, 338,964 pounds; oysters, 10,068 gallons or 80,554 pounds; scallops 478 gallons or 3,824 pounds. The amount of fish frozen during 1922 was 8,946,183 pounds, and the amount distributed from Boston during September, 1922, was 11,056,709 pounds. In the month of September, 56 per cent of all Boston's fish was consumed in Massachusetts; and in Massachusetts, Rhode Island, Connecticut, New York, and Pennsylvania, 89 per cent of Boston's fish was consumed. Boston is thus unlike Seattle in this respect, where the great bulk of shipments goes to distant cities.

#### TECHNOLOGICAL INVESTIGATIONS.

As has been pointed out in previous reports of this division the need for technological investigations is urgent. This fact is evident both from the consumer's and the producer's standpoints. The former may wonder why, when the fisherman spends no money to raise his crop of fish, the price approaches that of meats produced at much expense; the producer, on the other hand, readily recognizes that the serious limits set upon his business by the perishable character of his goods and by the large overhead expense prevent an economic and profitable operation and an increase in the demand.

Fish are about 50 per cent edible, the remaining 50 per cent being heads, fins, viscera, etc. In the case of cattle and swine such waste is kept and utilized at a considerable profit. There is little doubt that similar use can be more extensively made of waste from fish, if processes are made available by technological research. It is also evident to the producer of fish, if not to the consumer, that the great total losses in transportation increase the price of fish without increasing its value; much of the loss resides in inferior quality after transportation, which stifles demand. The obvious remedy for this condition is to devise methods of transportation of fish that will prevent both



the total losses and the losses of quality in transit, so that the consumer may be offered a more attractive article at a competitive price, and that will stabilize the business generally. A reduction in the fisherman's overhead expense for nets will make the business more profitable and stable at its foundation and help to compensate for the arduous character of the fisherman's calling. We are concerned here, not so much with the immediate profits of the fish business, how large they are, and who gets them—important as these questions are—but with the more significant fact that one of our large natural resources stands poorly developed, because of waste, excessive overhead expenses, and difficulty in reaching the great inland markets with a first-class product. The waste can not be avoided, the overhead expenses can not be reduced, and the distant markets can not be reached except through scientific technological investigations. These have been conducted as far as possible during the year with such funds and personnel as were available, as will now be discussed more particularly.

#### BRINE FREEZING.

In the report of this division for 1921 mention was made of the status of brine freezing at that time; it was pointed out that in principle brine freezing seemed to have received sufficient test and approval by various scientific investigators and that the chief problem ahead was the engineering one of constructing a plant that would freeze fish on a large commercial scale, with a minimum of labor and expense and in a sufficiently simple way to be practicable in the ordinary fish freezer. The requirements of such a plant are: (1) It should apply brine at the lowest possible temperature to the entire surface of the fish; (2) the brine should move at the highest practicable speed past the surfaces of the fish; (3) the fish should be held straight and trim during the freezing; (4) operation should preferably be continuous and automatic; (5) the other necessary operations of washing and glazing should be performed, if possible, without additional handling. The prospects of meeting these requirements seem good in an experimental plant that has been constructed in the Fishery Products Laboratory in Washington. Fish are suspended on a horizontal bar and while so suspended are conveyed by mechanical means successively through a shower of water for washing, through a violent shower or rainstorm of brine at a very low temperature for freezing, and again through a shower of water that washes off the brine and applies a glaze. The fish emerge from the apparatus frozen and glazed, ready for storage or shipment. During 1922 the plant was constructed and to some extent tested. Its operating characteristics appear promising, but it will need to be given more thorough trial before definite conclusions can be reached.

#### PRESERVATION OF NETS.

Mention was made in the report of this division for 1921 of the work undertaken on the preservation of fish nets. Extensive experiments brought out interesting and useful data concerning many preservatives in common use, and also concerning materials not hitherto used

as net preservatives. These data are published in a separate document.<sup>3</sup>

Perhaps the most significant result of the work was the discovery of the valuable properties of copper oleate as a net preservative. This substance, from its fundamental properties, seemed to offer good prospects as a net preservative and was accordingly included in various combinations among the substances tested. It was dissolved in gasoline or benzol and the twine was dipped in the solution. By testing before and after various periods of exposure it was found to preserve lines well, to reduce if not entirely prevent fouling by barnacles and the like, and in addition to these two fundamental essential properties, to affect stiffness and increase weight of twine very little. It does not diminish mechanical wearing quality of twine, as many other preservatives do, does not shrink the line appreciably, and is not very expensive or difficult to apply. Announcement of the results was made at the annual meetings of the American Fisheries Society at Madison, Wis., September 6, 1922, and the United States Fisheries Association at Atlantic City, N. J., September 22, 1922, followed by short publications of summaries of results in the fishery trade journals. The interest of the fishing industry in this work was immediate and widespread. The next step in the investigation was a practical trial of the material by several fishermen in different localities, to whom the bureau supplied a sufficient amount of copper oleate for the tests, with directions for use. About 700 pounds of copper oleate were made for this purpose in the Fishery Products Laboratory.

Meanwhile, several companies entered into the manufacture of copper oleate for a fish-net preservative, and much of it has been sold and is in use by fishermen. The 1923 season will probably be conclusive of its actual value. Further experiments are in progress on a still larger scale, including several other proposed preservatives and also combinations of copper oleate designed to make it more suitable for use in fresh water, since earlier experiments were less satisfactory in fresh water than in salt water.

#### CANNING SARDINES.

By far the greater part of sardines canned in California are packed in sauce, principally tomato. The usual procedure is to clean the fish, brine, dry, fry in oil, cool and pack the fish, exhaust, seal, and retort the cans.

In this process, the most objectionable feature is the frying in oil. This part of the process was studied at the San Pedro (Calif.) laboratory in 1921, and the results of that investigation were discussed in the division's report for that year. The results have since been published by the California Fish and Game Commission.<sup>4</sup> The principal conclusion arrived at in that work was that the fry bath is responsible for the existence in canned sardines of a rancid, indigestible oil, which greatly detracts from the quality of the goods. Since the primary purpose of the fry bath is to cook out the excess water from the fish before canning, the problem resolved itself into one of removing the

<sup>3</sup> Taylor, Harden F., and Arthur W. Wells: Properties and Values of Certain Fish-net Preservatives. Appendix I, Report of the U. S. Commissioner of Fisheries for 1923, Document 947, 69 pp., 35 figs. Washington, 1923.

<sup>4</sup> Beard, Harry R.: Changes in Oil used for Frying Sardine, State of California, Fish and Game Commission Circular No. 1, March, 1922, 8 pp.

water by some other means. Three methods of doing this were tried at the San Pedro laboratory, namely, steaming, cooking in brine, and packing raw after brining and drying.

Steaming has been tried before—in fact, the method was at one time practiced on a considerable scale in California, but the practice was discontinued. Later, the method was practiced at Santa Cruz and Monterey, and the product found favor with the public. Steaming causes the skin to break, both during the processing and after the cooling. This effect was diminished by brining and drying, and oiling the trays helped to prevent the fish from sticking to the trays. A product was thus prepared that was apparently the equal, if not the superior, of the usual fried-in-oil product.

Good results were obtained also by precooking the fish in strong brine instead of oil. The usual operation of brining the fish is omitted. Preliminary drying was necessary, however, to prevent the skins from breaking during the cooking, and precautions were also necessary to prevent the fish from sticking to each other and to the trays.

The third method of removing the water consisted of brining in saturated brine, drying, canning, and processing. The brining is carried as far as possible without excessively salting the fish. A thick tomato sauce is used to take up the excess moisture released in the processing. Certain common losses are prevented by this method, but there is a disadvantage in the necessity of carrying out the process within a few hours after the fish are landed.

The investigator who did this work also visited the Maine sardine industry during the summer in order to acquaint himself with the problems in that field and to throw any possible light on the methods employed in California.

#### SALTING OF PACIFIC COAST MACKEREL.

Attention was also given by the San Pedro laboratory to the salting of the Pacific coast mackerel (*Scomber japonicus*). The fish is, in general, less fat than the Atlantic mackerel, and its flesh is more likely to be dark in color. It was found, however, that the method that had previously been found in the bureau's salting experiments to be applicable in warm climates was here successful. This process consists in using high purity salt, applied dry to perfectly fresh fish that have been thoroughly cleaned of all blood and viscera. These points all seem to be essential. Packers who have themselves hit upon most of these points have found by experience that salt of inferior quality produces inferior fish and that any blood left in the fish darkens the fish. Freshness is also important, so much so that salting aboard the boats seems advisable.

#### PEARL ESSENCE.

Pearl essence, an incidental product of the fisheries, has continued to attract considerable attention, perhaps more because of its spectacular beauty and novel application than because of its real importance. Nevertheless, the business of manufacturing imitation pearls, which was at one time an exclusively European and Japanese industry, has migrated to America to a very large extent. New York city and environs are now the center of a considerable imitation-pearl



FIG. 1.—View of the fisheries exhibit at the Brazilian Centennial Exposition.



FIG. 2.—View of the fisheries exhibit at the Brazilian Centennial Exposition.

industry, based largely on the supply of pearl essence produced in the United States, principally from herring and alewife scales.

A process of making a pearl essence has been elaborated in the Fishery Products Laboratory, which in technique is a radical departure from any methods known to have been used hitherto. By this method, the lustrous material from the scales is removed in water, together with any dirt, blood, slime, etc., that may accompany the scales. The crude suspension is then treated chemically in such a way that the lustrous or nacreous particles are removed bodily from the crude liquor, leaving all else behind, and are transferred to ether and then to ethyl or amyl acetate. These latter substances are solvents of nitrocellulose, which, when dissolved in the suspension, makes a pearl lacquer. This, applied to glass beads, makes the "indestructible" pearl of commerce. "Essence" has been prepared by this process from the alewife, herring, gizzard shad (*Dorosoma cepedianum*), shad, silver carp or quillback (*Carpionides velifer*), and no doubt could be prepared successfully in large quantities from the California pilchard or sardine and from many other fishes. The details of the process will be published in a separate document.

#### FISHERIES EXHIBIT AT THE BRAZILIAN INTERNATIONAL CENTENNIAL EXPOSITION.

The act of Congress authorizing the United States to participate officially in the Brazilian International Centennial Exposition at Rio de Janeiro, contained the following clause:

Sec. 6. That the Secretary of Commerce is hereby authorized to collect and prepare a suitable exhibit of the fisheries industry of the United States for exhibit at the said exposition and accompany the same with a report respecting such industry, to be printed in the English, Spanish, and Portuguese languages, the expense of the same to be paid out of the appropriation hereinafter provided for.

Under authority from the Secretary of Commerce, the Bureau of Fisheries prepared and managed that part of the exhibit that related to the fisheries of the United States. (See figs. 1 and 2.)

The organization and functions of the Bureau of Fisheries were shown by a chart and an automatic projection machine, which showed successively 70 slides. The salmon industry was exhibited by means of an illustrated chart, showing life history of the salmon, the methods of propagation, the fishery, and methods of canning and salting the salmon. The chart was supplemented by an exhibit of salmon eggs in various stages of development, a model salmon-pile trap, a display of canned salmon, a projection machine showing 20 slides, and 2 motion-picture films.

The New England bank fisheries were represented also by illustrated charts, dealing with fish-cultural and industrial aspects of the fishery, two vessel models, and 120 implements, and a variety of exhibits of canned, smoked, and salted fishery products, nets, lines, twine, models of fish, and several large transparencies showing New England fishing operations, hatchery work, etc. An exhibit was made also of the bureau's work on the preservation of nets.

The sardine industry was represented by two large illustrated charts, supplemented by a model of a sardine weir and a display of canned sardines. Seventy-five pictures of the oyster industry were shown successively by an automatic projection machine. The chief

implements and products of this industry were on exhibition. The menhaden industry was shown by an illustrated chart and a comprehensive assembly of oils, fertilizers, fish meal, and other by-products of the fisheries.

An exhibit of canned fishery products was comprehensive and of a variety that might surprise anyone who was not familiar with the field. Other exhibits included oceanographic apparatus, the mother-of-pearl industry, retail marketing methods, fishery colleges, and an assembly of publications of the Bureau of Fisheries, including one specially prepared for the purpose and printed in English, Spanish, and Portuguese, being a general description of American fisheries.

#### AGREEMENT BETWEEN BUREAU OF THE CENSUS AND BUREAU OF FISHERIES RELATIVE TO COLLECTION OF STATISTICS ON FISH AND MARINE ANIMAL OILS.

According to an agreement reached on May 18, 1922, between the Bureau of the Census and the Bureau of Fisheries, the statistics of production and consumption of fish and marine animal oils in the United States are now taken by the Bureau of Fisheries. Cards are sent out quarterly to all producers, who are asked to fill out and return to this bureau the data required. The data are tabulated and supplied to the Bureau of the Census. The agreement is as follows:

The Bureau of the Census is required to collect quarterly reports on the production, consumption, and stocks of animal and vegetable fats and oils. The Bureau of Fisheries has been collecting annual statistics concerning the commercial catch of fish, the pack of fish, and the manufacture of by-products, which includes fish oils. The collection of these statistics by the two bureaus results in the duplication in the same department of the collection of similar reports on the production of fish oils from the same concerns. In order to avoid this condition it is agreed that the Bureau of the Census will discontinue the collection of statistics concerning the production of fish oils and stocks held by the producers.

It is further agreed that the Bureau of Fisheries will canvass the producers of fish oils quarterly and furnish these statistics to the Bureau of the Census to be incorporated in the quarterly reports on the production, consumption, and stocks of animal and vegetable fats and oils.

The Bureau of the Census will furnish the Bureau of Fisheries its list of producers of fish oils. The Bureau of Fisheries will canvass the establishments listed as well as any others which may be added from time to time from any available sources. The Bureau of Fisheries will be responsible for the completeness of the canvasses and the accuracy of the statistics, and if desired will furnish the Bureau of the Census a list of the producers of fish oils.

Every effort will be made by the Bureau of the Census to expedite the issuance of the preliminary press bulletins showing the production, factory consumption, and stocks of fish oils. Due credit is to be given to the Bureau of Fisheries for its collection of the data.

Details not covered by this agreement can be adjusted by the two bureaus.

#### THE PRODUCTION OF CERTAIN FISHERY PRODUCTS IN 1921 AND 1922.

The following table has been prepared to show the general trend of the fish industry in so far as changes can be shown by data available that apply to 1921 and 1922:

*Production and value of certain fishery products in 1921 and 1922, compared.*

Products.	1921		1922		Increase (+) or decrease (-).	
	Quantity.	Value.	Quantity.	Value.	Quantity (per cent).	Value (per cent).
Fish landed by fishing vessels at Boston and Gloucester, Mass., and Portland, Me.....pounds..	150,865,106	\$5,722,629	159,875,391	\$5,465,932	+6.0	-4.5
Trips.....number..	7,206	.....	6,349	.....	-11.9	.....
Fish landed by fishing and collecting vessels at Seattle, Wash.....pounds..	26,095,225	2,202,181	26,415,440	2,214,654	+1.2	+ .6
Trips.....number..	866	.....	836	.....	-3.4	.....
Products of the fisheries of California.....pounds..	127,728,623	.....	168,969,733	.....	+32.3	.....
Fish received at Washington, D. C., Municipal Fish Wharf.....pounds..	9,066,744	.....	6,442,663	.....	-28.9	.....
Sponges sold at Sponge Exchange, Tarpon Springs, Fla.....pounds..	386,390	540,093	526,885	699,092	+36.4	+29.4
Canned salmon:						
Pacific Coast States..cases..	1,002,948	9,234,425	733,246	8,633,524	-26.9	-6.5
Alaska.....do.....	2,596,826	19,632,744	4,501,652	29,787,193	+73.3	+51.7
Total, canned salmon.....cases..	3,599,774	28,867,169	5,234,898	38,420,717	+45.4	+33.1
Canned sardines:						
Maine.....do.....	1,350,631	3,960,916	1,775,878	5,750,109	+31.5	+45.2
California.....do.....	415,587	2,346,446	728,979	3,361,480	+75.4	+43.2
Total, canned sardines.....cases..	1,766,218	6,307,362	2,504,857	9,111,589	+41.8	+44.4
Canned albacore and tuna, bluefin, yellowfin, and striped.....cases..	418,821	3,073,681	614,926	4,294,912	+46.8	+39.7
Canned shrimp.....do.....	667,558	3,804,781	586,691	3,064,087	-12.1	-19.4
Canned clams, hard, soft, and razor.....cases..	226,130	1,166,507	308,640	1,716,365	+36.5	-47.1
Canned oysters.....do.....	455,550	2,179,271	522,549	2,423,616	+14.7	+11.2
All canned fishery products.....cases..	7,464,210	46,634,706	10,094,549	60,464,947	+35.2	+29.6
Menhaden industry:						
Fish utilized.....number..	1,031,540,831	1,929,219	1,212,450,669	2,457,690	+17.5	+27.4
Fish meal and scrap produced.....tons..	82,662	2,286,095	93,576	3,221,758	+13.2	+40.9
Oil.....gallons..	6,260,478	1,719,892	7,102,677	2,904,833	+13.4	+68.9
Fish oils, other than menhaden.....gallons..	1,017,074	264,011	1,185,651	441,213	+16.6	+67.1
Fish meal and scrap, other than menhaden.....tons..	24,611	1,271,047	22,590	1,114,919	-8.2	-12.3
Liquid glue.....gallons..	347,048	364,415	323,003	278,424	-6.9	-23.6
All by-products.....do.....	.....	8,351,827	.....	11,390,693	.....	+36.4
Fish, frozen.....pounds..	79,173,892	.....	75,453,674	.....	-4.7	.....

**CANNED FISHERY PRODUCTS AND BY-PRODUCTS OF THE UNITED STATES AND ALASKA, 1922.**

The bureau has made a canvass of the canned fishery products and by-products of the United States and Alaska for 1922, and the statistics were published and distributed to the trade as Statistical Bulletin No. 570. The total value of canned products in 1922 amounted to \$60,464,947 and of by-products to \$11,390,693. As compared with 1921 there was an increase in the value of canned products of \$13,830,241, or 29.65 per cent, and in the value of by-products of \$3,038,866, or 36.38 per cent. The canned products consisted principally of canned salmon, sardines, shad, alewives, albacore, tuna, shrimp, crabs, clams, and oysters, and the by-products of fish scrap,



fish meal, and fish oil, and ground oyster shells for use as poultry grit and lime. The fish scrap, fish meal, and fish oil prepared in the menhaden industry are also included under by-products of the fisheries.

#### CANNED FISHERY PRODUCTS.

##### CANNED SALMON.

In 1922 there were 179 plants engaged in canning salmon in the Pacific Coast States and Alaska. Of this number 123 were operated in Alaska, 34 in Washington, 20 in Oregon, and 2 in California. The pack of canned salmon in 1922, on the basis of 48 pounds to the case, amounted to 5,234,898 cases, valued at \$38,420,717.

In the Pacific Coast States the pack amounted to 733,246 cases valued at \$8,633,524, as follows: Chinook, 314,126 cases, valued at \$4,572,607; coho or silver, 204,262 cases, valued at \$1,533,173; sockeye, 97,927 cases, valued at \$1,816,901; chum, 87,583 cases, valued at \$365,303; humpback or pink, 3,551 cases, valued at \$18,546; and steelhead, 25,797 cases, valued at \$326,994. The pack in Washington amounted to 441,667 cases, valued at \$4,823,074; in Oregon 279,748 cases, valued at \$3,614,140; and in California, 11,831 cases valued at \$196,310. The pack in California consisted entirely of chinook salmon.

In Alaska the pack amounted to 4,501,652 cases, valued at \$29,787,193, divided as follows: Red or sockeye, 2,070,658 cases valued at \$19,135,696; humpback or pink, 1,658,423 cases, valued at \$7,189,494; chum or keta, 565,918 cases, valued at \$2,251,540; coho or silver, 175,993 cases, valued at \$962,790; and king, chinook or spring, 30,660 cases, valued at \$247,673.

Compared with the previous year there was an increase of 41 salmon canneries in Alaska and a decrease of 1 cannery in the Pacific Coast States, or a total increase of 41 canneries. There was an increase in the pack of canned salmon of 1,635,124 cases, or 45.42 per cent, in quantity and of \$9,553,548, or 33.09 per cent, in value. There was an increase in the pack in Alaska of 1,904,826 cases, or 73.35 per cent, in quantity and of \$10,154,449, or 51.72 per cent, in value. In the Pacific Coast States there was a decrease of 269,703 cases, or 26.89 per cent, in quantity and of \$600,901, or 6.51 per cent, in value. This decrease was due to a falling off in the pack in Washington of 312,379 cases, or 41.43 per cent, in quantity and of \$1,201,515, or 19.94 per cent, in value. There was an increase in the pack in Oregon of 40,142 cases, or 16.75 per cent, in quantity and of \$537,914, or 17.49 per cent, in value, and also in the pack of California, of 2,535 cases, or 27.26 per cent, in quantity and of \$62,700, or 46.93 per cent, in value.

Pack of canned salmon of the Pacific Coast States and Alaska in 1922.

Products.	Pacific Coast States.								Alaska.	
	Washington.		Oregon.		California.		Total.		Southeast.	
	<i>Cases.</i>	<i>Value.</i>	<i>Cases.</i>	<i>Value.</i>	<i>Cases.</i>	<i>Value.</i>	<i>Cases.</i>	<i>Value.</i>	<i>Cases.</i>	<i>Value.</i>
Coho or silver:										
½-pound flat.....	48,551	\$470,494	25,706	\$215,445	.....	.....	74,257	\$685,939	20,013	\$151,666
1-pound flat.....	49,244	337,320	27,618	194,877	.....	.....	76,862	532,197	10,773	63,515
1-pound tall.....	45,704	271,854	7,439	43,183	.....	.....	53,143	315,037	91,861	462,365
Total.....	143,499	1,079,668	60,763	453,505	.....	.....	204,262	1,533,173	122,647	677,546
Chum or keta:										
½-pound flat.....	4,627	27,293	636	3,816	.....	.....	5,263	31,109	3,698	21,228
1-pound flat.....	76	532	.....	.....	.....	.....	76	532	6,185	25,693
1-pound tall.....	78,387	317,745	3,857	15,917	.....	.....	82,244	333,662	414,383	1,640,135
Total.....	83,090	345,570	4,493	19,733	.....	.....	87,583	365,303	424,266	1,687,056
Humpback or pink:										
½-pound flat.....	1,506	9,779	.....	.....	.....	.....	1,506	9,779	30,725	197,953
1-pound flat.....	.....	.....	.....	.....	.....	.....	.....	.....	28,148	134,268
1-pound tall.....	2,045	8,767	.....	.....	.....	.....	2,045	8,767	1,273,679	5,461,536
Total.....	3,551	18,546	.....	.....	.....	.....	3,551	18,546	1,332,552	5,793,757
King, chinook, or spring:										
½-pound flat.....	69,086	1,097,429	105,475	1,772,959	7,669	\$138,042	182,230	3,008,430	2,695	30,640
½-pound oval.....	300	7,440	76	1,885	.....	.....	376	9,325	.....	.....
1-pound flat.....	36,036	446,488	51,356	652,707	4,162	58,268	91,554	1,157,463	1,735	15,209
1-pound oval.....	2,998	56,961	19,552	207,679	.....	.....	22,550	264,640	.....	.....
1-pound tall.....	11,304	87,701	6,112	45,048	.....	.....	17,416	132,749	1,703	11,448
Total.....	119,724	1,696,019	182,571	2,680,278	11,831	196,310	314,126	4,572,607	6,133	57,297
Red or sockeye:										
½-pound flat.....	70,625	1,332,887	12,972	231,755	.....	.....	83,597	1,564,642	57,783	779,582
1-pound flat.....	13,440	238,236	.....	.....	.....	.....	13,440	238,236	17,579	171,509
1-pound tall.....	575	9,550	315	4,473	.....	.....	890	14,023	57,783	530,278
Total.....	84,640	1,580,673	13,287	236,228	.....	.....	97,927	1,816,901	133,145	1,481,369
Steelhead:										
½-pound flat.....	5,525	79,701	11,944	162,457	.....	.....	17,469	242,158	.....	.....
1-pound flat.....	1,551	21,714	6,675	61,783	.....	.....	8,226	83,497	.....	.....
1-pound tall.....	87	1,183	15	156	.....	.....	102	1,339	.....	.....
Total.....	7,163	102,598	18,634	224,396	.....	.....	25,797	326,994	.....	.....
Grand total....	441,667	4,823,074	279,748	3,614,140	11,831	196,310	733,246	8,633,524	2,018,743	9,697,025

Products.	Alaska—Continued.						Grand total.	
	Central.		Western.		Total.		<i>Cases.</i>	<i>Value.</i>
	<i>Cases.</i>	<i>Value.</i>	<i>Cases.</i>	<i>Value.</i>	<i>Cases.</i>	<i>Value.</i>		
Coho or silver:								
½-pound flat.....	2,224	\$17,039	.....	.....	22,237	\$168,705	96,494	\$854,644
1-pound flat.....	1,291	8,005	35	\$166	12,099	71,686	88,961	603,883
1-pound tall.....	36,919	192,234	12,877	67,800	141,657	722,399	194,800	1,037,436
Total.....	40,434	217,278	12,912	67,966	175,993	962,790	380,255	2,495,963
Chum or keta:								
½-pound flat.....	.....	.....	.....	.....	3,698	21,228	8,961	52,337
1-pound flat.....	.....	.....	.....	.....	6,185	25,693	6,261	26,225
1-pound tall.....	91,239	362,440	50,413	202,044	556,035	2,204,619	638,279	2,538,281
Total.....	91,239	362,440	50,413	202,044	565,918	2,251,540	653,501	2,616,843
Humpback or pink:								
½-pound flat.....	12,011	75,745	.....	.....	42,736	273,698	44,242	283,477
1-pound flat.....	2,731	13,655	.....	.....	30,879	147,923	30,879	147,923
1-pound tall.....	298,226	1,251,399	12,903	54,938	1,584,808	6,767,873	1,586,853	6,776,640
Total.....	312,968	1,340,799	12,903	54,938	1,658,423	7,189,494	1,661,974	7,208,040

## Pack of canned salmon of the Pacific Coast States and Alaska in 1922—Continued.

Products.	Alaska—Continued.						Grand total.	
	Central.		Western.		Total.			
	Cases.	Value.	Cases.	Value.	Cases.	Value.	Cases.	Value.
King, chinook, or spring:								
½-pound flat.....	1,022	\$13,341	53	\$742	3,770	\$44,723	186,080	\$3,053,153
¾-pound oval.....						376	9,325	
1-pound flat.....	2,067	20,538	165	2,002	3,967	37,749	95,521	1,195,212
1-pound oval.....							22,550	264,640
1-pound tall.....	7,076	53,168	14,144	100,585	22,923	165,201	40,339	297,950
Total.....	10,165	87,047	14,362	103,329	30,660	247,673	344,786	4,820,280
Red or sockeye:								
½-pound flat.....	89,603	1,257,544	24,510	384,901	171,896	2,422,027	255,493	3,986,669
1-pound flat.....	59,799	614,403	44,071	437,530	121,449	1,223,442	134,889	1,461,678
1-pound tall.....	383,935	3,447,679	1,335,595	11,512,270	1,777,313	15,490,227	1,778,203	15,504,250
Total.....	533,337	5,319,626	1,404,176	12,334,701	2,070,658	19,135,696	2,168,585	20,952,597
Steelhead:								
½-pound flat.....							17,469	242,158
1-pound flat.....							8,226	83,497
1-pound tall.....							102	1,339
Total.....							25,797	326,994
Grand total....	988,143	7,327,190	1,494,766	12,762,978	4,501,652	29,787,193	5,234,898	38,420,717

## CANNED SARDINES.

In 1922 there was a marked increase in the pack of sardines in both Maine and California. In Maine, 1,775,878 cases were packed, valued at \$5,750,109, an increase of 31.5 per cent in the number of cases and 45.2 per cent in value over the pack in 1921, when 1,350,631 cases, valued at \$3,960,916, were packed. Of the 1922 pack, 1,454,146 cases were quarter oils, valued at \$4,645,436, an average of \$3.19 per case, an increase of 10.4 per cent over the average value per case of quarter oils in 1921, which was \$2.89. The quantity of herrings utilized was 96,458,400 pounds, valued at \$623,198.

In California, 728,979 cases of sardines were packed, valued at \$3,361,480, an increase of 75.4 per cent in number of cases and 43.2 per cent in value over the pack in 1921, when 415,587 cases, valued at \$2,346,446, were packed. Of the 1922 pack, 697,643 cases, valued at \$3,078,760, were pound ovals, with an average value of \$4.41 per case, a decrease of 18.4 per cent from the value per case in 1921, when 379,928 cases of pound ovals, valued at \$2,056,367, were packed, the average value per case being \$5.41.

## Pack of sardines in Maine and California, 1922.

Sardines (herring) <sup>1</sup>	Maine.		Sardines (pilchard).	California.	
	Cases.	Value.		Cases.	Value.
In oil: Quarters (100 cans)...	1,454,146	\$4,645,436	½-pound oval (48 cans).....	7,239	\$32,182
In mustard:			1-pound oval (48 cans):		
Quarters (100 cans).....	101,290	378,163	In tomato sauce.....	601,111	2,518,843
Three-quarters (48 cans)....	213,276	689,008	In mustard.....	53,993	295,111
In tomato sauce: Quarters			All others.....	42,539	264,306
(100 cans).....	7,166	37,502	1-pound tall (48 cans).....	78	232
			½-pound square (100 cans)...	21,124	217,953
			½-pound square (100 cans)...	2,895	32,353
Total.....	1,775,878	5,750,109	Total.....	728,979	3,361,480

<sup>1</sup> The quantity of herring utilized was 96,458,400 pounds, valued at \$623,198.

## CANNED SHAD AND ALEWIVES.

The pack of canned shad and shad roe is confined to the Pacific Coast States. In 1922 the pack of shad amounted to 2,257 cases, valued at \$9,961, and of shad roe to 433 cases, valued at \$8,517. In 1921 the pack of shad was 841 cases, valued at \$2,455, and the pack of shad roe was 53 cases, valued at \$142.

The pack of alewives and alewife roe was prepared in Maryland, Virginia, and North Carolina, mostly in the Chesapeake Bay district. In 1922 the pack of canned alewives was 1,043 cases, valued at \$1,994, and of canned roe 38,298 cases, valued at \$137,514. In 1921 the pack of canned alewives was 312 cases, valued at \$813, and of canned roe, 40,530 cases, valued at \$157,841.

*Pack of shad and alewives, 1922.*

Shad.	Washington, Oregon, and California.		Alewives.	Maryland, Virginia, and North Carolina.	
	Cases.	Value.		Cases.	Value.
½-pound flat (48 cans).....	779	\$1,620	No. 2 (24 cans).....	1,043	\$1,994
¾-pound oval (48 cans).....	174	3,480	Roe:		
1-pound tall (48 cans).....	1,304	4,861	No. ½ (48 cans).....	768	4,608
Roe:			No. 1 (48 cans).....	942	4,134
½-pound flat (48 cans).....	283	6,045	No. 2 (24 cans).....	36,588	128,772
1-pound oval (48 cans).....	150	2,472			
Total.....	2,690	18,478	Total.....	39,341	139,508

## CANNED ALBACORE, TUNA, AND MACKEREL IN CALIFORNIA.

The total pack of tuna of all varieties in California, where this industry is located, was, in 1922, 614,925 cases, valued at \$4,294,912, an increase of 46.8 per cent in number of cases, and 39.7 per cent in value over the pack of 1921, which was 418,821 cases, valued at \$3,073,681.

Data are also given in the table for the pack of bonito, yellowtail, and miscellaneous, which includes fish flakes, abalone, mackerel, squid, and "tonno." "Tonno" is striped, bluefin, and yellowfin tuna, canned Italian style, and sold under the Italian label.

*Pack of albacore, tuna, bonito, and yellowtail in California, 1922.*

Products.	One-fourth pound round cans (48 to case).		One-fourth pound round cans (100 to case).		One-half pound round cans (48 to case).		One-half pound round cans (50 to case).	
	Cases.	Value.	Cases.	Value.	Cases.	Value.	Cases.	Value.
Albacore.....	24,962	\$126,139	14,820	\$222,300	188,235	\$1,368,883	9,436	\$108,514
Tuna, bluefin and yellowfin....	37,537	154,757	2,390	24,083	101,764	613,344		
Tuna, striped.....	34,772	126,678	3,162	33,690	122,310	622,565		
Bonito.....			5,223	34,879				
Yellowtail.....					5,368	24,021		
Miscellaneous <sup>1</sup> .....	22,557	115,785	1,467	14,670	4,049	25,194		

<sup>1</sup> Includes fish flakes, abalone, mackerel, squid, and "tonno."

*Pack of albacore, tuna, bonito, and yellowtail in California, 1922—Continued.*

Products.	One-pound round cans (48 to case).		One-pound tall cans (48 to case).		One-pound oval cans (48 to case).		Four-pound tall cans (12 to case).		Total.	
	Cases.	Value.	Cases.	Value.	Cases.	Value.	Cases.	Value.	Cases.	Value.
Albacore.....	34,475	\$166,399					635	\$12,700	272,563	\$2,304,935
Tuna, bluefin and yellowfin.....	22,946	255,437							164,617	1,047,621
Tuna, striped.....	17,502	159,423							177,746	942,356
Bonito.....									10,591	58,900
Yellowtail.....			315	\$1,890					4,403	18,994
Miscellaneous.....	219	1,861	3,051	22,883	205	\$1,610			31,548	182,033

Includes fish flakes, abalone, mackerel, squid, and "tonno."

## CANNED SHRIMP AND CRABS.

In 1922 the pack of shrimp was 586,691 cases, valued at \$3,064,087, a decrease of 12.1 per cent in number of cases and 19.4 per cent in value from the pack in 1921, which was 667,558 cases, valued at \$3,804,781. The pack of crabs in 1922 was 9,111 cases, valued at \$104,171, also a decrease from the pack of 1921, which was 11,960 cases, valued at \$115,800.

*Pack of shrimp in South Atlantic and Gulf States, 1922.*

State.	No. 1 cans (1 dozen).		No. 1½ cans (2 dozen).		No. 2½ and No. 10 cans (2 dozen and ½ dozen).		Total.	
	Cases.	Value.	Cases.	Value.	Cases.	Value.	Cases.	Value.
Georgia and North Carolina.....	71,000	\$366,161	6,289	\$43,078			77,293	\$393,239
Florida.....	93,094	512,054	1,724	9,310			94,818	521,364
Alabama.....	56,444	290,676	3,704	19,343	812	\$5,781	60,950	315,793
Mississippi.....	166,198	840,419	8,268	42,070			174,466	882,389
Louisiana.....	158,672	840,306	20,492	110,996			179,164	951,302
Total.....	545,492	2,843,516	40,477	214,787	812	5,781	586,691	3,064,087

*Pack of crabs, 1922.*

State.	7-ounce, 8-ounce, and 9-ounce cans (1 dozen).		15-ounce and 16-ounce cans (2 dozen).		Total.	
	Cases.	Value.	Cases.	Value.	Cases.	Value.
Virginia, Washington, Maine, and Alaska.....	8,091	\$95,364	710	\$8,807	9,111	\$104,171

## CANNED CLAMS.

The total pack of hard clams, soft clams, and razor clams in 1922 was 308,640 cases, valued at \$1,716,365, which compared with the total pack of 1921—226,130 cases, valued at \$1,166,507—was an increase of 36.5 per cent in number of cases and 47.1 per cent in value.

## Pack of clams, by States, 1922.

## RAZOR CLAMS.

Sizes.	Washington.		Oregon.		Alaska.		Total.	
	Cases.	Value.	Cases.	Value.	Cases.	Value.	Cases.	Value.
<b>Whole:</b>								
No. 1 cans (4 dozen).....	9, 134	\$78, 185	500	\$5, 500			9, 634	\$83, 685
No. 2 cans (4 dozen).....	1, 394	9, 061	300	1, 950			1, 694	11, 011
No. 10 cans (½ dozen).....	138	966					138	966
1-pound cans (4 dozen).....					1, 434	\$11, 604	1, 434	11, 604
<b>Mined:</b>								
4-pound flat cans (4 dozen)....	51, 099	291, 422	1, 907	11, 349	18, 078	74, 520	71, 084	377, 291
No. 1 cans (4 dozen).....	33, 677	238, 622	3, 971	29, 576			37, 648	268, 198
No. 2 cans (2 dozen).....	3, 209	19, 027	909	5, 699			4, 118	24, 726
10-ounce cans (4 dozen).....					11, 732	89, 634	11, 732	89, 634
1-pound cans (4 dozen).....					1, 046	9, 249	1, 046	9, 249
<b>Juice:</b>								
No. 2 cans (2 dozen).....	1, 076	3, 228					1, 076	3, 228
No. 10 cans (½ dozen).....	52	364					52	364
<b>Total</b> .....	99, 779	640, 875	7, 587	54, 074	32, 290	185, 007	139, 656	879, 956

## HARD CLAMS.

Sizes.	Florida and Washington.		Sizes.	Florida and Washington.	
	Cases.	Value.		Cases.	Value.
<b>Whole:</b>			<b>Bouillon, chowder, and juice:</b>		
No. 1 cans (4 dozen).....	15, 018	\$104, 633	No. 1 cans (4 dozen).....	9, 015	\$42, 078
No. 1 cans (2 dozen).....	291	989	No. 2 cans (2 dozen).....	2, 391	7, 699
No. 2 cans (2 dozen).....	11, 423	61, 664	No. 3 cans (2 dozen).....	2, 854	15, 902
No. 10 cans (½ dozen).....	2, 048	12, 775	No. 10 cans (½ dozen).....	650	4, 168
<b>Mined:</b>			1½ and 3 ounce bottles.....	1, 102	2, 371
4-pound flat cans (4 dozen)....	358	1, 792	7 and 14 ounce bottles (2 dozen).....	3, 874	24, 554
No. 1 cans (4 dozen).....	2, 355	14, 219			
No. 2 cans (2 dozen).....	883	4, 415	<b>Total</b> .....	52, 349	298, 042
No. 10 cans (½ dozen).....	87	783			

## SOFT CLAMS.

Sizes.	Maine, Massachusetts, and Rhode Island.		Sizes.	Maine, Massachusetts, and Rhode Island.	
	Cases.	Value.		Cases.	Value.
<b>Whole:</b>			<b>Bouillon, chowder, and broth:</b>		
5 and 5½ ounce cans (4 dozen).....	33, 589	\$157, 899	8, 10, and 16 ounce cans (4 dozen).....	14, 334	\$74, 320
6 and 8 ounce cans (2 dozen).....	6, 155	22, 916	32-ounce cans (2 dozen).....	15, 267	\$1, 760
8 and 10 ounce cans (4 dozen).....	14, 099	84, 015	1-gallon cans (½ dozen).....	1, 126	6, 000
8½ and 10-ounce cans (2 dozen).....	4, 110	19, 547	No. 1 cans (2 dozen).....	20, 000	49, 000
1-pound cans (4 dozen).....	4, 212	25, 000			
2-pound cans (2 dozen).....	3, 743	18, 000	<b>Total</b> .....	116, 635	538, 367

## CANNED OYSTERS.

In 1922 the pack of oysters was 522,549 cases, valued at \$2,423,616, an increase of 14.7 per cent in number of cases and 11.2 per cent in value over the pack of 1921, which was 455,550 cases, valued at \$2,179,271. The industry is located in the States of Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, and Louisiana. There was a noteworthy decrease in the pack of Maryland, where 80,872 cases were packed, as compared with 156,431 cases in 1921.

## Packs of oysters, by States, 1922.

Sizes.	Maryland.		North Carolina.		South Carolina.		Georgia.	
	Cases.	Value.	Cases.	Value.	Cases.	Value.	Cases.	Value.
4-ounce cans (4 dozen).....	9,710	\$47,023	3,756	\$16,526	7,601	\$28,797		
5-ounce cans (4 dozen).....	39,312	203,099	18,881	78,924	84,710	369,240	17,639	\$78,308
6-ounce cans (4 dozen).....	11,320	119,747			96	768	500	4,000
8-ounce cans (2 dozen).....	2,414	11,927	2,500	9,500	3,425	12,127		
10-ounce cans (2 dozen).....	16,657	85,352	3,863	16,117	24,065	100,933	648	2,863
12-ounce cans (2 dozen).....	1,459	12,424					25	200
Total.....	80,872	479,572	29,000	121,067	119,897	511,865	18,812	85,371

Sizes.	Florida.		Alabama.		Louisiana and Mississippi.		Total.	
	Cases.	Value.	Cases.	Value.	Cases.	Value.	Cases.	Value.
4-ounce cans (4 dozen).....			568	\$2,386	46,381	\$199,250	65,016	\$293,982
5-ounce cans (4 dozen).....	14,019	\$66,357	27,168	117,607	117,650	534,544	319,379	1,448,079
6-ounce cans (4 dozen).....			816	3,229	19,112	82,320	11,916	124,515
8-ounce cans (2 dozen).....			10,745	48,485	37,494	171,495	28,267	119,166
10-ounce cans (2 dozen).....	15	68					93,457	425,313
12-ounce cans (2 dozen).....							1,484	12,624
Total.....	14,034	66,425	39,297	171,707	220,637	987,609	522,549	2,423,616

## MISCELLANEOUS CANNED FISHERY PRODUCTS.

In addition to the products shown in the tables, there were packed in Maine, Massachusetts, New York, New Jersey, Maryland, Virginia, North Carolina, and Washington, 224,304 cases of miscellaneous fishery products, valued at \$840,329. The pack of preserved salmon eggs in Washington amounted to 79,976 pounds, valued at \$55,976, and in Oregon, to 33,130 pounds, valued at \$16,080.

## EXPORTS OF CANNED FISHERY PRODUCTS IN 1922.

Data showing the amount of canned fish exported from the United States during the calendar year 1922, collected and compiled by the Bureau of Foreign and Domestic Commerce, are given in the following table:

## Domestic exports of canned fish from the United States, by countries, 1922.

Countries.	Canned salmon.		Sardines.		Flaked fish.		Other canned fish.	
	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.
Azores and Madeira Islands.....	360	31	120	39				
Belgium.....	2,608,391	250,333	221,300	16,625			110,020	12,570
Denmark.....	102,144	10,301	29,000	2,400			3,405	2,228
Finland.....			180	26	39	6		
France.....	32,540	2,743	48,000	6,000			291,363	50,879
Germany.....	93,431	11,768	14,037	1,956			116	44
Greece.....	11,350	1,200	8,235	901			11,938	2,263
Hungary.....	48	6						
Iceland, and Faroe Islands.....	150	8						
Italy.....	1,212,351	108,904	96,031	9,458			1,160	675
Malta, Gozo, and Cyprus Islands.....	14,400	1,400						
Netherlands.....	618,028	77,002					3,465	852
Norway.....	36,599	3,909						
Poland and Danzig.....	107	22						
Rumania.....							825	165
Russia in Europe.....	33,000	4,329						
Spain.....	214	20					14,658	2,601
Sweden.....	69,506	13,912					4,360	1,266
Switzerland.....	75,998	10,127						
Turkey in Europe.....	48,760	4,640					70,030	7,500

*Domestic exports of canned fish from the United States, by countries, 1922—Continue*

Countries.	Canned salmon.		Sardines.		Flaked fish.		Other canned fish.	
	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.
Ukraine.....	329,840	28,134	16,450	705			1,974	309
England.....	23,937,667	3,732,859	244,727	17,740			252,761	54,612
Scotland.....	346,200	67,407					619	232
Canada:								
Maritime Provinces.....	25,438	3,537	1,734,662	126,327	450	105	251,928	19,037
Quebec and Ontario.....	599,834	67,487	4,492	1,101	452	86	104,169	21,933
Prairie Provinces.....	79,840	14,241	4,861	454			8,546	2,306
British Columbia and Yukon.....	3,175,943	321,872	2,561	567	1,412	189	82,101	13,491
British Honduras.....	27,234	3,193	40,740	4,551	276	53	1,307	151
Costa Rica.....	187,848	17,193	134,530	12,415			23,389	2,157
Guatemala.....	50,271	5,168	113,908	12,354	15	3	29,381	3,514
Honduras.....	66,924	9,021	142,708	15,854	456	90	6,347	1,345
Nicaragua.....	42,003	4,309	44,848	5,595	30	7	5,836	689
Panama.....	283,390	35,599	160,474	17,798	1,547	126	23,315	5,997
Salvador.....	8,564	994	45,110	4,573			18,628	2,033
Mexico.....	2,819,248	227,649	2,736,099	251,103	986	207	556,312	50,399
Miquelon and St. Pierre Islands.....	2,400	200						
Newfoundland and Labrador.....			600	106			118	40
Bermuda.....	41,302	6,440	17,053	2,764			1,208	489
Barbados.....	22,262	3,450	780	102			44	15
Jamaica.....	85,548	10,038	235,979	20,851			1,888	450
Trinidad and Tobago.....	117,381	18,670	62,073	5,875			1,528	496
Other British West Indies.....	48,284	8,048	28,225	3,966	136	28	4,593	944
Cuba.....	434,803	38,397	1,122,349	96,433	2,006	290	139,390	13,445
Dominican Republic.....	167,784	15,417	322,668	39,181	169	33	4,250	890
Dutch West Indies.....	32,418	5,553	26,158	2,866	30	5	2,658	553
French West Indies.....	912	73	725	90				
Haiti.....	2,356	398	1,343	227	12,299	1,200	406	187
Virgin Islands of the U. S.....	42,014	5,178	20,163	3,148	230	41	408	301
Argentina.....	477,872	48,188	333,035	28,124			700	12,440
Bolivia.....	125,560	10,483	114,156	10,260			410	2,953
Brazil.....	14,400	3,075	3,762	360			2,476	2,013
Chile.....	1,893,557	181,242	174,148	15,979			1,810	261
Colombia.....	290,178	31,592	175,396	20,020	277	43	16,690	3,860
Ecuador.....	237,196	23,317	265,640	23,973			77,266	6,814
British Guiana.....	99,632	17,144	77,479	9,384	240	40	3,470	830
Dutch Guiana.....	76,928	9,517	28,715	4,024			145	45
French Guiana.....	2,783	400	610	102				
Peru.....	42,353	4,342	497,397	44,716	204	41	8,641	1,256
Uruguay.....	3,120	556					218	113
Venezuela.....	555,873	56,473	57,622	5,757	625	79	6,596	1,756
Aden.....	24,000	1,900						
Armenia and Kurdistan.....	350	36						
British India.....	769,867	95,127	119,859	15,895			12,223	2,339
Ceylon.....	88,276	10,282	1,290	149	375	82	1,749	277
Straits Settlements.....	1,893,804	160,220	2,653,713	236,536			234,162	20,812
Other British East Indies.....	1,516	88	5,371	570				
China.....	83,459	13,321	284,863	31,049			42,363	4,864
Chosen.....	1,692	1,343	365	85			215	78
Java and Madura.....	1,687,365	149,187	1,385,590	128,496	1,750	109	54,047	5,805
Other Dutch East Indies.....	249,466	25,830	211,657	21,760			40,867	4,173
Far Eastern Republic.....			3,640	506	40	28		
French Indo-China.....	9,168	1,187	6,750	637			75	38
Greece in Asia.....	9,600	940					44,000	1,760
Hongkong.....	86,364	13,297	351,440	33,337			26,758	2,865
Japan.....	5,606	714	9,070	1,559			47,637	3,060
Kwangtung.....			140,776	12,976				
Palestine and Syria.....	54,321	5,076	3,644	388			147	43
Philippine Islands.....	7,719,124	610,114	5,405,313	441,066	777	173	1,573,122	143,750
Russia in Asia.....			768	100				
Siam.....	158,538	13,775	2,734	329			508	114
Turkey in Asia.....	4,800	500						
Australia.....	6,663,952	1,045,545	992	289			7,072	1,319
British Oceania.....	88,472	8,487	5,916	220	48	11	848	131
French Oceania.....	164,122	18,547	25,942	3,957			4,867	620



## Domestic exports of canned fish from the United States, by countries, 1922—Continued.

Countries.	Canned salmon.		Sardines.		Flaked fish.		Other canned fish.	
	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.
New Zealand.....	149,598	26,413	96	12			537	230
Other Oceania.....	108,454	10,674	1,741	239			1,644	247
Belgian Kongo.....	1,268	205	600	50				
British West Africa	59,998	6,363	8,042	1,109			42,265	2,616
British South Africa.....	1,724,928	181,061	11,600	1,579			31,689	5,964
British East Africa.	15,360	1,591						
Canary Islands.....	44,792	4,586						
Egypt.....	73,408	9,193					36,024	3,630
Other French Africa.....	732	75	167	47				
Liberia.....	3,930	403					1,563	69
Morocco.....	4,925	606	25	5			1,120	260
Portuguese East Africa.....	88,973	8,814	8,662	1,161			5,467	1,393
Other Portuguese Africa.....	48	11					68	18
Spanish Africa.....	2,475	355					2,400	465
Total.....	63,797,279	7,962,375	20,059,845	1,780,956	24,869	3,075	4,534,273	525,334

## BY-PRODUCTS OF THE FISHERIES.

The utilization of waste products of the fisheries to produce valuable by-products continues to hold the attention of the fish trade. In this direction lies a possibility of reducing the excess overhead expense in the fish industry. The principal by-products are fish oils and fish meal and scrap. The total value of all by-products of the fisheries in 1922 was \$11,390,693, an increase of 36.4 per cent over the value of the production in 1921, which was \$8,351,827.

## FISH OILS.

The fish-oil production in the United States and Alaska in 1922 amounted to 8,288,328 gallons, valued at \$3,346,046. This does not include the production of whale oil, which in 1922 was 1,863,015 gallons, valued at \$731,000, nor sperm oil, which was 384,130 gallons, valued at \$153,714. The largest item of fish oil is menhaden oil, of which 7,102,677 gallons were produced, valued at \$2,904,833. In 1921 the total production of fish oil was 7,446,281 gallons, valued at \$2,078,670. There was thus in 1922 an increase of 11.3 per cent in the total quantity of fish oils (exclusive of whale and sperm) and 61 per cent in the value. The oils produced in 1922 include besides menhaden, whale, and sperm oils, salmon, 25,989 gallons; sardine, 428,859 gallons; tuna, 86,099 gallons; herring, 450,362 gallons; liver, 67,459 gallons; cod liver, 4,080 gallons; miscellaneous fish oils, 122,803 gallons.

## FISH SCRAP AND MEAL.

The total value of all fish scrap and meal, green and dry, including that prepared from shrimp and menhaden, was, in 1922, 116,166 tons, valued at \$4,336,677, an increase of 8.29 per cent in quantity and 21.9 per cent in value over the production in 1921, which was 107,273 tons, valued at \$3,557,142. Of the total amount 93,576 tons, or 80.5 per cent, was produced by menhaden, and 22,590 tons, or 19.5 per cent, by all other fish, the latter amount, valued at \$1,114,919, representing a decrease of 8.2 per cent in quantity and

12.3 per cent in value from the amount produced by all other fish in 1921, which was 24,611 tons, valued at \$1,271,047. Included in the production of meal and scrap in 1922 are 21,638 tons of dried scrap or meal, 390 tons of crude or green scrap, and 562 tons of shrimp bran.

LIQUID FISH GLUE.

In 1922 the production of liquid fish glue was 323,003 gallons, valued at \$278,424, a decrease of 6.9 per cent in quantity and 23.6 per cent in value from the production of 1921, which was 347,048 gallons, valued at \$364,415.

POULTRY GRIT AND LIME.

The production of poultry grit from oyster shells in 1922 was 236,021 tons, valued at \$2,005,838; in 1921, 185,474 tons, valued at \$1,759,120. The production of lime in 1922 was 93,168 tons, valued at \$431,213, an increase of 26.3 per cent in quantity, but a decrease of 14.2 per cent in value over the production in 1921, which was 73,764 tons, valued at \$502,634. This industry is carried on on the Atlantic coast from Massachusetts to Texas.

*Production of various by-products of the fisheries, 1922.*

Products.	Massachusetts and Maine.		Maryland.		New York, Virginia, North Carolina, and Florida.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Fish scrap and meal:						
Dried.....tons.....	3,455	\$146,103	1,236	\$28,970	1,593	\$52,521
Crude or green.....do.....	390	9,175				
Oil:						
Herring.....gallons.....	25,121	5,726				
Sperm.....do.....	152,986	81,082				
Liver.....do.....	67,459	31,774				
Cod-liver.....do.....	3,980	1,792				
Miscellaneous.....do.....	99	1,150	3,500	595	11,877	3,469
Liquid glue.....do.....	323,003	278,424				
Miscellaneous by-products <sup>1</sup> pounds.....	291,421	58,198			87,335	8,733
Total.....		613,424		29,565		64,723

Products.	Louisiana.		Washington, Oregon, California, and Alaska.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Fish scrap and meal:						
Dried.....tons.....			15,354	\$862,752	21,638	\$1,090,346
Crude or green.....do.....					390	9,175
Shrimp bran.....do.....	562	\$15,398			562	15,398
Oil:						
Salmon.....gallons.....			25,989	9,435	25,989	9,435
Sardine.....do.....			428,859	145,668	428,859	145,668
Tuna.....do.....			86,099	62,702	86,099	62,702
Herring.....do.....			425,241	144,418	450,362	150,144
Whale.....do.....			1,863,015	731,000	1,863,015	731,000
Sperm.....do.....			231,144	72,632	384,130	153,714
Liver.....do.....					67,459	31,774
Cod-liver.....do.....			100	100	4,080	1,892
Miscellaneous.....do.....			107,327	34,384	122,803	39,598
Liquid glue.....do.....					323,003	278,424
Miscellaneous by-products <sup>1</sup> pounds.....			1,256,500	40,850	1,635,256	107,781
Total.....		15,398		2,103,941		2,827,051

<sup>1</sup> Includes shark hides, agar-agar, pearl or fish-scale essence, shark fins, whale bones (skeletons), whale tails, ambergris, herring skins, and alewife scales.

*Production of poultry grit and lime from ground oyster shells, 1922.*

States.	Poultry grit.		Lime.		Total.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
Rhode Island, Pennsylvania, and New Jersey.....	20, 493	\$200, 831	7, 799	\$31, 873	28, 292	\$232, 704
Maryland.....	90, 249	803, 388	38, 211	155, 119	128, 460	958, 507
Virginia.....	26, 173	230, 115	27, 445	182, 680	53, 618	412, 795
North Carolina, South Carolina, and Georgia.....	6, 740	56, 165	1, 815	9, 075	8, 555	65, 240
Florida.....	13, 800	96, 400	112	1, 008	13, 912	97, 408
Alabama.....	7, 154	56, 987	510	760	7, 664	57, 747
Mississippi.....	32, 646	251, 872	780	780	33, 426	252, 652
Louisiana.....	34, 684	274, 944	15, 956	47, 218	50, 640	322, 162
Texas.....	4, 082	35, 136	540	2, 700	4, 622	37, 836
<b>Total.....</b>	<b>236, 021</b>	<b>2, 005, 838</b>	<b>93, 168</b>	<b>431, 213</b>	<b>329, 189</b>	<b>2, 437, 051</b>

## THE MENHADEN INDUSTRY.

In the menhaden industry in 1922 substantial increases were made in the amount of fish utilized and in the quantities and values of all the important products. Forty-five factories were engaged in the manufacture of products from menhaden, as compared with 39 in 1921. These 45 factories were located as follows: Massachusetts, 1; Connecticut, 1; New York, 2; New Jersey, 3; Delaware, 1; Virginia, 18; North Carolina, 15; Georgia, 1; Florida, 2; and Texas, 1.

The number of fish utilized was 1,212,450,669, or 747,470,402 pounds, valued at \$2,457,690, as compared with 1,031,540,831 fish, or 618,924,499 pounds, valued at \$1,929,219, produced in 1921, an increase in 1922 of 17.5 per cent in number of fish and 27.4 per cent in value. The amount of fish meal and scrap produced from menhaden in 1922 was 93,576 tons, valued at \$3,221,758, an increase of 12.2 per cent in quantity and 40.9 per cent in value over the 82,662 tons produced in 1921, valued at \$2,286,905. The 1922 production of meal and scrap was 67,821 tons of dry scrap, valued at \$2,665,441, of which 7,172 tons, valued at \$390,667, were reported sold as fish meal; 25,712 tons of acidulated scrap, valued at \$555,973; and 43 tons of crude or green scrap, valued at \$344. The meal and scrap derived from menhaden was 80.5 per cent of all the fish meal and scrap produced in 1922.

The amount of menhaden oil produced in 1922 was 7,102,677 gallons, valued at \$2,904,833, as compared with 6,260,478 gallons, valued at \$1,719,892, produced in 1921, an increase of 13.4 per cent in quantity and 68.9 per cent in value. The oil derived from menhaden was 85.7 per cent of the total quantity of fish oils produced in 1922 and 86.8 per cent of the total value.

*Products of the menhaden industry, by States, 1922.*

Products.	Massachusetts, Connecticut, and New York.		New Jersey and Delaware.		Virginia.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Fish utilized: Menhaden number.....	258, 086, 285	\$515, 344	169, 504, 000	\$358, 994	460, 612, 000	\$947, 995
Manufactured products:						
Dry scrap and fish meal tons.....	18, 024	530, 606	690	30, 538	34, 244	1, 526, 864
Acidulated scrap..... do.....	43	344	15, 097	311, 632		
Crude or green scrap..... do.....						
<b>Total.....</b>	<b>18, 067</b>	<b>530, 950</b>	<b>15, 787</b>	<b>342, 170</b>	<b>34, 244</b>	<b>1, 526, 864</b>
Oil..... gallons.....	2, 066, 461	904, 252	916, 570	416, 169	2, 560, 065	958, 831
<b>Grand total.....</b>	<b>1, 435, 202</b>	<b>1, 435, 202</b>	<b>758, 339</b>	<b>758, 339</b>	<b>2, 485, 695</b>	<b>2, 485, 695</b>

*Products of the menhaden industry, by States, 1922—Continued.*

Products.	North Carolina.		Georgia, Florida, and Texas.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Fish utilized: Menhaden ..... number..	188,162,430	\$376,320	136,085,954	\$259,037	11,212,450,669	\$2,457,690
Manufactured products:						
Dry scrap and fish meal ..... tons..	8,783	320,817	6,080	256,616	67,821	2,665,441
Acidulated scrap...do....	6,615	160,341	4,000	84,000	25,712	555,973
Crude or green scrap ..... tons..					43	314
Total.....	15,398	481,158	10,080	340,616	93,576	3,221,758
Oil..... gallons..	967,696	396,055	591,885	229,526	7,102,677	2,901,833
Grand total.....		877,213		570,142		6,126,591

<sup>1</sup> 747,470,402 pounds.

**FROZEN FISH.**

**COLD-STORAGE HOLDINGS IN 1922.**

The year 1922 was the first year of publication by the Bureau of Fisheries of the statistics on frozen fish collected by the Bureau of Markets and Crop Estimates of the Department of Agriculture. Monthly bulletins were issued, showing the holdings, by sections of the country, of the several species. The following table shows the total holdings of all the freezers, 274 in number, which are devoted wholly or in part to the cold storage of fish, together with the totals for the years 1917 to 1921, inclusive, for comparison. It will be seen that the holdings were very much smaller in 1922 than they had been on corresponding dates in several previous years. The time of least holdings was in May, and of greatest holdings in November.

*Monthly holdings of frozen fish in the United States in 1922, by species, and in 1917-1921, by totals.*

Species.	Month ending—					
	Jan. 15.	Feb. 15.	Mar. 15.	Apr. 15.	May 15.	June 15.
	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.
Bluefish (all trade sizes).....	560,281	288,842	154,308	84,573	76,625	65,731
Butterfish (all trade sizes).....	517,671	392,633	226,769	174,142	31,974	45,869
Catfish.....	(1)	(1)	(1)	(1)	(1)	(1)
Ciscoes (including bluefin, blackfin, chub, lake herring, etc.).....	5,561,416	4,431,776	3,110,959	2,022,514	1,420,733	1,080,265
Ciscoes (tullibees).....	1,563,492	1,919,122	1,398,898	1,293,296	1,228,155	1,136,446
Cod, haddock, hake, pollock..	1,361,438	1,136,103	912,639	673,813	501,345	391,435
Croakers.....	72,555	22,802	12,431	27,455	36,916	24,395
Flounders.....	(1)	(1)	(1)	(1)	(1)	(1)
Halibut (all trade sizes).....	6,306,402	4,804,504	3,792,067	2,552,146	2,879,457	3,877,505
Herring, sea (including ale- wives and bluebacks).....	4,147,828	2,493,750	1,157,587	756,686	595,294	1,121,368
Lake trout.....	1,866,261	1,256,408	700,022	262,413	400,243	497,994
Mackerel (excepting Spanish). Pike perches and pike or pick- erel.....	1,480,099	1,333,111	907,933	381,666	670,696	1,929,491
	(1)	(1)	(1)	(1)	(1)	(1)
Rockfishes.....	28,939	34,209	62,690	42,489	39,044	(3)
Sablefish (black cod).....	1,234,632	1,069,903	934,365	707,126	651,426	580,391
Salmon, silver and fall.....	2,392,877	1,532,008	1,129,168	535,507	406,181	343,956
Salmon, steelhead trout.....	549,797	525,122	526,350	268,136	183,498	117,643
Salmon, all other.....	2,817,996	2,255,775	1,501,731	868,091	725,315	718,773
Sea bass.....	74,368	61,340	53,123	47,320	49,009	(3)
Scup (porgies).....	(1)	(1)	(1)	(1)	(1)	(1)
Shad.....	279,235	250,562	85,334	62,289	65,719	272,814
Shad roe.....	22,391	10,564	4,008	37,374	55,013	

<sup>1</sup> Included in "Miscellaneous frozen fish" previous to July 15, 1922.

<sup>2</sup> Included in "Miscellaneous frozen fish" after June 15, 1922.

Monthly holdings of frozen fish in the United States in 1922, by species, and in 1917-1921, by totals—Continued.

Species.	Month ending—					
	Jan. 15.	Feb. 15.	Mar. 15.	Apr. 15.	May 15.	June 15.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Shellfish.....	(1)	(1)	(1)	(1)	(1)	(1)
Smelts, eulachon, etc.....	383,769	982,110	1,153,317	447,520	360,663	351,032
Squeteagues or "sea trout".....	1,484,601	1,150,765	659,069	415,236	359,431	282,955
Squid.....	1,879,094	1,438,138	1,008,871	513,843	640,205	1,036,268
Sturgeon and spoonbill cat.....	(1)	(1)	(1)	(1)	(1)	(1)
Suckers.....	(1)	(1)	(1)	(1)	(1)	(1)
Whitefish.....	2,201,436	1,990,535	1,413,991	1,633,224	1,488,930	1,427,316
Whiting.....	3,440,123	1,971,639	939,166	601,533	681,941	1,445,202
Miscellaneous frozen fish.....	8,093,511	6,390,541	3,629,918	3,076,583	3,528,104	4,074,226
Total, 1922.....	48,320,212	37,742,262	25,474,714	17,484,975	17,075,917	20,821,345
Total, 1921.....	53,851,000	42,116,000	33,404,000	28,444,000	26,346,000	32,311,000
Total, 1920.....	61,510,357	47,904,057	29,958,132	20,632,834	19,803,817	27,779,230
Total, 1919.....	80,683,761	67,617,473	50,036,475	37,110,856	37,174,104	48,840,359
Total, 1918.....	51,116,037	35,907,071	28,457,301	26,548,272	31,403,425	50,298,027
Total, 1917.....	32,234,530	14,727,099	13,374,429	9,516,217	14,040,024	27,791,047

Species.	Month ending—					
	July 15.	Aug. 15.	Sept. 15.	Oct. 15.	Nov. 15.	Dec. 15.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Bluefish (all trade sizes).....	146,560	217,436	412,499	616,902	822,088	750,217
Butterfish (all trade sizes).....	139,011	270,914	331,408	413,172	698,229	560,308
Catfish.....	93,850	226,185	223,567	286,840	294,897	276,165
Ciscoes (including bluefin, blackfin, chub, lake herring, etc.).....	987,020	2,784,763	4,921,011	6,396,242	6,065,757	6,035,490
Ciscoes (tullibees).....	1,065,332	1,107,863	1,262,472	1,102,933	726,353	691,601
Cod, haddock, hake, pollock.....	339,608	401,952	399,663	374,282	467,872	578,789
Croakers.....	75,107	36,631	21,983	6,187	18,105	3,992
Flounders.....	232,922	253,371	260,994	294,205	368,583	323,004
Halibut (all trade sizes).....	4,380,814	4,834,598	6,287,404	6,825,076	5,741,218	4,534,336
Herring, sea (including alewives and bluebacks).....	1,086,214	1,584,969	1,939,373	6,426,458	4,064,862	2,936,146
Lake trout.....	564,824	496,889	426,471	592,295	1,616,778	1,853,804
Mackerel (excepting Spanish).....	2,425,336	2,846,563	2,982,542	5,024,591	5,602,906	4,953,093
Pike perches and pike or pickarel.....	294,740	309,971	326,227	544,572	1,221,608	2,284,614
Rockfishes.....	(3)	(2)	(2)	(2)	(2)	(2)
Sablefish (black cod).....	488,369	527,449	609,989	808,067	904,713	813,479
Salmon, silver and fall.....	600,519	968,776	2,000,351	3,391,007	4,265,068	3,414,927
Salmon, steelhead trout.....	208,593	491,643	620,807	674,078	680,250	709,845
Salmon, all other.....	1,193,740	1,795,048	4,389,069	5,973,497	5,392,880	4,175,559
Sea bass.....	(2)	(2)	(2)	(2)	(2)	(2)
Scup (porgies).....	1,043,186	1,994,110	2,056,438	2,019,059	1,837,128	1,695,801
Shad.....	300,415	316,930	337,193	349,533	350,019	214,345
Shad roe.....	234,951	207,485	196,044	297,906	492,780	563,496
Smelts, eulachon, etc.....	334,332	332,124	336,185	326,580	299,418	203,858
Squeteagues or "sea trout".....	260,400	178,590	439,231	535,027	612,389	531,436
Squid.....	1,038,565	1,037,814	881,371	801,356	497,286	268,207
Sturgeon and spoonbill cat.....	257,338	319,535	389,402	434,463	406,616	366,914
Suckers.....	16,271	14,385	7,739	7,330	12,779	16,954
Whitefish.....	1,439,629	1,444,187	1,755,583	2,182,448	2,277,889	2,146,540
Whiting.....	3,047,540	3,786,091	4,009,602	4,048,788	3,931,149	3,406,502
Miscellaneous frozen fish.....	3,324,856	3,439,898	3,316,526	4,003,889	4,832,643	4,380,408
Total, 1922.....	25,620,042	32,226,170	41,141,144	54,756,783	54,502,283	48,689,830
Total, 1921.....	40,160,000	47,431,000	54,469,000	58,899,000	61,228,000	59,125,646
Total, 1920.....	36,617,706	47,140,132	56,295,975	64,730,531	67,549,377	65,841,000
Total, 1919.....	59,674,301	65,145,234	69,580,555	76,763,253	78,769,101	74,202,339
Total, 1918.....	64,864,532	82,554,798	89,203,946	93,811,909	99,631,789	96,600,247
Total, 1917.....	38,431,221	44,024,666	47,197,660	60,676,722	70,938,957	69,986,671

<sup>1</sup> Included in "Miscellaneous frozen fish" previous to July 15, 1922.

<sup>2</sup> Included in "Miscellaneous frozen fish" after June 15, 1922.

QUANTITIES FROZEN IN 1922.

The following table shows the amount of fish frozen in the United States in 1922, by months, with totals for 1920 and 1921 for comparison. If we reckon the total catch of edible fish in the United States and Alaska as 1,600,000,000 pounds, the total amount of fish frozen—75,453,674 pounds—is about 4.7 per cent of the total.

*Fish frozen monthly in 1922, by species, and in 1920 and 1921, by totals.*

Species.	Month ending—						
	Jan. 15.	Feb. 15.	Mar. 15.	Apr. 15.	May 15.	June 15.	July 15.
	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.
Bluefish (all trade sizes).....		87	3,038	3,184	4,710	96,538	107,860
Butterfish (all trade sizes).....			3,954		20,477	82,516	153,349
Catfish.....	(1)	(1)	(1)	(1)	(1)	32,995	144,875
Ciscoes (including bluefin, blackfin, chub, lake herring, etc.)...	1,495	16,111	54,955	14,995	9,035	167,351	2,160,231
Ciscoes (tullibees).....	20,551	21,655	5,352		54	1,883	100,794
Cod, haddock, hake, pollock.....	7,240	38,814	121,318	51,615	81,415	26,138	140,489
Croakers.....			15,245	11,490		64,720	22,527
Flounders.....	(1)	(1)	(1)	(1)	(1)	22,608	52,854
Halibut (all trade sizes).....	366,656	132,730	86,702	60,016	327,932	742,023	602,336
Herring, sea (including alewives and bluefins).....	237,800	118,170	180,085	116,995	413,227	127,355	568,875
Lake trout.....	16,771	16,767	3,914	100,725	164,412	109,125	38,228
Mackerel (excepting Spanish).....	59,566	38,077	6,268	272,610	1,332,947	624,264	502,729
Pikeperches and pike or pickerel.....	(1)	(1)	(1)	(1)	(1)	27,941	23,684
Sablefish (black cod).....	9,115	20,363	27,696	89,569	10,300	56,114	126,593
Salmon, silver and fall.....	113,716	66,106	10,639	11,740	79,488	345,895	441,724
Salmon, steelhead trout.....	2,339	11,320	31,723		4,015	103,436	300,391
Salmon, all other.....	10,296	11,491	17,718	148,786	286,177	785,093	687,818
Scup (porgies).....	(1)	(1)	(1)	(1)	(1)	912,682	991,728
Shad and shad roe.....	1,312	1,029	36,639	50,806	167,609	22,329	38,044
Shellfish.....	(1)	(1)	(1)	(1)	(1)	32,194	36,558
Smelts, eulachon, etc.....	151,053	116,021	33,407	1,381	767	900	2,865
Squeteagues or "sea trout".....	7,748		6,753	9,507	15,175	40,383	9,030
Squid.....	5,000	1,164		207,013	422,219	91,845	124,291
Sturgeon and spoonbill cat.....	(1)	(1)	(1)	(1)	(1)	88,032	97,009
Suckers.....	(1)	(1)	(1)	(1)	(1)		151
Whitefish.....	4,885	8,410	18,781	8,135	4,235	50,273	49,133
Whiting.....	67,271	308,484	220,225	104,547	953,820	1,856,675	910,336
Miscellaneous frozen fish.....	369,987	437,143	612,126	177,321	1,551,433	864,929	626,058
Total frozen fish, 1922.....	1,452,801	1,363,942	1,496,538	1,980,435	5,849,537	7,376,237	9,121,160
Total frozen fish, 1921.....	2,843,000	1,770,000	2,413,000	2,698,000	9,624,000	10,151,000	9,845,000
Total frozen fish, 1920.....	2,273,744	2,630,482	2,465,375	3,687,538	10,094,367	12,761,791	13,620,232

Species.	Month ending—					Total.
	Aug. 15.	Sept. 15.	Oct. 15.	Nov. 15.	Dec. 15.	
	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	
Bluefish (all trade sizes).....	185,485	218,183	191,012	2,067	3,056	815,220
Butterfish (all trade sizes).....	88,069	106,410	328,709	85,437	330	869,251
Catfish.....	8,069	107,914	44,338	15,443	214,550	563,184
Ciscoes (including bluefin, blackfin, chub, lake herring, etc.).....	2,823,391	2,094,303	584,432	1,397,871	921,082	10,245,252
Ciscoes (tullibees).....	55,278	13,747	91,512	290,976	139,217	741,019
Cod, haddock, hake, pollock.....	60,515	112,131	201,621	170,562	33,604	1,045,462
Croakers.....	9,999		12,691			136,672
Flounders.....	36,828	52,326	88,017	48,482	4,372	305,487
Halibut (all trade sizes).....	1,260,915	1,001,999	234,217	145,975	160,895	5,122,396
Herring, sea (including alewives and bluefins).....	397,892	4,696,844	645,882	403,228	58,425	7,964,778
Lake trout.....	57,219	174,429	1,036,142	434,674	26,204	2,178,610
Mackerel (excepting Spanish).....	354,543	2,016,323	606,200	160,424	191,297	6,165,248
Pikeperches and pike or pickerel.....	30,539	248,609	605,551	1,175,429	43,074	2,154,827
Sablefish (black cod).....	164,715	282,358	228,486	82,806	17,243	1,115,358
Salmon, silver and fall.....	938,467	1,583,684	1,247,996	74,517	93,203	5,007,175
Salmon, steelhead trout.....	122,472	85,983	11,081	16,175	2,485	691,420
Salmon, all other.....	2,287,400	1,767,568	328,967	86,795	26,490	6,444,599
Scup (porgies).....	93,559	50,861	2,829	10,890	782	2,063,331
Shad and shad roe.....	18,066	27,925	4,886	139	1,009	370,483
Shellfish.....	63,550	192,902	240,625	222,797	123,762	912,388
Smelts, eulachon, etc.....	10,103	6,910	8,144	25,211	28,200	384,962
Squeteagues or "sea trout".....	303,168	115,169	87,481	1,898	2,275	598,587
Squid.....	1,370	19,102	31,461	8,796		912,261
Sturgeon and spoonbill cat.....	73,208	77,024	16,113	963	3,550	355,899
Suckers.....	398	892	5,679	12,480	833	20,433
Whitefish.....	280,189	172,720	276,228	301,446	80,463	1,254,898
Whiting.....	382,197	381,168	323,837	317,680	231,886	6,058,126
Miscellaneous frozen fish.....	719,338	1,227,596	1,860,332	1,576,834	333,251	10,956,348
Total frozen fish, 1922.....	10,826,942	16,830,080	9,344,469	7,069,995	2,741,538	75,453,674
Total frozen fish, 1921.....	9,356,000	9,990,000	9,869,000	8,173,000	2,441,892	79,173,892
Total frozen fish, 1920.....	11,803,606	11,168,810	9,711,800	9,750,844	4,005,000	93,973,589

(1) Included in "Miscellaneous frozen fish" prior to June 15, 1922.

The amounts of the different species frozen are shown graphically in Figure 3, in which it will be observed that salmon (of all species) stands first in the amount frozen.

#### QUANTITIES FROZEN IN 1921 AND 1922 COMPARED.

The following table compares the amounts of fish frozen in 1922 with those of the previous year. It will be observed that some

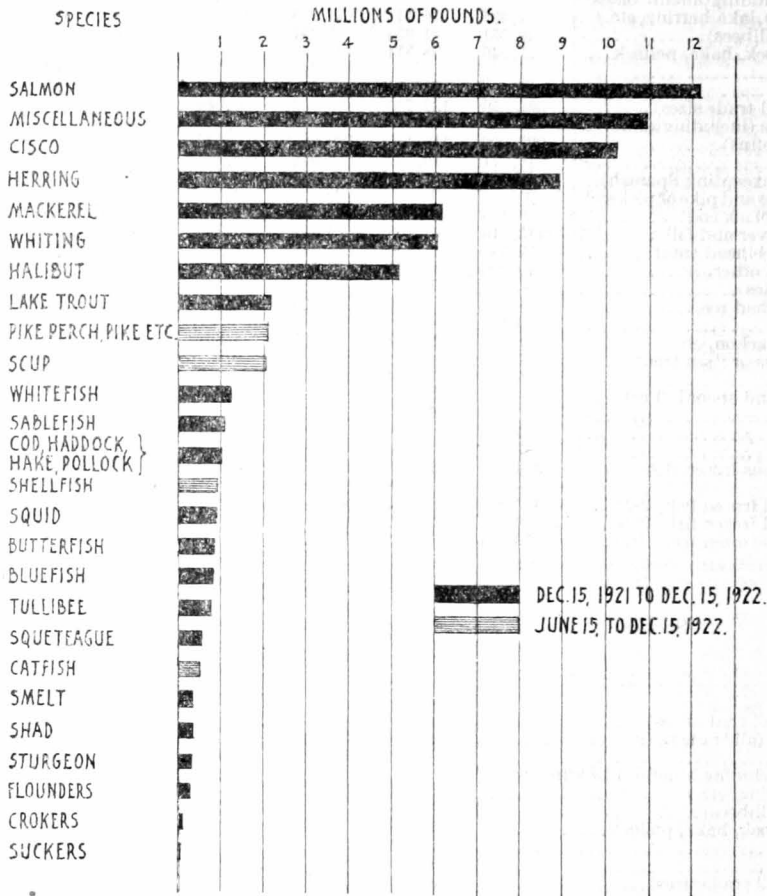


FIG. 3.—Amounts of different species of fish frozen in 1922.

striking changes took place. In 1921 halibut stood first in the order of amount frozen, while in 1922 it dropped to sixth place; salmon changed from second to first place; ciscoes, which were fourth in 1921, were second only to salmon in 1922. Mackerel showed the most phenomenal increase of 129 per cent and moved from seventh place in 1921 to fourth in 1922. This was caused by the unusually large run of tinker mackerel on the New England coast in the fall of 1922. Only the four groups, salmon, ciscoes, mackerel, and whiting increased; all others showed a decrease in quantity frozen.

Comparison of amounts of fish frozen in 1922 with those frozen in 1921.

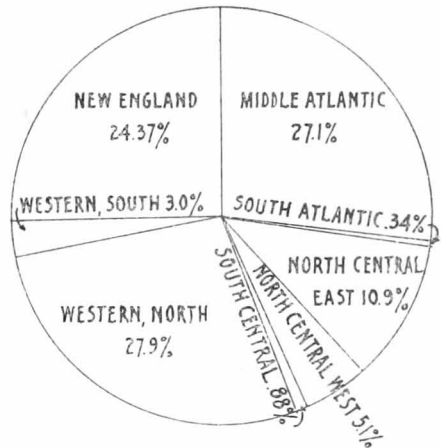
Species.	1922	1921	Increase (+) or decrease (-).
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Per cent.</i>
Salmon, all species.....	12, 143, 194	10, 033, 619	+ 21. 0
Ciscoes, all species.....	10, 245, 252	8, 649, 315	+ 18. 4
Herring, sea (including alewives and bluefins).....	7, 964, 778	9, 827, 671	- 18. 9
Mackerel (excepting Spanish).....	6, 165, 248	2, 694, 684	+128. 8
Whiting.....	6, 058, 126	5, 527, 047	+ 9. 6
Halibut (all trade sizes).....	5, 122, 396	10, 773, 803	- 52. 4
Lake trout.....	2, 178, 610	2, 501, 995	- 12. 9
Pike perches and pike or pickerel.....	<sup>1</sup> 2, 154, 827	(2)	.....
Scup (porgies).....	<sup>1</sup> 2, 063, 331	(2)	.....
Whitefish.....	1, 254, 898	2, 403, 900	- 47. 8
Sablefish (black cod).....	1, 115, 358	1, 677, 548	- 33. 5
Cod, haddock, hake, pollock.....	1, 045, 462	1, 992, 154	- 47. 5
Shellfish.....	<sup>1</sup> 912, 388	(2)	.....
Squid.....	912, 261	2, 943, 311	- 69. 0
Butterfish (all trade sizes).....	869, 251	959, 112	- 9. 4
Bluefish (all trade sizes).....	815, 220	932, 727	- 12. 6
Tullibees.....	741, 019	(2)	.....
Squeteagues or "sea trout".....	598, 587	2, 230, 253	- 73. 0
Catfish.....	<sup>1</sup> 563, 184	(2)	.....
Smelts, eulachon, etc.....	384, 962	610, 753	- 36. 9
Shad and shad roe.....	370, 483	428, 400	- 13. 5
Sturgeon and spoonbill cat.....	<sup>1</sup> 355, 899	(2)	.....
Flounders.....	<sup>1</sup> 305, 487	(2)	.....
Croakers.....	136, 672	341, 439	- 60. 0
Suckers.....	<sup>1</sup> 20, 433	(2)	.....

<sup>1</sup> From June 15 to Dec. 15 only.

<sup>2</sup> Included in "Miscellaneous frozen fish" prior to June 15, 1922.

QUANTITIES FROZEN IN 1922, BY GEOGRAPHICAL SECTIONS.

The distribution of the fish-freezing business among the several geographical sections of the country by months and by species is shown in the following tables. Eighty per cent of all freezing was in the New England, Middle Atlantic, and North Pacific Coast States. (The Great Lakes fish frozen in New York and Pennsylvania are included in the Middle Atlantic section.) The percentages of the total amount frozen for the different sections are: New England States, 24.67 per cent; Middle Atlantic, 27.12 per cent; South Atlantic, 0.34 per cent; North Central, East, 10.88 per cent; North Central West, 5.11 per cent; South Central, 0.88 per cent; Western, North, 27.94 per cent; Western, South, 3.04 per cent. The smallest amount frozen in any one month was 1,980,435 pounds, or 1.32 per cent of the total, in April; the largest amount frozen in any one month was 16,830,080 pounds, or 22.30 per cent of the total, in September. The distribution of the fish-freezing business is also shown graphically in Figure 4.



g. 4.—Percentages of the total amount of fish frozen by the several sections of the country.



*Fish frozen in 1922, by geographical sections.<sup>1</sup>*

## BY MONTHS.

Month ending the 15th of—	New England.	Middle Atlantic.	South Atlantic.	North Central, East.	North Central, West.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
January .....	267,709	400,050	4,242	53,251	158,068
February .....	307,300	237,530	13,214	131,968	440,979
March .....	361,124	287,765	22,956	188,171	321,180
April .....	402,727	414,591	29,445	297,643	222,824
May .....	3,085,487	787,601	22,245	918,406	198,601
June .....	3,884,579	929,973	15,691	393,032	163,298
July .....	3,419,877	2,491,997	13,115	500,319	301,028
August .....	1,439,081	3,606,289	2,300	777,609	189,581
September .....	3,705,641	3,825,968	46,850	768,849	352,664
October .....	1,303,363	3,062,085	83,250	1,955,076	486,513
November .....	212,941	3,301,666	6,740	1,742,806	506,431
December .....	227,819	1,123,376	215	482,679	513,979
Total .....	18,617,648	20,468,891	260,263	8,209,809	3,855,146
Per cent of total .....	24.67	27.12	0.344	10.88	5.11

Month ending the 15th of—	South Central.	Western, North.	Western, South.	Total.	
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Per cent.</i>
January .....	28,094	335,375	206,012	1,452,801	19.2
February .....	16,262	73,817	142,872	1,363,942	18.1
March .....	95,000	103,010	117,332	1,496,538	19.8
April .....	35,026	282,225	295,954	1,980,435	1.32
May .....	22,526	569,633	245,038	5,849,537	7.75
June .....	63,342	1,722,917	203,405	7,376,237	9.77
July .....	67,570	2,175,550	151,704	9,121,160	12.09
August .....	127,446	4,565,569	119,067	10,826,942	14.35
September .....	91,223	7,883,660	155,225	16,830,089	22.30
October .....	11,919	2,337,223	105,040	9,344,459	12.38
November .....	25,871	957,341	316,199	7,069,995	9.37
December .....	82,319	76,236	234,915	2,741,538	3.63
Total .....	666,598	21,082,556	2,292,763	75,453,674	100
Per cent of total .....	0.88	27.94	3.04		

## BY SPECIES.

Species.	New England.	Middle Atlantic.	South Atlantic.	North Central, East.	North Central, West.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Bluefish (all trade sizes) .....	4,851	775,849		14,151	1,480
Butterfish (all trade sizes) .....	191,681	674,544	2,600	426	
Catfish <sup>2</sup> .....		7,590		33,514	507,648
Ciscoes (including bluefin, blackfin, chub, lake herring, etc.) .....	113,586	7,962,830		1,995,430	169,506
Ciscoes (tullibees) .....		438,799		152,733	148,787
Cod, haddock, hake, pollock .....	342,127	443,409	4,965	56,714	26,594
Croaker .....		136,672			
Flounders <sup>2</sup> .....	71,435	212,381			74
Halibut (all trade sizes) .....	603,923	241,244	150	299,060	112,513
Herring, sea (including alewives and bluebacks) .....	3,293,073	924,166	2,900	70,234	75,355
Lake trout .....	1,238	528,455		1,405,133	243,394
Mackerel (excepting Spanish) .....	4,291,906	1,324,435	21,200	42,968	35,572
Pike perches and pike or pickerel <sup>2</sup> .....	5,467	1,504,202		629,746	15,262
Sablefish (black cod) .....		138		9,049	8,876
Salmon, silver and fall .....	301,759	216,443	215	62,574	73,133
Salmon, steelhead trout .....		37,407		10,101	
Salmon, all other .....	182,282	140,331		411,091	19,752
Scup (porgies) <sup>2</sup> .....	2,023,704	39,627			
Shad and shad roe .....	33,295	88,777	1,583	45,689	10,698
Shellfish <sup>2</sup> .....	71,012	525,069	81,740	28,572	76,710
Smelts, enlachon, etc .....	273,490	36,717		20,228	4,673
Squeteagues or "sea trout" <sup>2</sup> .....	476	598,111			

<sup>1</sup> 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; Western, North—Montana, Wyoming, Idaho, Washington, Oregon, and Alaska; Western, South—Colorado, New Mexico, Arizona, Utah, Nevada, and California.

<sup>2</sup> Figures show amount frozen after June 15, 1921. Prior to that date, this species was included in "Miscellaneous frozen fish."

*Fish frozen in 1922, by geographical sections—Continued.*

## BY SPECIES—Continued.

Species.	New England.	Middle Atlantic.	South Atlantic.	North Central, East.	North Central, West.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Squid.....	805,709	96,156	1,164	1,340	7,892
Sturgeon and spoonbill cat <sup>2</sup> .....	749	192,032	.....	12,897	2,265
Suckers <sup>2</sup> .....	.....	490	.....	19,792	151
Whitefish.....	26,000	351,777	.....	768,648	108,423
Whiting.....	4,282,956	499,509	800	.....	1,274,461
Miscellaneous frozen fish.....	1,696,929	2,471,731	142,946	2,119,319	931,927
Total.....	18,617,648	20,468,891	260,263	8,209,809	3,855,146

Species.	South Central.	Western, North.	Western, South.	Total.	
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Per cent.</i>
Bluefish (all trade sizes).....	18,899	.....	.....	815,220	1.08
Butterfish (all trade sizes).....	.....	.....	.....	869,251	1.15
Catfish <sup>2</sup> .....	14,432	.....	.....	563,184	.75
Ciscoes (including bluefin, blackfin, chub, lake herring, etc.).....	3,900	.....	.....	10,245,252	13.58
Ciscoes (tullibees).....	700	.....	.....	741,019	.98
Cod, haddock, hake, pollock.....	.....	24,018	147,635	1,045,462	1.38
Croakers.....	.....	.....	.....	136,672	.18
Flounders <sup>2</sup> .....	.....	9,547	12,050	305,487	.40
Halibut (all trade sizes).....	475	3,724,940	140,091	5,122,396	6.79
Herring, sea (including alwives and bluebacks).....	.....	3,597,470	1,580	7,964,778	10.55
Lake trout.....	390	.....	.....	2,178,610	2.89
Mackerel (excepting Spanish).....	.....	7,819	441,348	6,165,248	8.17
Pike perches and pike or pickerel <sup>2</sup> .....	150	.....	.....	2,154,827	2.85
Sablefish (black cod).....	.....	937,990	159,305	1,115,358	1.48
Salmon, silver and fall.....	.....	3,927,881	425,170	5,007,175	6.63
Salmon, steelhead trout.....	2,985	635,410	5,517	691,420	.92
Salmon, all other.....	8,300	5,499,970	182,873	6,444,599	8.54
Scup (porgies) <sup>2</sup> .....	.....	.....	.....	2,063,331	2.73
Shad and shad roe.....	1,906	155,399	33,136	370,483	.49
Shellfish <sup>2</sup> .....	1,734	52,546	75,005	912,388	1.21
Smelts, eulachon, etc.....	45	49,809	.....	384,962	.51
Squeteagues or "sea trout".....	.....	.....	.....	598,587	.79
Squid.....	.....	.....	.....	912,261	1.21
Sturgeon and spoonbill cat <sup>2</sup> .....	4,130	143,826	.....	355,899	.47
Suckers <sup>2</sup> .....	.....	.....	.....	20,433	.03
Whitefish.....	50	.....	.....	1,254,898	1.66
Whiting.....	.....	.....	.....	6,058,126	8.03
Miscellaneous frozen fish.....	608,512	2,315,931	669,053	10,956,348	14.52
Total.....	666,598	21,082,556	2,292,763	75,453,674	100

<sup>2</sup> Figures show amount frozen after June 15, 1922. Prior to that date, this species was included in "Miscellaneous frozen fish."

## NEW ENGLAND VESSEL FISHERIES.

## GENERAL STATISTICS.

In the vessel fisheries at Boston and Gloucester, Mass., and Portland, Me., during 1922 there was a decrease in the number of trips with an increase in the quantity and a decrease in the value of the products as compared with 1921. The decrease in the number of trips at Boston was 6.01 per cent, at Gloucester 20.26 per cent, and at Portland 12.26 per cent. At Boston there was an increase in the products landed of 1.74 per cent in the quantity and a decrease of 4.05 per cent in the value; at Gloucester, an increase of 14.34 per cent in the quantity and a decrease of 11.61 per cent in the value; and at Portland, an increase in the products landed of 18.2 per cent in the quantity and 3.3 per cent in the value. Statistics of these fisheries have been collected by the local agents and published in monthly bulletins, showing by species and fishing grounds the quantities and values of fishery products landed by

American fishing vessels during the year at these ports. Two annual bulletins have been issued, one showing the catch by months and the other by fishing grounds.

The fishing fleet at these ports during the calendar year 1922 numbered 338 sail, steam, and gasoline screw vessels, including 28 steam trawlers. These vessels landed at Boston 2,893 trips, aggregating 106,190,403 pounds of fish, valued at \$4,020,105; at Gloucester, 1,653 trips, aggregating 37,751,223 pounds, valued at \$813,353; and at Portland, 1,803 trips, aggregating 15,933,765 pounds, valued at \$632,474. The total for the three ports amounted to 6,349 trips, aggregating 159,875,391 pounds of fresh and salted fish, having a value to the fishermen of \$5,465,932.

Compared with the previous year there was a decrease of 857 trips, or 11.89 per cent, in the total number landed at Boston, Gloucester, and Portland, and an increase of 9,010,285 pounds, or 5.97 per cent, in the quantity, with a decrease of \$256,697, or 4.48 per cent, in the value of the products landed. There was an increase in the quantity of all the important species except pollock and halibut, and a decrease in the value of all except hake, herring, and swordfish. The catch of cod increased 1,665,151 pounds, or 3.11 per cent, in quantity and decreased \$95,488, or 5.51 per cent, in value; haddock increased 2,783,289 pounds, or 4.12 per cent, in quantity and decreased \$236,770, or 11.57 per cent, in value; cusk increased 149,035 pounds, or 7.10 per cent, in quantity and decreased \$3,277, or 8.66 per cent, in value; and mackerel increased 1,342,567 pounds, or 39.67 per cent, in quantity and decreased \$59,127, or 17.61 per cent, in value. Hake increased 838,139 pounds, or 18.47 per cent, in quantity and \$1,728, or 15.76 per cent, in value; herring, 30,814 pounds, or 1.10 per cent, in quantity and \$40,747, or 100.84 per cent, in value; and swordfish, 1,684,103 pounds, or 105.41 per cent, in quantity and \$128,610, or 40.39 per cent, in value. Pollock decreased 1,847,926 pounds, or 26.60 per cent, in quantity and \$46,636, or 28.32 per cent, in value, and halibut, 41,879 pounds, or 0.73 per cent in quantity and \$19,017, or 2.36 per cent, in value. The catch of Newfoundland herring increased from 551,400 pounds, valued at \$19,584, in 1921, to 2,302,420 pounds, valued at \$76,855, in 1922. In the various other species combined there was an increase of 2,406,992 pounds, or 77.73 per cent, in quantity and of \$32,533, or 23.90 per cent, in value.

The catch of scrod cod landed at these ports decreased from 1,150,577 pounds, valued at \$10,844, in 1921, to 815,371 pounds, valued at \$9,200, in 1922, and the catch of scrod haddock increased from 30,562 pounds, valued at \$535, in 1921, to 253,283 pounds, valued at \$4,261, in 1922. The small quantity of these grades landed, as compared with other grades of these species, is said to be due to the fact that the price is so low that the fishermen do not save all that are caught.

The following tables present in detail, by fishing grounds and also by months, the fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels for the calendar year 1922. 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. The grades, or sizes, given for certain species are those recognized in the trade.

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922.

Fishing grounds.	Number of trips.	Cod.			
		Large (10 pounds and over).			
		Fresh.		Salted.	
		Pounds.	Value.	Pounds.	Value.
<b>LANDED AT BOSTON.</b>					
<i>East of 66° W. longitude.</i>					
La Have Bank.....	28	540,200	\$17,980		
Western Bank.....	73	1,350,660	54,888	20,750	\$726
Quereau Bank.....	25	29,900	1,748	3,000	105
Green Bank.....	6	13,600	680		
Grand Bank.....	41	10,600	443	5,000	175
Cape Shore.....	36	80,305	3,847		
The Gully.....	4	6,350	413		
<i>West of 66° W. longitude.</i>					
Browns Bank.....	289	3,893,106	160,905	2,000	70
Georges Bank.....	709	7,524,584	275,902	17,000	595
Cashes Bank.....	1	8,500	375		
Fippenies Bank.....	1	7,700	193		
Middle Bank.....	51	107,975	4,531		
Platts Bank.....	4	8,680	263		
Jeffreys Ledge.....	159	184,435	12,362		
South Channel.....	674	2,806,704	134,829		
Nantucket Shoals.....	49	78,600	4,467		
Off Highland Light.....	1	775	39		
Off Chatham.....	39	103,287	5,237		
Seal Island.....	1	4,150	249		
Shore, general.....	694	958,186	39,767		
<b>Total.....</b>	<b>2,893</b>	<b>17,718,297</b>	<b>719,118</b>	<b>47,750</b>	<b>1,671</b>
<b>LANDED AT GLOUCESTER.</b>					
<i>East of 66° W. longitude.</i>					
La Have Bank.....	20	895,470	17,792	49,215	2,046
Western Bank.....	81	2,482,205	49,004	1,084,955	43,444
Quereau Bank.....	24	156,830	3,050	209,170	8,603
Green Bank.....	25	38,620	915	125,955	4,802
Grand Bank.....	57	138,975	2,809	772,105	29,881
St. Peters Bank.....	5			296,780	12,088
Cape Shore.....	18	14,840	366	16,035	774
St. Anns Bank.....	1			66,020	2,289
The Gully.....	6	15,160	300	31,210	1,078
<i>West of 66° W. longitude.</i>					
Browns Bank.....	47	615,930	11,758	48,130	1,847
Georges Bank.....	202	2,382,511	47,371	380,265	15,329
South Channel.....	22	76,545	1,525		
Shore, general.....	1,133	1,888,828	58,353	1,545	63
<b>Total.....</b>	<b>1,653</b>	<b>8,705,914</b>	<b>193,243</b>	<b>3,081,385</b>	<b>122,244</b>
<b>LANDED AT PORTLAND.</b>					
<i>East of 66° W. longitude.</i>					
La Have Bank.....	5	4,500	150	9,465	402
Western Bank.....	29	1,235,545	23,859	31,010	1,295
Quereau Bank.....	17	33,200	870	29,730	1,356
Green Bank.....	11	7,500	150	15,350	599
Grand Bank.....	10			14,085	600
St. Peters Bank.....	4	9,500	152	9,320	350
The Gully.....	4	2,840	57		
<i>West of 66° W. longitude.</i>					
Browns Bank.....	2	4,900	436		
Georges Bank.....	15	3,870	116	3,120	140
Fippenies Bank.....	4	9,760	505		
Platts Bank.....	56	83,044	4,762		
Jeffreys Ledge.....	174	236,326	13,836		
Shore, general.....	1,464	1,542,288	87,290	11,305	457
<b>Total.....</b>	<b>1,803</b>	<b>3,173,273</b>	<b>132,183</b>	<b>123,385</b>	<b>5,199</b>
<b>Grand total.....</b>	<b>6,349</b>	<b>29,597,484</b>	<b>1,044,544</b>	<b>3,252,520</b>	<b>129,114</b>

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922—Continued.

Fishing grounds.	Number of trips.	Cod—Continued.							
		Market (under 10 and over 2½ pounds).				Scrod (1 to 2½ pounds).			
		Fresh.		Salted.		Fresh.		Salted.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	
LANDED AT BOSTON.									
<i>East of 66° W. longitude.</i>									
La Have Bank	28	80,630	\$1,499						
Western Bank	73	711,830	13,619			20,280	\$148		
Quereau Bank	25	25,475	832						
Cape Shore	36	152,368	2,815			3,600	27		
The Gully	4	3,840	115						
<i>West of 66° W. longitude.</i>									
Browns Bank	289	3,304,292	73,356			99,930	887		
Georges Bank	709	4,595,347	99,399			94,840	1,439		
Cashes Bank	1	1,000	30						
Fippenies Bank	1	3,100	54						
Middle Bank	51	68,050	1,685			22,820	351		
Platts Bank	4	7,080	126			3,570	25		
Jeffreys Ledge	159	158,148	5,488			77,355	917		
South Channel	674	3,147,284	70,933			128,765	1,215		
Nantucket Shoals	49	138,730	3,425			5,605	41		
Off Highland Light	1	1,200	36						
Off Chatham	39	78,555	2,369			11,300	120		
Seal Island	1	6,250	125			900	5		
Shore, general	694	376,236	9,717			25,130	253		
Total	2,893	12,859,415	285,623			494,095	5,428		
LANDED AT GLOUCESTER.									
<i>East of 66° W. longitude.</i>									
La Have Bank	20	727,390	10,811	32,120	\$1,197	4,620	46	1,580	\$43
Western Bank	81	2,050,285	30,023	898,120	31,869	8,687	90	48,340	1,191
Quereau Bank	24	105,115	1,573	97,085	3,599			6,085	165
Green Bank	25	2,985	47	16,403	537			782	16
Grand Bank	57	8,970	135	299,545	10,164			23,670	599
St. Peters Bank	5			114,545	3,354			2,775	61
Cape Shore	18	2,025	35	690	29	215	5		
St. Anns Bank	1			125,950	3,741			11,375	284
The Gully	6	2,315	34	5,815	163				
<i>West of 66° W. longitude.</i>									
Browns Bank	47	493,470	7,522	8,845	289	5,620	45	205	5
Georges Bank	202	2,838,054	41,784	45,915	1,612	14,465	135		
South Channel	22	182,590	2,739			4,780	41		
Shore, general	1,133	3,705	54	325	11	265	2		
Total	1,653	6,416,904	94,757	1,645,358	56,565	38,652	364	94,812	2,364
LANDED AT PORTLAND.									
<i>East of 66° W. longitude.</i>									
La Have Bank	5	240	5	820	31				
Western Bank	29	1,600	23	3,000	113				
Quereau Bank	17	2,870	63	2,900	141				
Green Bank	11	760	11	575	23			200	7
Grand Bank	10			115	5			300	7
St. Peters Bank	4	2,000	25	4,105	133				
The Gully	4	300	5						
<i>West of 66° W. longitude.</i>									
Browns Bank	2	5,400	188			600	3		
Georges Bank	15			550	19			135	3
Fippenies Bank	4	6,490	131			1,255	7		
Platts Bank	56	70,290	1,881			17,790	89		
Jeffreys Ledge	174	194,097	5,104			67,423	357		
Shore, general	1,464	296,556	7,555	445	20	99,774	564	335	7
Total	1,803	580,603	14,991	12,510	485	186,842	1,020	970	24
Grand total	6,349	19,858,922	395,371	1,657,868	57,050	719,589	6,812	95,782	2,388

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922—Continued.

Fishing grounds.	Number of trips.	Haddock.						Hake.			
		Large (over 2½ pounds).				Scrod (1 to 2½ pounds).		Large (6 pounds and over).			
		Fresh.		Salted.		Fresh.		Fresh.		Salted.	
LANDED AT BOSTON		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<i>East of 66° W. longitude.</i>											
La Have Bank.	28	137,475	\$2,836								
Western Bank.	73	2,291,038	49,921								
Cape Shore.....	36	93,965	2,552								
<i>West of 66° W. longitude.</i>											
Mrowns Bank.	289	7,433,658	249,408			300	\$2				
Peorges Bank.	709	13,308,265	330,041			9,000	242				
Fippenies Bank.	1	1,015	84								
Middle Bank..	51	404,080	15,706			5,460	39	3,385	\$192		
Platts Bank...	4	8,280	248								
Jeffreys Ledge.	159	839,650	38,508			27,205	435	20,590	843		
South Channel.	674	24,978,222	709,287			119,100	2,666	67,960	1,966		
<b>Nantucket Shoals.....</b>	<b>49</b>	<b>2,005,590</b>	<b>62,352</b>			<b>35,800</b>	<b>444</b>				
Off Highland Light.....	1	4,050	162								
Off Chatham...	39	771,640	28,982			920	18	5,595	321		
Seal Island....	1	26,400	792								
Shore, general.	694	361,131	10,691			640	9	280	8		
<b>Total....</b>	<b>2,893</b>	<b>52,664,489</b>	<b>501,570</b>			<b>198,425</b>	<b>3,855</b>	<b>97,810</b>	<b>3,330</b>		
<b>LANDED AT GLOUCESTER.</b>											
<i>East of 66° W. longitude.</i>											
La Have Bank.	20	230,896	2,156					26,990	268		
Western Bank.	81	2,976,910	29,574	130,055	\$2,710			25,975	653	3,010	\$35
Quereau Bank.	24	3,960	40	465	7			9,730	98	205	5
Green Bank...	25	220	2					4,155	54	5,950	104
Grand Bank...	57			310	8			4,555	45	9,735	152
St Peters Bank	5			555	11						
The Gully.....	6							1,850	14		
<i>West of 66° W. longitude.</i>											
Browns Bank.	47	339,340	3,394					14,900	151	300	5
Georges Bank.	202	5,349,130	53,828					43,825	450	1,135	13
South Channel.	22	1,548,820	16,184			675	7	8,330	84		
Shore, general.	1,133	2,004,140	57,744					698,345	18,739	1,615	28
<b>Total....</b>	<b>1,653</b>	<b>12,453,416</b>	<b>162,922</b>	<b>131,385</b>	<b>2,736</b>	<b>675</b>	<b>7</b>	<b>838,655</b>	<b>20,556</b>	<b>21,950</b>	<b>342</b>
<b>LANDED AT PORTLAND.</b>											
<i>East of 66° W. longitude.</i>											
Western Bank.	29	3,108,120	59,968								
<i>West of 66° W. longitude.</i>											
Browns Bank.	2	39,630	1,540			750	4				
Fippenies Bank.	4	12,275	695			1,435	8				
Platts Bank...	56	91,598	4,851			7,885	65	24,515	699		
Jeffreys Ledge.	174	891,079	41,749			30,883	216	10,405	366		
Shore, general.	1,464	550,723	29,108			13,230	106	5,280	97	300	5
<b>Total....</b>	<b>1,803</b>	<b>4,693,425</b>	<b>137,911</b>			<b>54,183</b>	<b>399</b>	<b>40,200</b>	<b>1,162</b>	<b>300</b>	<b>5</b>
<b>Grand total</b>	<b>6,349</b>	<b>69,811,330</b>	<b>1,802,403</b>	<b>131,385</b>	<b>2,736</b>	<b>253,283</b>	<b>4,261</b>	<b>976,665</b>	<b>25,048</b>	<b>22,250</b>	<b>347</b>

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922—Continued.

Fishing grounds.	Number of trips.	Hake—Continued.				Pollock.			
		Small (under 6 pounds).							
		Fresh.		Salted.		Fresh.		Salted.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	
LANDED AT BOSTON.									
<i>East of 66° W. longitude.</i>									
La Have Bank.....	28	8,825	\$126			10,495	\$175		
Western Bank.....	73	11,345	241			168,385	3,709	250	\$5
Quereau Bank.....	25	500	35			290	4		
Grand Bank.....	41	1,500	36			70	1		
Cape Shore.....	36	265	5			11,160	200		
<i>West of 66° W. longitude.</i>									
Browns Bank.....	289	39,505	1,069			424,400	9,984		
Georges Bank.....	709	51,950	1,223			698,628	14,690		
Cashes Bank.....	1	400	10			3,600	72		
Fippenies Bank.....	1	3,400	68			1,030	31		
Middle Bank.....	51	159,970	3,841			24,499	851		
Platts Bank.....	4	31,520	467			3,105	91		
Jeffreys Ledge.....	159	532,892	11,926			250,600	6,671		
South Channel.....	674	2,390,642	43,588			909,040	19,793		
Nantucket Shoals.....	49	46,600	764			35,979	925		
Off Highland Light.....	1	2,400	24			800	8		
Off Chatham.....	39	57,700	2,065			20,883	729		
Seal Island.....	1					200	4		
Shore, general.....	694	81,122	2,619	1,200	\$36	852,637	20,719		
Total.....	2,893	3,420,536	68,107	1,200	36	3,415,801	78,657	250	
LANDED AT GLOUCESTER.									
<i>East of 66° W. longitude.</i>									
La Have Bank.....	20					23,095	209	125	3
Western Bank.....	81					126,440	1,211	32,060	636
Quereau Bank.....	24					1,070	11	670	13
Green Bank.....	25							205	3
Grand Bank.....	57							4,100	77
St. Peters Bank.....	5							100	2
Cape Shore.....	18					675	7		
St. Anns Bank.....	1							3,850	58
The Gully.....	6					110	1	3,315	65
<i>West of 66° W. longitude.</i>									
Browns Bank.....	47					37,760	308	1,145	18
Georges Bank.....	202					263,843	2,503	3,355	55
South Channel.....	22					17,875	174		
Shore, general.....	1,133					587,857	22,757	80	2
Total.....	1,653					1,058,725	27,181	49,005	932
LANDED AT PORTLAND.									
<i>East of 66° W. longitude.</i>									
La Have Bank.....	5	2,350	24						
Western Bank.....	29			5,800	131	98,665	2,074		
Quereau Bank.....	17	1,740	16	1,255	19				
Green Bank.....	11	5,575	56						
Grand Bank.....	10			55	1				
<i>West of 66° W. longitude.</i>									
Browns Bank.....	2					655	13		
Georges Bank.....	15					325	7		
Fippenies Bank.....	4	10,815	127			6,650	76		
Platts Bank.....	56	163,305	2,455			49,555	735		
Jeffreys Ledge.....	174	387,762	7,751			175,786	4,016		
Shore, general.....	1,464	372,589	7,192	2,350	21	241,623	4,309	45	1
Total.....	1,803	944,136	17,621	9,460	172	573,259	11,230	45	1
Grand total.....	6,349	4,364,672	85,728	10,660	208	5,047,785	117,068	49,300	938

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922—Continued.

Fishing grounds.	Number of trips.	Cusk.				Halibut.			
		Fresh.		Salted.		Fresh.		Salted.	
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<b>LANDED AT BOSTON.</b>									
<i>East of 66° W. longitude.</i>									
La Have Bank.....	28	14,135	\$174			73,975	\$10,148		
Western Bank.....	73	16,315	204			153,458	26,535		
Quereau Bank.....	25	9,685	160			682,498	95,160		
Green Bank.....	6					186,349	27,511		
Grand Bank.....	41	1,000	20			1,371,081	162,977		
St. Peters Bank.....	3					115,440	15,167		
Cape Shore.....	36	4,445	35			869	154		
The Gully.....	4	150	3			111,294	16,233		
<i>West of 66° W. longitude.</i>									
Browns Bank.....	289	687,010	9,602			244,015	43,139		
Georges Bank.....	709	46,392	843			788,260	115,131		
Cashes Bank.....	1	2,250	45			610	95		
Fippenies Bank.....	1	2,100	32			138	26		
Middle Bank.....	51	47,530	785			3,042	476		
Platts Bank.....	4	27,145	257			255	29		
Jeffreys Ledge.....	159	196,870	3,944			6,594	1,411		
South Channel.....	674	116,830	1,829			177,184	32,007		
Nantucket Shoals.....	49	2,500	25			2,265	415		
Off Highland Light.....	1					90	23		
Off Chatham.....	39	8,855	230			2,849	618		
Seal Island.....	1	3,700	37			30	3		
Shore, general.....	694	10,020	192			28,160	3,477		
<b>Total.....</b>	<b>2,893</b>	<b>1,196,932</b>	<b>18,417</b>			<b>3,948,456</b>	<b>550,735</b>		
<b>LANDED AT GLOUCESTER.</b>									
<i>East of 66° W. longitude.</i>									
La Have Bank.....	20	53,685	510					60	\$3
Western Bank.....	81	112,810	1,102	2,550	\$51	180	7	3,850	230
Quereau Bank.....	24	17,725	214	4,325	96	160	4	380	27
Green Bank.....	25	2,169	80	2,480	48	14,982	2,624	310	28
Grand Bank.....	57	17,620	220	12,855	376			6,495	376
St. Peters Bank.....	5							1,820	91
Cape Shore.....	18	2,550	30	200	5	1,810	453		
The Gully.....	6	3,460	40	2,085	36				
<i>West of 66° W. longitude.</i>									
Browns Bank.....	47	129,800	1,260	3,485	53			190	17
Georges Bank.....	202	123,950	1,219	25,050	531	25,220	3,693	2,601	143
South Channel.....	22	810	10						
Shore, general.....	1,133	1,200	13						
<b>Total.....</b>	<b>1,653</b>	<b>465,779</b>	<b>4,698</b>	<b>53,030</b>	<b>1,196</b>	<b>42,352</b>	<b>6,781</b>	<b>15,706</b>	<b>915</b>
<b>LANDED AT PORTLAND.</b>									
<i>East of 66° W. longitude.</i>									
La Have Bank.....	5	7,650	119			108,150	16,415		
Western Bank.....	29	5,065	89			244,984	32,537		
Quereau Bank.....	17	3,600	66			393,090	56,087		
Green Bank.....	11	3,490	44			296,837	42,373		
Grand Bank.....	10					264,728	35,444		
St. Peters Bank.....	4			245	5	73,249	11,836		
The Gully.....	4					130,632	16,546		
<i>West of 66° W. longitude.</i>									
Browns Bank.....	2	2,730	79			15,507	2,010		
Georges Bank.....	15	2,000	40	160	3	73,903	10,090		
Fippenies Bank.....	4	6,100	89			752	115		
Platts Bank.....	56	98,495	1,733			3,359	450		
Jeffreys Ledge.....	174	213,205	3,756			5,176	726		
Shore, general.....	1,464	188,969	4,218			7,268	997		
<b>Total.....</b>	<b>1,803</b>	<b>531,304</b>	<b>10,233</b>	<b>405</b>	<b>8</b>	<b>1,617,635</b>	<b>225,626</b>		
<b>Grand total.....</b>	<b>6,349</b>	<b>2,194,015</b>	<b>33,348</b>	<b>53,435</b>	<b>1,204</b>	<b>5,608,443</b>	<b>783,142</b>	<b>15,706</b>	<b>915</b>



Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922—Continued.

Fishing grounds.	Number of trips.	Mackerel.				Miscellaneous.			
		Fresh.		Salted.		Fresh.		Salted.	
LANDED AT BOSTON.									
<i>East of 66° W. longitude.</i>									
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
La Have Bank.....	28					1,376	\$156		
Western Bank.....	73					21,558	554		
Quereau Bank.....	25					601	77		
Grand Bank.....	41					6,524	907		
Off Newfoundland.....	2					1410,000	20,500		
Cape Shore.....	36	879,235	\$68,282	64,400	\$4,019	7,541	1,001		
Gulf of St. Lawrence.....	3	65,105	7,979						
<i>West of 66° W. longitude.</i>									
Browns Bank.....	289					44,147	2,882		
Georges Bank.....	709					4,025,104	461,828	34,300	\$829
Middle Bank.....	51	63,090	6,470			4,655	375		
Jeffreys Ledge.....	159	177,655	18,662			11,996	1,200	2,000	61
South Channel.....	674	573	146			828,471	44,352	7,300	183
Nantucket Shoals.....	49	19,100	3,438			141,504	8,024		
Off Chatham.....	39	19,545	838			4,285	456		
Shore, general.....	694	1,646,697	76,147	1,000	90	1,639,185	54,097		
Total.....	2,893	2,871,000	181,962	65,400	4,109	7,146,947	596,409	43,600	1,073
LANDED AT GLOUCESTER.									
<i>East of 66° W. longitude.</i>									
Off Newfoundland.....	6							1,892,420	56,355
Cape Shore.....	18	62,100	3,096	294,890	20,557				
Gulf of St. Lawrence.....	6			75,665	11,472				
<i>West of 66° W. longitude.</i>									
Shore, general.....	1,133	312,445	23,470						
Total.....	1,653	374,545	27,166	370,555	32,029			1,892,420	56,355
LANDED AT PORTLAND.									
<i>East of 66° W. longitude.</i>									
La Have Bank.....	5					1,705	256		
Western Bank.....	29					24,648	1,823		
Quereau Bank.....	17					1,594	193	495	41
Green Bank.....	11					783	105		
Grand Bank.....	10					503	60		
Cape Shore.....	8	168,566	8,105	14,285	844	8,274	955		
<i>West of 66° W. longitude.</i>									
Browns Bank.....	2					200	10		
Georges Bank.....	15	393	31			134,385	15,838		
Platts Bank.....	56					330	5		
Jeffreys Ledge.....	174	893	178			21,832	828		
Shore, general.....	1,464	850,970	21,669	10,140	406	2,151,834	22,857		
Total.....	1,803	1,020,822	29,983	24,425	1,250	2,346,088	42,930	495	41
Grand total.....	6,349	4,266,367	239,111	460,380	37,388	9,493,035	639,339	1,936,515	57,469

<sup>1</sup> Herring. Other items under "Miscellaneous" include bluebacks, 90,300 pounds, value \$760; bonito; 50 pounds, value \$5; butterfish, 44,416 pounds, value \$3,172; flounders, 3,281,327 pounds, value \$134,749; herring, 341,934 pounds, value \$4,299; menhaden, 1,699,600 pounds, value \$16,888; rosefish, 18,970 pounds, value \$473; shad, 540 pounds, value \$55; sharks, 8,203 pounds, value \$153; skates, 1,150 pounds, value \$20; smelt, 3,973 pounds, value \$347; sturgeon, 1,050 pounds, value \$207; swordfish, 3,281,748 pounds, value \$447,016; wolfish, 209,422 pounds, value \$3,705; lobster, 107 pounds, value \$27; livers, 1,650 pounds, value \$21; spawn, fresh, 98,595 pounds, value \$6,942; spawn, salted, 43,600 pounds, value \$1,073; and tongues, salted, 495 pounds, value \$41.

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922—Continued.

Fishing grounds.	Number of trips.	Total.				Grand total.	
		Fresh.		Salted.		Pounds.	Value.
LANDED AT BOSTON.		Pounds.	Value.	Pounds.	Value.		
<i>East of 66° W. longitude.</i>							
La Have Bank.....	28	867,111	\$33,094			867,111	\$33,094
Western Bank.....	73	4,744,869	149,819	21,000	\$731	4,765,869	150,550
Quereau Bank.....	25	748,949	98,016	3,000	105	751,949	98,121
Green Bank.....	6	199,949	28,191			199,949	28,191
Grand Bank.....	41	1,390,775	164,384	5,000	175	1,395,775	164,559
St. Peters Bank.....	3	115,440	15,167			115,440	15,167
Off Newfoundland.....	2	410,000	20,500			410,000	20,500
Cape Shore.....	36	1,233,753	78,918	64,400	4,019	1,298,153	82,937
Gulf of St. Lawrence.....	3	65,105	7,979			65,105	7,979
The Gully.....	4	121,634	16,764			121,634	16,764
<i>West of 66° W. longitude.</i>							
Browns Bank.....	289	16,170,363	551,234	2,000	70	16,172,363	551,304
Georges Bank.....	709	31,142,370	1,300,738	51,300	1,424	31,193,670	1,302,162
Cashes Bank.....	1	16,360	627			16,360	627
Fippenies Bank.....	1	18,513	488			18,513	488
Middle Bank.....	51	914,556	35,302			914,556	35,302
Platts Bank.....	4	89,635	1,506			89,635	1,506
Jeffreys Ledge.....	159	2,483,990	102,367	2,000	61	2,485,990	102,428
South Channel.....	674	35,670,775	1,062,611	7,300	183	35,678,075	1,062,794
Nantucket Shoals.....	49	2,512,273	84,320			2,512,273	84,320
Off Highland Light.....	1	9,315	292			9,315	292
Off Chatham.....	39	1,085,414	41,983			1,085,414	41,983
Seal Island.....	1	41,630	1,215			41,630	1,215
Shore, general.....	694	5,979,424	217,696	2,200	126	5,981,624	217,822
<b>Total.....</b>	<b>2,893</b>	<b>106,032,203</b>	<b>4,013,211</b>	<b>158,200</b>	<b>6,894</b>	<b>106,190,403</b>	<b>4,020,105</b>
<b>LANDED AT GLOUCESTER.</b>							
<i>East of 66° W. longitude.</i>							
La Have Bank.....	20	1,962,146	31,792	83,100	3,292	2,045,246	35,084
Western Bank.....	81	7,783,492	111,664	2,202,940	80,166	9,986,432	191,830
Quereau Bank.....	24	294,590	4,990	318,385	12,515	612,975	17,505
Green Bank.....	25	63,131	3,722	152,085	5,538	215,219	9,260
Grand Bank.....	57	170,120	3,209	1,128,815	41,633	1,298,935	44,842
St. Peters Bank.....	5			416,575	15,607	416,575	15,607
Off Newfoundland.....	6			1,892,420	56,355	1,892,420	56,355
Cape Shore.....	18	84,215	4,592	311,815	21,365	396,030	25,957
Gulf of St. Lawrence.....	6			75,665	11,472	75,665	11,472
St. Anns Bank.....	1			207,195	6,372	207,195	6,372
The Gully.....	6	22,895	389	42,425	1,342	65,320	1,731
<i>W. of 66° W. longitude.</i>							
Browns Bank.....	47	1,636,820	24,438	62,300	2,234	1,699,120	26,672
Georges Bank.....	202	11,040,998	150,983	458,321	17,683	11,499,319	168,666
South Channel.....	22	1,840,425	20,764			1,840,425	20,764
Shore, general.....	1,133	5,496,785	181,132	3,565	104	5,500,350	181,236
<b>Total.....</b>	<b>1,653</b>	<b>30,395,617</b>	<b>537,675</b>	<b>7,355,606</b>	<b>275,678</b>	<b>37,751,223</b>	<b>813,353</b>
<b>LANDED AT PORTLAND.</b>							
<i>East of 66° W. longitude.</i>							
La Have Bank.....	5	124,595	16,969	10,285	433	134,880	17,402
Western Bank.....	29	4,718,627	120,373	39,810	1,539	4,758,437	121,912
Quereau Bank.....	17	436,094	57,295	34,380	1,557	470,474	58,852
Green Bank.....	11	314,945	42,739	16,125	629	331,070	43,368
Grand Bank.....	10	265,231	35,504	14,555	613	279,786	36,117
St. Peters Bank.....	4	84,749	12,013	13,670	488	98,419	12,501
Cape Shore.....	8	176,840	9,600	14,285	844	191,125	9,904
The Gully.....	4	133,772	16,608			133,772	16,608
<i>West of 66° W. longitude.</i>							
Browns Bank.....	2	70,372	4,283			70,372	4,283
Georges Bank.....	15	214,876	26,122	3,965	165	218,841	26,287
Fippenies Bank.....	4	55,532	1,753			55,532	1,753
Platts Bank.....	56	610,166	17,725			610,166	17,725
Jeffreys Ledge.....	174	2,234,867	78,883			2,234,867	78,883
Shore, general.....	1,464	6,321,104	185,962	24,920	917	6,346,024	186,879
<b>Total.....</b>	<b>1,803</b>	<b>15,761,770</b>	<b>625,289</b>	<b>171,995</b>	<b>7,185</b>	<b>15,933,765</b>	<b>632,474</b>
<b>Grand total.....</b>	<b>6,349</b>	<b>152,189,590</b>	<b>5,176,175</b>	<b>7,685,801</b>	<b>289,757</b>	<b>159,875,391</b>	<b>5,465,932</b>

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922.

Months.	Number of trips.	Cod.			
		Large (10 pounds and over).			
		Fresh.		Salted.	
		Pounds.	Value.	Pounds.	Value.
LANDED AT BOSTON.					
January.....	158	521, 773	\$40, 895		
February.....	228	2, 042, 393	73, 832		
March.....	239	2, 951, 045	73, 694	17, 000	\$595
April.....	238	1, 900, 605	55, 959	3, 000	105
May.....	261	1, 572, 600	56, 436		
June.....	232	1, 594, 337	63, 624	10, 000	350
July.....	296	1, 231, 524	56, 315	12, 750	446
August.....	272	1, 466, 591	71, 360		
September.....	256	1, 413, 465	58, 725		
October.....	242	1, 123, 724	59, 473	5, 000	175
November.....	286	1, 018, 607	54, 474		
December.....	185	881, 633	54, 331		
Total.....	2, 893	17, 718, 297	719, 118	47, 750	1, 671
LANDED AT GLOUCESTER.					
January.....	111	23, 370	931	805	24
February.....	79	165, 040	4, 225	28, 420	977
March.....	371	1, 633, 893	34, 125	90, 245	3, 237
April.....	191	717, 864	15, 154	120, 545	4, 366
May.....	59	597, 921	11, 955	207, 530	8, 197
June.....	76	1, 247, 155	24, 878	512, 315	19, 319
July.....	59	904, 015	17, 483	440, 980	17, 342
August.....	75	1, 019, 278	19, 886	860, 465	34, 412
September.....	72	584, 590	11, 927	448, 055	18, 813
October.....	184	751, 875	20, 750	353, 185	14, 752
November.....	234	815, 485	23, 179	17, 205	715
December.....	142	245, 428	8, 750	1, 635	90
Total.....	1, 653	8, 705, 914	193, 243	3, 081, 385	122, 244
LANDED AT PORTLAND.					
January.....	129	104, 169	8, 697		
February.....	136	132, 806	6, 113		
March.....	127	669, 622	14, 128		
April.....	162	392, 959	8, 966	365	14
May.....	208	623, 029	15, 234	25, 425	1, 001
June.....	193	348, 866	33, 850	21, 580	844
July.....	241	294, 654	13, 123	5, 090	179
August.....	169	193, 678	9, 553	17, 085	735
September.....	150	138, 550	5, 806	15, 350	629
October.....	129	91, 664	4, 918	25, 565	1, 086
November.....	97	111, 972	6, 732		
December.....	62	71, 304	5, 063	12, 925	711
Total.....	1, 803	3, 173, 273	132, 183	123, 385	5, 199
Grand total.....	6, 349	29, 597, 484	1, 044, 544	3, 252, 520	129, 114
Grounds east of 66° W. longitude.....	558	7, 066, 800	179, 473	2, 789, 155	110, 613
Grounds west of 66° W. longitude.....	5, 791	22, 530, 684	865, 071	463, 365	18, 501
Landed at Boston in 1921.....	3, 078	19, 439, 796	815, 904	23, 110	896
Landed at Gloucester in 1921.....	2, 073	7, 777, 379	188, 094	3, 438, 992	143, 488
Landed at Portland in 1921.....	2, 055	2, 345, 199	92, 116	213, 931	10, 097

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922—Continued.

Months.	Number of trips.	Cod—Continued.							
		Market (under 10 and over 2½ pounds).				Scrod (1 to 2½ pounds).			
		Fresh.		Salted.		Fresh.		Salted.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	
<b>LANDED AT BOSTON.</b>									
January	158	595,702	\$21,442			87,830	\$1,321		
February	228	676,082	18,483			58,795	646		
March	239	793,128	15,118			16,740	123		
April	238	865,713	16,880			32,540	211		
May	261	1,374,725	25,033			54,490	913		
June	232	1,286,719	25,349			37,860	243		
July	296	1,287,419	27,272			42,345	287		
August	272	1,546,525	33,486			30,540	219		
September	256	1,181,433	21,970			34,375	232		
October	242	1,397,118	33,789			28,365	308		
November	286	1,038,969	24,627			22,335	262		
December	185	815,882	22,174			47,880	663		
<b>Total</b>	<b>2,893</b>	<b>12,859,415</b>	<b>285,623</b>			<b>494,095</b>	<b>5,428</b>		
<b>LANDED AT GLOUCESTER.</b>									
January	111	8,465	85	4,440	\$111	900	5	500	\$8
February	79	9,820	126	2,495	61	200	2	105	2
March	371	251,790	4,048	12,800	386	735	7		
April	191	406,865	6,133	19,380	607	4,255	34	657	13
May	59	567,510	8,458	36,470	1,264	5,055	50		
June	76	1,083,615	16,121	271,660	8,653	6,265	62	14,890	372
July	59	892,249	13,144	372,075	13,055	3,397	34	32,080	809
August	75	1,541,575	21,509	331,895	11,049	9,825	91	4,840	86
September	72	1,051,900	15,570	348,103	12,583	4,740	36	29,050	749
October	184	483,895	7,642	243,350	8,699	1,185	9	16,565	272
November	234	98,840	1,564	2,690	97	1,230	24	2,125	53
December	142	20,380	357			865	10		
<b>Total</b>	<b>1,653</b>	<b>6,416,904</b>	<b>94,757</b>	<b>1,645,358</b>	<b>56,565</b>	<b>38,652</b>	<b>364</b>	<b>94,812</b>	<b>2,364</b>
<b>LANDED AT PORTLAND.</b>									
January	129	87,427	3,089			41,970	268		
February	136	73,467	1,832			33,504	183		
March	127	46,614	869			14,969	75		
April	162	39,442	696			13,945	70		
May	208	27,184	446			8,952	46	200	7
June	193	24,324	497	4,955	163	4,085	21	135	3
July	241	13,362	385			4,331	22		
August	169	13,774	452	115	5	2,996	15	300	7
September	150	19,583	551	575	23	3,645	18		
October	129	50,510	1,237	3,820	144	11,145	60		
November	97	114,800	2,762			30,740	158		
December	62	70,116	2,175	3,045	150	16,560	84	335	7
<b>Total</b>	<b>1,803</b>	<b>580,603</b>	<b>14,991</b>	<b>12,510</b>	<b>485</b>	<b>186,842</b>	<b>1,020</b>	<b>970</b>	<b>24</b>
<b>Grand total</b>	<b>6,349</b>	<b>19,856,922</b>	<b>395,371</b>	<b>1,657,868</b>	<b>57,050</b>	<b>719,589</b>	<b>6,812</b>	<b>95,782</b>	<b>2,388</b>
Grounds east of 66° W. longitude	558	3,880,998	61,670	1,601,788	55,099	37,402	316	95,107	2,373
Grounds west of 66° W. longitude	5,791	15,975,924	333,701	56,080	1,951	682,187	6,496	675	15
Landed at Boston in 1921	3,078	12,256,004	316,372	6,995	210	613,115	5,621		
Landed at Gloucester in 1921	2,073	4,230,836	68,002	1,594,449	59,406	75,060	651	107,265	2,435
Landed at Portland in 1921	2,055	1,014,395	24,573	23,351	765	354,462	2,124	675	13

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922—Continued.

Months.	Number of trips.	Haddock.						Hake.			
		Large (over 2½ pounds).				Scrod (1 to 2½ pounds).		Large (6 pounds and over).			
		Fresh.		Salted.		Fresh.		Fresh.		Salted.	
LANDED AT BOSTON.		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
January.....	158	3,816,020	\$206,615			12,750	\$566	6,320	\$460		
February.....	228	5,846,805	165,892					10,635	688		
March.....	239	5,321,155	87,991			600	3	11,765	528		
April.....	238	3,619,533	108,495			2,915	15	1,000	50		
May.....	261	4,346,375	104,552					250	10		
June.....	232	3,310,782	82,915			4,250	43	100	4		
July.....	296	3,191,784	81,414					150	2		
August.....	272	3,846,315	82,979								
September.....	256	4,462,830	88,939			2,300	46	12,700	95		
October.....	242	4,793,130	144,685			17,370	281	8,400	230		
November.....	286	5,252,935	174,019			53,370	950	35,705	925		
December.....	185	4,856,825	173,074			104,870	1,951	10,785	338		
Total....	2,893	52,664,489	1,501,570			198,425	3,855	97,810	3,330		
LANDED AT GLOUCESTER.											
January.....	111	17,070	1,128					2,515	209		
February.....	79	202,825	4,326					2,810	126		
March.....	371	3,070,935	53,058					935	9	175	\$3
April.....	191	359,155	11,556					6,720	55	2,040	34
May.....	59	1,135,340	11,354					2,960	27	875	10
June.....	76	1,583,951	15,888					890	7	1,230	18
July.....	59	1,663,735	16,929	54,215	\$813			8,810	80	3,180	47
August.....	75	1,750,250	17,896	135	2	675	7	38,720	769	4,130	57
September.....	72	1,655,795	16,548	76,005	1,900			37,470	536	2,740	55
October.....	184	797,550	7,976	1,030	21			280,485	7,642	5,330	95
November.....	234	124,975	1,250					365,250	8,144	2,250	23
December.....	142	91,835	5,013					91,090	2,952		
Total....	1,633	12,453,416	162,922	131,385	2,736	675	7	838,655	20,556	21,950	342
LANDED AT PORTLAND.											
January.....	129	135,252	11,289			2,290	18	1,155	58		
February.....	136	651,153	25,665			6,857	68	2,030	92		
March.....	127	1,339,815	29,774			3,773	24	220	7		
April.....	162	1,149,552	24,273			1,505	9	21,770	702		
May.....	208	960,189	19,676					385	7	300	5
June.....	193	14,014	995			845	15	230	2		
July.....	241	29,058	1,727			2,688	29				
August.....	169	14,284	759			1,750	18	575	7		
September.....	150	32,802	1,668			1,770	13	1,650	33		
October.....	129	52,708	2,847			4,893	29	8,720	206		
November.....	97	174,249	10,288			16,927	108	3,050	42		
December.....	62	140,349	8,950			10,885	68	415	6		
Total....	1,803	4,693,425	137,911			54,183	399	40,200	1,162	300	5
Grand total...	6,349	69,811,330	1,802,403	131,385	2,736	253,283	4,261	976,665	25,048	22,250	347
Grounds east of 66° W. longitude.....	558	8,842,584	147,049	131,385	2,736			73,255	1,132	18,900	296
Grounds west of 66° W. longitude.....	5,791	60,968,746	1,655,354			253,283	4,261	903,410	23,916	3,350	51
Landed at Boston in 1921.....	3,078	55,220,576	1,730,948			21,150	408	485,164	16,054		
Landed at Gloucester in 1921.....	2,073	9,212,239	201,898	15,290	182			591,864	17,807	41,973	759
Landed at Portland in 1921.....	2,055	2,934,042	112,607			9,412	127	59,734	1,619	260	6

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922—Continued.

Months.	Number of trips.	Hake—Continued.				Pollock.			
		Small (under 6 pounds).*							
		Fresh.		Salted.		Fresh.		Salted.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	
<b>LANDED AT BOSTON.</b>									
January.....	158	97,395	\$5,015			94,909	\$4,012		
February.....	228	130,540	4,782			93,919	4,044		
March.....	239	97,355	3,223			99,111	3,450		
April.....	238	172,540	3,138			154,218	3,962		
May.....	261	105,955	2,238			217,054	5,778		
June.....	232	150,739	3,394	1,200	\$36	228,378	5,535		
July.....	296	222,778	5,562			374,874	7,605	250	\$5
August.....	272	196,762	4,869			417,858	9,546		
September.....	256	425,010	6,158			407,925	7,677		
October.....	242	516,928	10,480			523,135	11,666		
November.....	286	1,017,305	12,294			383,820	6,783		
December.....	185	287,229	6,954			420,570	8,599		
<b>Total.....</b>	<b>2,893</b>	<b>3,420,536</b>	<b>68,107</b>	<b>1,200</b>	<b>36</b>	<b>3,415,801</b>	<b>78,657</b>	<b>250</b>	<b>5</b>
<b>LANDED AT GLOUCESTER.</b>									
January.....	111					279,840	14,719	240	4
February.....	79					12,000	656	190	3
March.....	371					28,750	215	3,720	72
April.....	191					33,595	280	1,310	20
May.....	59					24,840	232	1,365	21
June.....	76					39,648	334	5,085	77
July.....	59					58,375	510	7,405	145
August.....	75					84,945	849	8,420	148
September.....	72					144,065	1,450	17,485	366
October.....	184					75,560	743	3,755	76
November.....	234					9,185	95		
December.....	142					267,922	7,098		
<b>Total.....</b>	<b>1,653</b>					<b>1,058,725</b>	<b>27,181</b>	<b>49,005</b>	<b>932</b>
<b>LANDED AT PORTLAND.</b>									
January.....	129	71,466	2,532			62,731	2,071		
February.....	136	94,214	2,920			93,971	2,700		
March.....	127	57,887	1,503			101,216	2,157		
April.....	162	33,043	642			27,517	549	45	1
May.....	208	35,663	531			11,893	169		
June.....	193	21,680	254	2,240	19	14,819	152		
July.....	241	35,102	433	1,255	19	33,707	325		
August.....	169	46,626	685	55	1	31,466	392		
September.....	150	60,799	1,049			35,356	445		
October.....	129	104,370	1,789	5,800	131	54,011	781		
November.....	97	295,765	3,475			70,523	829		
December.....	62	87,521	1,808	110	2	36,049	660		
<b>Total.....</b>	<b>1,803</b>	<b>944,136</b>	<b>17,621</b>	<b>9,460</b>	<b>172</b>	<b>573,259</b>	<b>11,230</b>	<b>45</b>	<b>1</b>
<b>Grand total.....</b>	<b>6,349</b>	<b>4,364,672</b>	<b>85,728</b>	<b>10,660</b>	<b>208</b>	<b>5,047,785</b>	<b>117,068</b>	<b>49,300</b>	<b>938</b>
Grounds east of 66° W. longitude.....	558	32,100	539	7,110	151	440,455	7,602	44,675	862
Grounds west of 66° W. longitude.....	5,791	4,332,572	85,189	3,550	57	4,607,330	109,466	4,625	76
Landed at Boston in 1921.....	3,078	2,474,738	54,598			2,748,216	67,537		
Landed at Gloucester in 1921.....	2,073					3,429,405	83,338	48,307	831
Landed at Portland in 1921.....	2,055	882,375	18,760			715,398	12,854	3,685	82

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922—Continued.

Months.	Number of trips.	Cusk.				Halibut.			
		Fresh.		Salted.		Fresh.		Salted.	
LANDED AT BOSTON.									
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
January.....	158	113,155	\$2,750			38,692	\$8,889		
February.....	228	132,445	2,653			188,834	32,115		
March.....	239	163,438	1,889			483,722	76,255		
April.....	238	157,295	1,805			486,342	57,171		
May.....	261	97,445	1,102			479,871	64,920		
June.....	232	33,520	562			395,476	56,843		
July.....	296	35,407	538			614,356	68,277		
August.....	272	57,905	726			549,087	67,383		
September.....	256	45,790	673			404,696	59,709		
October.....	242	112,302	1,735			230,620	39,231		
November.....	286	89,145	1,392			47,091	11,310		
December.....	185	159,085	2,592			29,669	8,632		
Total.....	2,893	1,196,932	18,417			3,948,456	550,735		
LANDED AT GLOUCESTER.									
January.....	111	210	2						
February.....	79	3,899	35	1,385	\$26				
March.....	371	18,860	188	980	22	14,982	2,624		
April.....	191	89,915	871	1,685	28				
May.....	59	47,145	496	4,490	75	9,140	1,043	180	\$22
June.....	76	46,920	513	22,470	485			2,050	231
July.....	59	60,185	624	8,125	165	340	11	5,190	190
August.....	75	86,530	813	5,900	232			6,366	344
September.....	72	44,400	510	5,400	111	16,080	2,650	1,480	97
October.....	184	36,385	367	1,785	36			365	26
November.....	234	21,760	207	810	16			75	5
December.....	142	9,570	72			1,810	453		
Total.....	1,653	465,779	4,698	53,030	1,196	42,352	6,781	15,706	915
LANDED AT PORTLAND.									
January.....	129	65,105	2,049			1,090	184		
February.....	136	80,711	1,425			31,822	4,888		
March.....	127	74,625	807			65,964	11,971		
April.....	162	51,110	720			91,141	12,654		
May.....	208	14,283	340			313,628	42,043		
June.....	193	10,632	245	405	8	186,854	26,351		
July.....	241	12,778	364			243,168	29,207		
August.....	169	16,992	619			260,388	30,373		
September.....	150	20,137	508			211,581	30,595		
October.....	129	56,896	1,020			197,472	33,569		
November.....	97	81,055	1,095			2,767	347		
December.....	62	46,980	1,041			11,760	3,444		
Total.....	1,803	531,304	10,233	405	8	1,617,635	225,626		
Grand total.....	6,349	2,194,015	33,348	53,435	1,204	5,608,443	783,142	15,706	915
Grounds east of 66° W. longitude.....	558	275,554	3,110	24,740	617	4,223,766	568,211	12,915	755
Grounds west of 66° W. longitude.....	5,791	1,918,461	30,238	28,695	587	1,384,677	214,931	2,791	160
Landed at Boston in 1921.....	3,078	881,288	16,111	800	16	3,808,468	556,592		
Landed at Gloucester in 1921.....	2,073	576,995	7,368	37,550	761	385,040	39,447	48,321	7,063
Landed at Portland in 1921.....	2,055	601,699	13,569	83	4	1,424,089	199,959	110	13

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922—Continued.

Months.	Number of trips.	Mackerel.				Miscellaneous. <sup>1</sup>			
		Fresh.		Salted.		Fresh.		Salted.	
LANDED AT BOSTON.									
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
January.....	158					252,700	\$14,092	1,800	\$34
February.....	228					381,149	17,543	15,800	393
March.....	239	100	\$61			914,341	36,149	26,000	646
April.....	238					319,735	9,997		
May.....	261	92,552	15,227			484,567	9,875		
June.....	232	816,565	59,530	65,400	\$4,109	308,453	39,351		
July.....	296	15,238	761			1,632,707	203,506		
August.....	272	21,045	836			1,231,758	148,963		
September.....	256	637,382	25,054			799,390	75,797		
October.....	242	729,789	25,579			417,052	17,251		
November.....	286	558,329	54,914			231,426	12,563		
December.....	185					173,669	11,322		
<b>Total.....</b>	<b>2,893</b>	<b>2,871,000</b>	<b>181,962</b>	<b>65,400</b>	<b>4,109</b>	<b>7,146,947</b>	<b>596,409</b>	<b>43,600</b>	<b>1,073</b>
LANDED AT GLOUCESTER.									
January.....	111							387,600	8,500
February.....	79								
March.....	371							103,800	2,595
April.....	191								
May.....	59								
June.....	76	62,100	3,696	292,090	20,137				
July.....	59	11,725	352						
August.....	75								
September.....	72								
October.....	184	104,467	2,030	45,902	6,966				
November.....	234	196,253	21,088	32,563	4,926				
December.....	142							1,401,020	45,260
<b>Total.....</b>	<b>1,653</b>	<b>374,545</b>	<b>27,166</b>	<b>370,555</b>	<b>32,029</b>			<b>1,892,420</b>	<b>56,355</b>
LANDED AT PORTLAND.									
January.....	129					5,855	250		
February.....	136					18,443	673		
March.....	127					3,962	113		
April.....	162					1,535	29		
May.....	208					216,301	2,739		
June.....	193	160,833	7,551	14,285	844	119,722	1,556		
July.....	241	5,753	618			1,617,490	22,590	95	6
August.....	169	103,475	3,873			276,915	11,180	400	35
September.....	150	339,415	9,107			66,225	3,224		
October.....	129	393,379	6,962	10,140	406	18,034	490		
November.....	97	17,967	1,872			1,311	69		
December.....	62					295	17		
<b>Total.....</b>	<b>1,803</b>	<b>1,020,822</b>	<b>29,983</b>	<b>24,425</b>	<b>1,250</b>	<b>2,346,088</b>	<b>42,930</b>	<b>495</b>	<b>41</b>
<b>Grand total.....</b>	<b>6,349</b>	<b>4,266,367</b>	<b>239,111</b>	<b>460,380</b>	<b>37,388</b>	<b>9,493,035</b>	<b>639,339</b>	<b>1,936,515</b>	<b>57,469</b>
Grounds east of 66° W. longitude.....	558	1,175,006	88,062	449,240	36,892	485,107	26,587	1,892,915	56,396
Grounds west of 66° W. longitude.....	5,791	3,091,361	151,049	11,140	496	9,007,928	612,752	43,600	1,073
Landed at Boston in 1921.....	3,078	1,993,286	201,473	60,400	5,244	4,335,523	402,151		
Landed at Gloucester in 1921.....	2,073	244,994	36,734	586,100	40,038	222,707	12,364	351,400	9,584
Landed at Portland in 1921.....	2,055	496,400	51,957	3,000	180	2,397,411	70,786	600	33

<sup>1</sup> Includes herring from Newfoundland, 410,000 pounds frozen, value \$20,500, and 1,892,420 pounds salted, value \$56,355.



Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922—Continued.

Months.	Number of trips.	Total.				Grand total.	
		Fresh.		Salted.			
LANDED AT BOSTON.							
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
January	158	5,637,246	\$306,057	1,800	\$34	5,639,046	\$306,091
February	228	9,561,627	320,678	15,800	393	9,577,427	321,071
March	239	10,852,500	298,484	43,000	1,241	10,895,500	299,725
April	238	7,712,436	257,683	3,000	105	7,715,436	257,788
May	261	8,825,884	286,084			8,825,884	286,084
June	232	8,167,179	337,393	76,600	4,495	8,243,779	341,888
July	296	8,648,582	451,539	13,000	451	8,661,582	451,990
August	272	9,364,386	420,367			9,364,386	420,367
September	256	9,827,296	345,075			9,827,296	345,075
October	242	9,897,933	344,708	5,000	175	9,902,933	344,883
November	286	9,749,037	354,513			9,749,037	354,513
December	185	7,788,097	290,630			7,788,097	290,630
Total	2,893	106,032,203	4,013,211	158,200	6,894	106,190,403	4,020,105
LANDED AT GLOUCESTER.							
January	111	332,370	17,079	393,585	8,647	725,955	25,726
February	79	396,594	9,496	32,595	1,069	429,189	10,565
March	371	5,020,880	94,274	211,720	6,315	5,232,600	100,589
April	191	1,618,369	34,083	145,647	5,068	1,764,016	39,151
May	59	2,389,911	33,615	250,910	9,589	2,640,821	43,204
June	76	4,070,544	61,499	1,121,790	49,292	5,192,334	110,791
July	59	3,602,831	49,167	923,250	32,566	4,526,081	81,733
August	75	4,531,798	61,820	1,222,151	46,330	5,753,949	108,150
September	72	3,539,040	49,227	928,318	34,674	4,467,358	83,901
October	184	2,531,402	47,159	665,267	30,943	3,196,669	78,102
November	234	1,632,978	55,551	57,718	5,835	1,690,696	61,386
December	142	728,900	24,705	1,402,655	45,350	2,131,555	70,055
Total	1,633	30,395,617	537,675	7,355,606	275,678	37,751,223	813,353
LANDED AT PORTLAND.							
January	129	578,510	30,505			578,510	30,505
February	136	1,218,978	46,559			1,218,978	46,559
March	127	2,378,667	61,428			2,378,667	61,428
April	162	1,823,519	49,310	410	15	1,823,929	49,325
May	208	2,211,507	81,231	25,925	1,013	2,237,432	82,244
June	193	906,904	71,489	43,600	1,881	950,504	73,370
July	241	2,292,091	68,823	6,440	204	2,298,531	69,027
August	169	962,919	57,926	17,955	783	980,874	58,709
September	150	931,513	53,017	15,925	652	947,438	53,669
October	129	1,043,802	53,908	45,325	1,767	1,089,127	55,675
November	97	921,126	27,777			921,126	27,777
December	62	492,234	23,316	16,415	870	508,649	24,186
Total	1,803	15,761,770	625,289	171,995	7,185	15,933,765	632,474
Grand total	6,349	152,189,590	5,176,175	7,685,801	289,757	159,875,391	5,465,932
Grounds east of 66° W. longitude	558	26,533,027	1,083,751	7,067,930	266,790	33,600,957	1,350,541
Grounds west of 66° W. longitude	5,791	125,656,563	4,092,424	617,871	22,967	126,774,434	4,115,391
Landed at Boston in 1921	3,078	104,277,324	4,183,769	91,305	6,366	104,368,629	4,190,135
Landed at Gloucester in 1921	2,073	26,746,519	655,703	6,269,647	264,547	33,016,166	920,250
Landed at Portland in 1921	2,055	13,234,616	601,051	245,695	11,193	13,480,311	612,244

The greater part of the fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by fishing vessels each year are taken from fishing grounds off the coast of the United States. In the calendar year 1922, 78.96 per cent of the quantity and 75.27 per cent of the value landed by fishing vessels were from these grounds; 4.16 per cent of the quantity and 8.17 per cent of the value, consisting mostly of cod, halibut, and herring, were from fishing banks off the coast of Newfoundland; and 16.88 per cent of the quantity and 16.56 per cent of the value from fishing grounds off the Canadian

Provinces. There was some falling off from the previous year in the percentage of products from grounds off the United States, with a small increase in that for Newfoundland and the Canadian Provinces. Newfoundland herring constituted 1.44 per cent of the quantity and 1.4 per cent of the value of the fishery products landed at these ports during the year. The herring were taken from the treaty coast of Newfoundland, and the cod, haddock, hake, halibut, and other species from that region were obtained from fishing banks on the high seas. All fish caught by American fishing vessels off the coast of the Canadian Provinces were from offshore fishing grounds. The catch from each of these regions is given in detail in the following table:

*Quantity and value of fish landed by American fishing vessels at Boston and Gloucester, Mass., and Portland, Me., in 1922, from fishing grounds off the coast of the United States, Newfoundland, and Canadian Provinces.*

Species.	United States.		Newfoundland.		Canadian Provinces.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<b>Cod:</b>								
Fresh.....	39,177,495	\$1,204,889	233,510	\$5,367	10,762,990	\$236,471	50,173,995	\$1,446,727
Salted.....	520,120	20,467	1,701,610	63,401	2,784,440	104,684	5,006,170	188,552
<b>Haddock:</b>								
Fresh.....	61,195,629	1,658,823	220	2	8,868,764	147,839	70,064,613	1,806,664
Salted.....			865	19	130,520	2,717	131,385	2,736
<b>Hake:</b>								
Fresh.....	5,235,982	109,105	15,785	191	89,570	1,480	5,341,337	110,776
Salted.....	6,900	108	15,740	257	10,270	190	32,910	555
<b>Pollock:</b>								
Fresh.....	4,607,130	109,462	70	1	440,585	7,605	5,047,785	117,068
Salted.....	4,625	76	4,405	82	40,270	780	49,300	938
<b>Cusk:</b>								
Fresh.....	1,914,761	30,201	24,279	364	254,975	2,783	2,194,015	33,348
Salted.....	28,695	587	15,580	429	9,160	188	53,435	1,204
<b>Halibut:</b>								
Fresh.....	1,384,647	214,928	2,322,666	297,932	1,901,130	270,282	5,608,443	783,142
Salted.....	2,791	160	8,625	495	4,290	260	15,706	915
<b>Mackerel:</b>								
Fresh.....	3,091,361	151,049			1,175,006	88,062	4,266,367	239,111
Salted.....	11,140	496			449,240	36,892	460,380	37,888
<b>Herring:</b>								
Fresh.....	341,934	4,299	410,000	20,500			751,934	24,799
Salted.....			1,892,420	56,355			1,892,420	56,355
<b>Swordfish:</b>								
Fresh.....	3,229,137	441,370	7,810	1,072	44,801	4,574	3,281,748	447,016
<b>Miscellaneous:</b>								
Fresh.....	5,436,857	167,083			22,496	441	5,459,353	167,524
Salted.....	43,600	1,073			495	41	44,095	1,114
<b>Total.....</b>	<b>126,232,804</b>	<b>4,114,176</b>	<b>6,653,585</b>	<b>446,467</b>	<b>26,989,002</b>	<b>905,289</b>	<b>159,875,391</b>	<b>5,465,932</b>

## SPECIES.

## COD.

In 1922 there was a decrease of 60 vessels in the fishing fleet landing fish at Boston, Gloucester, and Portland, as compared with 1921. There were 17 vessels in the salt-bank fishery, or 6 fewer than in 1921, and 94 in the market fishery, or 4 fewer than in 1921. These vessels landed their fares of cod and other ground fish at these ports during the year, and large quantities were also landed by vessels fishing on the shore grounds. The catch of cod landed at these ports during the year was 55,180,165 pounds, valued at \$1,635,279, of which 50,173,995 pounds, valued at \$1,446,727 were landed fresh, and 5,006,170 pounds, valued at \$188,552, were landed salted. Cod ranked second in both quantity and value among the various species landed.

## HADDOCK.

The catch of haddock ranked first in both quantity and value, exceeding that of cod by 15,015,833 pounds in quantity and \$174,121 in value. The quantity of haddock landed at these ports by fishing vessels during the year was 70,195,998 pounds, valued at \$1,809,400, all landed fresh except 131,385 pounds salted, valued at \$2,736. These fish were taken chiefly from Western Bank, Browns Bank, Georges Bank, and South Channel, and the greater part of the catch, or 52,862,914 pounds, valued at \$1,505,425, was landed at Boston.

## HAKE.

The catch of hake amounted to 5,374,247 pounds, valued at \$111,331, all landed fresh except 32,910 pounds salted, valued at \$555. Of this catch, 3,519,546 pounds, valued at \$71,473, were landed at Boston, 860,605 pounds, valued at \$20,898, at Gloucester, and 994,096 pounds, valued at \$18,960, at Portland.

## POLLOCK.

The catch of pollock amounted to 5,097,085 pounds, valued at \$118,006, all landed fresh, except 49,300 pounds salted, valued at \$938. The greater part of this catch, or 3,416,051 pounds, valued at \$78,662, was landed at Boston. The catch was obtained principally from Browns Bank, Georges Bank, Jeffreys Ledge, South Channel, and shore grounds.

## CUSK.

The catch of cusk was 2,247,450 pounds, valued at \$34,552, all fresh except 53,435 pounds salted, valued at \$1,204. More than half of the catch was landed at Boston. There was an increase in the catch of cusk of 149,035 pounds in quantity, with a decrease of \$3,277 in value as compared with 1921.

## HALIBUT.

The catch of halibut was 5,624,149 pounds, valued at \$784,057, all landed fresh except 15,706 pounds salted, valued at \$915. There was a small decrease in the catch in both quantity and value as compared with 1921. The quantity landed at Boston was 3,948,456 pounds, valued at \$550,735; at Gloucester, 58,058 pounds, valued at \$7,696; and at Portland, 1,617,635 pounds, valued at \$225,626.

## MACKEREL.

The total catch of fresh mackerel taken by the American fishing fleet in 1922 was 53,703 barrels, compared with 40,323 barrels in 1921, an increase of 13,380 barrels. The total catch of salted mackerel was 2,749 barrels, compared with 3,242 barrels in 1921, a decrease of 493 barrels. The quantity of mackerel landed at Boston, Gloucester, and Portland during the year was 4,726,747 pounds, valued at \$276,499, of which 4,266,367 pounds, valued at \$239,111, were fresh and 460,380 pounds, valued at \$37,388, were salted. There was an increase in the total catch of mackerel landed by fishing vessels at these ports of 1,342,567 pounds in quantity and a decrease of \$59,127 in value, as compared with 1921.

In 1922 the total catch of mackerel up to July 1 was 25,000 barrels fresh and 2,344 barrels salted, compared with 33,632 barrels fresh and 3,143 barrels salted for the same period in 1921. In the southern mackerel fishery both the purse-seine vessels and the gill-net vessels had a poor season. The weather was favorable for fishing, but the mackerel were not abundant. The fish landed were practically all of large and medium size and sold from 9 to 30 cents per pound, according to market conditions. The first mackerel landed sold at 60 cents per pound. The southern fleet was about the same size as in 1921. The Cape Shore fleet was larger than last year but less successful. The first arrival was on May 25 and consisted of large and medium fish, which sold at 18.6 cents per pound. On June 2, fresh mackerel sold at 6½ cents per pound from the vessel, the lowest price since 1919. Cape Shore salted mackerel sold from \$12 to \$13 per barrel.

#### SWORDFISH.

The catch of swordfish amounted to 3,281,748 pounds, valued at \$447,016. There were 50 vessels engaged in this fishery, or 16 fewer than in the previous year, but there was an increase in the catch of 105.41 per cent in quantity and 40.39 per cent in value.

#### FLOUNDERS.

The catch of flounders in the vessel fishery was 3,281,327 pounds, valued at \$134,749, an increase of 676,670 pounds, or 25.97 per cent in quantity and of \$22,793, or 20.35 per cent, in value, as compared with 1921. The catch taken by boats under 5 tons net tonnage is not included in these statistics.

#### HERRING.

The catch of herring amounted to 2,644,354 pounds, valued at \$81,154. Of this quantity, 341,934 pounds, valued at \$4,299, were taken off the coast of the United States and landed fresh, and the remainder, including 410,000 pounds, fresh, frozen, valued at \$20,500, and 1,892,420 pounds, salted, valued at \$56,355, were Newfoundland herring.

#### OTTER-TRAWL FISHERY.

In 1922 there were 578 trips landed at Boston, Gloucester, and Portland by otter-trawl vessels, amounting to 50,804,604 pounds of fish, valued at \$1,259,487, or 31.78 per cent of the quantity and 23.04 per cent of the value of the total catch landed by fishing vessels at these ports during the year. The catch included cod, 11,161,947 pounds, valued at \$279,585; haddock, 35,878,524 pounds, valued at \$824,963; hake, 576,370 pounds, valued at \$11,288; pollock, 919,177 pounds, valued at \$19,181; cusk, 3,785 pounds, valued at \$30; halibut, 157,813 pounds, valued at \$28,446; mackerel, 120,960 pounds, valued at \$13,202; and other species, 1,986,028 pounds, valued at \$82,792. The catch by otter trawls consists principally of haddock, which in 1922 amounted to 51.11 per cent of the quantity and 45.59 per cent of the value of the entire catch of this species landed. The greater part of the catch by otter trawls was taken from Georges Bank and South Channel.

The following tables give, by fishing grounds and by months, the catch landed by otter trawlers at these ports in 1922, and also the catch of cod, haddock, and hake landed by them in various years:

*Fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by otter trawlers in 1922.*

	Number of trips.	Cod.		Haddock.		Hake.	
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<b>BY FISHING GROUNDS.</b>							
<i>East of 66° W. longitude.</i>							
Western Bank.....	94	5,541,716	\$125,209	7,696,371	\$129,285	9,925	\$132
<i>West of 66° W. longitude.</i>							
Browns Bank.....	2	29,500	1,030	37,000	1,741	550	17
Georges Bank.....	217	3,919,720	103,883	12,110,375	276,132	56,810	1,109
South Channel.....	228	1,592,256	46,915	14,063,788	357,667	463,165	9,363
Nantucket Shoals.....	29	78,755	2,548	1,970,990	60,138	45,385	651
Shore, general.....	5	.....	.....	.....	.....	535	16
Total.....	578	11,161,947	279,585	35,878,524	824,963	576,370	11,288
<b>BY MONTHS.</b>							
January.....	40	317,010	19,866	1,930,595	102,799	8,040	468
February.....	48	567,060	19,996	2,924,730	72,534	8,605	246
March.....	61	1,543,970	32,418	4,081,650	67,639	22,705	879
April.....	33	830,130	17,124	2,720,420	63,405	8,990	122
May.....	48	1,072,251	22,103	3,958,915	74,243	33,870	759
June.....	55	941,745	20,057	3,293,738	57,174	121,060	2,368
July.....	46	1,211,141	25,025	2,973,795	47,679	63,820	1,102
August.....	52	1,256,395	22,084	3,238,995	50,605	47,745	965
September.....	43	1,184,720	23,722	2,583,371	40,681	44,755	731
October.....	41	842,700	23,125	2,693,235	75,292	44,220	839
November.....	54	650,650	21,972	2,762,515	81,113	113,580	1,168
December.....	57	744,175	32,093	2,716,565	91,799	58,980	1,641
Total.....	578	11,161,947	279,585	35,878,524	824,963	576,370	11,288
<b>BY FISHING GROUNDS.</b>							
<i>East of 66° W. longitude.</i>							
Western Bank.....	94	349,265	\$6,550	3,285	\$25	29,518	\$5,021
<i>West of 66° W. longitude.</i>							
Browns Bank.....	2	2,935	23	.....	.....	213	44
Georges Bank.....	217	148,268	3,211	.....	.....	64,399	11,360
South Channel.....	228	384,595	8,471	500	5	61,659	11,639
Nantucket Shoals.....	29	32,364	\$47	.....	.....	2,024	382
Shore, general.....	5	1,750	79	.....	.....	.....	.....
Total.....	578	919,177	19,181	3,785	30	157,813	28,446
<b>BY MONTHS.</b>							
January.....	40	17,424	786	.....	.....	5,306	1,839
February.....	48	57,850	1,704	.....	.....	13,680	3,062
March.....	61	117,795	3,044	.....	.....	27,800	5,742
April.....	33	46,385	1,150	.....	.....	9,858	1,401
May.....	48	36,045	\$19	.....	.....	16,187	2,470
June.....	55	38,358	490	3,285	25	26,326	3,710
July.....	46	28,785	593	.....	.....	8,833	1,252
August.....	52	55,560	954	.....	.....	6,004	741
September.....	43	93,585	1,173	.....	.....	9,108	1,082
October.....	41	30,555	717	.....	.....	13,591	2,025
November.....	54	101,640	1,767	500	5	15,256	3,339
December.....	57	295,195	5,984	.....	.....	5,864	1,783
Total.....	578	919,177	19,181	3,785	30	157,813	28,446

*Fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by otter trawlers in 1922—Continued.*

	Number of trips.	Mackerel.		Miscellaneous.		Total.	
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<b>BY FISHING GROUNDS.</b>							
<i>East of 66° W. longitude.</i>							
Western Bank.....	94			20,551	\$379	13,650,631	\$266,601
Cape Shore.....	3	108,990	\$12,776			108,990	12,776
<i>West of 66° W. longitude.</i>							
Browns Bank.....	2					70,198	2,855
Georges Bank.....	217			973,657	42,762	17,273,229	438,457
South Channel.....	228	245	74	864,558	33,817	17,430,766	467,951
Nantucket Shoals.....	29			107,837	5,159	2,237,355	69,725
Shore, general.....	5	11,725	352	19,425	675	33,435	1,122
<b>Total.....</b>	<b>578</b>	<b>120,960</b>	<b>13,202</b>	<b>1,986,028</b>	<b>82,792</b>	<b>50,804,604</b>	<b>1,259,487</b>
<b>BY MONTHS.</b>							
January.....	40			40,986	4,663	2,319,361	130,421
February.....	48			72,206	5,146	3,644,131	102,688
March.....	61	100	61	146,976	5,895	5,940,996	115,678
April.....	33			87,430	3,433	3,703,213	86,635
May.....	48	39,400	7,320	283,768	5,776	5,440,436	113,490
June.....	55	69,735	5,469	183,521	5,331	4,706,568	94,624
July.....	46	11,725	352	135,787	5,375	4,433,886	81,378
August.....	52			178,338	7,412	4,783,037	82,761
September.....	43			252,110	8,320	4,167,649	75,709
October.....	41			353,242	13,445	3,977,543	115,443
November.....	54			186,482	11,295	3,830,623	120,659
December.....	57			65,182	6,701	3,885,961	140,001
<b>Total.....</b>	<b>578</b>	<b>120,960</b>	<b>13,202</b>	<b>1,986,028</b>	<b>82,792</b>	<b>50,804,604</b>	<b>1,259,487</b>

*Cod, haddock, and hake landed at Boston and Gloucester, Mass., and Portland, Me., by otter trawlers in various years, 1908 to 1922.*

Year.	Trips.	Cod.	Haddock.	Hake.	Year.	Trips.	Cod.	Haddock.	Hake.
	No.	Pounds.	Pounds.	Pounds.		No.	Pounds.	Pounds.	Pounds.
1908.....	44	209,800	1,542,000	46,600	1913.....	326	1,667,806	12,488,992	209,485
1909.....	47	159,800	1,719,000	74,400	1914.....	387	1,149,595	15,383,550	259,913
1910.....	59	125,850	2,775,000	46,600	1920.....	646	6,311,389	51,962,457	.....
1911.....	178	564,500	7,367,100	151,700	1921.....	346	2,482,833	26,734,893	241,650
1912.....	295	1,952,950	12,966,700	105,500	1922.....	578	11,161,947	35,878,524	576,370

**VESSEL LANDINGS OF COD, HADDOCK, AND HALIBUT.**

The following tables give the catch of cod, haddock, and halibut landed at Boston and Gloucester, Mass., and Portland, Me., by fishing vessels in 1922, taken from each fishing bank each month by otter trawls and by all other forms of fishing apparatus. The landings include both fresh and salted fish, but the latter have been converted to the equivalent weights of fresh fish in the condition landed.

*Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks.*

[Salt fish have been reduced to the basis of weights of fresh fish.]

## JANUARY.

	Trips.		Cod.		Haddock.		Trips.		Halibut.	
	Number.	Pounds.	Value.	Pounds.	Value.	Number.	Pounds.	Value.		
BY OTTER TRAWLS.										
<i>East of 66° W. longitude.</i>										
Western Bank.....	1	20,525	\$1,150	57,000	\$1,729	1	954	\$289		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	1	13,100	281	17,500	841	16	2,897	1,079		
Georges Bank.....	17	178,430	12,103	847,565	41,712	13	1,438	466		
South Channel.....	19	102,030	6,195	909,130	53,679	1	17	5		
Nantucket Shoals.....	2	2,925	137	99,400	4,838					
Total.....	40	317,010	19,866	1,930,595	102,799	31	5,306	1,839		
BY OTHER APPARATUS.										
<i>East of 66° W. longitude.</i>										
Western Bank.....	1	25,819	313							
Quereau Bank.....	1	17,800	834			1	23,747	3,909		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	41	659,926	30,498	1,481,325	77,704	35	5,385	1,931		
Georges Bank.....	5	54,489	3,827	84,710	3,899	5	1,360	509		
Middle Bank.....	1	3,740	213	2,890	210	1	10	1		
Platts Bank.....	5	12,139	597	8,565	690	2	71	9		
Jeffreys Ledge.....	41	147,475	7,822	228,125	16,936	21	1,703	366		
South Channel.....	8	30,755	1,761	110,090	6,859	6	763	175		
Off Chatham.....	6	16,605	990	67,510	4,893	5	733	214		
Shore, general.....	248	196,982	10,155	69,572	5,626	19	704	120		
Total.....	357	1,165,730	57,010	2,052,787	116,817	95	34,476	7,234		
Grand total.....	397	1,482,740	76,876	3,983,382	219,616	126	39,782	9,073		

## FEBRUARY.

BY OTTER TRAWLS.										
<i>East of 66° W. longitude.</i>										
Western Bank.....	2	40,000	\$1,200	200,550	\$6,017	1	2,000	\$200		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	1	16,400	749	19,500	900	1	213	44		
Georges Bank.....	39	474,625	16,760	2,480,715	58,951	37	9,676	2,411		
South Channel.....	5	34,045	1,245	223,965	6,666	4	1,791	407		
Nantucket Shoals.....	1	1,990	42							
Total.....	48	567,060	19,996	2,924,730	72,534	43	13,680	3,062		
BY OTHER APPARATUS.										
<i>East of 66° W. longitude.</i>										
Western Bank.....	1	12,168	188							
Quereau Bank.....	6	30,277	1,397			3	117,191	19,500		
Green Bank.....	2	8,477	128	105	1	1	31,988	4,500		
St. Peters Bank.....						1	28,813	4,535		
The Gully.....	3	44,433	1,154			1	17,068	2,411		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	29	550,065	18,938	1,090,365	37,532	23	3,755	1,002		
Georges Bank.....	35	1,503,252	45,872	923,900	21,037	25	3,992	1,172		
Middle Bank.....	14	34,120	1,415	137,115	5,620	4	407	53		
Jeffreys Ledge.....	70	169,786	5,687	662,350	25,477	35	1,774	323		
South Channel.....	18	60,294	2,403	420,125	15,885	9	1,409	283		
Off Chatham.....	9	31,162	1,245	232,575	8,486	5	517	155		
Shore, general.....	205	240,060	8,059	316,375	9,379	3	62	7		
Total.....	392	2,684,094	86,486	3,782,910	123,417	110	206,976	33,941		
Grand total.....	440	3,251,154	106,482	6,707,640	195,951	153	220,656	37,003		

Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Port land, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

MARCH.

	Trips.		Cod.		Haddock.		Trips.		Halibut.	
	Number.	Pounds.	Value.	Pounds.	Value.	Number.	Pounds.	Value.		
<b>BY OTTER TRAWLS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	14	873,050	\$16,620	1,463,755	\$29,234	5	699	\$121		
<i>West of 66° W. longitude.</i>										
Georges Bank.....	28	481,100	11,229	1,722,640	22,858	21	10,345	2,025		
South Channel.....	13	189,655	4,564	893,990	15,522	14	16,657	3,581		
Nantucket Shoals.....	1	165	5	1,265	25	1	99	15		
Total.....	56	1,543,970	32,418	4,081,650	67,639	41	27,800	5,742		
<b>BY OTHER APPARATUS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	5	128,225	2,521	76,445	765	2	60,774	10,895		
Quereau Bank.....	7	48,821	960	-----	-----	4	147,289	22,644		
Green Bank.....	5	101,180	1,835	115	1	1	14,982	2,624		
St. Peters Bank.....	2	23,407	430	-----	-----	3	115,440	15,167		
The Gully.....	2	36,924	656	-----	-----	4	129,366	20,215		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	15	458,965	9,706	576,275	9,542	13	21,402	4,899		
Georges Bank.....	121	3,523,591	77,962	2,215,050	27,979	29	43,138	7,783		
Middle Bank.....	5	12,690	333	88,920	2,314	1	64	13		
Platts Bank.....	2	1,785	42	12,490	293	1	15	2		
Jeffreys Ledge.....	38	85,195	2,009	327,178	8,147	12	400	81		
South Channel.....	25	174,692	4,000	651,730	11,471	14	1,916	410		
Shore, general.....	460	467,690	13,533	1,706,425	42,699	8	2,082	375		
Total.....	687	5,063,165	113,987	5,654,628	103,211	92	536,868	85,108		
Grand total.....	743	6,607,135	146,405	9,736,278	170,850	133	564,668	90,850		

APRIL.

<b>BY OTTER TRAWLS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	14	587,770	\$12,010	1,590,605	\$31,602	5	746	\$77		
<i>West of 66° W. longitude.</i>										
Georges Bank.....	10	173,855	3,779	650,265	17,816	9	6,055	818		
South Channel.....	6	51,940	985	316,500	8,082	6	2,523	445		
Nantucket Shoals.....	2	16,565	350	163,050	5,905	2	534	61		
Total.....	32	830,130	17,124	2,720,420	63,405	22	9,858	1,401		
<b>BY OTHER APPARATUS.</b>										
<i>East of 66° W. longitude.</i>										
La Have Bank.....	3	88,320	1,939	35,700	759	4	52,940	6,928		
Western Bank.....	4	123,446	2,325	46,553	940	3	1,196	215		
Quereau Bank.....	2	14,080	263	-----	-----	7	198,670	24,105		
Green Bank.....	4	47,551	830	-----	-----	-----	-----	-----		
Grand Bank.....	-----	-----	-----	-----	-----	1	45,205	5,872		
The Gully.....	3	20,029	355	-----	-----	1	17,167	2,419		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	49	1,809,795	42,976	997,025	28,686	32	61,227	6,411		
Georges Bank.....	21	625,200	11,963	51,180	1,107	13	162,920	19,113		
Fippenes Bank.....	1	10,800	247	1,045	84	1	138	26		
Middle Bank.....	14	96,955	2,513	109,640	4,327	10	1,493	240		
Platts Bank.....	8	30,155	600	16,305	419	3	185	21		
Jeffreys Ledge.....	9	58,265	1,380	38,575	1,488	4	499	80		
South Channel.....	16	185,322	4,867	374,815	15,690	15	2,040	324		
Nantucket Shoals.....	1	490	19	-----	-----	1	10	1		
Off Chatham.....	14	83,190	2,248	359,805	11,478	10	963	140		
Shore, general.....	369	624,788	19,599	381,597	15,965	15	22,972	2,529		
Total.....	518	3,818,386	92,084	2,412,240	80,943	120	567,625	68,424		
Grand total.....	550	4,648,516	109,208	5,132,660	144,348	142	577,483	69,825		



Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

## MAY.

	Trips.		Cod.		Haddock.		Trips.		Halibut.	
	Number.	Pounds.	Value.	Pounds.	Value.	Number.	Pounds.	Value.		
BY OTTER TRAWLS.										
<i>East of 66° W. longitude.</i>										
Western Bank.....	11	823,610	\$16,018	1,240,745	\$20,904	3	1,794	\$283		
<i>West of 66° W. longitude.</i>										
Georges Bank.....	4	81,340	1,681	301,900	3,921	2	1,868	258		
South Channel.....	30	154,351	4,172	2,246,170	45,037	25	11,936	1,819		
Nantucket Shoals.....	2	12,950	232	170,100	4,881	2	589	110		
Total.....	47	1,072,251	22,103	3,958,915	74,243	32	16,187	2,470		
BY OTHER APPARATUS.										
<i>East of 66° W. longitude.</i>										
La Have Bank.....	2	59,810	1,263	11,060	111	1	455	90		
Western Bank.....	10	270,432	4,842	161,745	1,599	3	103,196	14,573		
Quereau Bank.....	8	180,715	3,256			6	188,840	23,525		
Green Bank.....	1	6,096	112			1	20,420	2,101		
Grand Bank.....	1	54,478	1,048			3	81,478	11,023		
Cape Shore.....	1	20,893	331	16,400	298	1	819	136		
The Gully.....						2	78,325	7,734		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	38	768,047	16,721	1,043,920	20,563	29	65,811	11,399		
Georges Bank.....	56	1,721,740	42,183	182,315	3,450	42	212,317	29,084		
Cashes Bank.....	1	9,500	405			1	610	95		
Middle Bank.....	3	22,730	558	10,435	494	3	872	127		
Platts Bank.....	1	6,790	171	2,300	69	1	127	16		
Jeffreys Ledge.....	3	20,646	437	5,148	152	3	221	38		
South Channel.....	40	455,610	11,605	871,410	26,177	37	30,271	5,073		
Nantucket Shoals.....	1	7,825	160	185	7					
Off Chatham.....	3	36,040	2,018	52,900	2,304	1	207	34		
Shore, general.....	241	631,628	21,827	125,171	6,115	23	2,943	510		
Total.....	410	4,272,980	106,937	2,482,989	61,339	157	786,812	105,558		
Grand total.....	457	5,345,231	129,040	6,441,904	135,582	189	802,999	108,028		

## JUNE.

BY OTTER TRAWLS.										
<i>East of 66° W. longitude.</i>										
Western Bank.....	12	539,680	\$11,239	717,990	\$8,288	6	15,775	\$2,072		
<i>West of 66° W. longitude.</i>										
Georges Bank.....	9	160,660	2,795	383,375	5,807	4	1,520	184		
South Channel.....	32	241,405	6,023	2,192,373	43,079	23	9,031	1,454		
Total.....	53	941,745	20,057	3,293,738	57,174	33	26,326	3,710		
BY OTHER APPARATUS.										
<i>East of 66° W. longitude.</i>										
La Have Bank.....	21	1,596,855	32,109	176,851	2,002	8	6,037	1,018		
Western Bank.....	8	933,736	18,523	77,940	844	7	41,924	6,837		
Quereau Bank.....	3	29,680	625			4	56,464	6,822		
Green Bank.....						2	88,211	11,275		
Grand Bank.....	15	558,964	10,852			11	255,213	36,133		
St. Peters Bank.....	1	37,172	660			1	35,787	5,387		
Cape Shore.....	1	34,725	1,179	625	13					
St. Anns Bank.....	1	392,304	6,314							
<i>West of 66° W. longitude.</i>										
Browns Bank.....	9	418,410	10,302	204,673	3,364	9	7,786	1,409		
Georges Bank.....	35	1,178,740	34,496	211,660	3,401	26	59,773	9,392		
Platts Bank.....	3	4,000	129	1,772	113	3	623	103		
Jeffreys Ledge.....	2	1,887	38	4,560	309	2	170	13		
South Channel.....	40	531,485	16,800	885,810	29,927	33	5,490	947		
Nantucket Shoals.....	6	56,400	1,536	440	8	1	178	18		
Shore, general.....	189	516,908	40,729	55,773	2,701	12	2,448	361		
Total.....	334	6,291,266	174,292	1,620,104	42,682	119	560,104	79,715		
Grand total.....	387	7,233,011	194,349	4,913,842	99,856	152	586,430	83,425		

Vessel landing of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

JULY.

	Trips.		Cod.		Haddock.		Trips.		Halibut.	
	Number.	Pounds.	Value.	Pounds.	Value.	Number.	Pounds.	Value.		
<b>BY OTTER TRAWLS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	9	856,671	\$17,471	810,110	\$8,588	5	1,509	\$165		
<i>West of 66° W. longitude.</i>										
Georges Bank.....	19	285,750	5,529	893,040	11,286	8	4,942	643		
South Channel.....	15	65,570	1,961	1,163,745	24,653	10	2,382	444		
Nantucket Shoals.....	1	3,150	64	106,900	3,152					
Total.....	44	1,211,141	25,025	2,973,795	47,679	23	8,833	1,252		
<b>BY OTHER APPARATUS.</b>										
<i>East of 66° W. longitude.</i>										
La Have Bank.....	7	189,760	5,771	24,890	341	10	90,218	12,326		
Western Bank.....	11	849,192	15,199	134,485	1,345	4	57,316	5,622		
Quereau Bank.....	6	245,812	4,876	4,918	47	5	88,130	11,746		
Grand Bank.....	16	1,129,430	21,381			14	512,330	51,211		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	24	970,683	26,333	147,420	3,250	16	19,231	2,778		
Georges Bank.....	26	592,552	19,803	319,605	5,363	16	81,881	11,262		
Platts Bank.....	2	2,385	67	3,630	161	1	279	29		
Jeffreys Ledge.....	2	1,080	37	3,390	232	2	27	5		
South Channel.....	58	761,484	25,324	1,335,464	40,072	46	9,192	1,366		
Shore, general.....	162	376,880	16,080	51,351	2,422	16	807	88		
Total.....	314	5,119,258	134,871	2,025,153	53,233	130	859,411	96,433		
Grand total.....	358	6,330,399	159,896	4,998,948	100,912	153	868,244	97,685		

AUGUST.

<b>BY OTTER TRAWLS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	5	642,700	\$10,859	243,285	\$2,433	1	375	\$71		
<i>West of 66° W. longitude.</i>										
Georges Bank.....	23	544,010	9,336	1,204,600	17,058	11	3,179	359		
South Channel.....	18	55,775	1,594	1,334,435	23,969	11	1,995	246		
Nantucket Shoals.....	5	13,910	295	456,675	7,145	5	455	65		
Total.....	51	1,256,395	22,084	3,238,995	50,605	28	6,004	741		
<b>BY OTHER APPARATUS.</b>										
<i>East of 66° W. longitude.</i>										
La Have Bank.....	6	237,315	4,461	67,070	517	2	3,004	375		
Western Bank.....	14	1,920,914	37,164	76,043	834	7	41,700	3,716		
Quereau Bank.....						4	128,154	17,662		
Grand Bank.....	21	456,421	9,581			14	480,300	55,094		
St. Peters Bank.....	1	464,231	8,821			1	3,640	91		
Cape Shore.....	1	48,715	1,726	2,300	12					
<i>West of 66° W. longitude.</i>										
Browns Bank.....	31	1,245,688	38,806	80,670	1,148	20	23,570	3,080		
Georges Bank.....	40	1,296,355	32,558	449,725	6,044	21	119,520	14,891		
Platts Bank.....	5	6,157	215	10,556	471	5	309	23		
South Channel.....	56	932,583	34,551	1,622,725	40,365	48	14,797	2,290		
Off Chatham.....	1	21,540	979	41,650	778	1	64	8		
Shore, general.....	137	260,091	11,919	23,818	887	10	1,145	129		
Total.....	313	6,890,010	180,781	2,374,557	51,056	133	816,203	97,359		
Grand total.....	364	8,146,405	202,865	5,613,552	101,661	161	822,207	98,100		

Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

## SEPTEMBER.

	Trips.		Cod.		Haddock.		Trips.		Halibut.	
	Number.	Pounds.	Value.	Pounds.	Value.	Number.	Pounds.	Value.		
BY OTTER TRAWLS.										
<i>East of 66° W. longitude.</i>										
Western Bank.....	3	301,070	\$5,444	478,161	\$5,103	1	320	\$16		
<i>West of 66° W. longitude.</i>										
Georges Bank.....	20	572,635	11,219	936,045	14,301	9	5,190	611		
South Channel.....	20	311,015	7,059	1,169,165	21,277	18	3,598	461		
Total.....	43	1,184,720	23,722	2,583,371	40,681	28	9,108	1,082		
BY OTHER APPARATUS.										
<i>East of 66° W. longitude.</i>										
La Have Bank.....	2	43,150	1,792	19,000	490	2	1,268	234		
Western Bank.....	7	1,283,400	27,168	35,461	396	4	40,044	6,374		
Quereau Bank.....	7	209,136	4,498	.....	.....	4	87,697	12,855		
Green Bank.....	6	107,020	2,277	.....	.....	5	124,901	16,821		
Grand Bank.....	7	81,816	1,781	639	8	9	239,056	34,282		
Cape Shore.....	1	44,164	1,050	.....	.....	.....	.....	.....		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	3	148,744	5,966	43,135	1,144	3	2,960	561		
Georges Bank.....	71	2,106,535	51,141	868,935	11,283	34	106,057	16,838		
Platts Bank.....	3	5,303	181	5,725	297	1	45	2		
Jeffreys Ledge.....	7	12,847	395	16,280	861	1	300	32		
South Channel.....	67	656,854	20,694	2,726,065	53,400	50	23,575	3,924		
Nantucket Shoals.....	1	12,810	388	500	8	1	53	14		
Shore, general.....	98	155,207	6,579	12,947	546	5	253	32		
Total.....	280	4,861,986	123,910	3,728,697	63,433	119	626,209	91,969		
Grand total.....	323	6,046,706	147,632	6,312,068	109,114	147	635,317	93,051		

## OCTOBER.

BY OTTER TRAWLS.										
<i>East of 66° W. longitude.</i>										
Western Bank.....	2	65,555	\$989	159,520	\$1,595	.....	.....	.....	.....	.....
<i>West of 66° W. longitude.</i>										
Georges Bank.....	29	671,790	19,231	1,853,295	50,789	25	11,569	\$1,657		
South Channel.....	10	105,355	2,905	680,420	22,908	8	2,022	368		
Total.....	41	842,700	23,125	2,693,235	75,292	33	13,591	2,025		
BY OTHER APPARATUS.										
<i>East of 66° W. longitude.</i>										
La Have Bank.....	3	183,264	3,874	.....	.....	3	28,082	5,510		
Western Bank.....	5	513,253	10,207	125,529	1,256	3	25,377	4,507		
Quereau Bank.....	2	210,105	4,483	.....	.....	2	30,203	5,352		
Green Bank.....	9	82,904	1,925	.....	.....	9	216,818	34,877		
Grand Bank.....	1	9,500	175	.....	.....	2	35,217	5,182		
St. Peters Bank.....	2	303,956	6,252	1,143	11	1	8,649	1,914		
Cape Shore.....	2	53,670	1,402	2,400	120	1	50	18		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	17	446,723	15,969	168,325	4,555	12	25,166	4,515		
Georges Bank.....	45	1,289,768	40,002	720,000	10,192	30	24,834	5,000		
Pippenies Bank.....	3	14,615	538	5,940	355	1	671	105		
Middle Bank.....	1	3,680	151	9,575	284	1	135	27		
Platts Bank.....	12	44,485	2,016	19,160	906	8	1,622	227		
Jeffreys Ledge.....	16	63,430	3,390	62,058	2,608	12	1,959	319		
South Channel.....	58	467,305	18,758	1,832,225	59,038	45	16,052	3,174		
Nantucket Shoals.....	1	17,200	1,352	.....	.....	.....	.....	.....		
Shore, general.....	213	622,478	19,695	28,183	1,222	8	396	74		
Total.....	390	4,326,336	130,189	2,974,538	80,547	138	415,231	70,801		
Grand total.....	431	5,169,036	153,314	5,667,773	155,839	171	428,822	72,826		

Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

NOVEMBER.

	Trips.		Cod.		Haddock.		Trips.		Halibut.	
	Number.	Pounds.	Value.	Pounds.	Value.	Number.	Pounds.	Value.		
<b>BY OTTER TRAWLS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	4	199,650	\$8,383	176,000	\$3,631	3	1,545	\$611		
<i>West of 66° W. longitude.</i>										
Georges Bank.....	11	246,100	7,098	370,025	12,035	11	6,839	1,195		
South Channel.....	29	187,360	5,560	1,488,540	38,804	24	6,585	1,427		
Nantucket Shoals.....	10	17,540	931	727,950	26,643	4	287	106		
Total.....	54	650,650	21,972	2,762,515	81,113	42	15,256	3,339		
<b>BY OTHER APPARATUS.</b>										
<i>East of 66° W. longitude.</i>										
La Have Bank.....	2	33,100	793	33,800	772	2	241	85		
Western Bank.....	11	220,741	5,217	138,285	2,380	4	3,116	799		
Green Bank.....	1	13,600	680	.....	.....	1	1,468	338		
Cape Shore.....	2	55,970	1,052	3,740	54	.....	.....	.....		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	18	281,040	8,166	251,365	6,881	13	6,727	2,058		
Georges Bank.....	22	436,001	17,713	413,560	10,859	19	10,611	2,302		
Pippenies Bank.....	1	2,890	105	7,770	348	1	81	10		
Middle Bank.....	2	7,840	222	18,200	591	1	61	15		
Platts Bank.....	12	54,225	1,760	17,000	923	3	286	38		
Jeffreys Ledge.....	61	211,863	8,922	216,203	10,821	36	2,762	419		
South Channel.....	72	461,433	21,993	1,617,710	65,731	45	8,596	2,128		
Nantucket Shoals.....	3	41,475	1,226	69,275	2,635	.....	.....	.....		
Off Highland Light.....	1	1,975	75	4,050	162	1	90	23		
Seal Island.....	1	11,300	379	26,400	792	1	30	3		
Shore, general.....	205	810,992	24,372	42,583	2,553	11	683	105		
Total.....	414	2,644,445	92,675	2,859,941	105,502	138	34,752	8,323		
Grand total.....	468	3,295,095	114,647	5,622,456	186,615	180	50,008	11,662		

DECEMBER.

<b>BY OTTER TRAWLS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	16	591,435	\$23,826	558,650	\$10,161	16	3,801	\$1,122		
<i>West of 66° W. longitude.</i>										
Georges Bank.....	8	49,425	3,123	466,910	19,598	6	319	120		
South Channel.....	29	93,755	4,652	1,445,355	53,991	21	1,701	521		
Nantucket Shoals.....	4	9,560	492	245,650	8,049	1	43	20		
Total.....	57	744,175	32,093	2,716,565	91,799	44	5,864	1,783		
<b>BY OTHER APPARATUS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	3	41,700	1,416	75,125	2,529	2	2,261	750		
Quereau Bank.....	1	32,594	913	.....	.....	1	10,123	3,158		
Cape Shore.....	2	27,022	1,158	68,500	2,055	1	1,810	453		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	48	753,475	31,900	1,692,180	58,238	43	16,669	5,079		
Georges Bank.....	5	56,870	2,441	115,380	3,365	5	1,783	351		
Middle Bank.....	5	17,090	1,162	32,765	1,905	.....	.....	.....		
Platts Bank.....	7	23,030	1,368	10,250	822	1	52	9		
Jeffreys Ledge.....	54	145,310	7,947	224,950	13,877	27	1,955	461		
South Channel.....	9	36,595	1,611	134,860	5,862	7	1,424	274		
Nantucket Shoals.....	1	7,980	704	.....	.....	.....	.....	.....		
Off Chatham.....	2	4,605	246	18,120	1,061	1	365	67		
Shore, general.....	186	313,837	11,606	116,069	7,543	11	933	144		
Total.....	323	1,460,108	62,472	2,488,199	97,257	99	37,375	10,746		
Grand total.....	380	2,204,283	94,565	5,204,764	189,056	143	43,239	12,529		

Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

## SEPTEMBER.

	Trips.		Cod.		Haddock.		Trips.		Halibut.	
	Number.	Pounds.	Value.	Pounds.	Value.	Number.	Pounds.	Value.		
<b>BY OTTER TRAWLS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	3	301,070	\$5,444	478,161	\$5,103	1	320	\$10		
<i>West of 66° W. longitude.</i>										
Georges Bank.....	20	572,635	11,219	936,045	14,301	9	5,190	611		
South Channel.....	20	311,015	7,059	1,169,165	21,277	18	3,598	461		
Total.....	43	1,184,720	23,722	2,583,371	40,681	28	9,108	1,082		
<b>BY OTHER APPARATUS.</b>										
<i>East of 66° W. longitude.</i>										
La Have Bank.....	2	43,150	1,792	19,000	490	2	1,268	234		
Western Bank.....	7	1,283,400	27,168	35,461	396	4	40,044	6,374		
Quereau Bank.....	7	209,136	4,498			4	87,697	12,855		
Green Bank.....	6	107,020	2,277			5	124,901	16,821		
Grand Bank.....	7	81,816	1,781	639	8	9	239,056	34,282		
Cape Shore.....	1	44,164	1,050							
<i>West of 66° W. longitude.</i>										
Browns Bank.....	3	148,744	5,966	43,135	1,144	3	2,960	561		
Georges Bank.....	71	2,106,535	51,141	868,935	11,283	34	106,057	16,838		
Platts Bank.....	3	5,303	181	5,725	297	1	45	2		
Jeffreys Ledge.....	7	12,847	395	16,280	861	1	300	32		
South Channel.....	67	656,854	20,694	2,726,065	53,400	50	23,575	3,924		
Nantucket Shoals.....	1	12,810	388	500	8	1	53	14		
Shore, general.....	98	155,207	6,579	12,947	546	5	253	32		
Total.....	280	4,861,986	123,910	3,728,697	63,433	119	626,209	91,969		
Grand total.....	323	6,046,706	147,632	6,312,068	109,114	147	635,317	93,051		

## OCTOBER.

<b>BY OTTER TRAWLS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	2	65,555	\$989	159,520	\$1,595					
<i>West of 66° W. longitude.</i>										
Georges Bank.....	29	671,790	19,231	1,853,295	50,789	25	11,569	\$1,657		
South Channel.....	10	105,355	2,905	680,420	22,908	8	2,022	368		
Total.....	41	842,700	23,125	2,693,235	75,292	33	13,591	2,025		
<b>BY OTHER APPARATUS.</b>										
<i>East of 66° W. longitude.</i>										
La Have Bank.....	3	183,264	3,874			3	28,082	5,510		
Western Bank.....	5	513,253	10,207	125,529	1,256	3	25,377	4,507		
Quereau Bank.....	2	210,105	4,483			2	30,203	5,352		
Green Bank.....	9	82,904	1,925			9	216,818	34,877		
Grand Bank.....	1	9,500	175			2	35,217	5,182		
St. Peters Bank.....	2	303,956	6,252	1,143	11	1	8,649	1,914		
Cape Shore.....	2	53,670	1,402	2,400	120	1	50	18		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	17	446,723	15,969	168,325	4,555	12	25,166	4,515		
Georges Bank.....	45	1,289,768	40,002	720,000	10,192	30	24,834	5,000		
Fippenies Bank.....	3	14,615	538	5,940	355	1	671	105		
Middle Bank.....	1	3,680	151	9,575	284	1	135	27		
Platts Bank.....	12	44,485	2,016	19,160	906	8	1,622	227		
Jeffreys Ledge.....	16	63,430	3,390	62,058	2,608	12	1,959	319		
South Channel.....	58	467,305	18,758	1,832,225	59,038	45	16,052	3,174		
Nantucket Shoals.....	1	17,200	1,352							
Shore, general.....	213	622,478	19,695	28,183	1,222	8	396	74		
Total.....	390	4,326,336	130,189	2,974,538	80,547	138	415,231	70,801		
Grand total.....	431	5,169,036	153,314	5,667,773	155,839	171	428,822	72,826		

Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

## NOVEMBER.

	Trips.		Cod.		Haddock.		Trips.		Halibut.	
	Number.	Pounds.	Value.	Pounds.	Value.	Number.	Pounds.	Value.		
<b>BY OTTER TRAWLS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	4	199,650	\$8,383	176,000	\$3,631	3	1,545	\$611		
<i>West of 66° W. longitude.</i>										
Georges Bank.....	11	246,100	7,098	370,025	12,035	11	6,839	1,195		
South Channel.....	29	187,360	5,560	1,488,540	38,804	24	6,585	1,427		
Nantucket Shoals.....	10	17,540	931	727,950	26,643	4	287	106		
Total.....	54	650,650	21,972	2,762,515	81,113	42	15,256	3,339		
<b>BY OTHER APPARATUS.</b>										
<i>East of 66° W. longitude.</i>										
La Have Bank.....	2	33,100	793	33,800	772	2	241	85		
Western Bank.....	11	220,741	5,217	138,285	2,380	4	3,116	799		
Green Bank.....	1	13,600	680	.....	.....	1	1,468	338		
Cape Shore.....	2	55,970	1,052	3,740	54	.....	.....	.....		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	18	281,040	8,166	251,365	6,881	13	6,727	2,058		
Georges Bank.....	22	436,001	17,713	413,560	10,859	19	10,611	2,302		
Fippenies Bank.....	1	2,890	105	7,770	348	1	81	10		
Middle Bank.....	2	7,840	222	18,200	591	1	61	15		
Platts Bank.....	12	54,225	1,760	17,000	923	3	286	38		
Jeffreys Ledge.....	61	211,863	8,922	216,203	10,821	36	2,762	419		
South Channel.....	72	461,433	21,993	1,617,710	65,731	45	8,596	2,128		
Nantucket Shoals.....	3	41,475	1,226	69,275	2,635	.....	.....	.....		
Off Highland Light.....	1	1,975	75	4,050	162	1	90	23		
Seal Island.....	1	11,300	379	26,400	792	1	30	3		
Shore, general.....	205	810,992	24,372	42,583	2,553	11	683	105		
Total.....	414	2,644,445	92,675	2,859,941	105,502	138	34,752	8,323		
Grand total.....	468	3,295,095	114,647	5,622,456	186,615	180	50,008	11,662		

## DECEMBER.

<b>BY OTTER TRAWLS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	16	591,435	\$23,826	558,650	\$10,161	16	3,801	\$1,122		
<i>West of 66° W. longitude.</i>										
Georges Bank.....	8	49,425	3,123	466,910	19,598	6	319	120		
South Channel.....	29	93,755	4,652	1,445,355	53,991	21	1,701	521		
Nantucket Shoals.....	4	9,560	492	245,650	8,049	1	43	20		
Total.....	57	744,175	32,093	2,716,565	91,799	44	5,864	1,783		
<b>BY OTHER APPARATUS.</b>										
<i>East of 66° W. longitude.</i>										
Western Bank.....	3	41,700	1,416	75,125	2,529	2	2,261	750		
Quereau Bank.....	1	32,594	913	.....	.....	1	10,123	3,158		
Cape Shore.....	2	27,022	1,158	68,500	2,055	1	1,810	453		
<i>West of 66° W. longitude.</i>										
Browns Bank.....	48	753,475	31,900	1,692,180	58,238	43	16,669	5,079		
Georges Bank.....	5	56,870	2,441	115,380	3,365	5	1,783	351		
Middle Bank.....	5	17,090	1,162	32,765	1,905	.....	.....	.....		
Platts Bank.....	7	23,030	1,368	10,250	822	1	52	9		
Jeffreys Ledge.....	54	145,310	7,947	224,950	13,877	27	1,955	461		
South Channel.....	9	36,595	1,611	134,860	5,862	7	1,424	274		
Nantucket Shoals.....	1	7,980	704	.....	.....	.....	.....	.....		
Off Chatham.....	2	4,605	246	18,120	1,061	1	365	67		
Shore, general.....	186	313,837	11,606	116,069	7,543	11	933	144		
Total.....	323	1,460,108	62,472	2,488,199	97,257	99	37,375	10,746		
Grand total.....	380	2,204,283	94,565	5,204,764	189,056	143	43,239	12,529		

Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

## GRAND TOTAL.

	Trips.	Cod.		Haddock.		Trips.	Halibut.	
		Num-ber.	Pounds.	Value.	Pounds.		Value.	Num-ber.
<b>BY OTTER TRAWLS.</b>								
<i>East of 66° W. longitude.</i>								
Western Bank.....	93	5,541,716	\$125,209	7,696,371	\$129,285	47	29,518	\$5,021
<i>West of 66° W. longitude.</i>								
Browns Bank.....	2	29,500	1,030	37,000	1,741	1	213	44
Georges Bank.....	217	3,919,720	103,883	12,110,375	276,132	159	64,399	11,360
South Channel.....	226	1,592,256	46,915	14,063,788	357,667	177	61,359	11,639
Nantucket Shoals.....	28	78,755	2,548	1,970,990	60,138	16	2,024	382
Total.....	566	11,161,947	279,585	35,878,524	824,963	400	157,813	28,446
<b>BY OTHER APPARATUS.</b>								
<i>East of 66° W. longitude.</i>								
La Have Bank.....	46	2,431,574	52,002	368,371	4,992	32	182,245	26,566
Western Bank.....	80	6,323,026	125,083	947,611	12,888	39	376,804	54,288
Quereau Bank.....	43	1,019,020	22,105	4,918	47	41	1,076,508	151,278
Green Bank.....	28	366,828	7,787	220	2	20	498,788	72,536
Grand Bank.....	61	2,290,609	44,818	639	8	54	1,648,799	198,797
St. Peters Bank.....	6	828,766	16,163	1,143	11	7	192,329	27,094
Cape Shore.....	10	285,159	7,898	93,965	2,552	3	2,679	607
St. Annes Bank.....	1	392,304	6,314					
The Gully.....	8	101,386	2,165			8	241,926	32,779
<i>West of 66° W. longitude.</i>								
Browns Bank.....	322	8,506,561	256,281	7,776,678	252,607	248	259,689	45,122
Georges Bank.....	482	14,385,093	379,961	6,556,020	107,979	265	828,186	117,697
Cashes.....	1	9,500	405			1	610	95
Fippenies Bank.....	5	28,305	890	14,755	787	3	890	141
Middle Bank.....	45	198,845	6,567	409,540	15,745	21	3,042	476
Platts Bank.....	60	190,454	7,146	107,763	5,164	29	3,614	479
Jeffreys Ledge.....	303	917,784	38,064	1,788,817	80,908	155	11,770	2,137
South Channel.....	467	4,754,412	164,367	12,583,029	370,477	355	115,525	20,368
Nantucket Shoals.....	14	144,180	5,385	70,400	2,658	3	241	33
Off Highland Light.....	1	1,975	75	4,050	162	1	90	23
Off Chatham.....	35	193,142	7,726	772,560	29,000	23	2,849	618
Seal Island.....	1	11,300	379	26,400	792	1	30	3
Shore, general.....	2,713	5,217,541	204,113	2,929,864	97,658	141	35,428	4,474
Total.....	4,732	48,597,764	1,355,694	34,456,743	984,437	1,450	5,482,042	755,611
Grand total.....	5,298	59,759,711	1,635,279	70,335,267	1,809,400	1,850	5,639,855	784,057

## VESSEL FISHERIES AT SEATTLE, WASH.

In the vessel fisheries at Seattle, Wash., there was a decrease, as compared with 1921, in the total quantity and value of products landed by the fishing fleet, and an increase in the total quantity and value of products landed by collecting vessels, the increase being due chiefly to an increase in the landings of salmon. Statistics of the vessel fisheries at Seattle have been collected by the local agent and published as monthly and annual statistical bulletins, giving the quantity and value of fishery products landed by American fishing and collecting vessels at that port.

In 1922 the fishing fleet at Seattle landed 836 trips, amounting to 11,332,050 pounds of fish, having a value to the fishermen of \$1,249,822. This catch was taken from fishing grounds along the coast from Oregon to Portlock Bank, Alaska. The fishing areas from which the largest quantities of fish were taken were Flattery Banks, west coast of Vancouver Island, and Hecate Strait. The products included

halibut, 9,938,150 pounds, valued at \$1,196,390; sablefish, 1,014,100 pounds, valued at \$46,652; "lingcod," 258,200 pounds, valued at \$4,509; and rockfishes, 121,600 pounds, valued at \$2,271. Compared with 1921 there was a decrease of 30 trips by fishing vessels, and of 2,334,650 pounds, or 17.08 per cent, in the quantity and of \$173,481, or 12.18 per cent, in the value of the products landed. There was a decrease in the catch of halibut of 1,542,850 pounds, or 13.43 per cent, in quantity and of \$139,268, or 10.42 per cent, in value. The catch of sablefish decreased 505,300 pounds, or 33.25 per cent, in quantity and \$17,033, or 26.74 per cent, in value. The catch of "lingcod" decreased 205,100 pounds, or 44.27 per cent, in quantity and \$11,882, or 72.49 per cent, in value; and the catch of rockfishes decreased 81,400 pounds, or 40.09 per cent, in quantity and \$5,298, or 69.99 per cent, in value.

The fishery products taken in Puget Sound and landed at Seattle by collecting vessels during the year amounted to 15,083,390 pounds, valued at \$964,832. The products included salmon, 13,615,780 pounds, valued at \$882,481; herring, 261,890 pounds, valued at \$3,158; sturgeon, 1,100 pounds, valued at \$130; steelhead trout, 122,820 pounds, valued at \$12,542; smelt, 192,350 pounds, valued at \$16,795; perch, 30,800 pounds, valued at \$2,114; rockfishes, 115,490 pounds, valued at \$6,720; "lingcod," 8,000 pounds, valued at \$160; flounders, 94,100 pounds, valued at \$1,683; sole, 163,500 pounds, valued at \$5,679; and crabs, 477,560 pounds, valued at \$33,370. Compared with 1921 there was an increase in the products landed by collecting vessels of 2,654,865 pounds, or 21.36 per cent, in quantity and of \$185,954, or 23.87 per cent, in value.

*Statement, by fishing grounds and months, of quantities and values of certain fresh fishery products landed at Seattle, Wash., by American fishing vessels, 1922.*

	Number of trips.	Halibut.		Sablefish.	
		Pounds.	Value.	Pounds.	Value.
BY FISHING GROUNDS.					
Oregon Coast.....	2	12,000	\$2,430	3,500	\$195
Flattery Banks.....	342	2,455,500	326,059	805,400	37,962
West Coast, Vancouver Island.....	195	1,849,500	226,752	99,000	4,635
Queen Charlotte Islands grounds.....	38	512,000	67,061	10,500	450
Hecate Strait.....	237	4,385,150	500,507	93,200	3,285
Noyes Island grounds.....	5	71,000	7,120	.....	.....
Forrester Island grounds.....	2	36,000	2,981	.....	.....
Coronation Island.....	2	43,000	4,350	.....	.....
Yakutat grounds.....	10	420,000	47,950	2,500	125
Portlock Bank.....	3	151,000	11,180	.....	.....
<b>Total.....</b>	<b>836</b>	<b>9,938,150</b>	<b>1,196,390</b>	<b>1,014,100</b>	<b>46,652</b>
BY MONTHS.					
January.....	20	493,500	50,720	22,000	740
February.....	34	379,000	50,190	18,000	700
March.....	53	543,200	72,059	7,000	340
April.....	94	844,500	101,153	.....	.....
May.....	118	1,252,300	141,967	7,500	375
June.....	113	1,720,500	162,373	20,000	940
July.....	88	1,423,000	149,834	69,700	2,481
August.....	80	940,200	113,681	234,000	8,270
September.....	80	947,600	127,321	128,200	6,721
October.....	86	853,000	137,841	291,200	13,815
November.....	51	345,600	59,121	155,000	8,855
December.....	19	195,750	30,130	61,500	3,415
<b>Total.....</b>	<b>836</b>	<b>9,938,150</b>	<b>1,196,390</b>	<b>1,014,100</b>	<b>46,652</b>



Statement, by fishing grounds and months, of quantities and values of certain fresh fishery products landed at Seattle, Wash., by American fishing vessels, 1922—Continued.

	Number of trips.	"Lingcod."		Rockfishes.		Total.	
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
BY FISHING GROUNDS.							
Oregon Coast.....	2					15,500	\$2,625
Flattery Banks.....	342	122,900	\$1,961	42,800	\$787	3,420,600	366,769
West Coast, Vancouver Island.....	195	80,800	1,508	67,800	689	2,067,100	233,584
Queen Charlotte Islands grounds.....	38	25,500	470	6,500	130	554,500	68,111
Hecate Strait.....	237	21,000	410	29,500	565	4,528,850	504,767
Noyes Island grounds.....	5	8,000	160	4,000	80	86,000	7,360
Forrester Island grounds.....	2			1,000	20	37,000	3,001
Coronation Island.....	2					43,000	4,350
Yakutat grounds.....	10					422,500	48,075
Portlock Bank.....	3					151,000	11,180
Total.....	836	258,200	4,509	121,600	2,271	11,332,050	1,249,822
BY MONTHS.							
January.....	20	11,000	220	4,000	80	530,500	51,760
February.....	34	27,000	600	11,500	230	435,500	51,720
March.....	53	33,500	560	8,500	150	592,200	73,109
April.....	94	60,900	709	17,000	200	922,400	102,062
May.....	118	17,500	175	7,200	72	1,284,500	142,589
June.....	113	43,000	750	27,500	530	1,811,000	164,593
July.....	88	34,300	603	30,000	535	1,557,000	153,453
August.....	80	3,600	116	3,600	190	1,181,400	122,257
September.....	80	4,700	47	2,000	20	1,082,500	134,109
October.....	86	9,700	409	1,500	30	1,155,400	152,095
November.....	51	9,500	240	8,300	224	518,400	68,440
December.....	19	3,500	80	500	10	261,250	33,635
Total.....	836	258,200	4,509	121,600	2,271	11,332,050	1,249,822

Fishery products, by months, taken in Puget Sound and landed at Seattle, Wash., by collecting vessels, 1922.

Species.	January.		February.		March.		April.		May.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Sturgeon.....									1,100	\$130
Herring.....	90,000	\$1,450	108,400	\$1,084	23,490	\$234				
Salmon:										
King or spring.....									370,000	35,400
Sockeye or red.....									6,000	720
Trout: Steelhead.....									30,600	3,320
Smelt.....	22,500	2,500	6,600	924	14,840	1,484	9,640	\$964		
Perch.....			8,200	502	6,000	300	8,600	602		
Rockfishes.....	7,000	490	10,250	820	8,500	510	14,500	1,015	2,000	160
Flounders.....	5,850	117	4,000	60	3,600	54	6,450	139	16,500	165
Sole.....	21,500	645	24,600	575	20,100	603	16,300	470	8,500	255
Crabs.....	83,600	5,700	78,100	5,325	39,600	2,700	27,500	1,825	21,120	1,440
Total.....	230,450	10,902	240,150	9,290	116,130	5,945	82,990	5,015	455,820	41,590

Species.	June.		July.		August.		September.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Salmon:								
Humpback or pink.....			52,000	\$1,040	150,000	\$4,500	28,000	\$840
Chum or keta.....			33,600	672	116,000	3,480	83,080	2,077
King or spring.....	660,000	\$66,000	2,350,000	235,000	1,557,200	155,720	307,200	30,720
Coho or silver.....	47,000	4,700	118,400	5,620	2,254,300	141,258	1,813,200	90,660
Sockeye or red.....	26,000	2,600	20,000	1,000				
Trout: Steelhead.....	34,500	3,450	24,500	2,450	16,500	1,650		
Smelt.....							37,400	2,976
Rockfishes.....	12,000	240	16,200	324	5,600	448	8,500	680
Flounders.....	14,300	280	12,000	240	10,000	200	6,600	132
Sole.....	8,000	320	11,000	440	16,400	1,312	7,000	280
Total.....	801,800	77,590	2,637,700	246,786	4,126,000	308,568	2,290,980	128,365

*Fishery products, by months, taken in Puget Sound and landed at Seattle, Wash., by collecting vessels, 1922—Continued.*

Species.	October.		November.		December.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Sturgeon.....							1,100	\$130
Herring.....					40,000	\$390	261,890	3,158
Salmon:								
Humpback or pink.....	12,000	\$240					242,000	6,620
Chum or keta.....	1,400,000	25,000	464,000	\$18,560			2,096,680	49,789
King or spring.....	108,500	10,850	14,500	1,160			5,367,400	534,850
Coho or silver.....	1,320,600	26,412	304,200	18,252			5,857,700	286,902
Sockeye or red.....							52,000	4,320
Trout: Steelhead.....	10,450	1,045	6,270	627			122,820	12,542
Smelt.....	32,300	2,740	14,070	1,407	55,000	3,800	192,350	16,795
Perch.....					8,000	650	30,800	2,114
Rockfishes:								
" Lingcod ".....	10,140	800	8,300	498	12,500	735	115,490	6,720
Flounders.....	8,000	160					8,000	160
Sole.....	7,600	304	6,800	136	8,000	160	94,100	1,683
Crabs.....	63,800	4,350	4,000	120	18,500	355	163,500	5,679
			70,840	4,830	93,000	7,200	1,477,560	33,370
Total.....	2,973,390	71,901	892,980	45,590	235,000	13,290	15,083,390	964,832

<sup>1</sup> 21,590 dozen.

### FISHERIES OF CALIFORNIA IN 1922.

Through the courtesy of the California Fish and Game Commission the bureau has received copies of its monthly sheets showing the catch of fish, by species and by counties, for California, and also the quantity of fish imported into California from Mexico, during the calendar year 1922. These statistics have been compiled by species and by months, as shown in the appended tables.

In 1922 the catch of fish for California amounted to 168,969,733 pounds, an increase of 41,241,110 pounds, or 32.28 per cent over the catch of 1921. The species taken in largest quantities were pilchard, 93,399,900 pounds; albacore and tuna, 17,920,019 pounds; flounders, 11,341,262 pounds; bonito or skipjack, 10,998,855 pounds; salmon, 7,235,124 pounds; barracuda, 4,710,753 pounds; rockfishes, 4,238,480 pounds; yellowtail, 3,111,198 pounds; mackerel, 2,466,762 pounds; white sea bass or squeteague, 2,195,932 pounds; abalones, 1,523,394 pounds; and shad, 1,109,445 pounds.

The imports of fresh fish from Mexico in 1922 amounted to 12,146,066 pounds, an increase of 5,446,249 pounds, or 81.29 per cent, as compared with 1921. The principal species imported were albacore and tuna, 6,179,754 pounds; barracuda, 1,528,770 pounds; bonito or skipjack, 1,792,592 pounds; flounders, 817,304 pounds; white sea bass or squeteague, 736,220 pounds; sea crawfish or spiny lobster, 640,466 pounds; and yellowtail, 303,292 pounds.

*Products, in pounds, of the fisheries of California, 1922.*

Species.	January.	February.	March.	April.	May.	June.	July.
Albacore and tuna.....	695	1,440	296		149	875,364	9,386,822
Anchovies.....	32,613	27,633		7,375	96,717	27,511	37,470
Barracuda.....	25,220	115,880	554,140	527,589	1,213,656	634,650	369,462
Bluefish, California or squeteague.....	3,352	3,422	17,806	1,440	925	1,735	5,677
Bonito or skipjack.....	17,947	2,853	9,591	4,190	695	5,580	31,471
Carp.....	2,851	5,835	10,776	3,367	16,723	4,140	3,894
Catfish.....	18,374	14,547	28,648	7,114	8,206		
Flounders.....	988,803	1,022,552	1,174,570	879,955	867,028	1,253,309	838,590
" Hake ".....	345	870	260	4,424	3,600	13,998	7,537
Hardhead.....	5,644	3,160	14,685				

## Products, in pounds, of the fisheries of California, 1922—Continued.

Species.	January.	February.	March.	April.	May.	June.	July.
Herring.....	126,788	98,592	44,085	.....	.....	.....	.....
Kingfish.....	30,323	52,722	127,350	109,600	81,419	36,250	27,861
"Lingcod".....	45,530	39,314	47,565	32,826	40,217	35,075	52,327
Mackerel.....	175,667	120,150	241,695	273,872	228,454	233,197	245,445
Mullet.....	.....	.....	1,027	.....	4,250	761	899
"Perches," surf.....	17,995	19,950	38,723	52,875	6,296	4,013	15,577
Pike, Sacramento.....	1,245	1,038	198	190	611	298	149
Pilchard.....	6,830,874	20,949,556	14,420,451	2,184,939	491,487	58,215	1,487,755
Pompano, California.....	210	150	2,100	1,396	2,053	2,658	.....
Rockfishes.....	584,065	566,356	602,278	326,968	282,612	200,746	160,162
Sablefish.....	12,502	24,344	61,393	34,213	8,294	40,677	31,715
Salmon.....	11,786	29,248	108,341	501,938	560,469	1,725,650	1,469,933
Sculpin.....	5,458	4,940	3,914	2,619	8,464	500	.....
Sea bass, black.....	8,518	4,520	2,158	3,009	5,152	13,301	9,222
Sea basses, or "rock bass".....	9,394	6,383	6,410	7,968	34,734	58,349	74,263
Sea bass, white or squeteague.....	26,139	11,305	188,160	191,496	321,209	475,425	324,465
Shad.....	991	186	52,009	348,261	675,248	11,080	.....
Sharks.....	52,620	31,647	36,315	15,380	43,055	23,545	14,413
Sheepshead.....	2,249	3,150	880	42	643	.....	60
Skates.....	14,661	15,920	18,069	20,230	6,650	2,370	6,063
"Smelt".....	30,388	47,749	74,130	64,998	77,103	44,326	65,100
Split-tail.....	2,056	6,047	279	102	87	.....	.....
Striped bass.....	69,162	37,115	17,629	114,193	142,959	1,285	.....
Suckers.....	710	394	.....	.....	.....	.....	.....
Swordfish.....	.....	105	.....	80	.....	300	1,524
Tomcod.....	4,829	2,975	1,034	450	2,659	2,008	564
Whitebait.....	386	.....	.....	485	6,315	39,081	11,031
Whitefish.....	2,641	2,259	4,187	2,615	9,319	187	25
Yellowtail.....	12,329	2,633	133,730	65,930	207,289	162,614	243,893
Other fish.....	16,353	44,392	16,037	5,828	16,142	11,086	13,706
Crabs.....	116,512	147,180	46,420	84,722	101,288	41,492	27,940
Shrimps.....	51,213	38,311	71,031	141,406	124,252	128,020	62,210
Sea crawfish or spiny lobster.....	66,074	51,335	.....	.....	.....	.....	.....
Abalones.....	79,043	.....	120,907	83,770	162,052	203,535	243,308
Clams.....	48,233	44,411	54,027	46,125	53,647	48,776	53,898
Cockles.....	1,445	863	2,562	3,490	6,024	4,496	2,104
Mussels.....	2,679	2,546	1,814	2,559	4,576	8,381	8,812
Oysters, eastern.....	5,547	6,453	7,346	4,738	2,498	2,435	2,077
Octopus.....	5,547	10,296	15,452	8,943	12,805	14,288	9,701
Squid.....	471	15,743	11,784	3,188	64,169	74,098	130
Turtles.....	.....	.....	.....	10	.....	.....	.....
Frogs.....	540	.....	.....	100	.....	.....	.....
Total.....	9,569,017	23,638,470	18,392,562	6,177,008	6,002,200	6,534,805	15,348,796

Species.	August.	September	October.	November.	December.	Total.
Albacore and tuna.....	4,711,620	1,965,151	772,025	168,607	37,850	17,920,019
Anchovies.....	31,353	19,275	21,919	56,950	.....	358,816
Barracuda.....	322,480	140,457	339,118	378,585	89,516	4,710,753
Bluefish, California or squeteague.....	5,118	5,073	3,819	2,160	9,474	60,031
Bonito or skipkack.....	2,741,407	6,216,812	1,910,044	46,947	11,318	10,998,855
Carp.....	9,573	171	1,065	3,261	5,257	66,913
Catfish.....	677	2,804	15,836	19,244	10,229	125,679
Eels.....	.....	20	.....	.....	.....	20
Flounders.....	971,155	863,697	938,136	864,202	679,265	11,341,262
"Hake".....	9,077	8,045	21,860	4,050	450	74,516
Hardhead.....	.....	.....	1,316	5,848	1,490	32,143
Herring.....	.....	.....	.....	295	57,911	327,671
Kingfish.....	7,708	6,852	17,003	37,972	46,638	581,698
"Lingcod".....	69,979	63,406	68,509	48,039	25,694	568,481
Mackerel.....	127,592	172,353	179,854	215,886	252,597	2,466,762
Mullet.....	1,023	641	.....	5,095	10,668	24,364
"Perches," surf.....	16,976	8,302	16,960	25,131	14,841	237,639
Pike, Sacramento.....	805	131	34	364	2,876	7,439
Pilchard.....	6,637,365	7,838,542	10,200,583	9,295,815	13,004,318	93,399,900
Pompano, California.....	961	1,509	1,682	1,121	669	16,050
Rockfishes.....	293,219	195,592	278,012	375,381	373,089	4,238,480
Sablefish.....	11,158	1,408	5,594	15,358	21,598	268,554
Salmon.....	1,706,929	865,816	102,931	111,786	40,297	7,235,124
Sculpin.....	110	1,189	1,676	8,955	4,105	41,930
Sea bass, black.....	11,716	3,751	5,309	9,943	7,093	83,692
Sea basses or "rock bass".....	67,065	26,813	4,897	9,544	5,542	311,362
Sea bass, white or squeteague.....	368,348	177,958	57,022	32,222	22,183	2,195,932
Shad.....	13,247	829	3	5,567	2,024	1,109,445
Sharks.....	9,093	8,562	13,350	13,225	20,813	282,018
Sheepshead.....	118	30	.....	1,874	9,637	18,183
Skates.....	3,851	1,654	10,535	8,362	12,845	121,210
"Smelt".....	43,136	84,130	124,286	96,573	71,009	822,928

*Products, in pounds, of the fisheries of California, 1922—Continued.*

Species.	August.	September.	October.	November.	December.	Total.
Split-tail.....	206	812	.....	16	803	10,408
Steelhead trout.....	.....	2,345	.....	145	.....	2,490
Striped bass.....	90,590	52,279	.....	64,049	94,937	684,198
Suckers.....	.....	.....	.....	14	234	1,352
Swordfish.....	8,190	11,921	328	485	323	23,256
Tomcod.....	11,911	5,332	319	.....	33	32,114
Whitebait.....	12,390	7,365	4,451	2,503	.....	84,007
Whitefish.....	.....	2,308	375	2,028	1,845	27,789
Yellowtail.....	424,997	637,364	757,430	418,850	44,139	3,111,198
Other fish.....	10,620	8,405	27,010	52,803	18,836	251,218
Crabs.....	.....	.....	.....	102,806	120,274	788,634
Shrimps.....	74,659	112,602	88,935	58,607	39,103	990,349
Sea crawfish or spiny lobster.....	.....	.....	65,420	99,651	93,830	376,310
Abalones.....	214,277	202,731	63,371	84,739	65,661	1,523,394
Clams.....	50,616	48,896	42,655	41,427	39,108	571,819
Cockles.....	1,269	1,631	1,484	3,223	2,973	31,564
Mussels.....	5,218	4,114	463	2,060	650	43,872
Oysters, eastern.....	3,578	4,964	6,394	6,557	6,534	59,121
Octopus.....	2,891	1,956	3,270	6,605	6,834	98,588
Squid.....	.....	.....	70	219	39,661	209,533
Turtles.....	.....	.....	.....	.....	.....	10
Frogs.....	.....	.....	.....	.....	.....	640
<b>Total.....</b>	<b>19,103,771</b>	<b>19,785,998</b>	<b>16,175,383</b>	<b>12,814,649</b>	<b>15,427,074</b>	<b>168,969,733</b>

*Mexican fishery products, in pounds, imported into California, 1922.*

Species.	January.	February.	March.	April.	May.	June.	July.
Albacore and tuna.....	1,991	.....	.....	73,811	159,409	.....	.....
Barracuda.....	320,614	224,424	235,027	16,519	2,824	.....	550
Bonito or skipjack.....	21,145	1,876	895	1,675	.....	.....	.....
Flounders.....	48,411	39,668	16,287	16,948	37,680	72,337	97,646
Kingfish.....	.....	.....	30	.....	.....	65	.....
Mackerel.....	15,162	4,565	788	.....	165	.....	630
Mullet.....	442	.....	585	.....	.....	.....	.....
Rockfishes.....	18,327	1,765	599	.....	.....	305	135
Sculpin.....	.....	90	91	.....	.....	.....	.....
Sea bass, black.....	3,903	2,390	.....	.....	.....	90	480
Sea basses or "rock bass".....	447	650	799	.....	.....	.....	20
Sea bass, white or squeteague.....	40,693	312	15,250	17,952	1,400	1,697	49,615
Smelt.....	1,349	305	.....	.....	.....	123	666
Whitefish.....	2,256	.....	235	.....	.....	.....	.....
Yellowtail.....	130,501	54,706	83,885	3,866	.....	.....	8,135
Other fish.....	328	105	.....	.....	.....	.....	.....
Sea crawfish or spiny lobster.....	109,561	115,332	195,524	46,363	.....	.....	.....
Abalones.....	.....	.....	6,265	7,575	21,085	2,115	.....
Turtles.....	110	.....	.....	5,255	.....	.....	.....
<b>Total.....</b>	<b>715,240</b>	<b>446,188</b>	<b>556,260</b>	<b>189,964</b>	<b>222,563</b>	<b>76,732</b>	<b>157,877</b>

Species.	August.	September.	October.	November.	December.	Total.
Albacore and tuna.....	.....	832,033	2,417,017	1,961,417	734,076	6,179,754
Barracuda.....	40	203,398	126,669	189,636	209,069	1,528,770
Bonito or skipjack.....	160	1,144	307,325	1,184,091	274,281	1,792,592
Flounders.....	162,374	290,415	25,981	5,060	4,497	817,304
Kingfish.....	.....	70	.....	.....	.....	165
Mackerel.....	.....	7,208	220	355	73	29,166
Mullet.....	.....	.....	.....	.....	5,555	6,582
"Perches," surf.....	70	75	250	2,255	3,492	6,142
Pompano, California.....	.....	.....	.....	260	112	372
Rockfishes.....	30	1,265	1,607	165	.....	24,198
Sculpin.....	.....	.....	.....	.....	.....	181
Sea bass, black.....	.....	1,200	170	.....	5,429	13,662
Sea basses or "rock bass".....	.....	1,404	.....	215	1,154	4,689
Sea bass, white or squeteague.....	116,401	209,841	258,824	5,954	18,281	736,220
Sheepshead.....	.....	.....	22	.....	.....	22
Smelt.....	738	542	1,506	70	1,913	7,212
Whitefish.....	.....	.....	.....	.....	.....	2,491
Yellowtail.....	1,630	10,488	3,159	1,095	5,827	303,292
Other fish.....	.....	400	.....	.....	2,167	3,000
Sea crawfish or spiny lobster.....	.....	.....	16,233	85,628	71,825	640,466
Abalones.....	.....	.....	.....	.....	.....	37,040
Clams.....	.....	.....	.....	.....	225	225
Turtles.....	.....	135	555	3,407	3,059	12,521
<b>Total.....</b>	<b>281,443</b>	<b>1,559,618</b>	<b>3,159,538</b>	<b>3,439,608</b>	<b>1,341,035</b>	<b>12,146,066</b>

**FISHERY PRODUCTS RECEIVED AT MUNICIPAL FISH WHARF AND MARKET, WASHINGTON, D. C.<sup>5</sup>**

The receipts of fishery products at the Municipal Fish Wharf and Market, Washington, D. C., in 1922 amounted to 6,442,663 pounds, a decrease of 2,624,081 pounds, or 28.94 per cent, as compared with 1921. The five most important products in quantity were squeteagues or "sea trout," 1,138,730 pounds; oysters, 1,744,918 pounds, or 249,274 bushels; croaker, 779,776 pounds; river herring, 559,070 pounds; and shad, 438,148 pounds; total of 4,660,642 pounds, or 72.34 per cent, of the receipts at this market. The species ranking next in abundance include bass, butterfish, catfish, halibut, perch, striped bass, and crabs.

*Fishery products, in pounds, received at Municipal Fish Wharf and Market, Washington, D. C., 1922.*

Species.	January.	February.	March.	April.	May.	June.	July.
Bass, black or sea.....	29,500	25,850	25,400	.....	6,800	4,600	400
Buffalo fish.....	.....	1,200	.....	.....	.....	.....	.....
Bluefish.....	800	.....	.....	.....	700	1,600	2,400
Butterfish.....	9,700	4,600	2,000	3,450	15,200	16,100	14,700
Carp.....	17,881	10,900	15,835	6,400	8,787	4,440	1,850
Catfish.....	18,060	21,300	64,545	21,285	9,442	7,529	1,540
Cod.....	4,700	4,300	2,600	800	100	800	400
Crappie.....	.....	800	.....	.....	.....	.....	.....
Croaker.....	20,200	13,100	78,708	148,408	120,100	117,305	135,955
Eels.....	.....	.....	415	256	130	.....	.....
Flounders.....	16,900	10,300	21,450	3,003	4,066	6,760	2,050
Gizzard shad.....	7,400	.....	.....	.....	.....	.....	.....
Haddock.....	1,600	3,300	9,950	1,200	1,240	5,200	4,100
Hake.....	15,300	7,400	1,300	.....	.....	.....	.....
Halibut.....	26,000	16,400	15,250	9,345	9,502	6,600	5,250
Herring, river.....	6,000	33,200	261,835	206,955	50,050	1,030	.....
Hickory shad or "jacks".....	.....	.....	950	400	.....	.....	.....
Mackerel.....	.....	7,900	9,600	3,400	4,900	10,000	3,650
Perch.....	12,300	12,300	72,300	17,608	4,420	1,828	725
Pike or pickerel.....	1,180	.....	250	100	.....	.....	.....
Pollock.....	5,200	5,300	800	.....	.....	400	.....
Redfish or red drum.....	.....	800	.....	.....	.....	1,000	.....
Red snapper.....	500	1,000	.....	.....	.....	.....	.....
Salmon.....	4,200	3,700	6,100	1,100	100	4,550	800
Scup or porgy.....	.....	.....	.....	.....	2,500	600	.....
Shad.....	17,900	27,900	84,590	224,828	80,903	27	.....
Smelt.....	1,100	2,500	.....	.....	.....	.....	.....
Spot.....	.....	.....	.....	2,100	3,200	3,400	5,810
Squeteagues or "sea trout".....	80,000	66,700	34,000	87,400	294,700	165,300	67,330
Striped bass.....	10,530	9,375	54,995	28,335	5,890	11,751	7,385
Sturgeon.....	.....	.....	.....	.....	.....	250	.....
Tilefish.....	.....	1,100	2,025	850	400	200	.....
Whiting.....	8,300	.....	.....	.....	.....	.....	.....
Clams, hard <sup>1</sup> .....	2,176	2,048	7,136	31,264	5,376	6,688	6,528
Oysters: <sup>1</sup>	.....	.....	.....	.....	.....	.....	.....
In the shell.....	338,800	250,600	240,289	1,736	560	.....	.....
Opened.....	261,525	170,775	162,731	454	.....	.....	.....
Scallops.....	.....	.....	.....	110	.....	.....	.....
Crabs.....	.....	.....	.....	1,995	15,345	57,398	50,875
Crab meat.....	.....	.....	895	2,250	6,900	8,460	7,965
Frogs.....	.....	.....	.....	600	611	.....	.....
Lobster.....	.....	.....	.....	150	50	.....	.....
Shrimp.....	1,250	800	150	750	700	400	300
Turtles.....	.....	.....	.....	16	851	.....	.....
Total.....	919,002	712,948	1,178,599	806,398	653,623	444,266	320,013

<sup>5</sup> Daily reports of the quantity of fishery products received at this market are received by the bureau for tabulation through the courtesy of the health department of the District of Columbia.

*Fishery products, in pounds, received at Municipal Fish Wharf and Market, Washington, D. C., 1922—Continued.*

Species.	August.	September.	October.	November.	December.	Total.
Bass, black or sea.....	600	5,600	640	3,400	12,245	115,035
Buffalofish.....						1,200
Bluefish.....	5,400	6,250	6,600	7,000	1,200	31,950
Butterfish.....	21,000	12,200	8,400	12,400	800	120,550
Carp.....	1,100	4,850	4,200	2,350	2,150	80,743
Catfish.....	1,240	18,220	17,110	18,720	11,320	210,311
Cod.....		1,200	1,200	3,300	2,200	21,600
Crappie.....						800
Croaker.....	59,200	55,100	17,900	11,600	2,200	779,776
Eels.....		800	555	1,300	3,065	6,521
Flounders.....	2,600	5,200	4,400	7,200	2,800	86,729
Gizzard shad.....		200	600	5,600	9,000	22,800
Haddock.....	2,600	5,400	6,500	4,400	6,300	51,790
Hake.....			400	4,800	11,800	41,000
Halibut.....	3,404	4,050	3,900	6,200	27,000	132,901
Herring, river.....						559,070
Hickory shad or "jacks".....						1,350
Kingfish.....			200			200
Mackerel.....	200	2,610		5,600	7,000	54,860
Mullet.....		245			430	675
Perch.....	900	5,100	13,750	16,515	8,870	166,616
Pike or pickerel.....		350	100		890	2,870
Pollock.....		400				12,100
Redfish or red drum.....						1,800
Red snapper.....						1,500
Salmon.....		1,600	3,275	1,500	11,400	38,325
Scup or porgy.....		1,400				4,500
Shad.....		200	1,800			438,148
Smelt.....					600	4,200
Spot.....		6,655	12,700	4,200		38,065
Squeteagues or "sea trout".....	78,000	163,900	68,100	19,000	14,300	1,133,730
Striped bass.....	1,000	16,325	23,675	17,400	5,975	192,636
Sturgeon.....						250
Tilefish.....						4,575
Whiting.....					400	8,700
Clams, hard <sup>1</sup> .....	3,392	4,256	2,304	2,464	1,344	<sup>2</sup> 74,976
Oysters: <sup>1</sup>						
In the shell.....		18,837	68,600	70,672	52,955	<sup>3</sup> 1,043,049
Opened.....		5,858	13,332	38,882	48,312	<sup>4</sup> 701,869
Scallops.....						110
Crabs.....	26,790	39,840	9,900			202,143
Crab meat.....	4,900	6,025	2,250	152	240	40,037
Frogs.....						1,211
Lobster.....						200
Shrimp.....		175			800	5,325
Turtles.....						867
Total.....	212,326	392,846	292,391	264,655	245,596	6,442,663

<sup>1</sup> The clams have been reduced to pounds on the basis of 8 pounds of meat to a bushel, the oysters on a basis of 7 pounds of meat to a bushel and 8½ pounds to a gallon.

<sup>2</sup> 9,372 bushels.

<sup>3</sup> 149,007 bushels.

<sup>4</sup> 85,075 gallons.

**NOTES ON SPONGE FISHERY.**

In 1922 the quantity of sponges sold at the Sponge Exchange, Tarpon Springs, Fla., was 526,885 pounds, valued at \$699,092, of which 248,475 pounds, valued at \$596,199 were large wool; 70,478 pounds, valued at \$42,286, small wool; 115,455 pounds, valued at \$37,637, yellow; 84,892 pounds, valued at \$20,379, grass; and 7,585 pounds, valued at \$2,588, wire. It is estimated that sponges to the value of \$50,000 were sold outside of the Exchange at Tarpon Springs.

**FISHERIES OF NEW YORK, NEW JERSEY, PENNSYLVANIA, AND DELAWARE IN 1921.**

The statistics of the fisheries of New York, New Jersey, Pennsylvania, and Delaware contained in this report are based on a canvass of the coast fisheries of these States for the calendar year

1921, and have been published already in condensed form and distributed to the trade as Statistical Bulletin No. 569. The statistics given for the oyster product are for the oyster season beginning in 1921, and those of the shad fishery of the Hudson River are for the calendar years 1921 and 1922 in accordance with the previous practice of making an annual canvass of this fishery. The statistics for New York and Pennsylvania do not include any fisheries of the Great Lakes or other inland waters of those States.

#### EARLIER PUBLICATIONS.

Some of the earlier publications relating to the fisheries of New York, New Jersey, Pennsylvania, and Delaware, published in Washington, D. C., follow:

1887. New York and Its Fisheries. By Fred. Mather. *In* The Fisheries and Fishery Industries of the United States, by George Brown Goode and associates, 1880 (1887), Section II, Part VI, pp. 341-377.  
New Jersey and Its Fisheries. By R. Edward Earll. *Ibid.*, part VII, pp. 379-400.  
Pennsylvania and Its Fisheries. By R. Edward Earll. *Ibid.*, part VIII, pp. 401-405.  
Delaware and Its Fisheries. By Joseph W. Collins. *Ibid.*, part IX, pp. 407-419.
1890. The Sturgeons and Sturgeon Industries of the Eastern Coast of the United States, with an Account of Experiments Bearing upon Sturgeon Culture. By John A. Ryder. Bulletin, U. S. Fish Commission, Vol. VIII, for 1888 (1890), pp. 231-328.
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COMMON AND SCIENTIFIC NAMES OF FISHES.

Following is a list of the common and scientific names of the fishes of New York, New Jersey, Pennsylvania, and Delaware to which reference is made in this report:

Albacore.....	<i>Gymnosarda alleterata.</i>
Alewives.....	{ <i>Pomolobus æstivalis.</i>
Black drum.....	{ <i>Pomolobus pseudoharengus.</i>
Bluefish.....	<i>Pogonias cromis.</i>
Bonito.....	<i>Pomatomus saltatrix.</i>
Butterfish.....	<i>Sarda sarda.</i>
Carp.....	<i>Poronotus triacanthus</i>
Catfish and bullheads.....	<i>Cyprinus carpio.</i>
Cod.....	<i>Siluridæ (species).</i>
Croaker.....	<i>Gadus callarias.</i>
Cunner.....	<i>Micropogon undulatus.</i>
Eels.....	<i>Tautogolabrus adspersus.</i>
Flounders.....	{ <i>Anguilla rostrata.</i>
Gizzard shad.....	{ <i>Leptocephalus conger.</i>
Grayfish.....	{ <i>Paralichthys dentatus.</i>
Haddock.....	{ <i>Pseudopleuronectes americanus.</i>
Hake.....	{ <i>Lophopsetta maculata.</i>
Herring, sea.....	<i>Dorosoma cepedianum.</i>
Herring, round.....	{ <i>Squalus acanthias.</i>
Hickory shad.....	{ <i>Galeorhinus lævis.</i>
King whiting.....	<i>Melanogrammus aglifinus.</i>
Lance, sand.....	{ <i>Phycis chuss.</i>
Mackerel.....	{ <i>Phycis tenuis.</i>
Menhaden.....	<i>Clupea harengus.</i>
Mullet.....	<i>Etrumeus sadina.</i>
	<i>Pomolobus mediocris.</i>
	<i>Menticirrhus saxatilis.</i>
	<i>Ammodytes americanus.</i>
	<i>Scomber scombrus.</i>
	<i>Brevoortia tyrannus.</i>
	<i>Mugil cephalus.</i>



Mummichog.....	Fundulus (species).
Perch.....	<i>Morone americana.</i>
Perch, yellow.....	<i>Perca flavescens.</i>
Pigfish.....	<i>Orthopristis chrysopterus.</i>
Pike or pickerel.....	<i>Esox (species).</i>
Pilot fish.....	<i>Naucrates ductor.</i>
Pollock.....	<i>Pollachius virens.</i>
Pompano.....	<i>Trachinotus carolinus.</i>
Redfish or red drum.....	<i>Sciaenops ocellatus.</i>
Roach, or shiners.....	<i>Abramis crysoleucas.</i>
Scup or porgy.....	<i>Stenotomus chrysops.</i>
Sea bass.....	<i>Centropristes striatus.</i>
Sea robin.....	<i>Prionotus (species).</i>
Shad.....	<i>Alosa sapidissima.</i>
Silversides.....	<i>Menidia (species).</i>
Spanish mackerel and cero.....	{ <i>Scomberomorus maculatus</i>
Spot.....	{ <i>Scomberomorus regalis.</i>
Squeteagues, weakfish, or "sea trout".....	{ <i>Leiostomus xanthurus.</i>
Striped bass.....	{ <i>Cynoscion regalis.</i>
Sturgeon.....	{ <i>Cynoscion nebulosus.</i>
Suckers.....	<i>Roccus lineatus.</i>
Sunfish.....	<i>Acipenser sturio.</i>
Swellfish.....	Catostomidæ (species).
Swordfish.....	Centrarchidæ (species).
Tautog.....	Tetraodontidæ (species).
Tilefish.....	<i>Xiphias gladius.</i>
Tomcod.....	<i>Tautoga onitis.</i>
Whiting.....	<i>Lopholatilus chamæleonticeps.</i>
Tuna.....	<i>Microgadus tomcod.</i>
	<i>Merluccius bilinearis.</i>
	<i>Thunnus thynnus.</i>

GENERAL STATISTICS.

In 1921, the total number of persons engaged in the fisheries of New York, New Jersey, Pennsylvania, and Delaware was 14,483 as compared with 23,898 in 1904, a decrease of 9,415, or 39.4 per cent. The total investment was \$20,498,498, as compared with \$16,075,122 in 1904, an increase of \$4,423,376, or 27.52 per cent. The products of the fisheries of these States amounted to 332,931,742 pounds, valued at \$11,667,393, as compared with 375,412,398 pounds, valued at \$10,043,062, in 1904, a decrease of 42,480,656 pounds, or 11.32 per cent, in quantity and an increase of \$1,624,331, or 16.17 per cent, in value.

*Fisheries of New York, New Jersey, Pennsylvania, and Delaware, 1921.*

Items.	New York.		New Jersey.		Pennsylvania.		Delaware.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
<b>PERSONS ENGAGED.</b>								
On vessels fishing.....	1,799		2,164		42		279	
On vessels transport- ing.....	62		28		2		2	
In shore fisheries.....	2,365		2,982		105		540	
Shoresmen.....	2,919		597		442		155	
<b>Total.....</b>	<b>7,145</b>		<b>5,771</b>		<b>591</b>		<b>976</b>	
<b>INVESTMENT.</b>								
Vessels, fishing, steam.	31	\$3,270,000					4	\$165,382
Tonnage.....	1,555						492	
Outfit.....		242,057						7,591
Vessels, fishing, gaso- line.....	229	791,515	215	\$830,100	3	\$26,000	12	38,900
Tonnage.....	2,775		2,493		93		135	
Outfit.....		240,859		203,940		5,050		9,050

Fisheries of New York, New Jersey, Pennsylvania, and Delaware, 1921—Continued.

Items.	New York.		New Jersey.		Pennsylvania.		Delaware.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
<b>INVESTMENT—CON.</b>								
Vessels, fishing, sail..	7	\$5,150	127	\$300,600			13	\$26,200
Tonnage.....	55		1,818				133	
Outfit.....		1,525		56,295				6,920
Vessels, transporting, steam.....	2	13,000						
Tonnage.....	41							
Outfit.....		2,380						
Vessels, transporting, gasoline.....	48	182,300	24	49,500			1	600
Tonnage.....	733		252				7	
Outfit.....		30,249		2,175				
Vessels, transporting, sail.....	2	13,500	4	850	1	\$800	3	2,000
Tonnage.....	103		27		10		21	
Outfit.....		1,100				75		100
Boats, sail, row, etc..	1,249	61,005	1,135	36,759	37	1,205	303	7,770
Boats, power, etc....	838	443,980	1,551	647,920	8	3,100	113	31,265
Apparatus, vessel fisheries:								
Purse seines.....	37	86,600	20	23,000	1	1,000	4	6,000
Gill nets.....	26	2,375	991	17,165				
Pound nets.....	8	27,000	82	315,850				
Fyke nets.....	180	960						
Drag nets.....	2	15						
Otter trawls.....	46	3,655	23	1,630				
Lines, hand, trawl and set.....		4,710		1,296		250		
Harpoons.....		150						
Eel pots.....	150	300	50	125				
Lobster pots.....	1,175	2,543	350	450				
Dredges.....	848	11,302	520	10,605			4	90
Tongs, rakes, etc..	122	995	62	630				
Apparatus, shore fisheries:								
Pound nets, float- ing traps, and weirs.....	414	163,285	217	135,220			5	1,000
Gill nets.....	918	52,442	3,657	100,742	13	1,370	156	6,930
Fyke nets.....	2,757	22,235	1,285	9,530	25	35	431	1,629
Haul seines.....	155	14,185	184	13,550	22	1,912	93	9,000
Purse seines.....			1	600				
Drag nets.....	30	192						
Scap nets.....	138	3,281						
Dip nets.....	22	25						
Stop nets.....	14	1,405	86	12,365	5	625		
Bag nets.....			58	1,160				
Otter trawls.....	50	3,140	8	540				
Lines, hand and trawl.....		4,678		5,023				25
Eel pots.....	3,780	8,537	4,102	4,632			101	101
Lobster pots.....	13,363	33,700	10,345	10,944			180	180
Harpoons.....		185						
Spears.....	46	224						
Dredges.....	1,236	7,838	52	775				
Tongs, rakes, and hoes.....	765	5,088	1,321	6,728			208	1,040
Other apparatus..		93		143				888
Shore and accessory property.....		7,140,497		1,587,762		1,074,156		153,400
Cash capital.....		936,200		313,100		260,200		108,500
<b>Total.....</b>		<b>13,836,455</b>		<b>4,701,704</b>		<b>1,375,778</b>		<b>584,561</b>
<b>PRODUCTS.</b>								
	<i>Pounds.</i>	<i>Value.</i>	<i>Pounds.</i>	<i>Value.</i>	<i>Pounds.</i>	<i>Value.</i>	<i>Pounds.</i>	<i>Value.</i>
Albacore.....	29,354	\$1,420	125,642	\$3,985				
Alewives.....	377,793	11,283	408,193	11,914	20,085	\$405	351,590	\$6,431
Bluefish.....	1,082,917	176,726	2,243,425	390,947	600	108	1,325	265
Bonito.....	255,887	30,350	1,503,253	91,046				
Butterfish.....	630,076	64,109	2,862,491	159,286	200	6		
Carp.....	421,642	63,678	329,555	53,184	9,712	1,511	87,820	13,166
Catfish.....	43,435	6,722	101,067	5,976	2,125	128	35,291	2,574
Cod.....	667,860	37,783	687,277	37,353				
Croaker.....			3,815,554	126,700	2,400	48	418,873	18,682
Drum, black.....			67,659	1,365			1,150	22
Drum, red.....			500	10				
Bels, fresh.....	463,552	58,008	274,754	26,450	220	22	16,012	1,598
Eels, smoked.....			4,680	1,497				
Flounders.....	4,471,161	283,412	1,985,340	140,586	200	10	34,429	1,798
Gizzard shad.....							7,320	292

## Fisheries of New York, New Jersey, Pennsylvania, and Delaware, 1921—Continued,

Items.	New York.		New Jersey.		Pennsylvania.		Delaware.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
PRODUCTS—CON.								
Haddock.....	18,515	\$876	6,300	\$338				
Hake.....	35,906	1,430	821,018	25,563				
Herring.....	6,375	206	172,732	4,464				
Hickory shad.....	23,455	1,444	28,145	1,582				
King whiting.....	70,447	13,589	24,119	3,334				
Mackerel.....	282,075	40,356	584,386	100,556				
Menhaden.....	179,447,799	1,117,235	30,405,093	121,451			18,082,000	\$67,970
Mullet, fresh.....	1,250	85	18,460	1,136			513	25
Mullet, salted.....			1,200	240				
Perch, white.....	64,041	7,578	130,970	18,791			6,923	922
Perch, yellow.....	25,500	2,896	31,282	4,708			2,758	273
Pigfish.....					2,000	\$80		
Pike or pickerel.....	215	48	500	100			272	25
Pollock.....	84,300	2,325	4,540	127				
Pompano.....	35	7						
Scup or porgy.....	1,297,375	76,253	4,115,552	200,046				
Sea bass.....	148,434	21,412	1,378,330	86,823	142,000	7,100	250	12
Sea robin.....	38,419	1,140	63,640	1,340				
Shad.....	115,692	27,128	168,637	44,460	18,872	5,834	86,836	16,312
Sharks.....	10,659	284	60,459	1,232				
Skates and rays.....	75,550	1,149	43,100	1,186				
Smelt.....	6,200	1,185	450	335				
Spanish mackerel.....	25	5	3,982	979				
Spot.....	43,757	3,728	189,548	11,502			14,600	928
Squeteagues or weakfish.....	1,921,036	228,524	11,651,735	902,439	240,000	14,400	886,550	53,317
Striped bass.....	94,525	18,662	70,348	21,691			4,915	1,426
Sturgeon.....	33,917	9,199	45,825	7,120			12,090	1,813
Sturgeon caviar.....	940	1,706	74	194				
Sturgeon roe.....			3,572	10,746			1,872	5,139
Suckers.....	132,618	16,731	50,664	5,139	21,199	2,469	983	118
Swordfish.....	44,865	9,125						
Tautog.....	54,722	4,362	44,043	2,650			1,500	75
Tilefish.....	1,133,000	76,984						
Tomcod.....	57,200	2,083	1,950	97				
Tuna.....	32,413	2,745	87,734	3,493				
Whitebait.....	13,561	1,335						
Whiting.....	939,287	12,212	3,280,833	64,371				
Other fish.....	171,240	7,652	789	34				
Lobster.....	1,037,395	196,762	397,841	88,588			10,400	2,600
Shrimp.....	88,450	28,890	20,000	400				
Crabs, hard.....	477,242	17,807	119,244	7,290				
Crabs, soft.....	5,885	1,855	16,800	6,132				1,150
Crabs, king.....	750	11	3,313,174	10,416			630,000	1,890
Squid.....	330,117	18,500	433,902	20,008				
Clams, hard, public.....	1,764,824	214,528	2,782,088	364,548			4,040	2,340
Clams, hard, private.....	4,500	1,950						
Clams, soft, public.....	6,186,150	32,670	6,143,500	20,650				
Clams, soft, private.....	7,200	325						
Skimmers, or surf clams.....	8,48,160	11,300						
Mussels.....	9,50,000	2,500	10,791,000	6,070				
Oysters, market, public.....	11,292,453	41,790	12,69,300	10,190			13,870,219	74,140
Oysters, market, private.....	14,9,131,017	1,733,663	10,977,855	2,060,306			16,1,942,563	293,975
Oysters, seed, public.....	17,69,825	9,710	181,638,900	666,905			19,1,502,949	82,758
Oysters, seed, private.....	20,7,000	750	21,311,500	22,529				
Scallops.....	22,1,235,760	217,108	23,540	90				
Turtles.....	800	19	13,715	334			2,250	112
Terrapin.....	600	350	225	225			300	300
Shells.....	1,760,000	1,480						
Miscellaneous products.....	14,099	9,780	7,800	159				
Total.....	210,377,152	4,986,918	96,936,784	5,983,406	594,613	44,621	25,023,193	652,448

<sup>1</sup> 95,603 bushels.<sup>6</sup> 14,350 bushels.<sup>11</sup> 41,779 bushels.<sup>16</sup> 277,509 bushels.<sup>21</sup> 44,500 bushels.<sup>2</sup> 97,761 bushels.<sup>7</sup> 200 bushels.<sup>12</sup> 9,900 bushels.<sup>17</sup> 9,975 bushels.<sup>22</sup> 205,960 bushels.<sup>3</sup> 505 bushels.<sup>8</sup> 6,020 bushels.<sup>13</sup> 124,317 bushels.<sup>18</sup> 1,662,700 bushels.<sup>23</sup> 90 bushels.<sup>4</sup> 675 bushels.<sup>9</sup> 5,000 bushels.<sup>14</sup> 1,304,431 bushels.<sup>19</sup> 214,707 bushels.<sup>5</sup> 18,615 bushels.<sup>10</sup> 79,100 bushels.<sup>15</sup> 1,568,265 bushels.<sup>20</sup> 1,000 bushels.

NOTE.—The above statistics do not include any fisheries of the Great Lakes or other inland waters. The statistics for New York include 83,718 bushels of market oysters from private grounds, valued at \$83,718, taken by vessels owned and employed, mainly in Connecticut.

## SHAD FISHERY OF THE HUDSON RIVER.

In 1921 there were 307 persons engaged in the fishery of the Hudson River in New York and New Jersey. The investment amounted to \$44,607, and the catch was 35,448 shad in number, or 130,803 pounds, valued at \$30,623. Of this quantity 28,948 shad in number, or 104,883 pounds, valued at \$24,329, were taken in New York and 6,500 in number, or 25,920 pounds, valued at \$6,294, in New Jersey.

In 1922 there were 272 persons engaged in this fishery, the investment amounted to \$40,342, and the catch was 48,336 shad in number, or 175,186 pounds, valued at \$39,706. The catch in New York was 36,111 shad in number, or 128,324 pounds, valued at \$27,451, and in New Jersey 12,225 in number, or 46,862 pounds, valued at \$12,255.

Compared with 1920 there was a decrease in 1921 of 61 persons and of 13,867 shad in number, or 69,041 pounds, and of \$25,706 in the value, but an increase of \$4,256 in the investment. In 1922, as compared with 1920, there was a decrease of 96 persons and of 979 in the number of shad, 24,658 in the number of pounds, and \$16,603 in the value, with practically no change in the amount of capital invested. In 1922 the number of persons engaged and the investment in the fishery were not as large as in 1921, but there was an increase in the catch of 4,888 shad in number, or 44,383 pounds, and of \$9,103 in the value. The statistics for 1921 and 1922, and also comparative statistics of the catch from 1915 to 1922, are given in the following tables:

*Shad fishery of the Hudson River, 1921 and 1922.*

Items.	1921								
	New York.			New Jersey.			Total.		
	Number.	Pounds.	Value.	Number.	Pounds.	Value.	Number.	Pounds.	Value.
Fishermen.....	286			21			307		
Rowboats.....	185		\$8,560	13		\$1,000	198		\$9,560
House boats.....	1		150				1		150
Gasoline boats.....	34		5,300	4		200	38		5,500
Gill nets.....	159		19,687	8		2,910	167		22,597
Haul seines.....	5		590				5		590
Shore and accessory property.....			2,635			3,575			6,210
<b>Total.....</b>			<b>36,922</b>			<b>7,685</b>			<b>44,607</b>
<b>Shad caught:</b>									
With gill nets.....	27,991	101,465	23,469	6,500	25,920	6,294	34,491	127,385	29,763
With seines.....	747	2,603	601				747	2,603	601
With other apparatus incidentally.....	210	815	259				210	815	259
<b>Total.....</b>	<b>28,948</b>	<b>104,883</b>	<b>24,329</b>	<b>6,500</b>	<b>25,920</b>	<b>6,294</b>	<b>35,448</b>	<b>130,803</b>	<b>30,623</b>

## Shad fishery of the Hudson River, 1921 and 1922—Continued.

Items.	1922								
	New York.			New Jersey.			Total.		
	Number.	Pounds.	Value.	Number.	Pounds.	Value.	Number.	Pounds.	Value.
Fishermen.....	251			21			272		
Rowboats.....	164		\$7,680	13		\$1,000	177		\$8,680
House boats.....	1		150				1		150
Gasoline boats.....	22		4,050	4		200	26		4,250
Gill nets.....	133		17,532	8		2,910	141		20,442
Haul seines.....	5		610				5		610
Shore and accessory property.....			2,635			3,575			6,210
<b>Total.....</b>			<b>32,657</b>			<b>7,685</b>			<b>40,342</b>
Shad caught:									
With gill nets.....	34,763	123,469	26,327	12,225	46,862	12,255	46,988	170,331	38,582
With seines.....	1,348	4,855	1,124				1,348	4,855	1,124
With other apparatus incidentally.....									
<b>Total.....</b>	<b>36,111</b>	<b>128,324</b>	<b>27,451</b>	<b>12,225</b>	<b>46,862</b>	<b>12,255</b>	<b>48,336</b>	<b>175,186</b>	<b>39,706</b>

## Comparative statistics of shad fishery of the Hudson River, 1915-1922.

Year.	New York.			New Jersey.			Total.		
	Number.	Pounds.	Value.	Number.	Pounds.	Value.	Number.	Pounds.	Value.
1915.....	11,606	48,564	\$5,969	4,249	20,104	\$2,674	15,855	68,668	\$8,643
1916.....	7,787	32,923	4,540	1,500	7,250	925	9,287	40,173	5,465
1917.....	10,615	38,344	5,810	1,400	5,040	720	12,015	43,384	6,540
1918.....	63,404	220,602	44,784	3,999	14,000	3,400	67,403	234,602	48,184
1919.....	76,501	301,306	60,690	13,800	73,668	23,034	90,301	374,974	83,724
1920.....	39,692	157,715	43,882	9,623	42,129	12,427	49,315	199,844	56,309
1921.....	28,948	104,883	24,329	6,500	25,920	6,294	35,448	130,803	30,623
1922.....	36,111	128,324	27,451	12,225	46,862	12,255	48,336	175,186	39,706

## FISHERIES OF NEW YORK.

In 1921 the number of persons employed in the fisheries of New York was 7,145, of whom 1,799 were on vessels fishing, 62 on transporting vessels, 2,365 in the shore or boat fisheries, and 2,919 on shore in wholesale establishments and other fishery industries.

The investment in the fisheries and fishery industries amounted to \$13,836,455 and included 319 fishing and transporting vessels, valued at \$4,275,465, with a tonnage of 5,262 net tons, and outfits valued at \$518,170; 2,087 boats, valued at \$504,985; fishing apparatus valued at \$461,138; shore and accessory property valued at \$7,140,497; and cash capital amounting to \$936,200.

The products of the fisheries amounted to 210,377,152 pounds, valued at \$4,986,918. The principal species taken, arranged in the order of their value, were: Oysters, 9,500,295 pounds, or 1,357,185 bushels, valued at \$1,785,913; menhaden, 179,447,799 pounds, valued at \$1,117,235; flounders, 4,471,161 pounds, valued at \$283,412; clams, 1,006,538 pounds, or 121,113 bushels, valued at \$260,773; squeteagues, "sea trout," or weakfish, 1,921,036 pounds, valued at \$228,524; scallops, 1,235,760 pounds, or 205,960 bushels, valued at \$217,108; lobster, 1,037,395 pounds, valued at \$196,762; and bluefish, 1,082,917 pounds, valued at \$176,726.

Compared with 1904 there was a decrease in the number of persons employed of 4,348, or 37.83 per cent, and an increase in the investment of \$3,214,839, or 30.26 per cent. There was a decrease in the products of 67,272,595 pounds, or 24.23 per cent, in quantity and of \$1,243,640, or 19.96 per cent, in value.

The following table gives the number of persons employed, investment, and products of the fisheries of New York, by counties, in 1921:

*Persons engaged, investment, and products of the fisheries of New York in 1921, by counties.*

Items.	Albany.		Bronx.		Broome, Delaware, Sullivan, and Tioga.		Columbia.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
<b>PERSONS ENGAGED.</b>								
In shore fisheries.....	45		14		23		50	
Shoresmen.....			1					
Total.....	45		15		23		50	
<b>INVESTMENT.</b>								
Boats:								
Sail, row, etc.....	29	\$1,060	8	\$210	20	\$275	32	\$1,485
Power.....	5	625	6	1,450			4	1,000
Apparatus, shore fisheries:								
Pound nets, floating traps, and weirs.....					18	855		
Gill nets.....	1	50					16	1,590
Fyke nets.....	132	2,270					98	1,400
Haul seines.....	11	1,345			1	200	8	645
Scap nets.....	16	398					11	293
Eel pots.....							6	18
Lobster pots.....			48	100				
Hoes.....			10	10				
Shore and accessory property.....		110		8,600		160		655
Cash capital.....				1,200				
Total.....		5,858		11,570		1,490		7,086
<b>PRODUCTS.</b>								
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....	1,610	131					3,450	253
Carp.....	26,697	3,791					59,428	6,083
Catfish and bullheads.....	7,955	1,398					2,472	608
Eels.....	3,538	422			33,700	4,452	955	189
Perch, yellow.....	1,592	171					2,944	410
Pickarel.....	50	15					10	3
Shad.....	1,016	217			1,000	200	2,750	714
Sturgeon.....							304	106
Suckers.....	19,329	2,846					30,501	3,739
Other fish.....	1,000	10					115	11
Lobster.....			1,000	200				
Miscellaneous products.....			322	515				
Total.....	62,787	9,001	1,322	715	34,700	4,652	102,929	12,116

Items.	Dutchess.		Greene.		Kings.		Nassau.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
<b>PERSONS ENGAGED.</b>								
On vessels fishing.....					64		73	
On vessels transporting.....							4	
In shore fisheries.....	110		48		222		282	
Shoresmen.....					125		46	
Total.....	110		48		411		405	
<b>INVESTMENT.</b>								
Vessels fishing:								
Steam.....							1	\$3,000
Tonnage.....							36	
Outfit.....								800
Gasoline.....					11	\$53,655	23	71,400
Tonnage.....					178		264	
Outfit.....						25,850		18,630

Persons engaged, investment, and products of the fisheries of New York in 1921, by counties—Continued.

Items.	Dutchess.		Greene.		Kings.		Nassau.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
INVESTMENT—continued.								
Vessels transporting:								
Gasoline.....							5	\$9,800
Tonnage.....							53	
Outfit.....								3,113
Boats:								
Sail, row, etc.....	94	\$4,235	38	\$2,170	37	\$1,370	133	9,595
Power.....	10	1,475	1	1,000	91	54,025	111	53,275
Apparatus, vessel fisheries:								
Purse seines.....					2	2,200		
Gill nets.....							12	350
Otter trawls.....					5	440	5	330
Lines, hand and trawl.....						710		
Harpoons.....						100		
Lobster pots.....					90	158		
Dredges.....					2	50	41	1,375
Tongs.....							2	20
Rakes.....					3	35		
Apparatus, shore fisheries:								
Pound nets, floating traps, and weirs.....							2	15,000
Gill nets.....	48	4,952	8	1,110	2	600	268	12,975
Fyke nets.....	75	1,054	35	430				
Haul seines.....	3	200	5	400	8	575	4	415
Drag nets.....							3	25
Scap nets.....	21	495	15	320				
Dip nets.....							12	14
Stop nets.....			5	725				
Otter trawls.....					5	400		
Lines, hand and trawl.....		40				310		1,660
Eel pots.....	26	66				145	120	315
Lobster pots.....					5,265	14,435	225	550
Spears.....							32	168
Dredges.....							66	1,195
Tongs.....					18	171	119	964
Rakes.....					19	210	16	77
Hoes.....					45	45	36	37
Other apparatus.....						1		
Shore and accessory property.....		790		125		224,685		60,660
Cash capital.....						66,300		5,500
Total.....		13,307		6,280		446,470		271,243
PRODUCTS								
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore.....							6,000	\$300
Alewives.....	13,740	\$1,267	21,425	\$1,522			2,685	125
Bluefish.....					204,233	\$32,225	40,425	9,390
Bonito.....							42,060	5,150
Butterfish.....							23,400	2,600
Carp.....	16,518	1,998	25,655	3,158				
Catfish and bullheads.....	3,130	601	1,794	320				
Cod.....					69,500	2,800	88,950	5,815
Eels.....	6,514	723	86	16	13,335	1,600	68,925	8,605
Flounders.....					438,050	21,960	233,025	13,735
Haddock.....					7,000	100	6,490	400
Hake.....					3,150	250	4,375	205
Hickory shad.....							900	52
King whiting.....							600	120
Mackerel.....							60,105	7,700
Perch, yellow.....	2,938	350	1,415	168				
Pickeral.....	10	2						
Pollock.....							2,850	160
Scup.....					426,000	21,300	22,400	1,940
Sea bass.....					17,050	2,065	7,650	1,525
Shad.....	35,449	7,982	80	25	2,757	1,000	1,200	240
Sharks.....							800	30
Spot.....							1,600	145
Squeteagues.....					28,575	950	350,325	46,708
Striped bass.....							2,450	570
Sturgeon.....	3,335	716	150	10			1,200	410
Sturgeon caviar.....	99	299						
Suckers.....	8,760	945	2,845	358				
Swordfish.....								
Tautog.....					30,000	6,000		
Tilefish.....					1,400	200	200	18
Tuna.....					300,000	21,000		
Whiting.....							12,000	1,000
Other fish.....	751	75					32,570	405
Lobster.....					406,300	62,880	10,450	2,425

Persons engaged, investment, and products of the fisheries of New York in 1921, by counties—Continued.

Items.	Dutchess.		Greene.		Kings.		Nassau.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<b>PRODUCTS—continued.</b>								
Shrimp.....					1,125	\$250	6,000	\$2,000
Crabs, soft.....							5,795	1,825
Squid.....							4,500	285
Clams, hard, public.....					3,400	1,275	60,152	24,245
Clams, hard, private.....							5,400	1,950
Clams, soft, public.....					3,000	600	74,300	12,950
Clams, soft, private.....							2,000	325
Skimmers or surf clams.....					48,160	11,300		
Mussels.....							50,000	2,500
Oysters, market, public.....					5,250	750	2,520	575
Oysters, market, private.....							1,174,733	277,813
Oysters, seed, public.....					5,600	800		
Scallops, sea.....					10,740	2,150	42,096	13,830
Miscellaneous products.....					12,902	8,125	180	290
<b>Total.....</b>	<b>91,244</b>	<b>\$14,958</b>	<b>53,450</b>	<b>\$5,577</b>	<b>2,053,667</b>	<b>202,530</b>	<b>2,451,311</b>	<b>448,361</b>

Items.	New York.		Orange.		Putnam.		Queens.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
<b>PERSONS ENGAGED.</b>								
On vessels fishing.....	136						8	
On vessels transporting.....	9							
In shore fisheries.....	7		57		4		37	
Shoresmen.....	1,591							
<b>Total.....</b>	<b>1,743</b>		<b>57</b>		<b>4</b>		<b>45</b>	
<b>INVESTMENT.</b>								
Vessels fishing:								
Gasoline.....	11	\$115,080					1	\$2,000
Tonnage.....	378						43	
Outfit.....		48,380						600
Vessels transporting:								
Steam.....	1	9,000						
Tonnage.....	26							
Outfit.....		1,000						
Gasoline.....	1	10,000						
Tonnage.....	63							
Outfit.....		3,000						
Boats:								
Sail, row, etc.....			40	\$1,590	4	\$175	15	320
Power.....	7	6,150	5	600			25	6,250
Apparatus, vessel fisheries:								
Purse seines.....	8	11,500						
Otter trawls.....	2	260						
Lines, hand and trawl.....		3,950						40
Dredges.....	4	275						
Apparatus, shore fisheries:								
Pound nets, floating traps, and weirs.....			4	165				
Gill nets.....			14	2,145	1	110		
Fyke nets.....			114	1,425				
Haul seines.....			16	1,075				
Scap nets.....			8	200	2	45		
Otter trawls.....	1	80						
Lines, hand and trawl.....				63				160
Eel pots.....			25	50			40	80
Spears.....							8	42
Tongs.....	2	18						
Hoes.....	2	2					13	12
Other apparatus.....								90
Shore and accessory property.....		3,882,638		1,720		20		275
Cash capital.....		767,900						
<b>Total.....</b>		<b>4,859,233</b>		<b>9,033</b>		<b>350</b>		<b>9,869</b>
<b>PRODUCTS.</b>								
Alewives.....			3,129	\$197				
Bluefish.....	663,650	\$105,023						
Carp.....			25,075	3,752	300	\$60		
Catfish and bullheads.....			1,603	276				
Cod.....	5,000	200					31,000	\$2,100
Eels.....			7,652	1,075			4,050	925
Flounders.....	90,000	4,200					7,755	1,315
Perch, yellow.....			1,757	225	100	10		
Scup.....	580,400	30,596						
Sea bass.....	11,800	1,290						





Persons engaged, investment, and products of the fisheries of New York in 1921, by counties—Continued.

Items.	Rensselaer.		Richmond.		Rockland.		Suffolk.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
INVESTMENT—contd.								
Apparatus—Continued.								
Spears.....							6	\$14
Dredges.....			6	\$100			1,164	6,543
Tongs.....			8	50			219	1,617
Rakes.....			14	150			179	1,571
Hoes.....							57	79
Forks.....							1	2
Other apparatus.....								2
Shore and accessory property.....		\$240		1,380		\$850		2,924,769
Cash capital.....								90,300
<b>Total.....</b>		<b>3,540</b>		<b>107,330</b>		<b>7,363</b>		<b>7,997,692</b>
PRODUCTS.								
Albacore.....							23,354	\$1,120
Alewives.....					910	\$76	296,120	4,970
Bluefish.....							174,609	30,088
Bonito.....							213,827	25,200
Butterfish.....							606,676	61,509
Carp.....	23,488	\$3,050			5,783	729	156,913	30,095
Catfish and bullheads.....	4,586	816			160	19	15,335	1,555
Cod.....			26,000	\$1,400			447,410	25,468
Eels.....	293	61	1,000	175	9,105	1,007	290,089	35,693
Flounders.....			37,000	3,000			3,665,331	239,202
Haddock.....							5,025	376
Hake.....							28,381	975
Herring.....							6,575	206
Hickory shad.....							22,555	1,392
King whiting.....							69,847	13,469
Mackerel.....							221,970	32,656
Menhaden.....							179,447,799	1,117,235
Mullet.....							1,250	85
Perch, white.....					1,055	120	62,086	7,363
Perch, yellow.....	1,612	170			115	17	400	60
Pickarel.....	45	9						
Pollock.....							81,450	2,165
Pompano.....							35	7
Scup.....							268,575	22,417
Sea bass.....							111,934	16,532
Sea robin.....							38,419	1,140
Shad.....					5,985	1,635	5,852	1,359
Sharks.....							9,859	254
Skates.....							75,550	1,149
Smelt.....							6,200	1,185
Spanish mackerel.....							25	5
Spot.....							42,157	3,583
Squeteagues.....							1,406,536	175,778
Striped bass.....					5,400	1,239	83,275	15,937
Sturgeon.....	2,080	373			538	86	16,416	5,257
Sturgeon caviar.....							496	602
Suckers.....	6,668	803			1,420	137		
Swordfish.....							14,865	3,125
Tautog.....							52,622	4,044
Tomcod.....							47,200	1,579
Tuna.....							20,413	1,745
Whitebait.....							13,561	1,335
Whiting.....							906,717	11,807
Other fish.....	700	66					117,444	3,063
Lobster.....			45,400	11,700			573,845	119,477
Shrimp.....							76,625	25,540
Crabs, hard.....							463,242	17,107
Crabs, soft.....							90	30
Crabs, king.....							750	11
Squid.....							325,617	18,215
Clams, hard, public.....			9,240	4,400			688,536	182,758
Clams, soft, public.....							81,350	13,745
Oysters, market, public.....			13,300	2,000			264,383	36,565
Oysters, market, private.....			12,534,714	514,741			4,966,570	853,609
Oysters, seed, public.....			19,950	2,850			44,275	6,060
Oysters, seed, private.....							7,000	750
Scallops, bay.....							1,152,528	192,376
Scallops, sea.....							30,396	8,752
Turtles.....							800	19
Terrapin.....							600	350
Shells.....							1,760,000	1,480
Miscellaneous products.....							200	150
<b>Total.....</b>	<b>39,472</b>	<b>5,348</b>	<b>2,686,604</b>	<b>540,266</b>	<b>30,471</b>	<b>5,065</b>	<b>199,511,960</b>	<b>3,379,779</b>

<sup>1</sup>Includes 83,718 bushels, valued at \$83,718, taken up by vessels owned and employed mainly in Connecticut.

Persons engaged, investment, and products of the fisheries of New York in 1921, by counties—Continued.

Items.	Ulster.		Westchester.		Total.	
	Number.	Value.	Number.	Value.	Number.	Value.
<b>PERSONS ENGAGED.</b>						
On vessels fishing.....			3		1,799	
On vessels transporting.....					62	
In shore fisheries.....	167		107		2,865	
Shoresmen.....			33		2,919	
Total.....	167		143		7,145	
<b>INVESTMENT.</b>						
Vessels fishing:						
Steam.....					31	\$3,270,000
Tonnage.....					1,555	
Outfit.....						242,057
Gasoline.....			1	\$5,000	229	791,515
Tonnage.....			29		2,775	
Outfit.....				200		240,859
Sail.....					7	5,150
Tonnage.....					55	
Outfit.....						1,525
Vessels transporting:						
Steam.....					2	13,000
Tonnage.....					41	
Outfit.....						2,380
Gasoline.....					48	182,300
Tonnage.....					733	
Outfit.....						30,249
Sail.....					2	13,500
Tonnage.....					103	
Outfit.....						1,100
Boats:						
Sail, row, etc.....	115	\$4,485	76	3,215	1,249	61,005
Power.....	15	2,700	15	3,650	838	443,980
Apparatus, vessel fisheries:						
Purse seines.....					37	86,600
Gill nets.....					26	2,375
Pound nets.....					8	27,000
Fyke nets.....					180	960
Drag nets.....					2	15
Otter trawls.....					46	3,655
Lines, hand and trawl.....						4,710
Harpoons.....						150
Eel pots.....					150	300
Lobster pots.....					1,175	2,543
Dredges.....			15	300	848	11,302
Tongs.....					109	904
Rakes.....					13	91
Apparatus, shore fisheries:						
Pound nets, floating traps, and weirs.....					414	163,285
Gill nets.....	89	10,395	34	2,905	918	52,442
Fyke nets.....	126	1,910	81	1,131	2,757	22,235
Haul seines.....	16	1,325	11	1,045	155	14,185
Drag nets.....					30	192
Scap nets.....	51	1,195	2	50	138	3,281
Dip nets.....					22	25
Stop nets.....	9	680			14	1,405
Otter trawls.....					50	3,140
Lines, hand and trawl.....		50		94		4,678
Eel pots.....	25	58	154	400	3,780	8,537
Lobster pots.....			30	60	13,363	33,700
Harpoons.....						185
Spears.....					46	224
Dredges.....					1,236	7,838
Tongs.....			8	64	374	2,884
Rakes.....					228	2,008
Hoes.....			9	9	162	194
Forks.....					1	2
Other apparatus.....						93
Shore and accessory property.....		875		31,945		7,140,497
Cash capital.....				5,000		936,200
Total.....		23,673		55,068		13,836,455
<b>PRODUCTS.</b>						
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore.....					29,354	\$1,420
Alewives.....	34,299	\$2,719	425	\$23	377,793	11,283
Bluefish.....					1,082,917	176,726
Bonito.....					255,887	30,350
Butterfish.....					630,076	64,109
Carp.....	51,099	7,948	30,686	3,014	421,642	63,678
Catfish and bullheads.....	3,909	773	2,491	356	43,435	6,722
Cod.....					667,800	37,783
Eels.....	2,547	897	21,763	2,668	463,552	58,008

Persons engaged, investment, and products of the fisheries of New York in 1921, by counties—Continued.

Items.	Ulster.		Westchester.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
PRODUCTS—Continued						
Flounders.....					4,471,161	\$283,412
Haddock.....					18,515	876
Hake.....					35,906	1,430
Herring.....					6,575	206
Hickory shad.....					23,455	1,444
King whiting.....					70,447	13,589
Mackerel.....					282,075	40,356
Menhaden.....					179,447,799	1,117,235
Mullet.....					1,250	85
Perch, white.....			900	\$95	64,041	7,578
Perch, yellow.....	5,186	\$549	7,441	766	25,500	2,896
Pickarel.....	79	16	21	3	215	48
Pollock.....					84,300	2,325
Pompano.....					35	7
Scup.....					1,297,375	76,253
Sea bass.....					148,434	21,412
Sea robin.....					38,419	1,140
Shad.....	43,866	9,853	8,197	1,950	115,692	27,128
Sharks.....					10,659	284
Skates.....					75,550	1,149
Smelt.....					6,200	1,185
Spanish mackerel.....					25	5
Spot.....					43,757	3,728
Squeteagus.....					1,921,036	228,524
Striped bass.....			3,340	896	94,525	18,662
Sturgeon.....	3,744	984	6,150	1,257	33,917	9,199
Sturgeon caviar.....			345	805	940	1,706
Suckers.....	18,870	2,263	18,703	2,038	132,618	16,731
Swordfish.....					44,865	9,125
Tautog.....					54,722	4,362
Tilefish.....					1,133,000	76,984
Tomcod.....			3,500	85	57,200	2,083
Tuna.....					32,413	2,745
Whitebait.....					13,561	1,335
Whiting.....					939,287	12,212
Other fish.....	10,555	224	692	62	171,240	7,652
Lobster.....			400	80	1,037,395	196,762
Shrimp.....					88,450	28,890
Crabs, hard.....			14,000	700	477,242	17,807
Crabs, soft.....					5,885	1,855
Crabs, king.....					750	11
Squid.....					330,117	18,500
Clams, hard, public.....			400	300	<sup>2</sup> 764,824	214,528
Clams, hard, private.....					<sup>3</sup> 5,400	1,950
Clams, soft, public.....			21,000	4,500	<sup>4</sup> 186,150	32,670
Clams, soft, private.....					<sup>5</sup> 2,000	325
Skimmers or surf clams.....					<sup>6</sup> 48,160	11,300
Mussels.....					<sup>7</sup> 50,000	2,500
Oysters, market, public.....			7,000	1,900	<sup>8</sup> 292,453	41,790
Oysters, market, private.....					<sup>9</sup> 9,131,017	1,733,663
Oysters, seed, public.....					<sup>10</sup> 69,825	9,710
Oysters, seed, private.....					<sup>11</sup> 7,000	750
Scallops, bay.....					<sup>12</sup> 1,152,528	192,376
Scallops, sea.....					<sup>13</sup> 83,232	24,732
Turtles.....					800	35
Terrapin.....					600	480
Shells.....					<sup>14</sup> 1,760,000	1,480
Miscellaneous products.....					14,099	9,780
Total.....	174,154	25,726	147,454	21,498	210,377,152	4,986,918

<sup>2</sup> 95,603 bushels.  
<sup>3</sup> 675 bushels.  
<sup>4</sup> 18,615 bushels.  
<sup>5</sup> 200 bushels.  
<sup>6</sup> 6,020 bushels.

<sup>7</sup> 5,000 bushels.  
<sup>8</sup> 41,779 bushels.  
<sup>9</sup> 1,304,431 bushels.  
<sup>10</sup> 9,975 bushels.  
<sup>11</sup> 1,000 bushels.

<sup>12</sup> 192,088 bushels.  
<sup>13</sup> 13,872 bushels.  
<sup>14</sup> 44,000 bushels.

VESSEL AND SHORE FISHERIES.

The products of the vessel and shore or boat fisheries of New York are shown separately in the following table. The catch taken by vessels amounted to 194,276,310 pounds, valued at \$3,478,037, and by boats in the shore fisheries to 16,100,842 pounds, valued at \$1,508,881.

## Products of the vessel and shore fisheries of New York, 1921.

Species.	Vessel fisheries.		Shore fisheries.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore.....	10,000	\$500	19,354	\$920	29,354	\$1,420
Alewives.....	7,070	299	370,723	10,984	377,793	11,283
Bluefish.....	902,508	144,473	180,409	32,253	1,082,917	176,726
Bonito.....	95,000	14,050	160,887	16,300	255,887	30,350
Butterfish.....	55,000	6,500	575,076	57,609	630,076	64,109
Carp.....			421,642	63,678	421,642	63,678
Catfish and bullheads.....			43,435	6,722	43,435	6,722
Cod.....	75,000	2,720	592,860	35,063	667,860	37,783
Eels.....	8,390	1,170	455,162	56,838	463,552	58,008
Flounders.....	1,577,370	116,597	2,893,791	166,815	4,471,161	283,412
Haddock.....	7,000	100	11,515	776	18,515	876
Hake.....			35,906	1,430	35,906	1,430
Herring.....			6,575	206	6,575	206
Hickory shad.....	1,600	95	21,855	1,349	23,455	1,444
King Whiting.....	1,115	240	69,332	13,349	70,447	13,589
Mackerel.....	50,500	7,400	231,575	32,956	282,075	40,356
Menhaden.....	178,683,105	1,113,057	764,694	4,178	179,447,799	1,117,235
Mullet.....			1,250	85	1,250	85
Perch, white.....			64,041	7,578	64,041	7,578
Perch, yellow.....			25,500	2,896	25,500	2,896
Pickereel.....			215	48	215	48
Pollock.....	1,600	80	82,700	2,245	84,300	2,325
Pompano.....			35	7	35	7
Scup.....	1,046,750	55,933	250,625	20,320	1,297,375	76,253
Sea bass.....	29,250	3,584	119,184	17,828	148,434	21,412
Sea robin.....			38,419	1,140	38,419	1,140
Shad.....	1,950	389	113,742	26,739	115,692	27,128
Sharks.....	2,800	111	7,859	173	10,659	284
Skates.....			75,550	1,149	75,550	1,149
Smelt.....			6,200	1,185	6,200	1,185
Spanish mackerel.....			25	5	25	5
Spot.....	2,000	159	41,757	3,569	43,757	3,728
Squeteagues.....	831,165	104,897	1,089,871	123,627	1,921,036	228,524
Striped bass.....	100	30	94,425	18,632	94,525	18,662
Sturgeon.....	2,200	769	31,717	8,430	33,917	9,199
Sturgeon caviar.....	200	400	740	1,306	940	1,706
Suckers.....			132,618	16,731	132,618	16,731
Swordfish.....	35,800	7,000	9,065	2,125	44,865	9,125
Tautog.....	900	88	53,822	4,274	54,722	4,362
Tilefish.....	1,133,000	76,984			1,133,000	76,984
Tomcod.....	300	18	56,900	2,065	57,200	2,083
Tuna.....	15,500	1,300	16,913	1,445	32,413	2,745
Whitebait.....			13,561	1,335	13,561	1,335
Whiting.....	59,000	668	880,287	11,544	939,287	12,212
Other fish.....	3,000	90	168,240	7,562	171,240	7,652
Lobster.....	47,100	10,400	990,295	186,362	1,037,395	196,762
Shrimp.....	2,325	775	86,125	28,115	88,450	28,890
Crabs, hard.....	29,850	1,334	447,392	16,473	477,242	17,807
Crabs, soft.....			5,885	1,855	5,885	1,855
Crabs, king.....			750	11	750	11
Squid.....	13,000	840	317,117	17,660	330,117	18,500
Clams, hard, public.....	146,352	66,243	618,472	148,285	764,824	214,528
Clams, hard, private.....			5,400	1,950	5,400	1,950
Clams, soft, public.....			186,150	32,670	186,150	32,670
Clams, soft, private.....			2,000	325	2,000	325
Skimmers or surf clams.....			48,160	11,300	48,160	11,300
Mussels.....	30,000	1,500	20,000	1,000	50,000	2,500
Oysters, market, public.....	80,122	12,960	212,331	28,830	292,453	41,790
Oysters, market, private.....	1,879,803	1,648,235	340,214	85,428	9,131,017	1,733,663
Oysters, seed, public.....	44,275	6,260	25,550	3,450	69,825	9,710
Oysters, seed, private.....	7,000	750			7,000	750
Scallops, bay.....	422,790	62,369	729,738	130,007	1,152,528	192,376
Scallops, sea.....	22,920	6,320	60,312	18,412	83,232	24,732
Turtles.....			800	19	800	19
Terrapin.....	600	350			600	350
Shells.....			1,760,000	1,480	1,760,000	1,480
Miscellaneous products.....			14,099	9,780	14,099	9,780
Total.....	194,276,310	3,478,037	16,100,842	1,508,881	210,377,152	4,986,918

<sup>1</sup> Includes 83,718 bushels, valued at \$83,718, taken up by vessels owned and employed mainly in Connecticut.

<sup>2</sup> 95,603 bushels.

<sup>3</sup> 675 bushels.

<sup>4</sup> 18,615 bushels.

<sup>5</sup> 200 bushels.

<sup>6</sup> 6,020 bushels.

<sup>7</sup> 5,000 bushels.

<sup>8</sup> 41,779 bushels.

<sup>9</sup> 1,304,431 bushels.

<sup>10</sup> 9,975 bushels.

<sup>11</sup> 1,000 bushels.

<sup>12</sup> 192,088 bushels.

<sup>13</sup> 13,872 bushels.

<sup>14</sup> 44,000 bushels.

## FISHERIES BY APPARATUS.

The most important forms of fishing apparatus used in the fisheries of New York in 1921 were purse and haul seines, with a catch of 180,655,920 pounds, valued at \$1,262,217; pound nets and trap nets, with 6,756,423 pounds, valued at \$529,844; otter trawls, with 2,941,095 pounds, valued at \$205,717; lines, with 3,348,876 pounds, valued at \$297,640; dredges, tongs, rakes, etc., with 13,514,532 pounds, valued at \$2,259,493, consisting chiefly of oysters, clams, and scallops; and lobster pots, with 1,028,460 pounds, valued at \$194,952, of which 1,021,710 pounds, valued at \$193,602, were lobsters, and the remainder sea bass. There were also 7,985 pounds of lobsters, valued at \$1,615, taken in otter trawls, and 7,700 pounds, valued at \$1,545, in pound nets. The catch with fyke nets, consisting chiefly of flounders, amounted to 917,568 pounds, valued at \$41,279, and with gill nets, to 607,077 pounds, valued at \$93,517. Considerable quantities of products were also taken with dip nets, scap nets, stop nets, harpoons, drag nets, eel pots, spears, and minor forms of apparatus. The entire catch of swordfish, amounting to 44,865 pounds, valued at \$9,125, was taken with harpoons. The products taken with each form of fishing apparatus in the vessel and shore fisheries combined are shown in the appended tables.

*Yield of the fisheries of New York in 1921, by counties, apparatus, and species.*

## BY PURSE SEINES AND HAUL SEINES.

Apparatus and species.	Albany.		Broome.		Columbia.		Dutchess.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Haul seines:								
Alewives.....	1,550	\$119			3,000	\$220	90	\$11
Bullheads.....	4,270	591			400	100		
Carp.....	7,662	1,136			8,124	788	3,600	391
Minnows.....	1,000	10						
Perch, yellow.....	97	10			200	20	20	2
Shad.....			1,000	\$200	250	66	125	29
Suckers.....	3,666	501			10,178	1,485	850	115
Total.....	18,245	2,367	1,000	200	22,152	2,679	4,685	548

Apparatus and species.	Greene.		Kings.		Nassau.		New York.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Purse seines:								
Bluefish.....			5,000	\$1,000			550	\$100
Scup.....			426,000	21,300			580,400	30,596
Sea bass.....			6,000	900			11,800	1,290
Squeteagues.....			26,700	800			130,600	3,938
Other fish.....							3,000	90
Total.....			463,700	24,000			726,350	36,014
Haul seines:								
Alewives.....	3,000	\$220			285	\$10		
Bluefish.....					525	115		
Bullheads.....	450	68						
Carp.....	2,500	264						
Eels.....					3,400	400		
Flounders.....					34,525	2,535		
Lance.....			2,585	775				
Mummichog.....			5,005	450				
Perch, yellow.....	220	23						
Roach, or shiners.....			3,750	1,125				
Spot.....					1,000	100		
Squeteagues.....			625	50	10,825	1,388		
Striped bass.....					1,600	400		
Suckers.....	220	22						
Total.....	6,390	597	11,965	2,400	52,160	4,948		

## Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

## BY PURSE SEINES AND HAUL SEINES—Continued

Apparatus and species.	Orange.		Rensselaer.		Rockland.		Suffolk.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Purse seines: Menhaden.....							178,629,705	\$1,112,666
Haul seines:								
Alewives.....	320	\$30			210	\$21	167,000	1,985
Bluefish.....							11,990	1,865
Bullheads.....			1,675	\$304	50	8		
Carp.....	20,742	3,120	15,357	2,082	4,883	634	156,913	30,095
Catfish.....							15,335	1,555
Cod.....							150	15
Eels.....							50	7
King whiting.....							2,100	325
Mackerel.....							4,050	668
Menhaden.....							25,658	315
Minnows.....	9,163	113	700	66				
Mummichog.....							26,900	342
Perch, white.....					325	27	43,301	4,625
Perch, yellow.....	817	99	800	80			400	60
Roach, or shiners.....	2,180	38					1,000	100
Scup.....							500	25
Shad.....	128	26			92	25		
Silversides or spearing.....							5,550	975
Smelt.....							3,500	450
Squeteagues.....							42,065	4,817
Striped bass.....					4,390	1,011	50,399	8,654
Sturgeon.....			2,080	373				
Suckers.....	8,134	959	400	48	1,240	119		
Whitebait.....							13,561	1,335
Total.....	41,484	4,385	21,012	2,953	11,190	1,845	570,422	58,213

Apparatus and species.	Ulster.		Westchester.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Purse seines:						
Bluefish.....					5,550	\$1,100
Menhaden.....					178,629,705	1,112,666
Scup.....					1,006,400	51,896
Sea bass.....					17,800	2,190
Squeteagues.....					157,300	4,738
Other fish.....					3,000	90
Total.....					179,819,755	1,172,680
Haul seines:						
Alewives.....	1,800	\$95	25	\$3	177,280	2,714
Bluefish.....					12,515	1,980
Bullheads.....	452	71	700	115	7,997	1,257
Carp.....	20,880	3,209	22,195	1,937	262,856	43,656
Catfish.....					15,335	1,555
Cod.....					150	15
Eels.....	75	9	50	6	3,575	422
Flounders.....					34,525	2,535
King whiting.....					2,100	325
Lance.....					2,585	775
Mackerel.....					4,050	668
Menhaden.....					25,658	315
Minnows.....	9,900	147	300	30	21,063	366
Mummichog.....					31,095	792
Perch, white.....					43,626	4,652
Perch, yellow.....	235	30	1,650	167	4,439	491
Roach, or shiners.....					6,930	1,263
Scup.....					500	25
Shad.....	2,275	545			3,870	891
Silversides or spearing.....					5,550	975
Smelt.....					3,500	450
Spot.....					1,000	100
Squeteagues.....					53,515	6,255
Striped bass.....			1,735	471	58,124	10,536
Sturgeon.....					2,080	373
Suckers.....	4,261	592	8,850	967	37,799	4,808
Sunfish.....	77	8			77	8
Whitebait.....					13,561	1,335
Total.....	39,955	4,706	35,505	3,696	836,165	89,537

Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

## BY GILL NETS.

Species.	Albany.		Columbia.		Dutchess.		Greene.		Kings.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....			300	\$18	12,790	\$1,160	18,000	\$1,260		
Bluefish.....									700	\$100
Carp.....			28,620	2,860	2,895	373				
Perch, yellow.....					600	48				
Shad.....	1,016	\$217	2,500	648	35,324	7,953			2,757	1,000
Sturgeon.....			304	106	3,335	716	150	10		
Sturgeon caviar.....					99	299				
Suckers.....			1,950	347	60	6				
Total.....	1,016	217	33,674	3,979	55,103	10,555	18,150	1,270	3,457	1,100

Species.	Nassau.		Orange.		Putnam.		Rockland.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....			2,759	\$164			500	\$45
Bluefish.....	18,880	\$4,620						
Bonito.....	9,500	800						
Carp.....							100	15
Mackerel.....	30,105	3,700						
Perch, white.....							680	88
Perch, yellow.....							115	17
Shad.....			6,932	1,807	480	\$120	5,843	\$1,600
Squeteagues.....	84,700	8,620						
Striped bass.....							760	153
Sturgeon.....							488	81
Total.....	143,185	17,740	9,691	1,971	480	120	8,486	1,999

Species.	Suffolk.		Ulster.		Westchester.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....					100	\$5	61,627	\$4,820
Bluefish.....	68,227	\$13,637					87,807	18,357
Bonito.....							9,500	800
Bullheads.....					98	11	98	11
Carp.....			3,845	547	3,021	409	38,481	4,204
Flounders.....	10,400	1,024					10,400	1,024
King whiting.....	765	121					765	121
Mackerel.....	37,910	4,598					68,015	8,298
Menhaden.....	13,500	250					13,500	250
Perch, white.....	1,250	150			600	60	2,530	298
Perch, yellow.....					3,954	401	4,669	466
Scup.....	150	7					150	7
Sea bass.....	300	45					300	45
Shad.....			41,193	9,178	8,177	1,946	104,222	24,469
Smelt.....	2,700	735					2,700	735
Spot.....	1,250	112					1,250	112
Squeteagues.....	80,065	10,644					164,765	19,264
Striped bass.....	3,150	805			1,330	352	5,240	1,310
Sturgeon.....	12,967	4,080	3,744	984	5,850	1,212	26,838	7,189
Sturgeon caviar.....	16	52			345	805	460	1,156
Suckers.....					1,750	228	3,760	581
Total.....	232,650	36,260	75,960	12,877	25,225	5,429	607,077	93,517



## Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

## BY POUND NETS, TRAP NETS, AND WEIRS.

Species.	Broome.		Delaware.		Nassau.		Orange.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore.....					6,000	\$300		
Alewives.....					2,400	115		
Bluefish.....					10,000	1,975		
Bonito.....					32,000	4,300		
Butterfish.....					23,400	2,600		
Cod.....					2,500	200		
Eels.....	4,200	\$690	4,300	\$587			4,150	\$485
Flounders.....					12,400	1,000		
Hickory shad.....					900	52		
King whiting.....					600	120		
Mackerel.....					30,000	4,000		
Pollock.....					1,200	60		
Scup.....					22,400	1,940		
Sea bass.....					900	175		
Shad.....					1,200	240		
Sharks.....					800	30		
Spot.....					600	45		
Squeteagues.....					250,000	36,000		
Sturgeon.....					1,200	410		
Tautog.....					1,200	18		
Tuna.....					12,000	1,000		
Whiting.....					32,400	400		
Squid.....					4,500	285		
Total.....	4,200	690	4,300	587	447,600	55,265	4,150	485

Species.	Suffolk.		Sullivan.		Tioga.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore.....	23,354	\$1,120					23,354	\$1,420
Alewives.....	107,120	2,655					109,520	2,770
Bluefish.....	89,792	13,803					99,792	15,778
Bonito.....	213,627	25,180					245,627	29,480
Butterfish.....	606,676	61,509					630,076	64,109
Cero.....	75	16					75	16
Cod.....	37,020	1,703					39,520	1,903
Cunners.....	240	10					240	10
Eels.....	104,579	13,182	23,500	\$2,945	1,700	\$230	142,429	18,119
Flounders.....	877,911	66,998					890,311	67,998
Grayfish.....	7,487	174					7,487	174
Hake.....	18,916	392					18,916	392
Herring.....	6,575	206					6,575	206
Hickory shad.....	22,555	1,392					23,455	1,444
King whiting.....	66,982	13,023					67,582	13,143
Lance.....	5,625	50					5,625	50
Mackerel.....	160,435	25,320					190,435	29,320
Mackerel frigate.....	184	10					184	10
Menhaden.....	778,936	4,004					778,936	4,004
Mullet.....	1,250	85					1,250	85
Perch, white.....	3,535	388					3,535	388
Pilotfish.....	280	18					280	18
Pollock.....	22,450	930					23,650	990
Pompano.....	35	7					35	7
Round herring.....	1,700	185					1,700	185
Salmon, Atlantic.....	40	18					40	18
Scup.....	245,055	20,228					267,455	22,168
Sea bass.....	28,054	4,787					28,954	4,962
Sea robin.....	38,019	1,130					38,019	1,130
Shad.....	5,852	1,359					7,052	1,599
Sharks.....	9,859	254					10,659	284
Silversides, or spearing.....	33,750	900					33,750	900
Skates.....	51,850	349					51,850	349
Spanish mackerel.....	25	5					25	5
Spot.....	40,907	3,471					41,507	3,516
Squeteagues.....	1,273,396	159,190					1,523,396	195,190
Striped bass.....	29,726	6,478					29,726	6,478
Sturgeon.....	3,449	1,177					4,649	1,587
Sturgeon cavier.....	480	550					480	550
Swellfish.....	30,875	122					30,875	122
Tautog.....	45,197	3,399					45,397	3,417
Tomcod.....	13,500	419					13,500	419
Tuna.....	20,413	1,745					32,413	2,745
Whiting.....	906,717	11,807					939,117	12,207
Other fish.....	1,238	58					1,238	58
Squid.....	325,617	18,215					330,117	17,500
Crabs, hard.....	365	46					365	46
Crabs, king.....	750	11					750	11
Lobster.....	7,700	1,545					7,700	1,545
Turtles.....	800	19					800	19
Total.....	6,270,973	469,642	23,500	2,945	1,700	230	6,756,423	529,844

Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

## BY FYKE NETS.

Species.	Albany.		Columbia.		Dutchess.		Greene.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bullheads.....	3,550	\$788	1,914	\$479	2,676	\$531	1,232	\$230
Carp.....	5,625	933	15,100	1,296	4,926	581	1,020	123
Eels.....	210	50	765	165	200	37	86	16
Perch, yellow.....	1,495	161	2,089	306	1,993	244	1,075	130
Pickarel.....	50	15	10	3	10	2	.....	.....
Suckers.....	12,945	2,033	12,993	1,092	3,849	395	2,050	263
Sunfish.....	.....	.....	40	2	651	70	.....	.....
Total.....	23,875	3,980	32,911	3,343	14,305	1,860	5,463	762

Species.	Orange.		Rensselaer.		Rockland.		Suffolk.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....	.....	.....	.....	.....	200	\$10	22,000	\$330
Bullheads.....	1,453	\$261	2,659	\$454	.....	.....	.....	.....
Carp.....	1,483	230	2,631	343	.....	.....	.....	.....
Eels.....	456	104	33	9	.....	.....	14,670	2,200
Flounders.....	.....	.....	.....	.....	.....	.....	678,800	15,894
Perch, white.....	.....	.....	.....	.....	50	5	14,000	2,200
Perch, yellow.....	890	118	762	85	.....	.....	.....	.....
Pickarel.....	.....	.....	45	9	.....	.....	.....	.....
Shad.....	.....	.....	.....	.....	50	10	.....	.....
Suckers.....	15,817	2,428	4,737	585	30	3	.....	.....
Tautog.....	.....	.....	.....	.....	.....	.....	600	35
Toadfish.....	.....	.....	.....	.....	.....	.....	2,000	30
Tomcod.....	4,800	219	.....	.....	.....	.....	33,700	1,160
Terrapin.....	.....	.....	.....	.....	.....	.....	600	350
Total.....	24,899	3,360	10,867	1,485	330	28	766,370	22,199

Species.	Ulster.		Westchester.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....	180	\$18	300	\$15	22,680	\$373
Bullheads.....	3,076	622	1,693	230	18,253	3,595
Carp.....	2,971	333	3,170	392	36,926	4,231
Eels.....	64	9	533	92	17,017	2,682
Flounders.....	.....	.....	.....	.....	678,800	15,894
Perch, white.....	.....	.....	300	35	14,350	2,240
Perch, yellow.....	4,666	468	1,737	188	14,647	1,700
Pickarel.....	75	15	21	3	211	47
Shad.....	.....	.....	20	4	70	14
Striped bass.....	.....	.....	275	73	275	73
Suckers.....	7,404	798	7,713	791	67,538	8,388
Sunfish.....	518	59	392	32	1,601	163
Tautog.....	.....	.....	.....	.....	600	35
Toadfish.....	.....	.....	.....	.....	2,000	30
Tomcod.....	.....	.....	3,500	85	42,000	1,464
Terrapin.....	.....	.....	.....	.....	600	350
Total.....	18,894	2,322	19,654	1,940	917,568	41,279

## BY DIP NETS, SCAP NETS, HARPOONS, AND MINOR APPARATUS.

Apparatus and species.	Albany.		Columbia.		Dutchess.		Greene.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Scap nets:	.....	.....	.....	.....	.....	.....	.....	.....
Alewives.....	60	\$12	150	\$15	800	\$96	425	\$42
Bullheads.....	135	19	158	29	360	51	112	22
Carp.....	13,410	1,722	7,584	1,139	5,097	653	6,135	786
Eels.....	3,328	372	10	2	.....	.....	.....	.....
Perch, yellow.....	.....	.....	655	84	325	56	120	15
Shad.....	.....	.....	.....	.....	.....	.....	80	25
Suckers.....	2,718	312	5,380	815	4,001	429	575	73
Sunfish.....	.....	.....	75	9	100	5	.....	.....
Total.....	19,651	2,437	14,012	2,093	10,743	1,290	7,447	963
Minor apparatus: Carp.....	.....	.....	.....	.....	.....	.....	16,000	1,985

## Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

BY DIP NETS, SCAP NETS, HARPOONS, AND MINOR APPARATUS—Continued.

Apparatus and species.	Kings.		Nassau.		Orange.		Putnam.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Dip nets: Crabs, soft.....			5,795	\$1,825				
Scap nets:								
Alewives.....					50	\$3		
Bullheads.....					50	3		
Carp.....					2,850	402	300	\$60
Eels.....					100	10		
Perch, yellow.....					50	8	100	10
Suckers.....					1,021	105	550	110
Total.....					4,121	531	950	180
Harpoons: Swordfish.....	30,000	\$6,000						
Minor apparatus:								
Shrimp.....	1,125	250						
Clams, hard, public.....			7,512	3,910				
Clams, hard, private.....			800	350				
Total.....	1,125	250	8,312	4,260				

Apparatus and species.	Queens.		Rensselaer.		Rockland.		Suffolk.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Dip nets:								
Mummichog.....							400	\$50
Crabs, hard.....							120	10
Crabs, soft.....							90	30
Clams, soft, public.....							35,100	4,875
Total.....							35,710	4,965
Scap nets:								
Bullheads.....			252	\$58				
Carp.....			5,500	625	800	\$80		
Perch, yellow.....			50	5				
Suckers.....			1,531	170	150	15		
Total.....			7,333	858	950	95		
Harpoons: Swordfish.....							14,865	3,125
Minor apparatus:								
Mummichog.....	6,000	\$600						
Shrimp.....	4,700	1,100						
Crabs, fiddler.....							200	150
Clams, hard, public.....							584	240
Total.....	10,700	1,700					784	390

Apparatus and species.	Ulster.		Westchester.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Dip nets:						
Mummichog.....					400	\$50
Crabs, hard.....					120	10
Crabs, soft.....					5,885	1,855
Clams, soft, public.....					35,100	4,875
Total.....					41,505	6,790
Scap nets:						
Alewives.....	5,059	\$430			6,604	598
Bullheads.....	200	54			1,267	236
Carp.....	16,463	2,598	2,300	\$276	60,439	8,341
Eels.....	5	1			3,443	385
Perch, yellow.....	345	51			1,645	229
Pickerel.....	4	1			4	1
Shad.....	398	130			478	155
Suckers.....	6,591	799	390	52	22,907	2,880
Sunfish.....	60	10			235	24
Total.....	29,125	4,074	2,690	328	97,022	12,849
Harpoons: Swordfish.....					44,865	9,125
Minor apparatus:						
Alewives.....	82	8			82	8
Bullheads.....	111	19			111	19
Carp.....	6,780	1,235			22,780	3,220
Mummichog.....					6,000	600
Suckers.....	614	74			614	74
Shrimp.....					5,825	1,350
Crabs, fiddler.....					200	150
Clams, hard, public.....					8,096	4,150
Clams, hard, private.....					800	350
Total.....	7,587	1,336			44,508	9,921

Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

BY OTTER TRAWLS, DRAG NETS, LOBSTER POTS, EEL POTS, AND SPEARS.

Apparatus and species.	Bronx.		Columbia.		Dutchess.		Kings.		Nassau.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Otter trawls:										
Cod.....							38,000	\$700		
Flounders.....							428,200	21,160	178,000	\$9,300
Haddock.....							7,000	100		
Scallops, sea.....							10,740	2,150	13,080	4,320
Total.....							483,940	24,110	191,080	13,620
Drag nets: Shrimp.....									6,000	2,000
Lobster pots:										
Sea bass.....									6,750	1,350
Lobster.....	1,000	\$200					406,300	62,880	10,450	2,425
Total.....	1,000	200					406,300	62,880	17,200	3,775
Eel pots:										
Eels.....			180	\$22	5,103	\$517	13,335	1,600	3,875	550
Mummichog.....							4,800	600		
Total.....			180	22	5,103	517	18,135	2,200	3,875	550
Spears: Eels.....									61,650	7,655

Apparatus and species.	New York.		Orange.		Queens.		Richmond.		Rockland.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Otter trawls:										
Cod.....	5,000	\$200								
Flounders.....	90,000	4,200					37,000	\$3,000		
Total.....	95,000	4,400					37,000	3,000		
Lobster pots: Lobster.....							45,400	11,700		
Eel pots:										
Eels.....			1,250	\$202	1,900	\$375	1,000	175	8,355	\$882
Mummichog.....					3,500	350				
Total.....			1,250	202	5,400	725	1,000	175	8,355	882
Spears: Eels.....						2,150	550			

Apparatus and species.	Suffolk.		Ulster.		Westchester.		Total.		
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	
Otter trawls:									
Cod.....							43,000	\$900	
Flounders.....	2,097,920	\$155,262					2,831,120	192,922	
Haddock.....							7,000	100	
Sea bass.....	30	5					30	5	
Sea robin.....	150	5					150	5	
Scallops, bay.....	13,590	2,000					13,590	2,000	
Scallops, sea.....	14,400	1,700					38,220	8,170	
Lobster.....	7,985	1,615					7,985	1,615	
Total.....	2,134,075	160,587					2,941,095	205,717	
Drag nets: Shrimp.....	76,625	25,540					82,625	27,540	
Lobster pots:									
Sea bass.....							6,750	1,350	
Lobster.....	558,160	116,317				400	\$80	1,021,710	193,602
Total.....	558,160	116,317				400	80	1,028,460	194,952
Eel pots:									
Eels.....	164,040	19,589	1,093	\$125	19,145	2,207	219,276	26,244	
Mummichog.....							8,300	950	
Total.....	164,040	19,589	1,093	125	19,145	2,207	227,576	27,194	
Spears: Eels.....	5,300	635					69,100	8,840	

## Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

## BY HAND LINES AND TRAWL LINES.

Species.	Dutchess.		Kings.		Nassau.		New York.		Orange.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bluefish.....			198,533	\$31,125	11,020	\$2,680	663,100	\$104,923		
Bonito.....					560	50				
Bullheads.....	94	\$19							100	\$12
Cod.....			31,500	2,100	86,450	5,615				
Eels.....	1,211	169							1,696	274
Flounders.....			9,850	800	8,100	900				
Haddock.....					6,490	400				
Hake.....			3,150	250	4,375	205				
Pollock.....					1,650	100				
Sea bass.....			11,050	1,165						
Squeteagues.....			1,250	100	4,800	700				
Striped bass.....					850	170				
Tautog.....			1,400	200						
Tilefish.....			300,000	21,000			833,000	55,984		
Whiting.....					170	5				
Total.....	1,305	188	556,733	56,740	124,465	10,825	1,496,100	160,907	1,796	286

Species.	Queens.		Rensselaer.		Richmond.		Rockland.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bullheads.....							110	\$11
Cod.....	31,000	\$2,100			26,000	\$1,400		
Eels.....			260	\$52			750	125
Flounders.....	7,755	1,315						
Squeteagues.....	5,000	1,150						
Striped bass.....	60	20					250	75
Sturgeon.....							50	5
Tautog.....	500	100						
Tomcod.....	1,700	200						
Total.....	46,015	4,885	260	52	26,000	1,400	1,160	216

Species.	Suffolk.		Ulster.		Westchester.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bluefish.....	4,600	\$783					877,253	\$139,511
Bonito.....	200	20					760	70
Bullheads.....			70	\$7			374	49
Carp.....			160	26			160	26
Cod.....	410,240	23,750					585,190	34,965
Cunners.....	100	5					100	5
Eels.....	1,450	80	1,310	253	2,035	\$363	8,712	1,316
Flounders.....	300	24					26,005	3,039
Haddock.....	5,025	376					11,515	776
Hake.....	9,465	583					16,990	1,038
Mackerel.....	19,575	2,070					19,575	2,070
Perch, yellow.....					100	10	100	10
Pollock.....	59,000	1,235					60,650	1,335
Scup.....	22,870	2,157					22,870	2,157
Sea bass.....	83,550	11,695					94,600	12,860
Sea robin.....	250	5					250	5
Skates.....	23,700	800					23,700	800
Squeteagues.....	11,010	1,127					22,060	3,077
Striped bass.....							1,160	265
Sturgeon.....					300	45	350	50
Tautog.....	6,825	610					8,725	910
Tilefish.....							1,133,000	76,984
Tomcod.....							1,700	200
Whiting.....							170	5
Crabs, hard.....	432,907	16,117					432,907	16,117
Total.....	1,091,067	61,437	1,540	286	2,435	418	3,348,876	297,640

## Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

## BY DREDGES, TONGS, RAKES, HOES, AND FORKS.

Apparatus and species.	Bronx.		Kings.		Nassau.		New York.		Queens.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<b>Dredges:</b>										
Clams, hard, public.....					3,200	\$1,000				
Clams, hard, private.....					3,000	1,500				
Oysters, market, public.....			5,250	\$750	2,520	575				
Oysters, market, private.....					975,499	227,335	455,000	\$87,500		
Oysters, seed, public.....			5,600	800						
Mussels.....					50,000	2,500				
Scallops, sea.....					29,016	9,510				
<b>Total.....</b>			10,850	1,550	1,063,235	242,420	455,000	87,500		
<b>Tongs:</b>										
Clams, hard, public.....					44,640	17,510	2,200	1,100		
Skimmers or surf clams.....			22,560	5,100						
Oysters, market, private.....					199,234	50,478				
<b>Total.....</b>			22,560	5,100	243,874	67,988	2,200	1,100		
<b>Rakes, hoes, and forks:</b>										
Clams, hard, public.....			3,400	1,275	4,800	1,825			896	\$450
Clams, hard, private.....					1,600	100				
Clams, soft, public.....			3,000	600	74,300	12,950			6,500	875
Clams, soft, private.....					2,000	325				
Skimmers or surf clams.....			25,600	6,200						
Miscellaneous (for bait).....	322	\$515	12,902	8,125	180	290	90	150	405	550
<b>Total.....</b>	322	515	44,902	16,200	82,880	15,490	90	150	7,801	1,875

Apparatus and species.	Richmond.		Suffolk.		Westchester.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<b>Dredges:</b>								
Crabs, hard.....				29,850		\$934		
Clams, hard, public.....					14,000	\$700	43,850	\$1,634
Clams, hard, private.....					400	300	3,600	1,300
Oyster, market, public.....	10,500	\$1,600					3,000	1,500
Oysters, market, private.....							18,270	2,925
Oysters, seed, public.....	2,534,714	514,741	4,949,070	849,009			8,914,283	1,678,585
Oysters, seed, private.....	19,950	2,850					25,550	3,650
Mussels.....			7,000	750			7,000	750
Scallops, bay.....							50,000	2,500
Scallops, sea.....			1,138,668	190,276			1,138,668	190,276
Shells.....			15,996	7,052			45,012	16,562
			1,760,000	1,480			1,760,000	1,480
<b>Total.....</b>	2,565,164	519,191	7,900,584	1,049,501	14,400	1,000	12,009,233	1,901,162
<b>Tongs:</b>								
Clams, hard, public.....	960	500	281,976	129,149			329,776	148,259
Clams, soft, public.....			2,700	375			2,700	375
Skimmers or surf clams.....							22,560	5,100
Oysters, market, public.....			171,528	25,495	7,000	1,900	178,528	27,395
Oysters, market, private.....			17,500	4,600			216,734	55,078
Oysters, seed, public.....			44,275	6,060			44,275	6,060
<b>Total.....</b>	960	500	517,979	165,679	7,000	1,900	794,573	242,267

<sup>1</sup> Includes 83,718 bushels, valued at \$83,718, taken up by vessels owned and employed mainly in Connecticut.

## Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

BY DREDGES, TONGS, RAKES, HOES, AND FORKS—Continued.

Apparatus and species.	Richmond.		Suffolk.		Westchester.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Rakes, hoes, and forks:								
Clams, hard, public..	8,280	\$3,900	405,976	\$53,369	.....	.....	423,352	\$60,819
Clams, hard, private..	.....	.....	.....	.....	.....	.....	1,600	100
Clams, soft, public..	.....	.....	43,550	8,495	21,000	\$4,500	148,350	27,420
Clams, soft, private..	.....	.....	.....	.....	.....	.....	2,000	325
Skimmers or surf clams.....	.....	.....	.....	.....	.....	.....	25,600	6,200
Oysters, market, public.....	2,800	400	92,855	11,070	.....	.....	95,655	11,470
Scallops, bay.....	.....	.....	270	100	.....	.....	270	100
Miscellaneous (for bait).....	.....	.....	.....	.....	.....	.....	13,899	9,630
Total.....	11,080	4,300	542,651	73,034	21,000	4,500	710,726	116,064

## INDUSTRIES.

*Wholesale trade.*—In 1921 there were 132 wholesale establishments in New York City and 21 in localities outside of the city engaged in handling fishery products. The investment amounted to \$3,929,404, and the cash or working capital to \$749,200. There were 1,748 persons engaged, who received \$2,910,864 in wages. There were 90 firms in the city handling fresh and frozen fishery products and 42 firms handling prepared products. The 21 firms in localities outside of the city handled fresh and frozen fish.

*Smoked fish, etc.*—In 1921 there were 22 establishments, 21 in New York City and 1 outside of the city, engaged in preparing smoked fish and various other products, as pickled herring, miscellaneous canned products, oil and scrap from menhaden and other fish, and crushed oyster shells for poultry grit. The value of these establishments was \$637,735, and the cash capital amounted to \$157,000. There were 302 persons engaged, who received \$385,128 in wages. The products included 10,216,625 pounds of smoked fish, valued at \$2,971,796, and miscellaneous products, valued at \$71,937.

*Menhaden industry.*—The statistics of the menhaden industry given in the appended table for 1921 include 3 factories, 2 for New York and 1 for Delaware, valued at \$2,397,000, with a cash capital amounting to \$105,000. The number of persons engaged was 490, who received \$182,603 in wages. The quantity of menhaden utilized in the factories was 171,973,400 pounds, valued at \$662,910. The products prepared included 9,906 tons of dry scrap and fish meal, valued at \$396,240; 23,000 tons of acidulated scrap, valued at \$460,000; and 2,377,824 gallons of oil, valued at \$688,897.

Statistics of the wholesale fishery trade and smoked fish and miscellaneous fishery products in New York City and vicinity, and of the menhaden industry for New York and Delaware are given in the following tables:

*Investment, persons engaged, and wages paid in the wholesale fishery trade of New York City and vicinity in 1921.*

Items.	Greater New York.		Outside of Greater New York.		Total.	
	Number.	Value.	Number.	Value.	Number.	Value.
Establishments.....	132	\$3,505,633	21	\$424,271	153	\$3,929,904
Cash capital.....	.....	683,400	.....	65,800	.....	749,200
Persons engaged.....	1,457	.....	291	.....	1,748	.....
Wages paid.....	.....	2,773,055	.....	137,809	.....	2,910,864

*Smoked fish and other fishery products prepared in New York City in 1921.<sup>1</sup>*

Items.	Number.	Value.	Items.	Pounds.	Value.
Establishments.....	22	\$637,735	Smoked fish—Continued.		
Cash capital.....		157,000	Kipped herring.....	43,000	\$5,300
Persons engaged.....	302		Mackerel.....	35,000	7,000
Wages paid.....		385,128	Salmon.....	3,462,125	1,169,640
Smoked fish:			Shad.....	79,000	14,890
Buffalofish.....	<i>Pounds.</i>	<i>Value.</i>	Spoonbill cat.....	70,000	58,700
Butterfish.....	495,000	\$153,700	Sturgeon.....	886,600	621,800
Carp.....	374,000	105,600	Other fish.....	93,000	25,440
Ciscoes.....	322,800	96,436	Total.....	10,216,625	2,971,796
Eels.....	2,419,000	476,490	Miscellaneous products.....		71,937
Finnan haddie.....	54,600	17,200			
Herring.....	1,432,000	147,000			
	450,500	72,600			

<sup>1</sup> Includes 1 firm outside of New York City engaged in preparing miscellaneous fishery products.

*Menhaden industry of New York and Delaware in 1921.*

Items.	Number.	Value.	Items.	Number.	Value.
Factories.....	3	\$2,397,000	Products prepared:		
Cash capital.....		105,000	Dry scrap and fish		
Persons engaged.....	490		meal.....tons..	9,906	\$396,240
Wages paid.....		182,603	Acidulated scrap.do..	23,000	460,000
Menhaden utilized.....			Oil.....gallons..	2,377,824	688,897
.....pounds..	171,973,400	662,910	Total.....		1,545,137

## FISHERIES OF NEW JERSEY.

The fisheries of New Jersey in 1921 gave employment to 5,771 persons, of whom 2,164 were on fishing vessels, 28 on transporting vessels, 2,982 in the shore or boat fisheries, and 597 on shore in the wholesale fishery trade, menhaden factories, and other fishery industries.

The investment in the fisheries and fishery industries amounted to \$4,701,704, which included 370 fishing and transporting vessels, valued at \$1,181,050, with a net tonnage of 4,590 tons, and outfits valued at \$262,410; 2,686 boats, valued at \$684,679; fishing apparatus valued at \$672,703; shore and accessory property valued at \$1,587,762; and cash capital amounting to \$313,100.

The products of the fisheries amounted to 96,936,784 pounds, having a value to the fishermen of \$5,983,406. The principal species in the order of their value were oysters, 22,997,555 pounds, or 3,285,365 bushels, valued at \$2,759,930; squeteagues, "sea trout," or weakfish, 11,651,735 pounds, valued at \$902,439; bluefish, 2,243,425 pounds, valued at \$390,947; clams, 925,588 pounds, or 112,111 bushels, valued at \$385,198; scup or porgy, 4,115,552 pounds, valued at \$200,046; butterfish, 2,862,491 pounds, valued at \$159,286; flounders, 1,985,340 pounds, valued at \$140,586; croaker, 3,815,554 pounds, valued at \$126,700; menhaden, 30,405,093 pounds, valued at \$121,451; and mackerel, 584,386 pounds, valued at \$100,556.

Compared with 1904, there was a decrease in the number of persons employed of 3,323, or 36.54 per cent, but an increase in the investment of \$2,015,908, or 75.06 per cent, and in the products of 6,828,716 pounds, or 7.57 per cent, in quantity, and of \$2,597,991, or 76.74 per cent, in value.



The following table gives the number of persons engaged, investment, and products of the fisheries of New Jersey, by counties, in 1921:

*Persons engaged, investment, and products of the fisheries of New Jersey in 1921, by counties.*

	Atlantic.		Bergen.		Burlington.		Camden.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
<b>PERSONS ENGAGED.</b>								
On vessels fishing.....	159							
On vessels transporting.....	2				1			
In shore fisheries.....	382		21		158		33	
Shoresmen.....	17							
Total.....	560		21		159		33	
<b>INVESTMENT.</b>								
Vessels fishing:								
Gasoline.....	18	\$130,300						
Tonnage.....	283							
Outfit.....		24,415						
Vessels transporting:								
Gasoline.....	1	3,000			2	\$2,500		
Tonnage.....	13				16			
Outfit.....		100				50		
Boats:								
Sail, row, etc.....	239	8,755	13	\$1,000	90	2,470	15	\$450
Power.....	193	73,400	4	200	88	32,150	16	4,200
Apparatus, vessel fisheries:								
Purse seines.....	10	10,700						
Gill nets.....	424	8,035						
Other trawls.....	5	375						
Lines, hand, trawl, and set.....		430						
Apparatus, shore fisheries:								
Pound nets and weirs.....	2	1,500						
Haul seines.....	17	690			23	1,300	8	400
Purse seines.....	1	600						
Gill nets.....	565	11,360	8	2,910	21	1,015	9	850
Other trawls.....	4	300						
Stop nets.....					20	2,545	5	800
Fyke nets.....	14	625			147	500	40	90
Bag nets.....	5	100			53	1,060		
Lines, hand, and trawl.....		1,073						
Eel pots.....			20	40				
Dredges.....	16	240			18	275		
Tongs, rakes, and hoes.....	382	1,971			70	440		
Other apparatus.....	6	19						
Shore and accessory property.....		35,750		3,575		1,550		600
Cash capital.....		11,000						
Total.....		324,738		7,725		45,855		7,390
<b>PRODUCTS.</b>								
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore.....	650	\$20						
Alewives.....	19,985	420			5,000	\$100	2,000	\$80
Bluefish.....	286,146	47,610						
Bonito.....	17,900	1,078						
Butterfish.....	3,348	118						
Carp.....					26,361	4,026	19,590	3,490
Catfish.....	6,600	652			8,576	616	5,675	341
Cod.....	318,000	14,860						
Croaker.....	351,650	12,959			3,000	180		
Eels, fresh.....	14,050	1,407	2,500	\$375	1,651	185	785	93
Flounders.....	438,033	30,971			11,800	984		
Haddock.....	2,000	100						
Hake.....	1,700	85						
King whiting.....	2,472	430						
Mackerel.....	288,617	41,642						
Menhaden.....	3,480,000	16,000						
Perch, white.....	13,385	1,463			18,620	2,705		
Perch, yellow.....					60	12		
Pike or pickerel.....					500	100		
Scup or porgy.....	1,122,200	50,287						
Sea bass.....	53,500	4,558						
Shad.....	1,005	246	25,920	6,294	6,750	1,729	4,841	1,302
Spot.....	10,476	438						
Squeteagues or weakfish.....	583,447	40,953			10,000	800		
Striped bass.....	7,584	1,921			49,250	16,610	2,000	500
Suckers.....	2,300	115			27,689	2,537	100	12
Tautog.....	700	72						
Whiting.....	6,400	128						

Persons engaged, investment, and products of the fisheries of New Jersey in 1921, by counties—Continued.

PRODUCTS—continued.	Atlantic.		Bergen.		Burlington.		Camden.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Crabs, soft	440	\$193						
Clams, hard, public	230,320	104,220			54,000	\$24,300		
Clams, soft, public	11,000	1,000						
Mussels	790,000	5,970						
Oysters, market, public					14,000	2,200		
Oysters, market, private	530,075	104,607			154,000	22,800		
Oysters, seed, public	56,000	3,895			28,000	2,000		
Oysters, seed, private	5,600	269			112,000	8,000		
Scallops	540	90						
Turtles	1,200	84						
Terrapin	225	225						
<b>Total</b>	<b>8,657,548</b>	<b>489,086</b>	<b>28,420</b>	<b>\$6,669</b>	<b>531,257</b>	<b>89,884</b>	<b>34,991</b>	<b>\$5,818</b>

PERSONS ENGAGED.	Cape May.		Cumberland.		Essex.		Gloucester.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
On vessels fishing	358		1,236					
On vessels transporting	2		8				4	
In shore fisheries	508		229				63	
Shoresmen	66		157		121			
<b>Total</b>	<b>934</b>		<b>1,630</b>		<b>121</b>		<b>67</b>	

INVESTMENT.	Cape May.		Cumberland.		Essex.		Gloucester.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Vessels fishing:								
Gasoline	60	\$163,750	80	\$406,050				
Tonnage	577		1,137					
Outfit		47,950		118,245				
Sail	1	300	124	299,000				
Tonnage	10		1,782					
Outfit		500		55,705				
Vessels transporting:								
Gasoline	1	3,000	8	12,600			2	\$12,000
Tonnage	24		72				51	
Outfit		200		675				500
Sail				3				
Tonnage				18				
Boats:								
Sail, row, etc.	122	5,380	116	3,205			29	799
Power	276	140,110	142	52,300			32	6,750
Apparatus, vessel fisheries:								
Purse seines	6	8,300						
Gill nets	467	7,160						
Pound nets	26	134,500						
Otter trawls	15	1,085	2	140				
Lines, hand, trawl, and set		741						
Dredges	6	130	408	9,700				
Apparatus, shore fisheries:								
Pound nets and weirs	78	4,380	77	1,540				
Haul seines	14	390	9	575				
Gill nets	1,220	33,020	406	15,242			29	1,460
Otter trawls	4	240						
Stop nets			13	1,210			14	2,000
Fyke nets	17	1,700	137	149			187	465
Lines, hand, and trawl		1,712		168				
Eel pots	210	335	275	275				
Dredges	2	30						
Tongs, rakes, and hoes	215	555	98	490				
Other apparatus			2	2			6	30
Shore and accessory property		283,950		207,759		\$262,535		400
Cash capital		32,100		136,000		28,000		
<b>Total</b>		<b>871,518</b>		<b>1,321,480</b>		<b>290,535</b>		<b>24,404</b>

PRODUCTS.	Cape May.		Cumberland.		Essex.		Gloucester.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore	2,800	\$84	600	\$6				
Alewives	30,400	512	10,000	300				
Bluefish	793,876	128,644	120,400	24,080				
Bonito	219,747	14,649	59,600	2,980				
Butterfish	502,505	32,087						

## Persons engaged, investment, and products of the fisheries of New Jersey in 1921, by counties—Continued.

PRODUCTS—continued.	Cape May.		Cumberland.		Essex.		Gloucester.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Carp.....			35,600	\$4,800			48,125	\$8,282
Catfish.....	2,200	\$176	11,650	656			8,593	464
Cod.....	100,900	7,964						
Croaker.....	894,365	31,167	940,600	29,296				
Drum, black.....	600	15						
Drum, red.....	500	10						
Eels, fresh.....	18,100	1,710	40,350	2,035			2,452	291
Flounders.....	745,995	52,147	43,170	3,158				
Haddock.....	3,300	198						
Hake.....	18,907	536						
Herring.....	62,200	1,244						
King whiting.....	8,690	873						
Mackerel.....	164,550	31,507						
Menhaden.....	2,607,035	12,880						
Mullet, fresh.....	12,000	820						
Mullet, salted.....	1,200	240						
Perch, white.....	1,500	54	1,000	100				
Perch, yellow.....	500	50					125	19
Pollock.....	3,000	60						
Scup or porgy.....	2,256,116	108,670	3,450	173				
Sea bass.....	1,240,889	77,034	16,000	810				
Sea robin.....	400	8						
Shad.....	2,978	745	26,695	7,773			6,609	1,613
Sharks.....	2,000	30						
Skates and rays.....	7,900	214						
Spanish mackerel.....	550	130						
Spot.....	48,865	3,189	400	20				
Squeteagues or weakfish.....	2,779,181	206,285	257,900	13,131				
Striped bass.....	818	205	2,400	380				
Sturgeon.....	940	216	30,356	4,557				
Sturgeon roe.....	80	240	1,566	4,736				
Suckers.....			700	78				
Tautog.....	4,650	172						
Tuna.....	6,800	132	1,500	18				
Whiting.....	45,000	645						
Other fish.....	464	17						
Crabs, hard.....	4,800	300	2,800	210				
Crabs, king.....	2,762,174	8,287	523,000	1,569				
Squid.....	22,000	1,100						
Clams, hard, public.....	90,192	48,851	800	300				
Mussels.....			1,000	100				
Oysters, market, public.....	42,000	6,000						
Oysters, market, private.....	40,607	7,912	9,912,280	1,869,702				
Oysters, seed, public.....	155,400	8,880	11,383,400	650,480				
Total.....	15,709,674	796,889	23,427,217	2,621,448			65,904	10,696

PERSONS ENGAGED.	Hudson.		Hunterdon.		Mercer.		Middlesex.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
On vessels fishing.....	2						2	
In shore fisheries.....	3		14		59		35	
Shoresman.....	13							
Total.....	18		14		59		37	
INVESTMENT.								
Vessels fishing:								
Gasoline.....	1	\$500					1	\$1,500
Tonnage.....	6						8	
Outfit.....		275						500
Boats:								
Sail, row, etc.....			6	\$160	22	\$820	13	550
Power.....	2	500					7	3,250
Apparatus, vessel fisheries:								
Eel pots.....	50	125						
Dredges.....							2	50
Rakes.....							4	50
Apparatus, shore fisheries:								
Haul seines.....			5	410	12	1,075	8	3,350
Gill nets.....					5	150	2	400
Fyke nets.....	3	60						
Eel pots.....							210	420
Lobster pots.....	70	200					20	40
Tongs, rakes, and hoes.....							5	40
Shore and accessory property.....		8,075		150		2,500		590
Cash capital.....		2,500						
Total.....		12,235		720		4,545		10,740

Persons engaged, investment, and products of the fisheries of New Jersey in 1921, by counties—Continued.

PRODUCTS.	Hudson.		Hunterdon.		Mercer.		Middlesex.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....					3,950	\$75		
Bluefish.....							7,275	\$1,695
Carp.....			1,205	\$143	8,194	1,225		
Catfish.....					316	28		
Eels, fresh.....	10,000	\$1,000					9,500	950
Menhaden.....							30,000	50
Shad.....			1,459	461	14,126	5,014	435	190
Smelt.....							450	335
Squeteagues or weakfish.....							15,600	1,115
Suckers.....			3,330	399	13,075	1,480		
Lobster.....	5,000	1,000					500	150
Clams, hard, public.....							1,800	900
Oysters, seed, public.....							14,000	1,500
Total.....	15,000	2,000	5,994	1,003	39,661	7,822	79,560	6,885

PERSONS ENGAGED.	Monmouth.		Ocean.		Salem.		Total.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
On vessels fishing.....	93		314				2,164	
On vessels transporting.....	9		2				28	
In shore fisheries.....	755		495		227		2,982	
Shoemen.....	150		59		14		597	
Total.....	1,007		870		241		5,771	
INVESTMENT.								
Vessels fishing:								
Gasoline.....	19	\$81,200	36	\$46,800			215	\$830,100
Tonnage.....	228		254				2,493	
Outfit.....		10,855		1,700				203,940
Sail.....	2	1,300					127	300,600
Tonnage.....	26						1,818	
Outfit.....		90						56,295
Vessels transporting:								
Gasoline.....	7	14,400	2	1,500	1	\$500	24	49,500
Tonnage.....	56		11		9		252	
Outfit.....		550		100				2,175
Sail.....	1	400					4	850
Tonnage.....	9						27	
Boats:								
Sail, row, etc.....	200	5,625	203	5,750	67	1,795	1,135	36,759
Power.....	357	203,485	350	111,025	84	20,550	1,551	647,920
Apparatus, vessel fisheries:								
Purse seines.....	4	4,000					20	23,000
Gill nets.....	100	1,970					991	17,165
Pound nets.....			56	181,350			82	315,850
Other trawls.....	1	30					23	1,630
Lines, hand, trawl, and set.....		125						1,296
Eel pots.....							50	125
Lobster pots.....	350	450					350	450
Dredges.....	96	565	8	160			520	10,605
Rakes.....	58	580					62	630
Apparatus, shore fisheries:								
Pound nets and weirs.....	60	127,800					217	135,220
Haul seines.....	2	325	42	3,715	44	1,320	184	13,550
Purse seines.....							1	600
Gill nets.....	422	12,664	845	8,632	125	13,039	3,657	100,742
Other trawls.....							8	540
Stop nets.....					34	5,810	86	12,365
Fyke nets.....	25	1,170	425	4,046	290	725	1,285	9,530
Bag nets.....							58	1,160
Lines, hand, and trawl.....		1,345		705		20		5,023
Eel pots.....	2,723	2,846	556	556	108	160	4,102	4,632
Lobster pots.....	10,215	10,654	40	50			10,345	10,944
Dredges.....	2	30	14	200			52	775
Tongs, rakes, and hoes.....	198	1,267	353	1,965			1,321	6,728
Other apparatus.....	40	41	2	1	10	50		143
Shore and accessory property.....		479,917		284,911		15,500		1,587,762
Cash capital.....		74,000		19,500		10,000		313,100
Total.....		1,037,684		672,666		69,460		4,701,704

## Persons engaged, investment, and products of the fisheries of New Jersey in 1921, by counties—Continued.

PRODUCTS.	Monmouth.		Ocean.		Salem.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore.....	65,392	\$2,158	55,600	\$1,699	600	\$18	125,642	\$3,985
Alewives.....	22,158	872	308,700	9,375	6,000	180	408,193	11,914
Bluefish.....	685,331	125,860	345,397	62,258	5,000	800	2,243,425	390,947
Bonito.....	192,929	11,613	1,008,077	60,476	5,000	250	1,503,253	91,046
Butterfish.....	754,226	38,193	1,602,412	88,888			2,862,491	159,286
Carp.....					190,480	31,218	329,555	53,184
Catfish.....			1,430	112			101,067	5,976
Cod.....	177,132	8,968	91,245	5,561			687,277	37,353
Croaker.....	317,604	10,249	1,228,335	40,349	80,000	2,500	3,815,554	126,700
Drum, black.....	27,934	558	39,125	792			67,659	1,365
Drum, red.....							500	10
Eels, fresh.....	129,735	13,562	31,656	3,164	13,975	1,678	274,754	26,450
Eels, smoked.....	4,680	1,497					4,680	1,497
Flounders.....	198,349	14,262	542,343	38,669	5,650	395	1,985,340	140,586
Haddock.....	1,000	40					6,300	338
Hake.....	632,942	19,904	167,469	5,038			821,018	25,563
Herring.....	36,825	1,167	73,707	2,053			172,732	4,464
Hickory shad.....	6,574	293	21,571	1,289			28,145	1,582
King whiting.....	5,340	819	7,567	1,204	50	8	24,119	3,334
Mackerel.....	116,019	23,787	15,200	3,620			584,386	100,556
Menhaden.....	24,218,727	91,717	69,331	804			30,405,093	121,451
Mullet, fresh.....	4,060	204	2,400	112			18,460	1,136
Mullet, salted.....							1,200	240
Perch, white.....	2,353	353	93,862	14,078	250	38	130,970	18,791
Perch, yellow.....			20,210	3,031	10,387	1,596	31,282	4,708
Pike or pickerel.....							500	100
Pollock.....	1,240	52	300	15			4,540	127
Scup or porgy.....	183,467	11,033	547,469	29,741	2,850	142	4,115,552	200,046
Sea bass.....	34,067	2,285	31,244	2,005	2,630	131	1,378,330	86,823
Sea robin.....	43,740	866	19,500	466			63,640	1,340
Shad.....	6,820	1,651	30,839	7,649	40,160	9,793	168,637	44,460
Sharks.....	22,559	450	35,900	752			60,459	1,232
Skates and rays.....	23,600	616	11,600	356			43,100	1,186
Smelt.....							450	335
Spanish mackerel.....	624	146	2,808	703			3,982	979
Spot.....	51,612	3,167	77,800	4,668	395	20	189,548	11,502
Squeteagues or weakfish.....	1,982,975	160,050	6,008,632	479,165	14,000	940	11,651,735	902,439
Striped bass.....	2,900	554	5,306	1,521			70,348	21,691
Sturgeon.....	1,964	287	1,140	342	11,425	1,718	45,825	7,120
Sturgeon caviar.....			74	194			74	194
Sturgeon roe.....	241	715			1,685	5,055	3,572	10,746
Suckers.....			492	39	2,978	479	50,664	5,139
Tautog.....	37,192	2,310	1,500	96			44,043	2,650
Tomcod.....	1,750	87	200	10			1,950	97
Tuna.....	44,164	1,764	34,900	1,565	370	14	87,734	3,493
Whiting.....	1,720,403	34,408	1,509,030	29,190			3,280,833	64,371
Other fish.....	275	14	50	3			789	34
Lobster.....	390,941	87,088	1,400	350			397,841	88,588
Shrimp.....	20,000	400					20,000	400
Crabs, hard.....	110,644	6,720	1,000	60			119,244	7,290
Crabs, soft.....	14,560	5,464	1,800	475			16,800	6,132
Crabs, king.....	28,000	560					3,313,174	10,416
Squid.....	104,302	4,398	307,600	14,510			433,902	20,008
Clams, hard, public.....	95,576	46,737	309,400	139,240			782,088	364,548
Clams, soft, public.....	128,000	19,100	4,500	450			143,500	20,650
Mussels.....							791,000	6,070
Oysters, market, public.....	10,500	1,550	2,800	440			69,300	10,190
Oysters, market, private.....	160,293	28,600	180,600	26,685			10,977,855	2,060,300
Oysters, seed, public.....			2,100	150			11,638,900	666,905
Oysters, seed, private.....	15,400	1,760	178,500	12,500			311,500	22,529
Scallops.....							540	90
Turtles.....	8,015	160	4,500	90			13,715	334
Terrapin.....							225	225
Winkles.....	7,800	159					7,800	159
Total.....	32,853,025	789,327	15,038,621	1,096,002	449,912	59,904	96,936,784	5,983,406

## VESSEL AND SHORE FISHERIES.

The products of the vessel and shore or boat fisheries of New Jersey are shown separately in the appended table. The catch taken by vessels amounted to 55,168,849 pounds, valued at \$4,179,742, and by boats in the shore fisheries to 41,767,935 pounds, valued at \$1,803,664.

*Products of the vessel and shore fisheries of New Jersey, 1921.*

Species.	Vessel fisheries.		Shore fisheries.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore.....	58,650	\$1,795	66,992	\$2,190	125,642	\$3,985
Alewives.....	10,000	100	398,193	11,814	408,193	11,914
Bluefish.....	1,060,748	172,194	1,182,677	218,753	2,243,425	390,947
Bonito.....	857,224	52,661	646,029	38,385	1,503,253	91,046
Butterfish.....	2,104,917	120,975	757,574	38,311	2,862,491	159,286
Carp.....			329,555	53,184	329,555	53,184
Catfish.....			101,067	5,976	101,067	5,976
Cod.....	119,845	5,116	567,432	382,237	687,277	37,353
Croaker.....	1,803,400	59,440	2,012,154	67,260	3,815,554	126,700
Drum, black.....	39,725	807	27,934	558	67,659	1,365
Drum, red.....	500	10			500	10
Eels, fresh.....	7,000	699	267,754	25,751	274,754	26,450
Eels, smoked.....			4,680	1,497	4,680	1,497
Flounders.....	1,305,668	91,658	679,672	48,928	1,985,340	140,586
Haddock.....	2,200	124	4,100	214	6,300	338
Hake.....	183,776	5,430	637,242	20,133	821,018	25,563
Herring.....	135,907	3,297	36,825	1,167	172,732	4,464
Hickory shad.....	21,571	1,289	6,574	293	28,145	1,582
King whiting.....	13,057	2,027	11,062	1,307	24,119	3,334
Mackerel.....	326,477	54,636	257,909	45,920	584,386	100,556
Menhaden.....	10,147,631	48,760	20,257,462	72,691	30,405,093	121,451
Mullet, fresh.....	400	32	18,060	1,104	18,460	1,136
Mullet, salted.....			1,200	240	1,200	240
Perch, white.....			130,970	18,791	130,970	18,791
Perch, yellow.....			31,282	4,708	31,282	4,708
Pike.....			500	100	500	100
Pollock.....	3,300	75	1,240	52	4,540	127
Scup or porgy.....	3,765,135	181,940	350,417	18,106	4,115,552	200,046
Sea bass.....	769,533	48,620	608,797	38,203	1,378,330	86,823
Sea robin.....	19,900	474	43,740	866	63,640	1,340
Shad.....	32,007	7,941	136,630	36,519	168,637	44,460
Sharks.....	37,500	774	22,959	458	60,459	1,232
Skates and rays.....	18,700	538	24,400	648	43,100	1,186
Smelt.....			450	335	450	335
Spanish mackerel.....	3,358	833	624	146	3,982	979
Spot.....	114,065	7,177	75,483	4,325	189,548	11,502
Squeteagues.....	8,475,963	655,850	3,175,772	246,589	11,651,735	902,439
Striped bass.....	18	5	70,330	21,686	70,348	21,691
Sturgeon.....	1,680	498	44,145	6,622	45,825	7,120
Sturgeon caviar.....	74	194			74	194
Sturgeon roe.....			3,572	10,746	3,572	10,746
Suckers.....			50,664	5,139	50,664	5,139
Tautog.....	3,350	256	40,693	2,394	44,043	2,650
Tomcod.....			1,950	97	1,950	97
Tuna.....	31,100	1,449	56,634	2,044	87,734	3,493
Whiting.....	1,554,030	29,835	1,726,803	34,536	3,280,833	64,371
Other fish.....	514	20	275	14	789	34
Lobster.....	30,000	6,000	367,841	82,588	397,841	88,588
Shrimp.....	20,000	400			20,000	400
Crabs, hard.....	94,999	5,700	24,245	1,590	119,244	7,290
Crabs, soft.....			16,800	6,132	16,800	6,132
Crabs, king.....			3,313,174	10,416	3,313,174	10,416
Squid.....	329,600	15,610	104,302	4,398	433,902	20,008
Clams, hard.....	46,000	23,600	736,088	340,948	782,088	364,548
Clams, soft.....			143,500	20,650	143,500	20,650
Mussels.....			791,000	6,070	791,000	6,070
Oysters, market, public.....	10,500	1,550	58,800	8,640	69,300	10,190
Oysters, market, private.....	10,178,987	1,915,214	798,868	145,092	10,977,855	2,060,306
Oysters, seed, public.....	11,361,000	649,800	277,900	17,105	11,638,900	666,905
Oysters, seed, private.....	56,000	4,000	255,500	18,529	311,500	22,529
Scallops.....	540	90			540	90
Turtles.....	4,500	90	9,215	244	13,715	334
Terrapin.....			225	225	225	225
Winkles.....	7,800	159			7,800	159
Total.....	55,168,849	4,179,742	41,767,935	1,803,664	96,936,784	5,983,406

<sup>1</sup> In addition 1,543,059 pounds (220,435 bushels), valued at \$232,850, were taken by New Jersey vessels in Delaware waters and are shown under that State.

FISHERIES BY APPARATUS.

The most important forms of fishing apparatus used in the fisheries of New Jersey include purse seines and haul seines, the former with a catch of 14,022,400 pounds, valued at \$282,750, consisting chiefly of menhaden, scup or porgy, and squeteague, and the latter with a

catch of 903,660 pounds of various species, valued at \$77,239; gill nets, with 3,770,625 pounds, valued at \$355,972; pound nets and weirs, with 46,663,590 pounds, valued at \$1,448,822; hand lines and trawl lines, with 4,523,537 pounds, valued at \$401,510; dredges, with 22,348,286 pounds, valued at \$2,676,244, consisting chiefly of oysters; and tongs, rakes, hoes, etc., with 2,468,881 pounds, valued at \$481,038, consisting chiefly of oysters and clams. Other forms of apparatus that took considerable quantities of products were fyke nets, bag nets, stop nets, dip nets, cast nets, otter trawls, eel pots, lobster pots, and spears. The lobster catch, amounting to 379,841 pounds, valued at \$88,588, was all taken in lobster pots. The products taken with each form of fishing apparatus in the vessel and shore fisheries combined are shown in the appended tables:

*Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species.*

BY PURSE SEINES AND HAUL SEINES.

Apparatus and species.	Atlantic.		Burlington.		Camden.		Cape May.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<b>Purse seines:</b>								
Albacore.....	650	\$20						
Bluefish.....	3,700	460					13,000	\$2,190
Butterfish.....							9,000	532
Croaker.....	89,000	1,850					170,000	8,300
Flounders.....	2,100	135					5,400	368
Menhaden.....	3,480,000	16,000					2,280,000	9,500
Scup or porgy.....	1,115,000	49,855					1,230,000	69,000
Sea bass.....	25,600	2,100					57,000	3,330
Squeteagues.....	475,000	29,700					1,054,285	68,800
Tautog.....	200	12					200	12
<b>Total.....</b>	<b>5,191,250</b>	<b>100,132</b>					<b>4,818,885</b>	<b>162,032</b>
<b>Haul seines:</b>								
Alewives.....	17,000	360	5,000	\$100			6,400	132
Bluefish.....	250	50					225	55
Carp.....			3,009	431	2,430	\$401		
Catfish.....	600	52	7,170	531	4,825	290		
Croaker.....	37,500	1,520					20,100	1,034
Eel.....	2,800	282					2,000	200
Flounders.....	4,100	390					4,300	344
King whiting.....	550	61					3,000	30
Mullet, fresh.....							12,000	820
Mullet, salted.....							1,200	240
Perch, white.....	2,000	195	3,250	550			300	30
Perch, yellow.....			60	12				
Pike.....			500	100				
Shad.....	500	125	625	150	600	146	150	38
Spot.....	4,150	208					6,600	380
Squeteagues.....	24,200	2,220					40,300	3,580
Striped bass.....	3,000	750	38,000	13,200			100	25
Suckers.....	400	20	27,609	2,525	100	12		
<b>Total.....</b>	<b>97,050</b>	<b>6,233</b>	<b>85,223</b>	<b>17,599</b>	<b>7,955</b>	<b>849</b>	<b>96,675</b>	<b>6,908</b>

Apparatus and species.	Cumberland.		Hunterdon.		Mercer.		Middlesex.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<b>Haul seines:</b>								
Alewives.....	10,000	\$300			3,950	\$75		
Bluefish.....							6,800	\$1,600
Carp.....	5,500	780	1,205	\$143	8,194	1,225		
Catfish.....	5,600	296			316	28		
Croaker.....	9,000	270						
Flounders.....	170	8						
Menhaden.....							30,000	50
Perch, white.....	500	50						
Shad.....	2,640	744	1,459	461	12,546	4,473	435	190
Smelt.....							450	335
Spot.....	400	20						
Squeteagues.....	6,000	300					10,600	765
Striped bass.....	2,000	300						
Suckers.....	700	78	3,330	399	13,075	1,480		
<b>Total.....</b>	<b>42,510</b>	<b>3,146</b>	<b>5,994</b>	<b>1,003</b>	<b>38,081</b>	<b>7,281</b>	<b>48,285</b>	<b>2,940</b>

Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con.

BY PURSE SEINES AND HAUL SEINES—Continued.

Apparatus and species.	Monmouth.		Ocean.		Salem.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Purse seines:								
Albacore.....							650	\$20
Bluefish.....							16,700	2,650
Butterfish.....							9,000	532
Croaker.....							25,000	10,150
Flounders.....							7,500	503
Menhaden.....	4,005,265	\$20,026					9,765,265	45,526
Scup or porgy.....							2,345,000	118,855
Sea bass.....							82,600	5,430
Squeteagues.....	7,000	560					1,536,285	99,060
Tautog.....							400	24
Total.....	4,012,265	20,586					14,022,400	282,750
Haul seines:								
Alewives.....			290,000	\$8,700			332,350	9,667
Bluefish.....	1,500	270					8,775	1,975
Butterfish.....	100	6					100	6
Carp.....					37,130	\$6,255	57,468	9,235
Catfish.....			1,430	112	38,600	2,060	58,541	3,369
Croaker.....							66,600	2,824
Eel.....	25	3					4,825	485
Flounders.....	500	40	1,050	63			10,120	845
King whiting.....							3,550	91
Menhaden.....	15,000	150					45,000	200
Mullet, fresh.....	4,000	200	2,000	80			18,000	1,100
Mullet, salted.....							1,200	240
Perch, white.....			57,780	8,666	250	38	64,080	9,529
Perch, yellow.....			3,710	557	7,882	1,221	11,652	1,790
Pike.....							500	100
Shad.....							18,955	6,327
Smelt.....							450	335
Spot.....	6,000	480					17,150	1,088
Squeteagues.....	1,800	144	6,000	420			88,900	7,429
Striped bass.....			3,430	1,000			46,530	15,275
Suckers.....					1,750	315	46,964	4,829
Tomcod.....			200	10			200	10
Crabs, hard.....	150	90					150	90
Crabs, soft.....			1,600	400			1,600	400
Total.....	29,075	1,383	367,200	20,008	85,612	9,889	903,660	77,239

BY GILL NETS.

Species.	Atlantic.		Bergen.		Burlington.		Camden.		Cape May.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....							2,000	\$80		
Bluefish.....	25,590	\$5,118							73,360	\$15,264
Bonito.....									9,000	540
Croaker.....	147,250	5,290			3,000	\$180			190,000	5,700
Mackerel.....	288,617	41,642							161,850	30,853
Menhaden.....									9,000	900
Scup or porgy.....									1,000	54
Shad.....	450	110	25,920	\$6,294	6,125	1,579	4,241	1,156	660	165
Spot.....	2,000	100								
Squeteagues.....	42,750	3,800			10,000	800			388,400	29,628
Sturgeon.....									200	30
Total.....	506,657	56,060	25,920	6,294	19,125	2,559	6,241	1,236	833,470	83,134

Species.	Cumberland.		Gloucester.		Mercer.		Middlesex.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bluefish.....	69,000	\$13,800					475	\$95
Croaker.....	922,200	28,666						
Shad.....	24,055	7,029	6,609	\$1,613	1,580	\$541		
Squeteagues.....	216,000	11,000					5,000	350
Sturgeon.....	30,356	4,557						
Sturgeon roe.....	1,566	4,736						
Total.....	1,263,177	69,788	6,609	1,613	1,580	541	5,475	445



## Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con.

## BY GILL NETS—Continued.

Species.	Monmouth.		Ocean.		Salem.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....			16,200	\$600	6,000	\$180	24,200	\$860
Bluefish.....	268,785	\$51,393	21,300	4,398	1,000	160	459,510	90,228
Bonito.....	1,350	81					10,350	621
Butterfish.....	20,400	1,020					20,400	1,020
Croaker.....	162,700	5,472	48,600	2,316	75,000	2,250	1,548,750	49,874
Mackerel.....	103,403	21,233	3,600	720			557,470	94,448
Menhaden.....			5,000	50			14,000	950
Perch, white.....			31,282	4,692			31,282	4,692
Perch, yellow.....			3,300	495			3,300	495
Scup or porgy.....							1,000	54
Shad.....	3,384	789			40,160	9,793	113,184	29,069
Spot.....	2,600	176					4,600	276
Squeteagues.....	133,872	10,677	130,100	9,748	9,000	540	935,122	66,543
Striped bass.....			1,583	441			1,583	441
Sturgeon.....	167	16			11,425	1,718	42,148	6,321
Sturgeon, roe.....	83	258			1,685	5,055	3,334	10,049
Suckers.....			392	31			392	31
Total.....	696,744	91,115	261,357	23,491	144,270	19,696	3,770,625	355,972

## BY POUND NETS AND WEIRS.

Species.	Atlantic.		Cape May.		Cumberland.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore.....			2,400	\$76		
Alewives.....	2,985	\$60	24,000	380		
Bluefish.....	206	52	30,035	5,158		
Bonito.....			42,210	3,736		
Butterfish.....	3,348	118	493,505	31,555		
Cero.....			200	14		
Cod.....			500	44		
Croaker.....	29,500	885	442,665	13,183		
Drum, black.....			600	15		
Drum, red.....			500	10		
Eels.....			900	90		
Flounders.....	5,283	423	87,345	6,699		
Hake.....			16,507	416		
Herring.....			62,200	1,244		
King whiting.....	1,622	324	5,690	843		
Mackerel.....			2,700	654		
Menhaden.....			318,035	2,480		
Perch, white.....	385	38	1,200	24		
Pollock.....			3,000	60		
Scup or porgy.....			844,916	31,936		
Sea bass.....			96,404	8,636		
Sea robin.....			400	8		
Shad.....	55	11	2,168	542		
Sharks.....			1,600	22		
Skates and rays.....			7,100	182		
Spanish mackerel.....			550	130		
Spot.....	4,326	130	42,265	2,809		
Squeteagues.....	4,169	334	1,230,396	99,155		
Striped bass.....	684	171	718	180		
Sturgeon.....			740	186		
Sturgeon roe.....			80	240		
Tautog.....			1,450	136		
Whiting.....	6,400	128	45,000	645		
Other fish.....			264	3		
Crabs, king.....			2,762,174	8,287	523,000	\$1,569
Squid.....			22,000	1,100		
Total.....	58,963	2,674	6,592,417	220,928	523,000	1,569

Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con.

BY POUND NETS AND WEIRS—Continued.

Species.	Monmouth.		Ocean.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore.....	65,392	\$2,158	55,600	\$1,699	123,392	\$3,933
Alewives.....	20,658	812			47,643	1,252
Bluefish.....	156,391	27,918	296,697	53,610	483,329	86,738
Bonito.....	50,028	3,001	778,577	46,958	870,815	53,695
Butterfish.....	733,726	37,167	1,602,412	88,888	2,832,991	157,728
Cero.....					200	14
Cod.....	33,732	1,686	45,745	2,376	79,977	4,106
Croaker.....	151,904	4,657	1,179,435	38,015	1,803,504	56,740
Drum, black.....	27,934	558	39,125	792	67,659	1,365
Drum, red.....					500	10
Eels.....	450	46	100	9	1,450	145
Flounders.....	171,699	12,310	453,823	31,929	718,150	51,361
Hake.....	610,342	19,000	166,469	4,978	793,318	24,394
Herring.....	36,825	1,167	73,707	2,053	172,732	4,464
Hickory shad.....	6,574	293	21,571	1,289	28,145	1,582
King whiting.....	5,340	819	7,567	1,204	20,219	3,190
Mackerel.....	12,616	2,554	11,600	2,900	26,916	6,108
Menhaden.....	20,194,712	71,466	64,331	754	20,577,078	74,700
Mullet.....	60	4	400	32	460	36
Perch, white.....					1,585	62
Pollock.....	1,240	52	300	15	4,540	127
Scup or porgy.....	182,225	10,934	531,619	28,819	1,558,760	71,739
Sea bass.....	13,447	807	20,244	1,386	130,095	10,829
Sea robin.....	43,740	866	19,500	466	63,640	1,340
Shad.....	3,351	842	30,839	7,649	36,423	9,044
Sharks.....	22,559	450	35,900	752	60,059	1,224
Skates and rays.....	12,600	286	11,600	356	31,300	824
Spanish mackerel.....	624	146	2,808	703	3,982	979
Spot.....	42,112	2,439	77,800	4,668	166,503	10,046
Squeteagues.....	1,831,953	148,001	5,777,282	462,177	8,843,800	709,667
Striped bass.....	140	42			1,542	393
Sturgeon.....	1,797	271	1,140	342	3,677	799
Sturgeon caviar.....			74	194	74	194
Sturgeon roe.....	158	457			238	697
Tautog.....	25,465	1,595	1,500	96	28,415	1,827
Tuna.....	34,004	1,366	30,900	1,445	64,904	2,811
Whiting.....	1,720,403	34,408	1,509,030	29,190	3,280,833	64,371
Other fish.....	275	14	50	3	589	20
Crabs, hard.....	2,562	154			2,562	154
Crabs, king.....					3,285,174	9,856
Squid.....	104,302	4,398	307,600	14,510	433,902	20,008
Turtles.....	8,015	160	4,500	90	12,515	250
<b>Total.....</b>	<b>26,329,365</b>	<b>393,304</b>	<b>13,159,845</b>	<b>830,347</b>	<b>46,663,590</b>	<b>1,448,822</b>

BY FYKE NETS AND BAG NETS.

Apparatus and species.	Atlantic.		Burlington.		Camden.		Cape May.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<b>Fyke nets:</b>								
Carp.....			302	\$46				
Catfish.....	6,000	\$600	1,406	85	850	\$51	2,200	\$176
Eels.....	1,250	125	1,651	185	785	93	5,000	400
Flounders.....	3,000	300	4,000	360				
Perch, white.....	10,000	1,080	5,000	600				
Perch, yellow.....							500	50
Striped bass.....	3,400	850	300	90	2,000	500		
Suckers.....	1,900	95	80	12				
<b>Total.....</b>	<b>25,550</b>	<b>3,050</b>	<b>12,739</b>	<b>1,378</b>	<b>3,635</b>	<b>644</b>	<b>7,700</b>	<b>626</b>
<b>Bag nets:</b>								
Flounders.....			7,800	624				
Perch, white.....	1,000	150	10,370	1,555				
Striped bass.....	500	150	10,950	3,320				
<b>Total.....</b>	<b>1,500</b>	<b>300</b>	<b>29,120</b>	<b>5,499</b>				



*Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con.*

BY STOP NETS, DIP NETS, CAST NETS, OTTER TRAWLS, EEL POTS, LOBSTER POTS, AND SPEARS—Continued.

Apparatus and species.	Cumberland.		Gloucester.		Hudson.		Middlesex.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Stop nets:								
Carp.....	26,100	\$3,420	39,925	\$6,806				
Catfish.....	450	40						
Striped bass.....	400	80						
Total.....	26,950	3,540	39,925	6,806				
Dip nets: Crabs, hard.....	2,800	210						
Cast nets: Carp.....			3,250	585				
Otter trawls: Flounders.....	18,400	1,720						
Eel pots: Eels, fresh.....	40,000	2,000			6,000	\$600	9,500	\$950
Lobster pots: Lobster.....					5,000	1,000	500	150

Apparatus and species.	Monmouth.		Ocean.		Salem.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Stop nets:								
Carp.....					141,000	\$22,740	247,235	\$39,604
Catfish.....					2,153	107	2,603	147
Perch, yellow.....					1,935	290	1,935	290
Striped bass.....							400	80
Suckers.....					975	125	975	125
Total.....					146,063	23,262	253,148	40,246
Dip nets:								
Crabs, hard.....	8,333	\$500	1,000	\$60			12,133	770
Crabs, soft.....	14,560	5,464	200	75			15,200	5,732
Total.....	22,893	5,964	1,200	135			27,333	6,502
Cast nets:								
Carp.....					12,350	2,223	15,600	2,808
Catfish.....					1,320	66	1,320	66
Perch, yellow.....					195	29	195	29
Suckers.....					253	39	253	39
Total.....					14,118	2,357	17,368	2,942
Otter trawls:								
Flounders.....							1,017,600	70,869
Shrimp.....	20,000	400					20,000	400
Scallops.....							540	90
Total.....	20,000	400					1,038,140	71,359
Eel pots:								
Eels, fresh.....	112,010	11,668	31,556	3,155	8,000	960	219,766	20,728
Eels, smoked.....	4,680	1,497					4,680	1,497
Total.....	116,690	13,165	31,556	3,155	8,000	960	224,446	22,225
Lobster pots:								
Sea bass.....	2,000	120					2,000	120
Lobster.....	390,941	87,088	1,400	350			397,841	88,588
Crabs, hard.....	4,000	240					4,000	240
Total.....	396,941	87,448	1,400	350			403,841	88,948
Spears: Eels.....	11,250	1,125					21,250	2,125

Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con.

## BY HAND LINES AND TRAWL LINES.

Species.	Atlantic.		Cape May.		Cumberland.		Monmouth.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore.....			400	\$8	600	\$6		
Bluefish.....	256,400	\$41,930	677,256	105,977	51,400	10,280	258,550	\$16,264
Bonito.....	17,900	1,078	168,537	10,373	59,600	2,980	141,551	8,531
Cod.....	318,000	14,860	100,400	7,920			143,400	7,282
Croaker.....	48,400	3,414	71,600	2,950	9,400	360	3,000	120
Flounders.....	8,150	745	65,150	4,565	24,600	1,430	22,250	1,600
Haddock.....	2,000	100	3,300	198			1,000	40
Hake.....	1,700	85	2,400	120			22,600	904
King whiting.....	300	45						
Scup or porgy.....	7,200	432	180,200	7,630	3,450	173	1,242	99
Sea bass.....	27,900	2,458	1,087,485	65,068	16,000	810	18,620	1,358
Sharks.....			400	8				
Skates.....			800	32			11,000	330
Squeteagues.....	37,328	4,899	65,800	5,122	35,900	1,831	6,250	509
Tautog.....	500	60	3,000	24			11,653	700
Tuna.....			6,800	132	1,500	18	10,160	398
Crabs, hard.....			4,800	300				
Turtles.....	1,200	84						
Total.....	726,978	70,190	2,438,328	210,427	202,450	17,888	651,306	68,135

Species.	Ocean.		Salem.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Albacore.....			600	\$18	1,600	\$32
Bluefish.....	27,400	\$4,250	4,000	640	1,275,036	209,341
Bonito.....	229,500	13,518	5,000	250	622,088	36,730
Cod.....	45,500	3,185			607,300	33,247
Croaker.....	300	18	5,000	250	137,700	7,112
Flounders.....	43,130	3,090	5,650	395	168,930	11,825
Haddock.....					6,300	338
Hake.....	1,000	60			27,700	1,169
King whiting.....			50	8	350	53
Scup or porgy.....	15,850	922	2,850	142	210,792	9,398
Sea bass.....	11,000	619	2,630	131	1,163,635	70,444
Sharks.....					400	8
Skates.....					11,800	362
Spot.....			395	20	395	20
Squeteagues.....	95,250	6,820	5,000	400	245,528	19,572
Tautog.....					15,153	793
Tuna.....	4,000	120	370	14	22,830	682
Crabs, hard.....					4,800	300
Turtles.....					1,200	84
Total.....	472,930	32,602	31,545	2,268	4,523,537	401,510

## BY DREDGES, TONGS, RAKES, HOES, ETC.

Apparatus and species.	Atlantic.		Burlington.		Cape May.		Cumberland.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Dredges:								
Oysters, market, private.....	308,000	\$64,300	91,000	\$13,400	39,207	\$7,612	9,912,280	\$1,869,702
Oysters, seed, public.....	14,000	1,000			155,400	8,880	11,200,000	640,000
Oysters, seed, private.....			70,000	5,000				
Total.....	322,000	65,300	161,000	18,400	194,607	16,492	21,112,280	2,509,702
Tongs, rakes, hoes, etc.:								
Clams, hard.....	230,320	104,220	54,000	24,300	90,192	48,851	800	300
Clams, soft.....	11,000	1,000						
Oysters, market, public.....			14,000	2,200	42,000	6,000		
Oysters, market, private.....	222,075	40,307	63,000	9,400	1,400	300		
Oysters, seed, public.....	42,000	2,895	28,000	2,000			183,400	10,480
Oysters, seed, private.....	5,600	269	42,000	3,000				
Mussels.....	790,000	5,970					1,000	100
Terrapin.....	225	225						
Total.....	1,301,220	154,886	201,000	40,900	133,592	55,151	185,200	10,880

Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con.

BY DREDGES, TONGS, RAKES, HOES, ETC.—Continued.

Apparatus and species.	Middlesex.		Monmouth.		Ocean.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<b>Dredges:</b>								
Crabs, hard.....			94,999	\$5,700			94,999	\$5,700
Oysters, market, public.....			10,500	1,550			10,500	1,550
Oysters, market, private.....			147,000	26,100	130,900	\$19,520	110,628,387	2,000,634
Oysters, seed, public.....	7,000	\$1,000					11,376,400	650,880
Oysters, seed, private.....			15,400	1,760	152,600	10,720	238,000	17,480
<b>Total.....</b>	<b>7,000</b>	<b>1,000</b>	<b>267,899</b>	<b>35,110</b>	<b>283,500</b>	<b>30,240</b>	<b>22,348,286</b>	<b>2,676,244</b>
<b>Tongs, rakes, hoes, etc.:</b>								
Clams, hard.....	1,800	900	95,576	46,737	309,400	139,240	782,088	364,548
Clams, soft.....			128,000	19,200	4,500	450	143,500	20,650
Oysters, market, public.....					2,800	440	58,800	8,640
Oysters, market, private.....			13,293	2,500	49,700	7,165	349,468	59,672
Oysters, seed, public.....	7,000	500			2,100	150	262,500	16,025
Oysters, seed, private.....					25,900	1,780	73,500	5,049
Mussels.....							791,000	6,070
Winkles.....			7,800	159			7,800	159
Terrapin.....							225	225
<b>Total.....</b>	<b>8,800</b>	<b>1,400</b>	<b>244,669</b>	<b>68,596</b>	<b>394,400</b>	<b>149,225</b>	<b>2,468,881</b>	<b>481,038</b>

<sup>1</sup> In addition 1,543,059 pounds (220,435 bushels), valued at \$232,850, were taken by New Jersey vessels in Delaware waters and are shown under the latter State.

## INDUSTRIES.

*Wholesale trade.*—In 1921 there were 61 wholesale establishments in New Jersey, valued at \$722,220, engaged in handling fresh fish, oysters, clams, and other fishery products. This number included 2 firms manufacturing scrap from king crabs, 1 firm manufacturing poultry grit from oyster shells, and 1 firm engaged in canning sturgeon caviar. The number of persons engaged was 480, who received \$273,774 in wages, and the cash capital amounted to \$230,100.

*Menhaden industry.*—In 1921 there were 3 menhaden factories operated in New Jersey, valued at \$409,196, with a cash capital amounting to \$78,000. There were 89 persons engaged in the factories, who received \$24,485 in wages. The number of menhaden utilized in the factories was 33,600,000, or 20,160,000 pounds, valued at \$109,000, and the products prepared included 7,238 tons of acidulated scrap, valued at \$141,803, and 459,600 gallons of oil, valued at \$107,340.

Statistics of the wholesale fishery trade and menhaden industry are given in the following tables:

*Investment, persons engaged, and wages paid in the wholesale fishery trade of New Jersey in 1921, by counties.*

Items.	Atlantic.		Cape May.		Cumberland and Salem.	
	Number.	Value.	Number.	Value.	Number.	Value.
Establishments.....	5	\$20,900	7	\$48,300	27	\$200,233
Cash capital.....		11,000		14,100		146,000
Persons engaged.....	17		34		196	
Wages paid.....		5,600		3,200		123,610

*Investment, persons engaged, and wages paid in the wholesale fishery trade of New Jersey, in 1921, by counties—Continued.*

Items.	Essex and Hudson.		Monmouth.		Ocean.		Total.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Establishments.....	6	\$270,535	4	\$169,072	12	\$13,180	61	\$722,220
Cash capital.....		30,500		19,000		9,500		230,100
Persons engaged.....	134		71		28		480	
Wages paid.....		87,287		49,427		4,650		273,774

*The menhaden industry of New Jersey in 1921.*

Items.	Number.	Value.	Items.	Number.	Value.
Factories.....	3	\$409,196	Gasoline vessels fishing.....	7	\$99,800
Cash capital.....		78,000	Tonnage.....	134	
Wages paid factory employees.....		24,485	Outfit.....		9,600
Persons in factories.....	89		Purse seines.....	7	6,800
Persons on vessels.....	106		Products:		
Menhaden caught by vessels.....	16,275,442	45,526	Acidulated scrap... tons..	7,238	141,803
Menhaden caught in shore fisheries.....	33,897,437	72,691	Oil..... gallons..	459,600	107,340
Menhaden utilized in factories.....	33,600,000	109,000			

<sup>1</sup> This includes 3,800,000 menhaden taken incidentally by fishing vessels.

FISHERIES OF PENNSYLVANIA.

The fisheries of Pennsylvania in 1921 gave employment to 591 persons, of whom 42 were on vessels fishing, 2 on vessels transporting fishery products, 105 in the shore or boat fisheries, and 442 on shore in the wholesale fishery trade and other fishery industries.

The investment in the fisheries and fishery industries amounted to \$1,375,778, and included 4 fishing and transporting vessels, valued at \$26,800, with a net tonnage of 103 tons, and outfits valued at \$5,125; 45 boats, valued at \$4,305; fishing apparatus, valued at \$5,192; shore and accessory property, valued at \$1,074,156; and cash capital amounting to \$260,200.

The products of the fisheries amounted to 594,613 pounds, having a value to the fishermen of \$44,621. The most important species taken were alewives, 20,085 pounds, valued at \$405; carp, 9,712 pounds, valued at \$1,511; scup, 142,000 pounds, valued at \$7,100; sea bass, 135,000 pounds, valued at \$12,500; squeteagues, "sea trout" or weakfish, 240,000 pounds, valued at \$14,400; and suckers, 21,199 pounds, valued at \$2,469.

Compared with 1904, there was a decrease in the number of persons engaged of 821, or 58.14 per cent, in the investment of \$721,937, or 34.41 per cent, and in the products of 1,451,681 pounds, or 70.94 per cent, in quantity, and of \$122,878, or 73.36 per cent, in value.

The following table gives the number of persons engaged, investment, and the quantity and value of the products of the fisheries of Pennsylvania in 1921:

Persons engaged, investment, and products of the fisheries of Pennsylvania in 1921, by counties.

Items.	Bucks.		Delaware.		Philadelphia.		Total.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
<b>PERSONS ENGAGED.</b>								
On vessels fishing.....					42		42	
On vessels transporting.....			2				2	
In shore fisheries.....	85		20				105	
Shoresmen.....			12		430		442	
<b>Total.....</b>	<b>85</b>		<b>34</b>		<b>472</b>		<b>591</b>	
<b>INVESTMENT.</b>								
Vessels fishing:								
Gasoline.....					3	\$26,000	3	\$26,000
Tonnage.....					93		93	
Outfit.....						5,050		5,050
Vessels transporting:								
Sail.....			1	\$800			1	800
Tonnage.....			10				10	
Outfit.....				75				75
Boats:								
Row.....	30	\$990	7	215			37	1,205
Gasoline.....	1	1,000	7	2,100			8	3,100
Apparatus, vessel fisheries:								
Purse seine.....					1	1,000	1	1,000
Hand lines.....						250		250
Apparatus, shore fisheries:								
Faul seines.....	21	1,892	1	20			22	1,912
Gill nets.....	8	420	5	950			13	1,370
Stop nets.....	2	300	3	325			5	625
Fyke nets.....			25	35			25	35
Shore and accessory prop- erty.....		670		18,100		1,055,386		1,074,156
Cash capital.....				3,000		257,200		260,200
<b>Total.....</b>		<b>5,272</b>		<b>25,620</b>		<b>1,344,886</b>		<b>1,375,778</b>
<b>PRODUCTS.</b>								
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....	20,085	\$405					20,085	\$405
Bluefish.....					600	\$108	600	108
Butterfish.....					200	6	200	6
Carp.....	6,212	881	3,500	\$630			9,712	1,511
Catfish.....			2,125	128			2,125	128
Croaker.....					2,400	48	2,400	48
Eels.....			220	22			220	22
Flounders.....					200	10	200	10
Pigfish.....					2,000	80	2,000	80
Scup.....					142,000	7,100	142,000	7,100
Sea bass.....					135,000	12,500	135,000	12,500
Shad.....	14,827	4,662	4,045	1,172			18,872	5,834
Squeteague or weakfish.....					240,000	14,400	240,000	14,400
Suckers.....	20,199	2,349	1,000	120			21,199	2,469
<b>Total.....</b>	<b>61,323</b>	<b>8,297</b>	<b>10,890</b>	<b>2,072</b>	<b>522,400</b>	<b>34,252</b>	<b>594,613</b>	<b>44,621</b>

VESSEL AND SHORE FISHERIES.

The products of the vessel and shore fisheries of Pennsylvania are given in the appended table. The products taken by vessels amounted to 522,400 pounds, valued at \$34,252, and by boats in the shore fisheries to 72,213 pounds, valued at \$10,369.



## Products of the vessel and shore fisheries of Pennsylvania, 1921.

Species.	Vessel fisheries.		Shore fisheries.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....			20,085	\$405	20,085	\$405
Bluefish.....	600	\$108			600	108
Butterfish.....	200	6			200	6
Carp.....			9,712	1,511	9,712	1,511
Catfish.....			2,125	128	2,125	128
Croaker.....	2,400	48			2,400	48
Eels.....			220	22	220	22
Flounders.....	200	10			200	10
Pigfish.....	2,000	80			2,000	80
Scup.....	142,000	7,100			142,000	7,100
Sea bass.....	135,000	12,500			135,000	12,500
Shad.....			18,872	5,834	18,872	5,834
Squeteagues or weakfish.....	240,000	14,400			240,000	14,400
Suckers.....			21,199	2,469	21,199	2,469
Total.....	522,400	34,252	72,213	10,369	594,613	44,621

## FISHERIES BY APPARATUS.

The most important forms of fishing apparatus used in the fisheries of Pennsylvania in 1921 included purse seines, with a catch of 398,400 pounds, valued at \$22,472, of which squeteague was the principal species taken; haul seines, with 58,770 pounds, valued at \$7,503; and hand lines, with 124,000 pounds, valued at \$11,780, consisting mostly of sea bass. The remainder of the catch was taken with gill nets, stop nets, and fyke nets. The catch taken with each form of fishing apparatus in the vessel and shore fisheries combined is given in the following table:

*Yield of the fisheries of Pennsylvania in 1921, by counties, apparatus, and species.*

Apparatus and species.	Bucks.		Delaware.		Philadelphia.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
<b>Haul seines:</b>								
Alewives.....	20,085	\$405					20,085	\$405
Carp.....	4,677	642					4,677	642
Catfish.....			125	\$8			125	8
Shad.....	12,684	3,979					12,684	3,979
Suckers.....	20,199	2,349	1,000	120			21,199	2,469
Total.....	57,645	7,375	1,125	128			58,770	7,503
<b>Purse seines:</b>								
Bluefish.....					600	\$108	600	108
Butterfish.....					200	6	200	6
Croaker.....					2,400	48	2,400	48
Flounders.....					200	10	200	10
Scup.....					140,000	7,000	140,000	7,000
Sea bass.....					15,000	900	15,000	900
Squeteague or weakfish.....					240,000	14,400	240,000	14,400
Total.....					398,400	22,472	398,400	22,472
<b>Gill nets: Shad.....</b>	2,143	683	4,045	1,172			6,188	1,855
<b>Stop nets: Carp.....</b>	1,535	239	3,500	630			5,035	869
<b>Fyke nets:</b>								
Catfish.....			2,000	120			2,000	120
Eels.....			220	22			220	22
Total.....			2,220	142			2,220	142
<b>Hand lines:</b>								
Pigfish.....					2,000	80	2,000	80
Scup.....					2,000	100	2,000	100
Seabass.....					120,000	11,600	120,000	11,600
Total.....					124,000	11,780	124,000	11,780
<b>Grand total.....</b>	61,323	8,297	10,890	2,072	522,400	34,252	594,613	44,621

## INDUSTRIES.

*Prepared products.*—In 1921 there were 15 establishments in Philadelphia, Pa., engaged in preparing smoked fish and other products, having a value of \$566,800, with cash capital amounting to \$87,300, and employing 118 persons, to whom \$119,919 were paid in wages. The quantity of smoked fish prepared was 1,185,328 pounds, valued at \$215,436. Other products prepared amounted to \$84,480 in value. Statistics of these products, by species, are given in the table below.

*Wholesale trade.*—In the wholesale fresh-fish trade of Philadelphia and Chester, Pa., in 1921, there were 52 establishments engaged, valued at \$503,486, with a cash capital of \$167,900, and employing 324 persons, to whom \$357,787 were paid in wages.

*Smoked and salted fish and other fishery products prepared in Philadelphia in 1921.*

Items.	Number.	Value.	Items.	Pounds.	Value.
Establishments.....	15	\$566,800	Smoked fish—Continued.		
Cash capital.....		87,300	Herring (Maine).....	22,000	\$2,640
Persons engaged.....	118		Herring (Nova Scotia).....	494,646	62,687
Wages paid.....		119,919	Shad.....	9,600	3,840
			Sturgeon.....	4,800	6,000
Smoked fish:			Total.....	1,185,328	215,436
Alewives.....	Pounds.	Value.			
Butterfish.....	36,300	\$6,240	Salted fish: Lake trout.....	3,600	1,080
Ciscoes.....	14,000	3,080	Miscellaneous products <sup>1</sup> .....		83,400
Ciscoes ("tullibee").....	460,582	101,974			
Haddock.....	5,900	1,475			
	137,500	27,500			

<sup>1</sup> Includes lime and poultry grit from oyster shells.

## FISHERIES OF DELAWARE.

The number of persons engaged in the fisheries of Delaware in 1921 was 976, of whom 279 were on vessels fishing, 2 on transporting vessels, 540 on boats in the shore or boat fisheries, and 155 on shore in the wholesale fishery trade and other fishery industries.

The investment in the fisheries and fishery industries amounted to \$585,616 and included 29 fishing and transporting vessels, valued at \$230,482, with a net tonnage of 760 tons and outfits valued at \$23,561; 416 boats, valued at \$39,035; fishing apparatus valued at \$27,938; shore and accessory property valued at \$153,400; and cash capital amounting to \$108,500.

The products of the fisheries amounted to 25,023,193 pounds, having a value to the fishermen of \$652,448. The most important species in value were alewives, 351,590 pounds, valued at \$6,431; carp, 87,820 pounds, valued at \$13,166; croaker, 418,873 pounds, valued at \$18,682; menhaden, 18,082,000 pounds, valued at \$67,970; shad, 86,836 pounds, valued at \$16,312; squeteagues, "sea trout," or weakfish, 886,550 pounds, valued at \$53,317; and oysters, 4,315,731 pounds, or 616,533 bushels, valued at \$450,873.

Compared with 1904, there was a decrease in the number of persons engaged of 923, or 48.6 per cent, and also in the investment of \$84,379, or 12.59 per cent, but an increase in the products of 19,414,904 pounds, or 346.18 per cent, in quantity and of \$392,858, or 151.33 per cent, in value. This large increase in the products was due to the fact that a considerable catch of menhaden was taken in 1921 and none in 1904.

The number of persons engaged, investment, and products of the fisheries of Delaware in 1921 are given in detail in the following table:

*Persons engaged, investment, and products of the fisheries of Delaware in 1921.*

Items.	Kent.		New Castle.		Sussex.		Total.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
<b>PERSONS ENGAGED.</b>								
On vessels fishing.....	127				152		279	
On vessels transporting.....					2		2	
In shore fisheries.....	177		84		279		540	
Shoresmen.....	19		6		130		155	
Total.....	323		90		563		976	
<b>INVESTMENT.</b>								
Vessels fishing:								
Steam.....					4	\$165,382	4	\$165,382
Tonnage.....					492		492	
Outfit.....						7,591		7,591
Gasoline.....	11	\$36,400			1	2,500	12	38,900
Tonnage.....	127				8		135	
Outfit.....		8,150				900		9,050
Sail.....	12	23,700			1	2,500	13	26,200
Tonnage.....	115				18		133	
Outfit.....		6,500				420		6,920
Vessels transporting:								
Gasoline.....					1	600	1	600
Tonnage.....					7		7	
Sail.....			1	\$500	2	1,500	3	2,000
Tonnage.....			5		16		21	
Outfit.....						100		100
Boats:								
Row.....	74	1,895	32	805	197	5,070	303	7,770
Gasoline.....	27	6,750	44	12,500	42	12,015	113	31,265
Apparatus, vessel fisheries:								
Purse seines.....					4	6,000	4	6,000
Dredges.....	46	1,055			4	90	50	1,145
Apparatus, shore fisheries:								
Gill nets.....	16	530	52	4,540	88	1,860	156	6,930
Pound nets.....			5	1,000			5	1,000
Haul seines.....	32	4,355	12	640	49	4,005	93	9,000
Fyke nets.....	64	158	292	671	75	800	431	1,629
Hand lines.....						25		25
Pots.....	25	25	51	51	205	205	281	281
Minor nets.....	20	240	16	645	5	3	41	888
Tongs.....	72	360			136	680	208	1,040
Shore and accessory property.....		6,000		19,500		127,900		153,400
Cash capital.....		2,500		5,000		101,000		108,500
Total.....		98,618		45,852		441,146		585,616
<b>PRODUCTS.</b>								
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....	62,990	\$2,059			288,600	\$4,372	351,590	\$6,451
Bluefish.....					1,325	265	1,325	265
Carp.....	19,386	2,901	60,589	\$9,089	7,845	1,176	87,820	13,166
Catfish.....	6,377	470	26,754	1,942	2,160	162	35,291	2,574
Croaker.....	141,848	7,591			277,025	11,091	418,873	18,652
Drum black.....					1,150	22	1,150	22
Eels.....	2,200	219	10,612	1,059	3,200	320	16,012	1,598
Flounders.....					34,429	1,798	34,429	2,198
Gizzard shad.....			7,320	292			7,320	292
Menhaden.....					18,082,000	67,970	18,082,000	67,970
Mullet.....	153	10			360	15	513	25
Perch, white.....	2,324	324	352	35	4,247	563	6,923	922
Perch, yellow.....			288	24	2,470	249	2,758	273
Pike.....	163	14			109	11	272	25
Sea bass.....					250	12	250	12
Shad.....	1,234	307	10,123	2,853	75,479	13,152	86,836	16,312
Spot.....					14,600	928	14,600	928
Squeteagues or weakfish.....	492,625	29,556	300	24	398,625	23,737	886,550	53,317
Striped bass.....	973	244			3,942	1,182	4,915	1,426
Sturgeon.....	520	78	11,570	1,735			12,090	1,813
Sturgeon roe.....	165	453	1,707	4,686			1,872	5,139
Suckers.....			983	118			983	118
Tautog.....					1,500	75	1,500	75
Crabs, soft.....					4,600	1,150	4,600	1,150
King crabs.....	500,000	1,500			130,000	390	630,000	1,890
Lobster.....					10,400	2,600	10,400	2,600
Clams, hard.....	3,400	1,700			640	640	4,040	2,340
Oysters, market, public.....	324,919	31,750			545,300	42,390	870,219	74,140
Oysters, market, private.....	1,942,563	293,975					1,942,563	293,975
Oysters, seed, public.....	1,376,949	75,558			126,000	7,200	1,502,949	82,758
Terrapin.....					300	300	300	300
Turtles.....	2,250	112					2,250	112
Total.....	4,881,039	448,821	130,598	21,857	20,011,556	181,770	25,023,193	652,448

## VESSEL AND SHORE FISHERIES.

The products of the vessel and shore fisheries of Delaware are given in the following table. The products taken by vessels amounted to 21,462,331 pounds, valued at \$456,518, and by boats in the shore fisheries to 3,560,862 pounds, valued at \$195,930.

*Products of the vessel and shore fisheries of Delaware in 1921.*

Species.	Vessel fisheries.		Shore fisheries.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives.....			351,590	\$6,431	351,590	\$6,431
Bluefish.....			1,325	265	1,325	265
Carp.....			87,820	13,166	87,820	13,166
Catfish.....			35,291	2,574	35,291	2,574
Croaker.....			418,873	18,682	418,873	18,682
Drum, black.....			1,150	22	1,150	22
Eels.....			16,012	1,598	16,012	1,598
Flounders.....			34,429	1,798	34,429	1,798
Gizzard shad.....			7,320	292	7,320	292
Menhaden.....	18,056,000	\$67,710	26,000	260	18,082,000	67,970
Mullet.....			513	25	513	25
Perch, white.....			6,923	922	6,923	922
Perch, yellow.....			2,758	273	2,758	273
Pike.....			272	25	272	25
Sea bass.....			250	12	250	12
Shad.....			86,836	16,312	86,836	16,312
Spot.....			14,600	928	14,600	928
Squeteagues or weakfish.....			886,550	53,317	886,550	53,317
Striped bass.....			4,915	1,426	4,915	1,426
Sturgeon.....			12,090	1,813	12,090	1,813
Sturgeon roe.....			1,872	5,139	1,872	5,139
Suckers.....			983	118	983	118
Tautog.....			1,500	75	1,500	75
Crabs, soft.....			4,600	1,150	4,600	1,150
King crabs.....			630,000	1,890	630,000	1,890
Lobster.....			10,400	2,600	10,400	2,600
Clams, hard.....	3,400	1,700	640	640	4,040	2,340
Oysters, market, public.....	72,919	13,750	797,300	60,390	870,219	74,140
Oysters, market, private.....	<sup>1</sup> 1,942,563	293,975			<sup>1</sup> 1,942,563	293,975
Oysters, seed, public.....	1,387,449	79,383	115,500	3,375	1,502,949	82,758
Terrapin.....			300	300	300	300
Turtles.....			2,250	112	2,250	112
Total.....	21,462,331	456,518	3,560,862	195,930	25,023,193	652,448

<sup>1</sup> Includes 1,543,057 pounds (220,437 bushels) taken up by New Jersey owners.

## FISHERIES BY APPARATUS.

The principal forms of fishing apparatus used in the fisheries of Delaware in 1921 included gill nets, with a catch of 275,840 pounds, valued at \$30,406; purse seines, with 18,056,000 pounds, valued at \$67,710, consisting entirely of menhaden; haul seines, with 1,578,466 pounds, valued at \$81,882; and dredges, tongs, etc., with 4,949,771 pounds, valued at \$455,103. The remainder of the catch was taken with pound nets, fyke nets, hand lines, pots, and minor nets. The catch taken with each form of fishing apparatus in the vessel and shore fisheries combined is given in the following table:

*Yield of the fisheries of Delaware in 1921, by counties, apparatus, and species.*

Apparatus and species.	Kent.		New Castle.		Sussex.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Gill nets:								
Alewives.....	11,230	\$224			1,950	\$39	13,180	\$263
Carp.....			13,200	\$1,980			13,200	1,980
Catfish.....	1,150	80	1,350	108			2,500	188
Croaker.....					76,550	3,062	76,550	3,062
Gizzard shad.....			7,320	292			7,320	292
Menhaden.....					26,000	260	26,000	260
Mullet.....	153	10					153	10
Perch, white.....	800	96					800	96
Pike.....	163	14					163	14
Shad.....	329	85	10,123	2,853	63,885	11,058	74,337	13,996
Spot.....					9,650	532	9,650	532
Squeteagues.....					36,275	2,236	36,275	2,236

## Yield of the fisheries of Delaware in 1921, by counties, apparatus, and species—Continued

Apparatus and species.	Kent.		New Castle.		Sussex.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Gill nets—Continued.								
Striped bass.....					1,750	\$525	1,750	\$525
Sturgeon.....	520	\$78	11,570	\$1,735			12,090	1,813
Sturgeon roe.....	165	453	1,707	4,686			1,872	5,139
Total.....	14,510	1,040	45,270	11,654	216,060	17,712	275,840	30,406
Pound nets:								
Carp.....			1,760	264			1,760	264
Catfish.....			5,595	447			5,595	447
Eels.....			209	21			209	21
Perch, white.....			352	35			352	35
Perch, yellow.....			288	24			288	24
Squeteagues.....			300	24			300	24
Total.....			8,504	815			8,504	815
Haul seines:								
Alewives.....	51,760	1,835			276,650	4,133	328,410	5,968
Bluefish.....					1,325	265	1,325	265
Carp.....	7,131	1,063	14,929	2,240	5,995	899	28,055	4,202
Catfish.....	2,196	162	6,426	488	2,160	162	10,782	812
Croaker.....	141,848	7,591			189,375	7,585	331,223	15,176
Drum, black.....					1,150	22	1,150	22
Flounders.....					6,219	381	6,219	381
Mullet.....					360	15	360	15
Perch, white.....	1,524	228			3,017	416	4,541	644
Perch, yellow.....					220	24	220	24
Pike.....					109	11	109	11
Shad.....	905	222			11,594	2,094	12,499	2,316
Spot.....					4,950	396	4,950	396
Squeteagues.....	492,625	29,556			352,000	21,120	844,625	50,676
Striped bass.....	973	244			2,042	612	3,015	856
Suckers.....			983	118			983	118
Total.....	698,962	40,901	22,338	2,846	857,166	38,135	1,578,466	81,882
Purse seines: Menhaden.....					18,056,000	67,710	18,056,000	67,710
Fyke nets:								
Alewives.....					10,000	200	10,000	200
Carp.....	1,150	172	9,320	1,398	1,850	277	12,320	1,847
Catfish.....	1,908	147	12,420	822			14,328	969
Croaker.....					6,000	240	6,000	240
Eels.....	335	33	5,927	591			6,262	624
Flounders.....					27,960	1,402	27,960	1,402
Perch, white.....					1,230	147	1,230	147
Perch, yellow.....					2,250	225	2,250	225
Squeteagues.....					600	36	600	36
Striped bass.....					150	45	150	45
Turtles.....	2,250	112					2,250	112
Total.....	5,643	464	27,667	2,811	50,040	2,572	83,350	5,847
Hand lines:								
Croaker.....					5,100	204	5,100	204
Eels.....					200	20	200	20
Flounders.....					250	15	250	15
Sea bass.....					250	12	250	12
Squeteagues.....					4,750	345	4,750	345
Tautog.....					1,500	75	1,500	75
Terrapins.....					300	300	300	300
Total.....					12,350	971	12,350	971
Pots:								
Eels.....	1,865	186	4,476	447	3,000	300	9,341	933
Lobsters.....					10,400	2,600	10,400	2,600
Total.....	1,865	186	4,476	447	13,400	2,900	19,741	3,533
Minor nets:								
Carp.....	11,105	1,666	21,380	3,207			32,485	4,873
Catfish.....	1,123	81	963	77			2,086	158
Crabs, soft.....					4,600	1,150	4,600	1,150
Total.....	12,228	1,747	22,343	3,284	4,600	1,150	39,171	6,181

*Yield of the fisheries of Delaware in 1921, by counties, apparatus, and species—Continued.*

Apparatus and species.	Kent.		New Castle.		Sussex.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds. <sup>1</sup>	Value.
Dredges, tongs, etc.:								
King crabs.....	500,000	\$1,500	.....	.....	130,000	\$390	630,000	\$1,890
Clams, hard.....	3,400	1,700	.....	.....	640	640	4,040	2,340
Oysters, market, public.....	324,919	31,750	.....	.....	545,300	42,390	870,219	74,140
Oysters, market, private.....	1,942,563	293,975	.....	.....	.....	.....	1,942,563	293,975
Oysters, seed, public.....	1,376,949	75,558	.....	.....	126,000	7,200	1,502,949	82,758
Total.....	4,147,831	404,483	.....	.....	801,940	50,620	4,949,771	455,103
Grand total.....	4,881,039	448,821	130,598	\$21,857	20,011,556	181,770	25,023,193	652,448

<sup>1</sup> Includes 1,543,057 pounds (220,437 bushels) taken up by New Jersey owners.

## INDUSTRIES.

*Wholesale trade.*—In the wholesale fishery trade of Delaware in 1921, there were 9 establishments, valued at \$38,950, with a cash capital of \$33,500, employing 112 persons, to whom \$19,480 were paid in wages. Of these firms, 7 handled oysters, 1 handled fresh fish, and 1 manufactured scrap from king crabs. Statistics of the investment, persons engaged, and wages paid in the wholesale fishery trade of Delaware are given by counties in the appended table.

*Menhaden industry.*—There was one establishment in Delaware engaged in the menhaden industry. The statistics for this plant have been included with the statistics of the menhaden industry for New York, page 88.

*Wholesale fishery trade of Delaware in 1921, by counties.*

Items.	Kent and New Castle.		Sussex.		Total.	
	Number.	Value.	Number.	Value.	Number.	Value.
Establishments.....	4	\$22,150	5	\$16,800	9	\$38,950
Cash capital.....	.....	7,500	.....	26,000	.....	33,500
Persons engaged.....	25	.....	87	.....	112	.....
Wages paid.....	.....	4,280	.....	15,200	.....	19,480