# 44.—STATISTICS OF THE FISHERIES OF THE UNITED STATES.

#### By HUGH M. SMITH, M. D.,

Assistant in charge Division of Statistics and Methods of the Fisheries, U. S. Fish Commission.

#### PREFATORY REMARKS.

The first satisfactory and reliable census of the fisheries of the United States was taken by the U.S. Fish Commission in 1879-80, under the direction of Dr. George Brown Goode, in the capacity of special agent of the Tenth Census. While in 1870 an effort was made to exhibit the extent of the fishing industry of the country, the attempt was acknowledged to be a failure and the published figures are concededly incomplete. The practical absence of statistical data for an earlier year than 1879 or 1880 is unfortunate, in that no basis for comparison exists between the present condition of some of our most important fisheries and their extent even at a comparatively recent date. A knowledge of the early variations in abundance as judged by the quantity of the catch is especially desirable in view of the marked changes in methods of capture in late years and the agitation of the question of the threatened extermination of certain fishes and other water animals. It is true that in the case of a few important fisheries, as, for instance, the whale and mackerel, certain valuable statistical data for long continuous periods have been furnished by customs house, State, and private records, but for the great majority of our prominent fisheries and dependent industries and for all our minor branches no statistical information whatever exists showing their extent and importance prior to 1880.

The comprehensive canvass of the fishing industries of the country in 1880, so intelligently planned and so efficiently executed by Dr. Goode and his associates, and the complete statistical information based thereon that was given to the public, constituted an event of extreme importance in the history of our fisheries, independently of the equally valuable and exhaustive descriptive reports based on the same inquiry. These statistics, for their scope and form, as well as for the actual information conveyed, must remain the basis for comparison and the guide for the collection and preparation of future statistical data in the United States.

The importance of statistics in general needs no demonstration, and the value of statistical information regarding the fishing industry is certainly as great as that of any other branch of human enterprise. I may go even further and say that, on account of the uncertainties attending the prosecution of the fisheries and of the Peculiar and unique conditions which prevail, there are few, if any, industries the exhibition of whose extent from time to time by accurate statistics is more desirable.

Fishery statistics seem to be particularly valuable and necessary in the United States, where the regulation of the fisheries is vested in so many legislative bodies; where the conditions vary so much in the different States, oceans, and lakes; where the variations in the abundance of certain products from time to time have been so noticeable; where the artificial culture of fish is so generally carried on and is conducted on such a large scale; where international complications over the fisheries have been so important and international relations are so intimate; and where the fisheries occupy such a prominent place among the national industries, on account of the large number of persons who find employment therein and the enormous additions to our food supply resulting therefrom.

The dependence placed upon fishery statistics by those who are connected directly or indirectly with the industry is attested by the avidity with which statistical reports are received and by the frequent demands for such data made on the Fish Commission by the general fishing public, State officers, economists, and national legislators. In the consideration of all important international fishery questions in recent years, in the enactment of State and federal laws affecting the fisheries, in gauging the effects of artificial propagation and the necessity for resorting thereto, statistics have played a very important part.

Mention should be made of the very creditable statistical work being done by several of the States through fish commission boards and industrial and statistical bureaus. Massachusetts, Connecticut, Maryland, and doubtless other States have made valuable contributions to the literature of fishery statistics, and many of the fish commissions have from time to time presented original statistical information of importance in their annual reports.

The figures presented in this paper have been obtained by the U.S. Commission of Fish and Fisheries, and represent the personal inquiries of its statistical field agents. That office has a permanent force trained for the collection and compilation of the statistics of the ocean, shore, river, and lake fisheries of the country, and is better prepared for this work than is the Census Bureau, which takes up the subject only at intervals of ten years and with the services of persons who, as a rule, have had no previous experience in the work and whose interest therein ceases with the disbandment of the bureau.

At an early period in the history of the U. S. Fish Commission the desirability of having full and accurate statistical information concerning our fisheries was realized and in one noteworthy instance, at least, was forcibly exemplified: The absence of reliable figures by which to substantiate the American claims in the Halifax Commission has been generally regarded as one of the prime reasons for the adverse decision of that tribunal and the award of \$5,500,000 to Great Britain.

The necessity for having statistical data was fully appreciated by Prof. Baird, the founder of the Fish Commission and its honored head for seventeen years, and various minor inquiries, such as the means at his disposal would permit, were undertaken by him in the years preceding the Tenth Census investigations. From 1880 to 1885 a small sum was annually appropriated by Congress for carrying on statistical work. For the fiscal years 1886, 1887, and 1888, no special allotment was made by Congress, the general appropriation for the Fish Commission being apportioned among the various branches of the work, at the discretion of the Commissioner. Under this

arrangement, the statistical work received more substantial recognition than had been previously accorded, and in the last year named extended inquiries were made relating to the statistics, methods, and relations of the fisheries. The organization of a separate force for the collection and compilation of statistics may be said to date from 1886, although it was not until the following year that a special division for this work was established. After the death of Prof. Baird, in 1887, ample encouragement was accorded the statistical service by his successors, Messrs. Goode and McDonald, and in 1888 this work was specially noticed and appropriated for by Congress; since that year a specific sum has been annually allotted.

While Congress has thus evinced an appreciation of this work and exhibited a desire to deal liberally therewith, it requires but slight consideration to show that the means and force available for the service are entirely inadequate to properly conduct the investigations and to secure the publication of their results with satisfactory promptness. To place the fisheries statistical service on an ideal basis, which would permit an annual or biennial study of the entire fishing interests of the country, would require a field force nearly five times as large as the present one and an appropriation twice as great as that for 1893. The shore line of the States bordering on the coasts, coast rivers, and Great Lakes is not less than 30,000 miles in length; and there are few long, continuous stretches of beach or shore that do not support fisheries of greater or less importance, the investigation of which requires the personal presence of the field agents. The canvass of the extensive territory in which commercial fishing is carried on can not be accomplished in less than three or four years. This accounts for the fact that the statistics available do not strictly relate to a single year, but apply to the years 1890 or 1892, although, for all practical purposes, the figures may be regarded as representing the present condition of the fishing industry.

The fisheries of the interior rivers and small inland lakes of the United States have never been thoroughly investigated. Even in the exhaustive canvass under the direction of Dr. Goode in 1879-80, no satisfactory account of these fisheries was obtained, owing to lack of time and means, and our entire statistical knowledge of their extent is given in an estimate by Dr. Goode that they are worth about \$1,500,000 annually. This is believed to be much less than the actual figure at the present time, and it would not be especially surprising if inquiries would show that the products resulting from professional and desultory fishing in the minor fresh waters would have an annual value of nearly \$5,000,000. The importance of these inland waters as sources of food supply is great and increasing, and the Commissioner of Fish and Fisheries proposes to begin an investigation of their extent, methods, and needs at an early date.

With these prefatory remarks we will proceed to a consideration of the condition and extent of the fisheries of the United States as shown by the figures presented, and will endeavor to interpret, so far as may be necessary, some of the facts brought out in the tables.

#### GENERAL IMPORTANCE OF THE FISHING INDUSTRY.

The full extent of the fisheries of the United States has not been exhibited by detailed figures since the results of the census of 1880 were published. In the year named the number of persons directly connected with the industry was ascertained to be 131,426; the amount of capital invested in the business was \$37,955,349; and the value of the catch was \$38,683,348. While the increase in the population of the country since that time has naturally led to an advance in the fishing industry entirely independent of the fluctuations in the abundance of economic water animals, few persons are aware of the great importance of the fisheries at present, and still fewer are informed regarding the changes in the development of our fishery resources since 1880.

Compared with many other great national industries, fishing may justly be considered of minor importance. In a number of the coast States, however, this industry ranks among the foremost enterprises. In view of the international questions affecting the entire country which have arisen and are likely to arise in connection therewith, and because of the great amount of attention which the fisheries have received and are still destined to receive from State and national legislatures, fish commissions, and other organizations, fishing deserves to be regarded as one of the leading industries of the nation, and, as such, entitled to the most careful consideration and study.

At the present time, the general extent of the fisheries of the United States, as determined by the investigations carried on by the U. S. Commission of Fish and Fisheries, is as follows:

	Persons employed	182, 376
	Capital invested	\$58, 245, 406
i	Value of products	\$45, 312, 818
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## THE FISHING POPULATION.

While the statistics show that the number of persons in the United States directly connected with the fisheries is under 200,000, when cognizance is taken of the large number of people engaged in various other occupations directly or indirectly dependent upon the fisheries and of the fishermen's families who are immediately supported by their labors, it is safe to assume that the fishing industries of the United States give support to over 1,000,000 men, women, and children, or about 1 person in every 65 of our population.

Of the persons connected with the fishing industry, 37,800 are vessel fishermen, 105,000 are shore and boat fishermen, and 39,200 are shoresmen and factory hands.

The State having the largest number of persons employed in the fisheries is Maryland, where 39,900 people are directly associated with the fishing industry, chiefly in the oyster-packing business. The State with the next largest fishing population is Virginia, which is credited with 23,595 persons, a majority of whom are connected in some way with the oyster industry. Massachusetts follows Virginia with 17,025 persons, more than half of whom are vessel fishermen, a class more numerous here than in any other State. Maine ranks next to Massachusetts; its fishing population numbers about 15,100. Other States having more than 10,000 fishery employés are New York, with 13,750; New Jersey, with 10,435; and North Carolina, with 10,275.

Of the geographical regions, the most important as regards the number of fishery employés is the Middle Atlantic, where about 90,700 persons are engaged, of whom 17,750 are vessel fishermen, 54,600 are shore and boat fishermen, and 18,350 are shoresmen. The next important region is New England, which has 37,000 fishing population, consisting of 14,300 vessel fishermen, 13,400 shore and boat fishermen, and 9,300 shore hands. The other sections, in the order of their rank, are the Pacific States, including Alaska, with 16,800 persons; the South Atlantic States with 16,000; the Gulf States with 12,000, and the Great Lakes States with 9,750.

The following table shows, by States and geographical sections, the number of persons employed in the different branches of the fishing industry:

States.	Vessel fisher- men.	Shore and boat fisher- men.	Shores- men, factory- men, etc.	Total.	. States.	Vessel fisher- men.	Shore and boat fisher- men.	Shores- men, factory- men, etc.	Total.
New England: Maine New Hampshire Massachusotts Rhode Island Connecticut	2, 608 135 10, 175 403 992	6, 840 210 4, 178 954 1, 213	5, 680 28 2, 672 227 710	15, 128 873 17, 025 1, 584 2, 915	Gulf: FloridaAlabamaMississippi LouisianaTexas	93 203 332 84	2, 784 416 487 3, 276 1, 032	466 109 1, 031 460 161	4, 335 618 1, 721 4, 068 1, 277
Total	14, 313	13, 395	9, 317	37, 025	Total	1,797	7,995	2, 227	12,019
Middle Atlantic: New York New Jersey Pennsylvania Delaware Maryland Virginia	2, 346 2, 337 295 109 8, 342	7, 858 7, 560 1, 615 1, 692 19, 867 16, 027	2, 042 536 310 446 11, 735 3, 260	12, 246 10, 433 2, 220 2, 247 39, 944 23, 595	Pacific: California Oregon Washington Alaska Total Great Lakes:	90	3, 007 2, 651 3, 010 1, 012 9, 680	569 1,459 910 1,491 4,429	5, 426 4, 200 4, 296 2, 849 16, 771
Total:	17, 737	54, 619	18, 329	90, 685	New York		1, 346 250	120 58	1, 498 403
South Atlantic: North Carolina South Carolina Georgia Florida	426 74 64 6	7, 052 2, 503 1, 357 1, 305	2, 796 124 201 230	10, 274 2, 701 1, 622 1, 541	Pennsylvania. Ohio Michigan Indiana Illinois Wisconsin Minnesota	192 250 5 12 126 19	1, 733 2, 693 89 309 956 17	65 143 15	2, 738 3, 343 94 386 1, 225 51
Total	570	12, 217	3, 351	16, 138	Total	731	7, 393	1,614	9, 738
	İ			.	Grand total	37, 816	105, 299	39, 267	182, 376

Persons employed in the coast and Great Lakes fisheries of the United States.

One of the most interesting questions connected with the consideration of the fishing population is the extent to which persons of foreign citizenship engage in our fisheries. Especially important is a knowledge of the foreign element in the fishery marine. The inquiries on which the present paper is based have been addressed to this subject in every region. It appears that the largest proportion of foreigners is found in the vessel fisheries of the Pacific States. The vessels sailing from South Atlantic ports are manned wholly by citizens. The percentage of foreigners in the vessel fisheries of the entire country is 21. In the New England States the vessel fishermen consist of 71 per cent United States citizens, 15 per cent British provincials, and 14 per cent other foreigners, chiefly Portuguese. Ninety-two per cent of the vessel fishermen of the Middle Atlantic States are native-born or naturalized citizens, the 8 per cent of foreigners being made up largely of Germans, Swedes, and Norwegians. Natives of the Bahamas and other British possessions constitute 34 per cent of the vessel-fishing population in the States bordering on the Gulf of Mexico; 13 per cent of

other foreigners in the same region are chiefly Spaniards. On the Pacific coast, only 44 per cent of the vessel fishermen are United States citizens; 15 per cent owe allegiance to the British flag, and 41 per cent are of other nationalities, Austrians, Norwegians, Swedes, and Italians predominating. In the vessel fisheries of the Great Lakes, 86 per cent of the fishermen are citizens, 5 per cent are British provincials, and 9 per cent are of other nationalities, chiefly Norwegians and Swedes.

The following is a tabular statement of the foregoing facts:

Percentage of citizens and foreigners on fishing vessels of the United States.

Sections.	United States.	British Provinces.	All other countries.
New Eugland	92	15 1	14 7
Gulf	53 44	34 15 5	13 41 9
Total	79	8	13

THE VESSELS, BOATS, APPARATUS, AND CAPITAL.

From the appended table (pp. 397, 398) it appears that the amount of money invested in vessels, boats, apparatus, buildings, wharves, and other property connected with the commercial fisheries is about \$58,245,000. Of this sum, \$19,860,000 belongs to the New England States, \$19,405,000 to the Middle Atlantic States, \$8,873,000 to the Pacific States, \$5,421,000 to the Great Lakes, \$2,993,000 to the Gulf States, and \$1,693,000 to the South Atlantic States. The States having the largest investments devoted to the fisheries are Massachusetts, with \$12,980,000; Maryland, with \$7,465,000; New York, with \$5,981,000; Virginia, with \$2,944,000; Maine, with \$2,882,000; Connecticut, with \$2,869,000; Alaska, with \$2,536,000; California, with \$2,526,000; New Jersey, with \$2,518,000, and Oregon, with \$2,220,000. Other States having over \$1,000,000 invested are Rhode Island, North Carolina, Florida, Washington, Ohio, Michigan, and Pennsylvania.

The aggregate number of vessels employed in the fisheries is 6,334; these, with their outfits, have a value of \$14,300,547, and represent a combined tonnage of 176,783. About three-fifths of the vessels, or 3,931, belong in the Middle Atlantic States and about one-fourth, or 1,500, in the New England States. The Gulf States have 404, the Pacific States 202, the South Atlantic States 169, and the Great Lakes States 128. The largest tonnage and greatest value are found in the New England States, where the average size of the vessels is much larger than in the Middle Atlantic region. Every State bordering on the coast waters or Great Lakes has a vessel fishery of more or less importance. The least extensive fishery of this class, as judged by the number of vessels, is in Indiana, where only one vessel was employed. The State having the largest fishing fleet is Maryland, with over 1,600 vessels; the State occupying the second rank is Virginia, with 944 vessels, followed by Massachusetts with 809, New York with 666, New Jersey with 618, and Maine 397. The tonnage and value of the vessels of Massachusetts are greater than in any other State, after which come Maryland, Virginia, California, Maine, Alaska, New Jersey, New York, and Connecticut in the item of tonnage, while in point of value the order is Maryland, California, New York, Virginia, New Jersey, Connecticut, and Maine.

The number of boats used in the fishing industry, exclusive of those which form a part of the outfit of the vessels, is 66,464, valued at \$4,382,520. More than half the boats are employed in the Middle Atlantic States. The boat fisheries are especially extensive in Maryland, where there are 9,800 boats. Other important States in this respect are Virginia with 9,250 boats, New York with 7,515, Maine with 6,015, and New Jersey with 5,590.

Foremost in point of value among the forms of apparatus used in the capture of fish and other products stands the class of appliances of which the pound net is the type, and which includes the pound net, the trap net, and the weir. The number of these employed in the United States is 8,726, with a value of \$2,189,526. This kind of apparatus is most numerous in the Great Lakes, where 3,750 nets, mostly the typical pounds, were set in the year covered by the figures, 1890. The next important region is the Middle Atlantic, to which 2,445 such nets are credited. New England has over 1,100 such traps, the South Atlantic section 960, the Pacific Coast 432, while in the Gulf States this form of net is not used. The individual States in which the fishery with pounds, traps, and weirs is especially extensive are Michigan, Ohio, Maryland, North Carolina, Virginia, Maine, New York, Wisconsin, Massachusetts, Oregon, and Washington.

The most extensively used apparatus is the gill net, which in value closely approximates to the pound net. The number shown in the tables is 244,942, with a value of \$1,728,266. As the nets of this class are of such a varying length, even in the same fisheries and the same localities, a statement of the length of gill-netting employed will convey a better idea of the enormous extent of this fishery than a mere enumeration of the number of separate pieces. A close approximation, based on actual figures in the great majority of cases, gives the aggregate length of the gill nets as 51,446,000 feet, or 9,743 miles. Gill nets are used in greater or less numbers in every geographical section, but are most numerous and represent the largest investment in the Great Lakes, where over 100,000 nets, worth \$498,096, are reported. Next in rank in the number of gill nets is the South Atlantic region, which is credited with over 93,000 nets, although their value, only \$204,227, indicates their relatively small size. The Middle Atlantic States have about 32,000 nets, valued at \$419,858. In the New England fisheries 12,000 such nets, worth \$112,201, are employed. The number of these nets on the Pacific coast, 5.023, is relatively small, but their value, \$467,021, shows them to be of larger average size than in any other region. The gill net is rare in the Gulf region, less than 900 being there operated. The States in which the gill net is especially conspicuous are North Carolina, Michigan, Pennsylvania, Ohio, Wisconsin, New York, and Maryland, each of which has over 10,000; while, on account of the value of the catch, this form of apparatus is also important in Maine, Massachusetts, New Jersey, Virginia, Florida, California, Oregon, Washington, and Alaska.

Seines rank next to gill nets in value. The 5,165 such appliances shown in the table had a value of \$761,286. The seines are most numerous and important in the Middle Atlantic States; 1,789 are there employed, having a value of \$276,691. In the South Atlantic States this apparatus is nearly as numerous as in the region first named, but the average value of the nets is less; 1,503 seines credited to that section were worth \$111,819. The New England States are credited with 640 seines, valued at \$190,405. On the west coast 461 seines, having a value of \$108,885, are in use. The seines in the Gulf region are nearly as numerous as in New England, but the

average value is only one-fourth that of the other section. Seines are not prominent in the Great Lakes; only 154 are there owned, and the investment in that form of apparatus is only \$17,236. The most important seine fisheries, as determined primarily by the number of seines operated, are in North Carolina, Maryland, New Jersey, New York, Florida, Massachusetts, Maine, Virginia, Delaware, and California, the first-named State having nearly one-fourth of all the seines used in the United States.

Nearly equal to seines in point of value are the hand lines, trawl lines, and other lines employed in fisheries of all sections. The New England States, with their enormous ocean fisheries carried on chiefly with lines, would naturally be expected to lead in this item, and it appears that of the \$708,000 invested in this class of apparatus the region in question has \$620,000. The other sections in their order of importance are the Pacific, Middle Atlantic, Gulf, Great Lakes, and South Atlantic.

The dredges, tongs, and rakes employed in the molluscan fisheries represent an outlay of \$561,000, of which \$477,000 is to be credited to the Middle Atlantic States, the section having the most extensive oyster fishery.

Ranking fourth in importance among the various classes of nets used in the fisheries of the country are the fykes, although their aggregate value is much less than that of any of the forms of apparatus thus far specified. Over 24,000 fyke nets, whose value is \$222,000, are set in the coast and lake regions. The fykes are relatively important only in the Middle Atlantic States, although in the Great Lakes and in New England rather extensive fisheries are in places thus carried on. In the region first named over 20,000 fykes are used, having a value of \$119,000. This appliance is absent from the Gulf States, and is of little consequence in the South Atlantic and Pacific States.

The numerous other kinds of fishing apparatus not separately designated in the accompanying table, and not so generally used as those specified, have a value of about \$565,000. Among these are pots, wheels, cast nets, spears, harpoons, and many other minor appliances. The Pacific and New England States contain the great bulk of this miscellaneous apparatus.

The shore and accessory property connected with the fisheries and the related shore industries represents a very large investment in every region, amounting in the aggregate to over \$16,000,000. This sum includes the value of fish houses, wharves, fishing camps, and other buildings and structures necessary for the prosecution of the business: fish cars, reels, live boxes, floats, etc. In the New England States the investments in such property are larger than in any other section, amounting to \$5,887,000. Closely following New England is the Middle Atlantic section, where the shore and accessory property has a value of \$5,816,000. On the Pacific coast \$2,400,000 is thus invested, and in the Great Lakes region \$1,635,000. The South Atlantic States have \$436,000 and the Gulf States \$677,000 thus devoted to the fishing industry. Four States have over \$1,000,000 shore property directly connected with the fisheries; these are Massachusetts with \$3,098,000, Maryland with \$2,446,000, New York with \$1,724,000, and Connecticut with \$1,605,000.

Properly included in the fishery investment is the cash capital, or working capital, required to properly conduct the industry. This amounts in the aggregate to nearly \$16,000,000, corresponding closely with the capital represented by the shore property, being greatest in the New England States and least in the South Atlantic States.

In this item Massachusetts leads all other States with 4,175,000, followed by Maryland with 2,107,000, New York with 2,093,000, and Alaska with 1,139,000.

Table showing the apparatus, vessels, boats, and capital employed in the fisheries of the United States.

	Apparatus of capture.											
States.	Pound nets, trap nets, and Gil weirs.		ll nets.	Fyk	e nets.	Se	oines.	Value of	tongs,	Value of other appa-		
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	lines.	and rakes.	ratus.	
New England: Maine New Hampshire Massachusetts Rhode Island Connecticut	700 6 179 174 90	\$137, 331 300 207, 583 83, 145 28, 620	7, 565 84 4, 240 115 79	\$55, 070 1, 197 44, 772 7, 500 3, 662	136 15 4 450	\$559 100 320 2,380	232 6 306 50 45		\$89, 690 1, 200 525, 860 2, 639 1, 080	\$3, 140 11 10, 240 8, 372 32, 275	\$141, 279 2, 986 35, 406 10, 930 25, 542	
Total	1, 149	456, 979	12, 083	112, 201	605	3, 359	639	190, 405	620, 469	54, 038	216, 143	
Middle Atlantic: New York New Jersey Pennsylvania Delaware Maryland Virginia	263 234 27 1,005 916	71, 340 83, 913 455 71, 778 162, 690	7, 507 3, 941 205 1, 603 11, 999 6, 979	88, 450 129, 791 21, 200 34, 373 100, 014 46, 030	6, 246 1, 488 2, 532 540 9, 366 339	55, 465 13, 706 5, 219 -1, 220 37, 924 5, 770	327 366 141 199 536 220	75, 640 37, 118 18, 750 10, 083 76, 780 58, 320	11, 515 4, 808 534 20 2, 272 3, 462	119, 912 71, 917 4, 025 2, 787 198, 920 79, 525	21, 369 10, 362 488 1, 097 6, 511 547	
Total	2, 445	390, 176	32, 234	419, 858	20,511	119, 304	1,789	276, 691	22, 611	477, 086	40, 374	
South Atlantic: North Carolina South Carolina Georgia Florida	950 5 5	80, 394 1, 250 570	90, 980 1, 380 398 468	154, 582 13, 958 7, 957 27, 730	36	384 285	1, 273 74 51 105	99, 649 4, 008 2, 052 6, 110	. 57 - 562 306 630	4, 457 1, 116 898 280	4, 755 2, 464 1, 757 6, 508	
Total	960	82, 214	93, 226	204, 227	47	669	1,503	111,819	1, 555	6, 751	15, 484	
Gulf: FloridaAlabama Mississippi Louisiana Texas	• • • • • • • • • • • • • • • • • • •		740 66 15	19, 688 6, 620 555			205 30 80 168 136	15, 390 2, 730 6, 680 14, 600 16, 850	3, 652 102 3 9, 176 540	3, 019 1, 803 3, 199 8, 915 2, 606	12, 136 295 48 13, 472 3, 955	
Total			821	26, 863			619	56, 250	13, 473	19, 542	29, 906	
Pacific: California Oregon Washington Alaska		175, 000 124, 700 10, 500	2, 476 1, 379 845 323	112, 221 211, 660 110, 390 32, 750	49	980	191 32 163 76	22, 635 12, 600 46, 725 26, 925	15, 954 10, 670 5, 855 6, 150	575 145 3,492	66, 382 135, 327 60, 279 500	
Total	422	310, 200	5, 023	467, 021	49	980	461	108, 885	38, 629	4, 212	262, 488	
Great Lakes: New York Pennsylvania Ohio Michigan Indiana Illinois. Wisconsin Minnesota	325 200 1, 423 1, 460 32 10 299	29, 427 29, 270 464, 180 393, 950 11, 800 3, 750 77, 380 200	6, 927 22, 370 22, 368 29, 343 753 645 18, 726 423	52, 932 72, 568 62, 123 197, 672 3, 805 3, 125 101, 641 4, 230	684 1, 110 446  728	9, 822 63, 650 12, 030 11, 366	32 33 58 3 28	781 4, 630 9, 010 380 2, 435	1, 989 160 3, 630 4, 125 279 225 957 249		129 82 867 30 90 250	
Total	3, 750	949, 957	101, 555	498, 096	2, 968	96, 868	154	17, 236	11,614		1, 438	
Grand total	8, 726	2, 189, 526	244, 942	1, 728, 266	24,180	221, 180	5, 165	761, 286	708, 351	561, 629	565, 833	

Table showing apparatus, vessels, boats, and capital employed in United States fisheries-Continued.

		Vessels	•	I	Boats.	Shore and		Total
States.	No.	Tonnage.	Value, including outfit.	No.	Value.	Shore and accessory property.	Cash capital.	capital invested
New England:								
Maine		12, 032 .27	\$675, 530	6, 015	\$238,719	\$815, 400	\$690,000	\$2, 882, 113
New Hampshire		498 .42	36, 799	102	4, 930	34, 155	10,000	93, 32
Massachusetts	809	55, 653 • 20	4,499,168	3, 560 794	255, 110 81, 756	3,098,130	4, 175, 260 208, 200	12, 980, 67 1, 034, 46
Rhode Island Connecticut	$\frac{72}{208}$	1,595 ·44 5,107 ·40	280, 199 721, 767	1, 290	96, 380	334, 111 1, 605, 300	345, 000	2, 868, 92
Total	1, 500	74, 886 .73	6, 213, 463	11, 761	676, 895	5, 887, 096	5, 428, 460	19, 859, 50
Middle Atlantic:							<del></del>	
New York	659	9, 291 .35	991, 640	6, 979	472, 984	1, 695, 655	1,679,000	5, 282, 97
New Jersey	618	9, 548 00	825, 585	5, 591	414, 321	412, 743	513, 500	2, 517, 76
Pennsylvania	40	990 .44	84,440	817	29, 535	495, 420	312, 400 47, 500	976, 01
Delaware	43	568 .44	42, 540	968	29, 754	48, 300	47, 500	218, 12
Maryland Virginia	1, 627 944	34, 182 ·62 14, 171 ·11	1, 838, 249 939, 136	9,825 9,247	579, 488 463, 722	2, 446, 327 717, 857	2, 107, 455 467, 500	7, 465, 71 2, 944, 55
Total	3, 931	68, 751 .96	4,725,590	33, 427	1,989,804	5, 816, 302	5, 127, 355	19, 405, 15
South Atlantic:								
North Carolina	128	1, 615 59	101, 029	3,862	188, 375	306, 506	303, 800	1, 243, 98
South Carolina	15	240 .04	29, 325	1,227 788	31, 804	27, 525	17,000	127, 76
Georgia	23	267 .74	26, 800	788	9, 766	51, 560	71, 800	174, 43
Florida	3	39 .25	2, 010	784	30, 538	49, 919	22, 600	146, 89
Total	169	2, 162 ·62	159, 164	6, 661	260, 483	435, 510	415, 200	1, 693, 070
Gulf:	- 00	9 804 00	004 010	0.151	007 047	183, 207	486, 600	1 987 05
Florida	166	2, 636 .88	386, 318	2, 151 212	267, 047	29, 100	45, 600	1, 377, 05 135, 29
Alabama	38	387 -87	31,810	257	17, 230 13, 395	110,771	251, 300	434, 71
Mississippi	62	570 ·02 896 ·84	48, 759 93, 527	2,578	161, 533	243, 178	182, 500	719, 87
Louisiana Texas	. 119 19	240 .76	29, 710	814	101, 570	110, 391	53, 500	319, 12
Total	404	4, 732 ·37	590, 124	6, 012	560, 775	676, 647	1, 019, 500	2, 993, 08
Pacific:	-	<del></del>						
California	84	12, 443 .26	1, 295, 050	1,367	185, 070	582, 095	246, 000	2, 526, 96
Oregon	19	444 · 14	57, 535	1,594	154, 425	659, 305	804,000	2, 220, 66
Washington	57	1, 188 .79	147, 295	1,481	126, 945	418,800	546,000	1,590,48
Alaska	42	9, 574 ·43	505, 500	455	66, 475	748, 403	1, 138, 500	2, 535, 70
Total	202	23, 650 -62	2, 005, 380	4, 897	532, 915	2, 408, 603	2, 734, 500	8, 873. 81
Freat Lakes:		100.0	04 000	500	90 077	180 107	419 000	807 04
New York	7	103 87	24, 073	536	36, 677 32, 920	128, 127 46, 700	413, 890 50, 000	697, 84 283, 23
Penusylvania	15 ' 35	113 ·86 1. 177 ·70	51, 620 226, 775	94 1,016	159, 980	587, 850	302, 000	1, 874, 90
Ohio	35 46	720 -28	181, 998	1,481	96, 076	455, 591	169, 600	1, 460, 90
Indiana	1	5.51	1, 620	52	3, 370	645	100,000	21, 54
Illinois	2	40.11	7, 485	33	1, 280	248, 210	165,000	429, 54
Wisconsin		261 .29	78, 355	478	30, 510	115,080	63, 400	481, 37
Minnesota	. 2	176 .85	34, 900	16	835	52, 668	78, 334	171, 41
Total	128	2, 599 ·47	606, 826	3, 706	361, 648	1, 634, 871	1, 242, 224	5, 420, 77
Grand total	6, 334	176, 783 ·77	14, 300, 547	66, 464	4, 382, 520	16, 859, 029	15, 967, 239	58, 245, 40

## THE PRODUCTS.

General statement.—The annual value of products of the United States fisheries, excluding those of the minor inland waters, for which no data are available, is about \$45,223,000, a sum representing the first value of the catch, or the amount received by the fishermen. By the processes of canning, salting, smoking, and otherwise preserving the products, their value, as they are ready for the consumer, is probably not less than \$150,000,000. The weight of the products as they leave the hands of the fishermen is about 1,500,000,000 pounds; in the case of such products as oysters, clams, and scallops the weight assigned is that of the edible part.

The Middle Atlantic States, owing to the large production of oysters, easily take the lead in the value of the products, followed by the New England, Pacific, Great Lakes, Gulf, and South Atlantic regions, in the order named. The value of the Middle

Atlantic fisheries is about \$19,048,000, that of New England is \$12,446,000, that of the West coast is \$7,259,000, that of the Gulf States \$2,499,000, that of the Great Lakes \$2,471,000, and that of the South Atlantic States \$1,590,000.

Massachusetts, owing to its extensive food-fish and bait fisheries, still maintains the lead which it has so long held in the matter of products; \$7,531,000 represents the value of its fisheries. Maryland, owing to its enormous yield of oysters, ranks as the second fishing State as regards its products, which are worth \$6,461,000. New York holds the third position in respect to the value of the catch, the receipts of the fishermen of that State in 1892 being \$5,041,000. The other States, the extent of whose fisheries entitles them to separate mention, are Virginia, whose fishing industry is worth \$3,641,000; New Jersey, \$3,626,000; California, \$3,045,000; Alaska, \$2,411,000; Maine, \$2,226,000; Connecticut, \$1,871,000; Florida, \$1,340,000; and North Carolina, \$1,028,000. No other State has fisheries yielding over \$1,000,000, but Washington, Michigan, Oregon, Rhode Island, Louisiana, and Ohio have an annual production worth between \$500,000 and \$1,000,000.

Statistics by geographical divisions.—In order to present more detailed figures for the products than would be possible in a single table of size convenient for consultation, a series of tables has been prepared showing by geographical sections the quantity and value of each principal object of fisheries in each State.

Products of the fisheries of	f the New	England States.
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Species.	Mair	ıe.	New Ha	mpshire.	Massach	usetts.
Species.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives	2, 113, 950	\$19, 104	41, 500	\$770	3, 326, 445 415, 560	\$60, 056 31, 167
Cod	14, 700, 700	382, 751	1, 393, 200	28, 813	66, 433, 170	2, 277, 838
Haddock	5, 858, 000	111, 160	1, 557, 750	26, 356	39, 158, 272	897, 192
Halibut	562, 500	45, 000	72, 540	6, 166	8, 429, 016	756, 357
Herring	40, 426, 980	218, 223	140,000	1,500	11, 622, 660	109, 545
Mackerel	4, 276, 422	253, 2 <b>67</b>	46, 000	3, 945	12, 422, 462	820, 927
Menhaden	600	9	4,000	40	1, 427, 150	12, 369
Salmon	138, 322	20,032				
Scup		040 001	000 004	10 140	2, 750, 320	90, 761
Lobsters	17, 198, 002	649, 891	220, 024	13, 142	3, 177, 295 368, 256	205, 638 70, 240
Oysters	4, 545, 010	156, 033	10, 500	975	2, 349, 514	192, 724
All other products	31, 879, 714	370, 336	471, 310	9,774	149, 469, 211	2, 006, 380
An other products	31, 313, 114	070,000	471,010		140, 400, 221	2, 000, 550
Total	121, 700, 200	2, 225, 806	3, 956, 824	91, 481	301, 349, 331	7, 531, 194
G ,	Rhode I	sland.	Conne	cticut.	Tot	al.
Species.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives	967, 930	\$13, 291	679, 120	\$3, 808	7, 128, 945	\$102, 029
Bluefish	247, 100	14, 356	640, 450	32, 022	1, 303, 110	77, 545
Cod	417, 500	13, 660	1, 390, 420	42, 551	84, 334, 990	2, 745, 613
Haddock	121, 200	2,824	217, 460	5, 437	46, 912, 682	1, 042, 969
Halibut			223, 740	19,018	9, 287, 796	826, 541
Herring	700	30		*********	52, 190, 340	329, 298
Mackerel	206, 975	16, 960	66, 970	4,805	17, 018, 829	1, 099, 904
Menhaden	5, 340, 700	28,771	12, 690, 300	31, 889	19, 462, 750	73, 078
Salmon	F F10 000	105 000	135 13, 200	64 197	138, 457	20, 096
Seup	5, 546, 600 774, 100	105,868 $53,762$	1, 614, 530	101, 318	8, 310, 120 22, 983, 951	196, 826 1, 023, 751
Lobsters	1, 106, 567	255, 492	13, 651, 218	1, 426, 249	15, 126, 041	1, 751, 981
		65, 372	373, 760	43, 656	7, 777, 084	458, 760
	408 300 I			±0,000	1,111,007	
Oysters	498, 300 6, 206, 993	150, 289	29, 896, 918	160, 399	217, 924, 146	2, 697, 178

Note.—The weights of the cysters and clams represent only the edible part or meat. The number of bushels of cysters shown for this section is 2,160,863, apportioned as follows: Massachusetts, 52,608 bushels; Rhode Island, 158,081 bushels; Connecticut, 1,950,174 bushels. The quantity of clams given is equivalent to 795,442 bushels, of which 454,501 bushels are to be credited to Maine, 1,050 to New Hampshire, 245,291 to Massachusetts, 53,800 to Rhode Island, and 40,800 to Connecticut,

Products of	f the fisheries	of the Middle	Atlantic	States.
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	New	York.	New J	ersey.	Penns	ylvania.	Delaware.	
Species.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value	Pounds.	Value.
Alewives		\$23, 526	1, 978, 055		2, 059, 015	\$12, 144	848, 890	\$11,585
Bluefish Perch Pike	67, 638	237, 010 4, 778	4, 765, 873 571, 347 20, 250	178, 691 34, 073 1, 821	18, 478 5, 481	811 777	211, 415 25, 840	14, 019 1, 604
Sea bass	676, 744	35, 815 161, 209	3, 892, 311 8, 746, 518	153, 431 582, 221	901, 564 1, 996, 482	37, 555	1, 110, 369	60, 255
Spanish mackerel	74, 836 2, 531, 523		117, 254 7, 540, 196	15, 907 208, 051			837, 510	16, 364
Striped bass	. 18, 277, 434	2, 748, 509	220, 115 18, 273, 241		23, 352 926, 660		115, 042 1, 227, 324	15, 442 73, 863
Clams Crabs Terrapins	529, 066	756, 512 11, 039	3, 570, 022 2, 599, 413 2, 570	381, 841 50, 278 987				2, 047 7, 796 2, 136
All others	. 131, 061, 082	686, 350	18, 949, 426	210, 227	393, 476	18, 374	1, 620, 745	45, 754
Total	. 170, 169, 910	4, 784, 753	71, 246, 591	3, 625, 890	6, 324, 508	284, 031	7, 194, 808	250, 865

	Maryla	and.*	Virgi	nia	Tot	al.
Species.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives Bluefish Perch Pike Sea bass Shad Spanish mackerel Squeteague Striped bass Oysters Clams Crabs Crabs Terrapins All others	17, 418, 850 516, 364 2, 494, 625 563, 264 113, 370 6, 224, 873 44, 837 750, 465 1, 264, 693 69, 615, 406 147, 760 7, 605, 770 89, 780 34, 327, 770	\$131, 245 22, 761 105, 078 35, 261 4, 544 211, 575 5, 369 25, 902 97, 770 5, 295, 866 8, 226 303, 716 22, 333 191, 113	11, 004, 085 1, 802, 674 415, 378 9, 450 9, 440 6, 498, 242 739, 910 3, 938, 019 467, 861 43, 061, 452 559, 278 2, 890, 427 52, 215 112, 504, 126	\$93, 819 66, 004 16, 335 615 475 207, 394 50, 756 124, 891 40, 953 2, 520, 668 36, 030 62, 039 18, 494 403, 409	35, 503, 455 12, 591, 486 3, 778, 881 624, 285 5, 503, 429 27, 621, 440 976, 837 15, 597, 713 2, 266, 539 151, 381, 517 10, 328, 440 14, 789, 351 156, 203 298, 856, 625	\$286, 605 504, 466 175, 094 40, 078 231, 820 1, 332, 854 79, 287 469, 751 208, 165 12, 500, 759 1, 184, 656 434, 868 43, 950
Total	141, 177, 827	6, 460, 759	183, 952, 557	3, 641, 282	580, 066, 201	19, 047, 580

<sup>\*</sup> Includes District of Columbia.

Note.—The numbers of bushels of cysters and clams represented by the weights of the edible parts shown in the table are as follows: Oysters, 2,611,062 bushels in New York, 2,610,463 in New Jersey, 132,380 bushels in Pennsylvania, 175,332 bushels in Delaware, 9,945,058 bushels in Maryland, and 6,151,636 bushels in Virginia. Clams, 716,115 bushels in New York, 443,869 bushels in New Jersey, 2,670 bushels in Delaware, 18,470 bushels in Maryland, and 69,910 bushels in Virginia.

Products of the fisheries of the South Atlantic States.

G !	North Carolina.		South Carolina.		Georgia.		Florida.		Total.	
Species.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives	407, 530 1, 345, 194 12, 410, 400 3, 585, 981 33, 075 5, 768, 413 1, 885, 677 568, 341 35, 300 5, 650, 820 144, 200 26, 552	\$164, 636 20, 492 33, 663 16, 171 97, 408 1, 158 306, 015 48, 856 32, 138 1, 231 175, 567 5, 435 4, 690 120, 269	28, 600 2, 100 100, 480 387, 875 826, 164 563, 259 103, 106 11, 560 523, 520 442, 050 371, 840 74, 948 1, 509, 338	9, 405 26, 283 41, 187 3, 604 1, 084 20, 930	52, 740 10, 000 399, 660 144, 000 9, 000 18, 374 1, 570, 485 162, 160	2, 381 600 30, 918 7, 911 720 1, 060 40, 520 6, 081 9, 107	7, 310 1, 547, 027 10, 445 2, 654, 022 235, 284 14, 020 681, 450 65, 825	\$150 9, 832 255 24, 441 355 104, 283 7, 895 14, 850 2, 557 1, 425 69, 472	16, 543, 783 591, 276 1, 452, 984 12, 410, 400 5, 573, 623 879, 684 9, 385, 354 2, 368, 067 588, 901 591, 214 8, 344, 805 744, 025 154, 900 7, 572, 614	\$106, 106 30, 431 36, 918 16, 171 133, 635 28, 396 482, 403 68, 266 33, 942 23, 766 254, 141 32, 665 23, 598 259, 456
Other products  Total					2, 994, 117	<u>-</u>	7, 463, 531	236, 060		1, 589, 894

Note.—The quantity of oysters shown is the weight of the edible part. The total number of bushels represented is 1,192,115, of which North Carolina has 807,260, South Carolina 63,150, Georgia 224,355, and Florida 97,350.

Products of the fisheries of the Gulf States.

9-1-1-	Flor	ida.	. Alaba	ma.	
Species.	Pounds.	Value.	Pounds.	Value.	
Bream and sunfish	38, 088	\$966	19, 200	\$96	
Catfish			37,600	940	
Channel bass	457, 737	. 7,236	54, 464	2, 24	
Croaker	42, 923	650	98, 075	3, 23	
Grunts *	680, 725	22, 202	FOR PEE	12 00	
Mullet	13, 920, 962 300, 356	211, 161 26, 359	587, 555 17, 178	13, 09' 2, 57'	
Poinpano	543, 797	0 440	35, 114	1, 31	
Spannara	4, 220, 245	9, 449 124, 766	62, 375	2, 49	
Sheepshead Snappers Spanish mackerel	440, 993	21, 100	43, 966	2, 46	
Squeteague	002,403	13, 378	208, 750	10, 70	
Sponges	366, 772	438, 682		,	
SpongesOysters†	2, 597, 567	93, 692	3, 367, 490	107, 81	
Turtles	474,881	21,966			
All other products	2, 731, 053	112, 202	245, 201	7, 03	
Total	27, 418, 562	1, 103, 809	4, 776, 968	154, 87	
Species.	Mississ	sippi,	Louisia	ana.	
Especies.	Pounds.	Value.	Pounds.	Value.	
Bream and sunfish	00 100	\$3,609	270, 020	\$15, 685	
Buffalo-fish	89, 100 121, 700	1 217	1, 180, 250	22, 94	
Catfish.	93, 400	1, 794	2, 674, 007	54, 72	
Channel bass	93, 400 201, 300 57, 325 305, 400	1, 217 1, 794 8, 757	339, 316	11, 27	
Croakers	57, 325	1, 465	158, 267	9, 47	
Mullet	305, 400	3, 479	287, 750	8, 02	
Pompano	14,875	1,637	32, 450	4, 37	
Sheenshead	173, 200	7, 870	390, 817	25, 90	
Snappers Spanish mackerel			240, 500	7, 21	
Spanish mackerel	46, 500	3, 150	144, 000 655, 670	14, 66	
Squeteague	372, 100 5, 645, 346	17, 596 166, 672	E 001 00E	33, 02 299, 89	
Oŷsters f Shrimps	613, 500	12, 622	6 662 050	90, 51	
Tuntlag	010,000	12,022	6, 662, 050 90, 793	2, 33	
TurtlésAll other products	397, 655	15, 831	1, 772, 218	81, 22	
Total	8, 131, 401	245, 699	20, 789, 203	681, 284	
	. Texa	s.	Total.		
Species.	Pounds.	Value.	Pounds.	Value.	
Bream and sunfish	34, 700	\$1,526	451, 108	\$22. 74S	
Buffalo-fish	13, 800	690	1, 315, 750	\$22, 743 24, 84	
Catfish	45,000	2, 090	2, 850, 007	59, 55	
Channel bass	1, 107, 950	47, 905	1, 315, 750 2, 850, 007 2, 160, 767	77, 41	
Cronkers	175, 950	6, 730	532, 540	21, 55	
Frunts			532, 540 680, 725 15, 185, 117	22, 20	
Mullet	83, 450	. 2,770	15, 185, 117	238, 52	
Pompano	2, 000 778, 800	30, 871	366, 859 1 921 728	35, 55 75, 41	
heepshead	4, 800	240	1, 921, 728 4, 527, 920	134, 71	
mappole	95 000	1, 313	700, 459	42, 69	
	1, 120, 450	47, 864	2, 959, 433	122, 57	
Squetes oue	-,,		366, 772	438, 68	
Squeteague					
spanian mackerei queteague Sponges Oveters†	3, 085, 600	127, 990	20, 587, 098		
Sponges  Sponges  Shrimps	3, 085, 600 175, 800	5, 670	20, 587, 098 7, 451, 350	108, 81	
nappers panish mackerel Gueteague Sponges Oysters† Shrimps Turtles		5, 670 9, 345	20, 587, 098 7, 451, 350 1, 148, 674	108, 81 33, 64	
paniss mackerel Squeteague Sponges Dysters† Strimps Purtles All other products	3, 085, 600 175, 800 583, 000 723, 100 7, 959, 400	5, 670	20, 587, 098 7, 451, 350	796, 06 108, 81 33, 64 244, 52 2, 499, 49	

<sup>\*</sup> In all the States except Florida the catch of grunts has been included with the miscellaneous fish.
† The weight of oysters given in the table represents only the edible part. The equivalent number of bushels in the entire region is 2,941,014, divided as follows among the different States: Florida, 371,081; Alabama, 481,070; Mississippi, 806,478; Louisiana, 841,585; Texas, 440,800.

Products of	the	fisheries	of the	Pacific	States.
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	Ala	ska.	Washir	gton.	Oreg	gom.	Califo	rnia.	Tot	al.
Species.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bacracuda						[	654,227	\$21,504	654,227	\$21,504
God	2.259 635	\$55,562	794,000	\$26,725	26,304	\$1,315			5,354,504	
Floundare	2,200,000	400,002	184,560	3,191	10,000	400			4,235,117	
Helihut			1,903,500	36,560	10,000 18,870	1,787	180,930		2,103,300	
Harring	18.700.000	32,900	542,112		10,010	2,,			23,728,999	39,262
Mackerel	,,	02,000	012,	2.,			351,961		351,961	14,174
Perch			65,140	1.303			335,117		400,257	12,280
Rockfigh (Schastichthus)			163,000	4,515		4,255	1,850,186			
Rockfish (Sebastichthys) Salmon	43.199 600	2 212 593	21.684.411	541.548	24,044,151	779,922	4,759,816			
Sardines	20,200,	2,22,000	,,	011,010	,		752,994	15,237	752,994	15,237
Shad			87,350	2.703	125,000	3,750	526,494	14,372	738,844	20,825
Smelt				6.158			1,919,894	53,471	2,241,620	
Sturgeon			547,623	5.584	2,513,490	26,399	718,017	53,471 21,854	3,779,130	
Sturgeon				-,	_,,	,	358,954	13,865	358,954	
Octobus and sanid							374,622	36,191	374,622	
Octopus and squid Terrapins and frogs Crabs			13,125	5.250			36,875		50,000	
Crohe			79,000	3,550	4.125	165	2,862,320		2,945,445	106,615
Shrimp and prawn			2,000	500	-1		5,315,075		5,317,075	242,661
Clams and mussels			684,000	5,700	8,250				3,661,400	242,661 45,633
Oveters			1.139.803	147,995					2,407,468	
Oysters			-,200,000	,	,			9,071	404,637	
Fur seel and other nelts		109.793		121.528		46,526	=:= 00.	205,943		483,790
Whale, fish, and seal oil			37.500	1.750			1,578,758	62,295		64,045
Whalahana							198,865	944,609	198,865	
All other products			284,000	9,815			3,608,467	95,290		
Total	64,159,235	2,410,848	28,532,850	934,940	26,853,455	868,406	41,809,883	3,044,731	161,355,423	7,258,925

Note.—The numbers of bushels of oysters, clams, and mussels represented by the weights shown in the table are as follows: Oysters, 178,645 bushels in California, 2,450 bushels in Oregon, 162,829 bushels in Washington. Clams, 40,470 bushels in California, 825 bushels in Oregon, 11,400 bushels in Washington. Mussels, 10,000 bushels in California.

The number of skins of seals, sea otters, and other mammals, the value of which are given, are as follows: Fur seals, 14,710 in California, 2,945 in Oregon, 9,143 in Washington, 7,175 in Alaska. Sea otters, 235 in California, 20 in Oregon, 18 in Alaska. Hair seals and sea lions, 952 in California.

## Products of the fisheries of the Great Lakes.

Smaries	New Yo	ork.	Pennsyl	vania.		Ohio	),	Michig	gan	Ind	ana.
Species.	Pounds.	Value,	Pounds.	Value.	Poun	ds.	Value.	Pounds.	Value.	J'ounds.	Value.
Bass Herring Perch Pike and pike perch Sturgeon Trout. Whitefish Others.	2, 406, 098 407, 567 819, 519 2, 251, 416 80, 430 466, 621 1, 607, 521	6, 883	19, 990 ,012, 510 208, 540 ,402, 285 105, 750 82, 000 758, 019 275, 750 ,864, 844	5, 420 76, 436 3, 265 3, 280 36, 157 5, 089	203, 27, 888, 2, 483, 9, 442, 230, 1, 129, 3, 554, 44, 932,	653 247 291 493 582 619	\$11, 096 281, 878 22, 189 185, 061 8, 861 57, 278 52, 320 618, 683	97, 987 6, 393, 756 3, 029, 464 2, 689, 891 1, 480, 256 8, 542, 952 7, 725, 105 2, 012, 578 32, 871, 989	40, 380 86, 677 45, 073 309, 616 312, 411 47, 302	160, 408 106, 064 70, 716 154, 733 66, 901 75, 278	\$270 3, 266 3, 184 2, 780 7, 730 2, 951 1, 572 21, 693
	7112	nois.	1	Visconsi			Minne	unto 1		Total.	
Species.	Pounds.	Value		<del></del>	alue.	Po	unds.	Value.	Pound		alue.
Bass. Herring Perch Pike and pike perch Sturgeon Trout. Whitefish Others. Total	88, 875 511, 009 16, 480 71, 660 27, 835 107, 035	\$1,768 14,008	87, 798, 3, 798, 481, 194, 194, 3, 820, 2, 187, 1978,	696 220 137 118 648 178 1667 633	\$4,379 57,502 21,195	i	5, 329	\$102		086 349 028 110 759 441 335 414	\$25, 073 561, 703 113, 260 417, 038 148, 366 507, 950 518, 891 179, 487

The products classified.—In the following table the value of the fishing industry ni each State is shown for eight main branches into which the products may be naturally divided. These are (1) the general fisheries for food and bait fishes; (2) the menhaden fishery for oil and guano factories; (3) the fisheries for oysters, clams, scallops, squid, octopus, and other mollusks; (4) the crab, lobster, shrimp, and other crustacean fisheries; (5) the alligator, terrapin, turtle, and other reptilian fisheries; (6) the fisheries for whales, porpoises, and other cetaceans; (7) the seal and sea-otter fisheries, and (8) the sponge fishery.

Fishes proper, excluding menhaden, have a value of \$21,243,000, or nearly as much as the combined value of all other classes of products. Mollusks are worth over \$18,100,000. The products of the whale and porpoise fisheries have a value of about \$2,146,000. Closely following the cetaceans are the crustaceans, with a value of \$2,028,000. The menhaden fishery yields \$638,668, a sum representing the value of the fresh fish and not that of the manufactured products. The seal and the sea-otter fisheries, worth \$502,180, occupy the next position. The sponge fishery and the reptilian fisheries, which complete the list, have a valuation of \$438,682 and \$215,000, respectively.

The States which lead in the different branches are as follows: Massachusetts in the food and bait fisheries and in the whale fishery; Maryland in the molluscan fisheries; Maine in the crustacean fisheries; California in the seal and sea-otter fisheries; New York in the menhaden fisheries and Florida in the reptilian and sponge fisheries. The killing of an ordinary number of seals on the Pribilof Islands would place Alaska at the head of that group, but in the year covered by the figures the seal catch was reduced by law to about 7,500 skins.

Table showing by States and fisheries the value of the fisheries of the United St	Table showing by	States and fis	sheries the value of	the fisheries o	f the United State
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States.	General food-fish and bait fisheries.	Menha- den fish- ery.	Molluscan fisheries.	Crustacean fisheries.	Reptilian fisheries.	Whale fisheries.	Seal and sea-otter fisheries.	Sponge fishery.	Total.
Alabama Alaska California Connecticnt Delaware Florida Georgia Illinois Indiana Louisiana Maine Maryland* Massachusetts Michigan Minnesota Mississippi New Hampshire New Jersey New York North Carolina Ohio Oregon Pennsylvania Rhode Island South Carolina Texas Virginia Washington	2, 301, 055 887, 902 244, 925 163, 443 702, 090 66, 495 23, 836 21, 693 239, 449 1, 410, 428 765, 199 5, 848, 932 933, 055 6, 238 64, 368 773, 364 1, 153, 189 806, 560 615, 609 817, 828 393, 303 283, 926 150, 690 164, 200 812, 870 649, 817	\$28, 622 	782, 627 1, 476, 435 75, 910 109, 649 40, 820 299, 896 165, 487 5, 304, 092 343, 171 166, 672 2, 142, 444 3, 570, 211 188, 457 3, 887 101, 850 359, 216 23, 204 127, 990 2, 556, 098	116, 911 649, 891 308, 371 206, 338 14, 659 13, 142 61, 639 26, 694 6, 620	8, 050 3, 431 86, 706 9, 107 25, 028 22, 564 1, 000 1, 047 5, 714 3, 074 8, 376 10, 877		205, 943 18, 390	\$438,682	681, 284 2, 225, 806 6, 460, 759 7, 531, 104 934, 005 6, 238 245, 609 91, 481 3, 625, 800 5, 041, 259 1, 027, 609 618, 683 868, 406 495, 153 725, 675
Total		638, 668	18, 100, 598	2, 028, 282	215, 316	2, 146, 136	502, 180	438, 682	45, 312, 818

<sup>\*</sup>Includes District of Columbia.

Rank and value of principal fishery products.—The principal fisheries have in the following table been arranged in four groups based on the value of the catch. Sixty fisheries or special products have an annual valuation of over \$35,000. Nine of these are worth more than \$1,000,000; 9 between \$500,000 and \$1,000,000; 25 between \$100,000 and \$500,000, and 17 between \$35,000 and \$100,000.

The 9 fisheries which yield over \$1,000,000 represent nearly three-fourths of the total output of the United States fisheries. They include 4 fisheries prosecuted on both the Atlantic and Pacific coasts, 4 that are peculiar to the Atlantic seaboard, and 1 that is confined to the west coast. The chief among them, the oyster, is worth over \$16,000,000, or more than one-third the value of the entire industry. The Pacific salmon fishery ranks second; it is worth about \$3,700,000. The Atlantic cod fishery and the whale fishery have a valuation of over \$2,000,000. The other fisheries in this group are the shad, clam, mackerel, lobster, and haddock.

The leading product in the second class is the halibut, valued at about \$874,000. Five other products included in this group are marine or coast animals, viz, squeteague, menhaden, bluefish, alewives, and crabs, and the remaining three belong in the Great Lakes, viz, the herring or cisco, the whitefish, and the lake trout.

Of the 25 products having a value between \$100,000 and \$500,000, the sponges head the list. In this division are found such well known fisheries as the fur-seal, shrimp, mullet, hake, sea bass, herring, sturgeon, striped bass, eel, scup, snapper, Spanish mackerel, smelt, sheepshead, channel bass, pike perch, scallop, etc.

The fourth group embraces most of the remaining fisheries of general or local importance. Among the fisheries now having a valuation of less than \$100,000 and more than \$35,000 are the herring, rockfish, smelt, and sea-otter fisheries of the Pacific coast; and the pollock, swordfish, tautog, pike, and black bass fisheries of the east coast.

Table showing rank and value of the 60 most important fisheries or special products of the United States.

Rank.	Fisheries.	Value.	Rank.	Fisheries.	Value.
	I. Over \$1,000,000.			III. From \$100,000 to \$500,000—Con-	
1	Oyster	\$16, 152, 257		tinued.	
2	Pacific salmon	3, 710, 250	30	Flatfish	\$249, 095
3	Atlantic cod	2, 856, 225	31	Scup	205, 421
4	Whale	2, 141, 738	32	Atlantic yellow and white perch*	197, 863
5	Shad	1, 879, 688	33	Catfish	178, 758
6	Clam	1, 690, 536	34	Scallop	172, 983
7	Mackerel	1, 102, 651	35	Red snapper	147, 744
8	Lobster	1, 050, 677	36	Pacific cod	140, 466
9	Haddock	1, 045, 814	37	Cusk	136, 215
	_		38	Spanish mackerel	129, 259
	II. From \$500,000 to \$1,000,000.	i	39	Spot and croaker	128, 852
			40	Atlantic smelt	122, 115
10	Halibut	873, 910	41	Yellow perch (Great Lakes)	113, 260
11	Squeteague	708, 830	42	Sheepshead	101, 925
12	Menhaden	693, 808	43	Channel bass or redfish	100, 386
13	Bluefish	637, 305		*** **	
14	Crab	572, 147		IV. From \$35,000 to \$100,000.	
15	Lake herring	561, 703		70 10 1 1	99, 262
16	Alewife	554, 740	44	Pacific herring	90, 109
17	Lake whitefish	518, 891	45	Pollock	77, 010
18	Lake trout	507, 950	46	Terrapin	76, 243
	FFF 11 \$100.000 + \$500.000	ì	48	Sunfish	72, 139
	III. From \$100,000 to \$500,000.		48	Alga	69, 231
10	Sponge	438, 682	50	Pacific rockfish	61, 310
19 20	Pike perch and pike (Great Lakes)*	417, 038	51	Pacific smelt	59, 629
20	Fur-seal	396, 627	52	Swordfish	56, 525
$\frac{21}{22}$	Shrimp and prawn		53	Butterfish	50, 765
22	Mullet	387, 916	54		47, 900
24	Hake	367, 636	55	Tautog Pompano	47, 631
25	Sea bass	356, 803	56	Turtle	47, 475
26	Atlantic herring	329, 298	57	Atlantic pike	43, 328
27	Sturgeon	271, 328	58	Octopus and squid	40, 691
28	Striped bass or rockfish	259, 474	59	Black bass	38 949
29	Eel	255, 801	60	Sea-otter.	38, 370
20.	AND	200,001	00	Cole Oppol	,

<sup>\*</sup> Species can not be satisfactorily separated.

Statistics of special important products.—To facilitate the comprehension of the extent of some of the principal fisheries prosecuted in the coast States, the following tables, based on preceding ones, are presented. They relate to the catch of oysters, whales, lobsters, crabs, clams, shad, alewives, bluefish, and squeteague.

The oyster, the foremost water product in the United States, is the object of a commercial fishery in every coast State except Maine and New Hampshire. In 12 States—viz, Alabama, Connecticut, Delaware, Georgia, Louisiana, Maryland, Mississippi, New Jersey, New York, Rhode Island, Texas, and Virginia—it is the most valuable fishery product taken. In each of 5 States—Connecticut, Maryland, New Jersey, New York, and Virginia—its annual value is over \$1,000,000. The output of the entire country is about 28,000,000 bushels, whose value to the fishermen is \$16,152,000. No other object of our fisheries has received so much attention as the oyster and is so generally cultivated by private individuals. Statistics of the oyster catch in each State are shown in the following table:

States.	Bushels.	Value.
Alabama California Connecticut Delaware Florida Georgia Louisiana Maryland Massachusetts Mississippi New Jersey New York North Carolina Oregon Pennsylvania Rhode Island South Carolina Texas Virginia Washington	178, 645 1, 950, 174 175, 332 468, 431 224, 355 841, 585 9, 945, 058 52, 608 806, 478 2, 611, 062 907, 260 2, 450 132, 380 158, 081 63, 150 440, 800 6, 151, 636	\$107, 812 698, 257 1, 426, 249 73, 863 108, 542 40, 520 299, 896 5, 295, 866 70, 240 160, 672 1, 760, 603 2, 744, 509 175, 567 3, 062 101, 850 255, 492 23, 204 127, 990 2, 520, 068 147, 996
Total	28, 263, 847	16, 152, 257

The oyster output of the United States.

The pursuit of whales and porpoises is a commercial enterprise in 5 States, but is comparatively unimportant in 3 of them. It is only in Massachusetts and California that whaling is a conspicuous feature of the fisheries. The table shows that the California whale fishery yielded a return of \$1,006,662 and that of Massachusetts \$1,132,753. While a large part of the Massachusetts whaling fleet make their head-quarters at San Francisco and cruise in the Pacific Ocean, the catch of the vessels has been credited to Massachusetts, the California figures representing only the yield of the vessels owned in that State.

Statistics of the products	of	the whate J	usnery c	IJ	the	Unitea	States.
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	Whale	ebone.	0	il.	Ambo	rgris.	Porp	oises.
States.	Pounds.	Value.	Gallons.	Value.	Pounds.	Value.	No.	Value.
California	149,838	\$944, 609 400 748, 825	205, 693 3, 150 656, 298	\$62, 053 1, 323 378, 650	2032	\$5, 278	1,747	\$4,398
Washington			865, 147	* 600 442, 626	20 <sub>3</sub> g	5, 278	1, 747	4, 398

<sup>\*</sup>Value of whales used by Indians for food.

In the 8 States of the Atlantic seaboard north of Maryland lobster fishing is carried on. The abundance of that crustacean increases from south to north, and the most southern and most northern States in which it is sought have, respectively, the minimum and maximum output. The catch in Maine, amounting to over 17,000,000 pounds, worth \$650,000, is more important than any other product of the fisheries, and in Connecticut, where the yield is 1,615,000 pounds, valued at \$101,000, it is surpassed only by the oyster. The aggregate product is 23,301,149 pounds, with a value of \$1,041,677, divided as follows among the different States:

States.	Pounds.	Value.
Connecticut Delaware Maine Massachusetts New Hampshire New Jersey New York Rhode Island	1, 614, 530 8, 200 17, 198, 002 3, 177, 295 220, 024 143, 905 165, 093 774, 100	\$101, 318 410 649, 891 205, 638 13, 142 10, 861 15, 655 53, 762
Total	23, 301, 149	1, 050, 677

Output of the lobster fishery of the United States.

Several species of crabs are of commercial value in 15 States of the Atlantic, Gulf, and Pacific regions. They are actually and relatively most important in Maryland, where the reported yield is over 7,600,000 pounds, valued at \$303,700. Crabs there rank next to oysters in value. Other States having a crab fishery of considerable magnitude are California, Virginia, New Jersey, and Delaware, in which the yield is between 1,000,000 and 3,000,000 pounds, as the following table indicates:

The orab o	atch of	the U	nited	States.
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States.	Pounds.	Value.
California Delaware Florida Georgia Louisiana Maryland Mississippi New Jersey	2, 862, 320 1, 164, 675 4, 100 47, 866 980, 700 7, 605, 770 47, 160 2, 599, 413	\$102, 900 7, 796 185 1, 060 19, 362 303, 716 2, 037 50, 278
New York	529, 066 47, 400 4, 125 93, 260 190, 800 2, 890, 427	11, 039 1, 185 165 1, 740 5, 095 62, 039
Total	79, 000 19, 146, 082	3, 550 572, 147

Clams of several kinds exist as economic objects in 16 States. They are especially prominent in the fisheries of Maine, Massachusetts, New York, and New Jersey, in which the aggregate output is 1,860,000 bushels, valued at \$1,487,000, the production in the entire country being 2,129,373 bushels, worth \$1,690,536. The yield in each State is as follows:

Statistics of the products of the clam fishery of the United States.

States.	Bushels.	Value.
California Connecticut Dolaware Florida Georgia Maine Maryland Massachusetts New Hampshire New Jersey New York North Carolina Oregon Rhode Island Virginia Washington	40, 470 40, 800 2, 670 1, 433 500 454, 501 18, 470 245, 291 1, 050 443, 869 716, 115 28, 269 825 53, 800 69, 910 11, 400	\$27, 108 43, 656 2, 047 1, 097 300 156, 033 8, 226 192, 724 975 381, 841- 756, 512 12, 090- 825 65, 372 36, 030 5, 700
Total	2, 129, 373	1, 690, 536

The shad is the most valuable anadromous fish of the Atlantic coast and one of the most generally distributed food species. As shown by the following table, it is the object of commercial fishing in all coast States except New Hampshire and those bordering on the Gulf of Mexico. Even in the gulf region it occurs sparingly in several States, where it has been artificially introduced, but it does not exist there in sufficient abundance to constitute an economic commodity. In Pennsylvania, North Carolina, and South Carolina it is the principal product of the fisheries, and in New Jersey, Delaware, Virginia, and Georgia it is surpassed only by the oyster. The fishery is most extensive in New Jersey, where the accredited catch is about 8,747,000 pounds, valued at \$582,000. Two of the best shad rivers in the country mark the boundaries of this State, and in them and their estuaries extensive fishing is carried on, Virginia, Maryland, North Carolina, New York, Florida, Pennsylvania, and Delaware follow New Jersey in the order named as regards the quantity of the catch, the output ranging from 1,110,000 pounds in Delaware to 6,498,000 pounds in Virginia. The value of the yield, however, is greater in North Carolina than in any other State save New Jersey, the rank of the other States in this respect being Maryland. Virginia, New York, Pennsylvania, Florida, and Delaware.

The shad catch of the United States.

States.	Pounds.	Value.
California Connecticut Delaware Florida Georgia Maine Maryland	526, 494 105, 109 1, 110, 369 2, 654, 022 399, 660 815, 620 6, 224, 873	\$14, 372 8, 988 60, 255 104, 283 30, 918 28, 121 211, 575
Massachusetts. New Jersey New York North Carolina Oregon Ponnsylvania. Rhode Island	140, 260 8, 746, 518 3, 044, 956 5, 768, 418 125, 000 1, 996, 482 24, 350	5, 721 582, 221 161, 209 306, 015 3, 750 110, 200
South Carolina Virginia Washington Total	563, 259 6, 498, 242 87, 350 38, 830, 977	41, 187 207, 394 2, 703 1, 879, 688

Similar to the shad in distribution are the alewives, or river herrings. They are taken in largest quantities in Maryland, Virginia, and North Carolina, in which States the catch is, respectively, about as follows: Maryland, 17,418,000; Virginia, 11,000,000, and North Carolina, 16,481,000. They are also of considerable economic importance in Massachusetts, New York, New Jersey, and Pennsylvania, in each of which the output is about 2,000,000 pounds or over. The quantity and value of the yield in each State is as follows:

States.	Pounds.	Value.
Connecticut	679, 120	\$3, 808
Delaware	848, 890	11,585
Florida		150
Georgia	24,000	580
Maine		19, 104
Maryland		131, 245
Massachusetts	3, 326, 445	60,056
New Hampshire	41,500	770
New Jersey	1, 978, 055	14, 286
New York	2, 194, 560	23, 526
North Carolina		164, 636
Pennsylvania	2,059,015	12, 144
Pennsylvania Rhode Island*	967, 930	18, 291
South Carolina	28,600	740
Virginia		93, 819
Total	59, 176, 183	554, 740

The alewife catch of the United States.

The catch of weakfish and of spotted squeteague has, in the following table, been combined. The aggregate yield is 22,340,000 pounds, having a first value of \$708,830. The fish are obtained in 16 States, and in some of them occupy a prominent position in the list of fishery products. More than one third the catch in the entire country is taken in New Jersey, where the weakfish ranks next to the shad in importance. In Virginia, New York, North Carolina, and Texas the yield is very large.

States.	Pounds.	Value.
Alabama		\$10,706 11,290
Connecticut Delaware Florida	837, 510	16, 364 21, 273
GeorgiaLouisiana	144, 000	7, 911 33, 026
Maryland	750, 465	25, 902 7, 200
Mississippi New Jersey	7,540,196	17, 596 208, 051
New York North Carolina Rhode Island	1, 885, 677	94, 543 48, 856 29, 753
South Carolina Texas		3, 604 47, 864
Virginia	3, 938, 019	124, 891
Total	22, 340, 433	708, 830

The bluefish is one of the most generally distributed, best known, and important fishes found on the east coast of the United States. The following table shows a catch of nearly 16,000,000 pounds, with a value to the fishermen of \$637,000. About two-thirds of the output is taken in New York and New Jersey; in the former State the bluefish is more important than any other fish, and is surpassed in value only by the

oyster and clam. Virginia and North Carolina have a relatively large catch of this fish, the quantity taken in each being between one and two million pounds.

States.	Pounds.	Value.		
Alabama	55, 760	\$1, 213		
Connecticut	640, 450	32, 022		
Florida	7,310	255		
Louisiana		843		
Maryland		22, 761		
Massachusetts	415, 560	31, 167		
Mississippi	95, 900	4, 595		
New Jersey	4, 765, 873	178, 691		
New York	5, 506, 575	237, 010		
North Carolina		33, 603		
Rhode Island	247, 100	14, 356		
South Carolina		3,060		
Texas		1, 327		
Virginia	1, 802, 674	66, 004		

The bluefish catch of the United States.

The catch by different forms of apparatus.—In the accompanying table the quantity and value of the products resulting from the use of the different kinds of apparatus are shown for each State, the catch with each of the following forms being separately given, viz, (1) purse seines; (2) haul and other seines; (3) gill nets and trammel nets; (4) pound nets, trap nets, and weirs; (5) fyke nets and pots; (6) lines; and (7) dredges, tongs, and rakes.

Excluding the oysters, clams, and other mollusks, taken with dredges, tongs, etc., the value of which, \$18,269,465, is much greater than the yield of any other class of appliances, it appears that lines are the most important form of apparatus employed in the capture of fish proper. While the quantity of fish thus obtained is less than with purse seines, the value of the catch is much greater, being about \$7,220,000. Gill nets and trammel nets rank second in value of yield, which is about \$4,888,000. Haul seines take products worth nearly as much as those obtained with gill nets, viz, \$4,061,000. Pound nets, trap nets, and weirs have an output valued at \$3,412,000. Fyke nets and the closely related pots rank next in the value of the catch, which is worth about \$1,504,000. Closely following are purse seines, whose yield is valued at \$1,409,000.

The States in which the purse seine is most valuable as a productive agent are Massachusetts, where it is employed in the capture of mackerel, and New York, where the fishery is for menhaden. The haul seine is far more important in Alaska than elsewhere, salmon being the principal object of fishery. The State holding the next position as regards the extent of its haul-seine fishery is North Carolina, where large quantities of shad and alewives are thus taken. The gill net is also more productive in the salmon fishery of Alaska than elsewhere, and is next important in the shad fishery of New Jersey. The use of the pound-net type of apparatus is most important in Virginia and Michigan. Maine and Massachusetts lead in the value of their combined fyke and pot fisheries, the lobster constituting the principal object taken. The value of the fyke catch alone is greatest in New York. The results of line fishing are far greater in Massachusetts than in all other States taken together; lines, in this State, are more prominent than any other form of apparatus in any other State except dredges and tongs in the oyster fishery of Maryland. Maine follows Massachusetts in the value of its line fishing.

Table showing by States the quantity and value of the products taken with each principal form of apparatus.

States.	Purse	seines.	Haul and o	ther seines.	Gill nets and tr	ammel net	
Statos.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	
Alabama			770, 053	\$24, 190	510, 300	\$18, 762	
A 1 1	200 000	\$34,650		1, 301, 010	16, 174, 320 9, 220, 198 727, 496 2, 697, 624 15, 197, 223 608, 662	772, 921	
California	357, 622	35, 762	*16, 683, 006	476, 807	9, 220, 198	772, 921 274, 950	
Connecticut	10, 222, 300	29, 219	221, 051 1, 671, 633	8,004	727, 498	11, 217	
Delaware			1, 671, 633	44, 918	2, 697, 624	102, 936	
Florida			8, 390, 444	204, 490	15, 197, 223	278, 185	
Alaska California Connecticut Delaware Florida Georgia Illinois Indiana	1		8, 390, 444 67, 230	10, 363	608, 662	37, 063	
Illinois	[		34, 365	856	220, 645	7, 268	
Indiana					220, 645 314, 447	10, 421	
			10, 200, 553	240, 663	1		
Maine Maryland Massachusetts Michigan	1, 630, 230	110, 661	4, 656, 345 14, 320, 173	83, 983	9, 167, 537	142, 540 217, 088	
Maryland	28, 816, 000	60, 533	14, 320, 173	266, 609	8, 571, 287	217, 088	
Massachusetts	9, 012, 280	559, 742	4, 053, 640	55, 020	4, 542, 305	142, 605	
Michigan			848, 735	19,678	12, 085, 678	409, 943	
Minnesota Mississippi					150, 465	5, 261	
Mississippi			2, 231, 205	68, 726	220, 750	นายค	
New Hampshire New Jersey New York North Carolina	42, 000 8, 571, 960	3, 705 27, 609	16 000	430	220, 750 146, 000	1, 680 572, 960 370, 105 252, 249 193, 523	
New Jersey	8, 571, 960	27, 609	8, 266, 067	165, 234	9, 083, 366	572, 960	
New York	99, 057, 590	288, 123	8, 266, 067 4, 245, 731 18, 171, 082	165, 234 161, 710 411, 346	9, 083, 366 9, 924, 736	370, 105	
North Carolina	12, 209, 400	15, 920	18, 171, 082	411, 346	6,354,178	252, 249	
Unio			600,700	15, 525	13, 539, 618	193, 523	
Oregon			1, 558, 362	46, 119	5, 004, 295	124, 95€	
Oregon			3, 104, 38 <b>6</b> 669, 760	82, 913	12, 713, 135	226, 105	
Rhode Island	5, 342, 100	28, 916	669, 760	17, 170	233, 160	13, 141	
South Carolina		. <b></b>	702 858	29, 370	793, 730	42, 474	
Texas		. <b></b>	3, 784, 100	157, 422			
Texas Virginia	100, 695, 700	186, 348	4, 159, 252	157, 422 97, 493	4, 887, 014	124, 463	
wasnington	2, 822, 191	27, 603	3, 784, 100 4, 159, 252 3, 261, 352	62, 631	9, 143, 086	274, 638	
Wisconsin			400, 873	8,800	7, 513, 323	274, 638 241, 185	
Total	279, 439, 473	1, 408, 791	155, 549, 951	4, 061, 480	159, 744, 578	4, 877, 824	
States.	Pound nets, and w				Line	ies.	
Station.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	
<u> </u>			ļ				
Alabama					88, 625 2, 259, 635 5, 606, 402	\$3, 095 55, 562 167, 929 146, 315	
Alaska	2, 604, 280	\$136,912			2, 259, 635	55, 562	
California Connecticut			490, 721	\$13, 658	5, 606, 402	167, 929	
Connecticut	3, 260, 886	32, 249	2, 119, 390	124, 953	3, 630, 835	146, 315	
Delaware	444, 919	1, 129	153, 675	7, 207	52, 760 6, 683, 916	2, 625	
Florida	86, 715 41, 695	1, 365			6, 683, 916	2, 625 211, 793	
Georgia	41,695	1, 285	20, 190	898	401, 138	18, 947	
Illinois	41, 120 250, 711	1, 369 7, 983	• • • • • • • • • • • • • • • • • • • •		350, 843	10.562	
Indiana	250, 711	7, 983			59, 469	2,608	
Louisiána					3, 315, 176	81, 807	
Maine	33, 788, 072	260, 371	17, 392, 502 1, 943, 659	658, 209	33, 824, 339	712, 980	
Maryland	8, 877, 660	165, 559	1, 943, 659	658, 209 77, 649 226, 375	3, 315, 176 33, 824, 339 3, 566, 034 149, 352, 736 918, 305	70, 303 4, 462, 998 29, 714	
Massachusetts	15, 734, 800	409, 789	3, 571, 400	226, 375	149, 352, 736	4, 462, 998	
Michigan	17, 129, 997	432, 802	1, 605, 474	31, 271	918, 305	29, 714	
Minnesota	10, 520	298		[	22.437	679	
Mississinni				<i>.</i>	19, 400 3, 444, 750	826	
New Hampshire	40, 100	852	220, 024	13, 142	3, 444, 750	68, 160	
New Jersey	10, 864, 669	195, 660 181, 138	913, 370	46, 893	10, 977, 643	419, 432	
New York	11, 294, 204	181, 138	4, 412, 219	146, 829	6, 896, 862	271, 694	
	8, 288, 562	123, 966 1	178, 300	9, 938	443, 775	14, 548	
	07 500 045	345, 142	913, 370 4, 412, 219 178, 300 2, 394, 945	40, 373	814, 800	21,620	
Ohio	21, 362, 043				2, 534, 496 1	32, 869 46, 399	
Ohio	4, 932, 895	152, 263			1 001 000	48, 300	
Ohio Oregon Pennsylvania	4, 932, 895 1, 214, 849	152, 263 1 28, 008 1	158, 860	7, 152	1,031,883 1		
Ohio Oregon Pennsylvania Rhode Island	10, 864, 669 11, 294, 204 8, 288, 562 27, 582, 045 4, 932, 895 1, 214, 849 11, 159, 010	345, 142 152, 263 28, 008 199, 100	158, 860 902, 015	7, 152 59, 887	980, 105	40.483	
Ohio Oregon Pennsylvania Rhode Island South Carolina	4, 932, 895 1, 214, 849 11, 159, 010	152, 263 28, 008 199, 100		7, 152 59, 887	1,031,883 980,105 2,541,303	40, 483 81, 225	
Ohio Oregon Pennsylvania Rhode Island South Carolina	11, 100, 010	199, 100	902, 015	7, 152 59, 887	2, 541, 303	40, 483 81, 225	
Ohio Oregon Pennsylvania Rhode Island South Carolina	24, 033, 367	199, 100	902, 015	59, 887	2, 541, 303 202, 400	40, 483 81, 225 8, 595	
North Carolina Obio Oregon Pennsylvania Rhode Island South Carolina Texas Virginia Washington	24, 033, 367 6, 081, 967	476, 294 154, 101		59, 887 13, 408	2, 541, 303 202, 400 5, 563, 129	40, 483 81, 225 8, 595 136, 539	
Ohio	11, 100, 010	476, 294	902, 015	59, 887	2, 541, 303 202, 400	40, 483 81, 225 8, 595	

<sup>\*</sup>Includes the catch with bag nets.

Table showing the quantity and value of products taken with each principal form of apparatus—Continued.

States.	Dredges, to		All other a	All other apparatus. Total.		All other apparatus.		
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.		
AlabamaAlaska	3, 367, 490	\$107, 812	40, 500	\$1,012 109,793	4, 776, 968 64, 159, 235	\$154, 871 2, 410, 848		
California	4, 219, 665 25, 426, 518	737, 365 1, 476, 435	5, 232, 269 15, 849, 745	1, 338, 260 43, 021	41, 809, 833 61, 458, 221	3, 044, 731 1, 871, 413		
Delaware	1, 248, 684 3, 291, 947	75, 910 109, 639	925, 513 1, 231, 848	16, 140 534, 397	7, 194, 808 34, 882, 093	250, 865 1, 339, 869		
Georgia	1, 574, 485	40, 820	280,717	14, 187	2,994,117	123, 563		
Illinois			175, 421 14, 866	3, 781 681	822, 394 639, 493	23, 836 21, 693		
Louisiana		299, 896 165, 487	1, 382, 379 16, 580, 040	58, 918 91, 575	20, 789, 203 121, 700, 200	681, 284 2, 225 806		
Maryland	72, 869, 251	5, 498, 770 338, 671	2, 213, 763	104, 248	141, 177, 827 301, 349, 331	6, 460, 759		
Massachusetts Michigan	' <b></b>	338, 071	111,702,855 283,800	1, 335, 994 10, 597	32, 871, 989	7, 531, 194 934, 005		
Minnesota	5, 645, 346	166, 672	14, 500	290	183, 422 8, 131, 201	6, 238 245, 699		
New Hampshire New Jersey	10, 500 21, 961, 496	975 <b>2, 146, 81</b> 9	37, 450 608, 020	2,537 51,283	3, 956, 824 71, 246, 591	91, 481 3, <b>6</b> 25, 890		
New York	41, 407, 596	3, 570, 211	1,018,841	51, 449	178, 257, 879	5, 041, 259		
North Carolina Ohio		188, 457	258, 873	11, 245 2, 500	51, 799, 142 44, 932, 108	1,027,669 618,683		
Oregon Pennsylvania	25, 400 926, 660	3, 887 101, 850	12, 798, 007 39, 579	505, 492 2, 726	26, 853, 455 19, 189, 352	868, 406 495, 153		
Rhode Island	1, 976, 035 442, 050	359, 216 23, 204	172, 480 464, 904	7, 762 26, 329	21, 434, 665 4, 944, 840	725, 675 202, 602		
South Carolina Texas	3, 085, 600	127, 990	887, 300	19, 825	7, 959, 400	313, 832		
Virginia Washington	44, 011, 368 1, 823, 803	2, 575, 684 153, 695	269, 066 2, 085, 951	31, 053 180, 957	183, 952, 557 28, 532, 850	3, 641, 282 934, 940		
Wisconsin			43, 748	2, 187	13, 474, 583	399, 272		
Total	253, 140, 411	18, 269, 465	174, 612, 485	4, 558, 239	1, 501, 474, 631	45, 312, 818		

Shore fishery industries.—Among the most important industries directly connected with the fisheries are sardine canning, the manufacture of menhaden oil and guano, salmon canning, oyster packing and canning, and the canning of various other fishery products, as mackerel, clams, turtles, and shrimp. These give employment to over 30,000 people; represent an investment of over \$14,000,000; utilize 530,000,000 pounds of raw materials, for which \$10,458,000 is paid; and produce manufactured articles having a value of \$20,548,000. The canning of sardines and the canning of mackerel and clams are usually done by the same firms, so that it is not feasible to present separate figures for each of these branches. Lobsters are also canned principally at sardine factories, but owing to the importance of this industry, an effort has been made to represent it separately as regards the employés and investment. The packing and canning of oysters constitute the most important of the industries exhibited in the table, after which come salmon canning, sardine canning, and the manufacture of oil and fertilizer from menhaden.

Table showing the extent of some of the principal shore fishery-industries of the United States.

Industries.	Number	Number	Value of	Cash	Raw produ	Value of	
	of estab- lishments.	of shore employés.	plants.	capital.	Pounds.	Value.	products prepared.
Sardine, mackerel, and clam canning Lobster canning Menhaden. Oyster packing and canning. Salmon canning. Shrimp canning. Turtle canning.	11 50 301 93	4, 754 307 1, 481 17, 733 5, 374 430 10	\$358, 200 24, 200 900, 300 3, 247, 866 2, 086, 947 35, 500 7, 000	\$508, 100 38, 500 743, 000 2, 835, 300 3, 413, 350 41, 000 6, 000	46, 548, 595 5, 326, 322 288, 764, 767 99, 177, 680 89, 035, 455 1, 653, 246 243, 000	\$231, 529 78, 720 650, 802 6, 763, 160 2, 684, 107 44, 999 4, 455	\$2, 232, 736 197, 574 1, 142, 998 10, 145, 827 6, 706, 774 109, 304 12, 900
Total	519	30, 039	6, 660, 013	7, 585, 250	530, 749, 065	10, 457, 772	20, 548, 113

UNITED STATES FISHERIES COMPARED WITH THOSE OF OTHER COUNTRIES.

As a matter of general interest, the following comparison between the fisheries of the United States and those of other countries is presented. The figures for the foreign countries are the most authentic and recent ones available, have been obtained largely from the latest official records, and represent the value of the products taken. Unfortunately, it is not possible to exhibit figures for a number of countries having commercial fisheries, owing to the fact that there are no published reports available relating to the subject; among these are China, India, Germany, Austria, Denmark, Belgium, Turkey, Greece, Mexico, and Australia.

The prominent position occupied by the United States in the matter of fisheries will doubtless occasion some surprise. It is far in advance of any other country, surpassing Great Britain, the next important country, by over \$10.000,000.

The table shows the value of the fisheries of most of the principal countries of the world. As a matter of additional interest, columns are inserted showing the population of each and the average amount of money resulting from the fisheries for each inhabitant. A comparison of this kind would be much more valuable if it could include other items besides the value of the catch, as, for example, the number of persons employed, the number of vessels and boats engaged, the quantity of apparatus used, and the amount of capital invested; but such information is at hand for only a few countries. It appears that in proportion to the population Newfoundland has more important fisheries than any other country; the average value of the catch per inhabitant is \$33.82, while in the United States it is only 70 cents. Other countries having a greater relative catch than the United States in proportion to population are Great Britain, Norway, and Portugal.

Countries.	Approximate population.	Approximate value of fisheries.	Average value of catch per inhabitant.
United States. Great Britain Japan Russia. France. Canada Norway Newfoundland Portugal Spain Holland Sweden Italy	35, 300, 000 40, 072, 000 87, 850, 490 38, 343, 240 4, 833, 500 1, 999, 200 197, 500 4, 306, 550 17, 266, 100 4, 564, 600	\$45, 223, 000 32, 000, 000 26, 000, 000 22, 000, 000 21, 256, 300 18, 977, 900 8, 000, 000 6, 679, 600 3, 400, 000 2, 255, 000 2, 225, 000 2, 300, 000 1, 216, 000	\$0, 70 .91 .65 .25 .55 3, 93 4, 00 33, 82 .79 .14 .49 .50

### COMPARISONS WITH 1880.

Perhaps the most valuable purpose which statistics subserve is the opportunity they afford for making comparisons from time to time between the present and past condition of an industry. In the case of the fisheries this comparison must determine the necessity for legal restriction of certain fisheries, the desirability of undertaking artificial propagation, and the results of restriction and cultivation, besides indicating the actual and relative extent of the industry.

It is not the purpose to discuss all the details of comparison between the present status of the fishing industry and its condition in 1880, but simply to direct attention to the general features of the variations that have occurred and to notice certain specially striking changes in the condition of our fisheries.

Considering the persons employed in various capacities in the fishing industry, the statistics show an increase over 1880 amounting to about 51,000 persons. The principal increase, aggregating 30,832 persons, occurred in the Middle Atlantic States, although all the other geographical sections, except New England and the Pacific coast, show a substantial gain. The decrease in New England is only 18 persons, and that in the Pacific States is also insignificant, being only 32.

The amount of capital invested in the fishing industry is at present much larger than in 1880, the increase amounting to about \$20,285,000. This is due largely to the employment of improved types of vessels, the use of greater quantities of the most modern and expensive forms of apparatus, and the building of new factories, canneries, and other shore establishments directly connected with the fisheries. A larger investment is to be observed in every region, except the New England States, where there has been a diminution amounting to about \$78,000. In the Middle Atlantic region the increased investment is \$6,720,000, while in the Pacific States, with a relatively small investment, the augmentation in the capital devoted to the industry is \$6,125,000.

Comparing the present value of the products of the United States fisheries with their value in 1880, an advance is to be noted, which, while not relatively so large as the increase in the fishing population and the invested capital, is, perhaps, not discouraging, in view of the recent scarcity of three of the most important objects of fishery in 1880, viz, mackerel, fur seals, and whales. The increased value of the yield amounts to about \$6,630,000. The fisheries of New England have decreased in value to the extent of \$64,000, while every other region presents an increase, varying from \$333,000 in the South Atlantic States to \$2,687,000 in the Middle Atlantic States.

The following table shows the extent of the fisheries of the United States in 1880 and at the present time, together with the number of persons employed, the amount of capital invested, and the value of the catch in each State and each geographical region:

	Persons employed.		Capital	invested.	Value of products.	
States.	1880.	1892. *	1880.	1892.	1880.	1892.
New England:						
Maine	11, 071	15, 128	\$3, 375, 994	\$2, 882, 113	\$2,742,571	\$2, 225, 806
New Hampshire	414	373	209, 465	93, 328	176, 684	91, 481
Massachusetts	20, 117	17, 025	14, 334, 450	12, 980, 679	7, 959, 760 696, 814	7, 531, 194 725, 675
Rhode Island	2,310	1,584	596, 678	1,034,467	933, 242	1, 871, 413
Connecticut	3, 131	2, 915	1, 421, 020	2, 868, 921	900, 242	1, 6/1, 410
Total	37, 043	37, 025	19, 937, 607	19, 859, 508	12, 509, 071	12, 445, 569
Middle Atlantic:			-			
New York	6, 344	12, 246	2, 573, 535	5, 282, 970	3, 763, 537	4, 784, 753
New Jersey	6, 220	10, 433	1, 492, 202	2,517,764	3, 103, 927	3, 625, 890
Pennsylvania	438	2, 220	94, 801	976, 011	276, 600	284, 031
Delaware	1,979	2, 247	268, 231	218, 129	997, 695	250, 865
Maryland	26, 008	39, 944	6, 342, 443	7, 465, 718	5, 221, 715	6, 460, 759
Virginia	18, 864	23, 595	1, 914, 119	2, 944, 559	2, 997, 043	3, 641, 282
Total	59, 853	90, 685	12, 685, 331	19, 405, 151	16, 360, 517	19, 047, 580
South Atlantic:						
North Carolina	5, 274	10, 274	506, 561	1, 243, 988	845, 695	1,027,669
South Carolina	1,005	2, 701	66,275	127, 762	212, 482	202, 602
Georgia	899	1,622	78, 770	174, 431	119, 993	123, 563
Florida	368	1, 541	43, 554	146, 895	78, 408	236, 060
Total	7, 546	16, 138	695, 160	1, 693, 076	1, 256, 578	1, 589, 894

Comparative summary of the fisheries of the United States in 1880 and 1892.

<sup>\*</sup>This year is placed at the head of the columns because it is the most recent one to which the statistics relate and the one to which most of the figures apply. The data for the New England, Middle Atlantic, and Pacific States are for that year; those for the South Atlantic States are for 1891, and those for the Gulf region and Great Lakes are for 1890.

Comparative summary of the fisheries of the United States in 1880 and 1892-Continued.

States.	Persons o	employed.	Capital	invested.	Value of	products.
States.	1880.	1892.	1880.	1892.	1880.	1892.
Gulf: Florida Alabana Missiesipp <sup>i</sup> Louisiana Texas  Total	2, 112 635 186 1, 597 601	4, 335 618 1, 721 4, 068 1, 277	\$362, 563 38, 200 8, 800 93, 621 42, 400 545, 584	\$1, 377, 057 135, 290 434, 710 719, 876 319, 122 2, 993, 080	\$564, 819 119, 275 22, 540 392, 610 128, 300 1, 227, 544	\$1, 103, 809 154, 871 245, 699 681, 284 313, 832 2, 499, 495
Pacific: California Oregon Washington Alaska Total	3, 094 4, 483 3, 096 6, 130	5, 426 4, 200 4, 296 2, 849	1, 139, 675 687, 000 474, 708 447, 000 2, 748, 383	2, 526, 962 2, 220, 667 1, 590, 481 2, 535, 703 8, 873, 813	1, 860, 714 605, 302 417, 932 2, 661, 640 5, 545, 588	3, 044, 731 868, 406 934, 940 2, 410, 848 7, 258, 925
Great Lakes: New York Pennsylvania. Ohio Michigan Indiana Illinois Wisconsin Minnesota	922 114 1,046 1,781 52 300 800 35	1, 498 403 2, 738 3, 343 94 386 1, 225	59, 050 24, 700 473, 800 442, 665 29, 360 83, 400 222, 840 10, 160	697, 847 283, 238 1, 874, 900 1, 458, 884 21, 549 429, 545 481, 374 170, 743	154, 870 43, 450 518, 420 716, 170 32, 740 60, 100 253, 100 5, 200	256, 506 211, 122 618, 683 934, 005 21, 693 23, 886 399, 272 6, 238
Total	5, 050	9, 738	1, 345, 975	5, 478, 080	1, 784, 050	2, 471, 355
Grand total	131, 426	182, 376	37, 958, 040	58, 242, 708	38, 683, 348	45, 312, 818

One of the most instructive and important comparisons which may be made is that which exhibits the present and past condition of the shad fishery. The shad is the most important river fish of the Atlantic seaboard, and has been the subject of more extensive fish-cultural operations than have been undertaken in the interest of the preservation and increase of any other fish. The maintenance and increase of the supply of shad in recent years, in the face of an enormous annual catch, are, without question, attributable to artificial propagation carried on by the National and State fish commissions. The results achieved are among the most noticeable in the annals of fish-culture. From the following table it will be seen that the aggregate yield of shad in 1880 was 18,074,534 pounds, valued at \$995,790. At that time the fishery in some of the principal rivers and coast waters was in an unsatisfactory condition and had been showing positive symptoms of a decline for a number of years. It was predicted in some regions that, under the conditions and methods then prevailing, the practical suspension of the fishery was imminent. It was about that time that the results of extensive fish-cultural operations were manifested. The supply of shad became greater and the abundance has steadily continued to increase, until in 1892 the yield amounted to 38,830,977 pounds, for which the fishermen received \$1,879,688. While it is impossible, on the Atlantic coast, accurately to gauge the effects of propagation methods and to distinguish between the results of natural and artificial increase, the establishment of a shad fishery along the Pacific coast as the immediate sequence of relatively insignificant plants of fry in two or three rivers affords a reasonable basis for claiming the dependence on fish-culture of the Atlantic shad fishery.

The table shows the quantity and value of shad taken in each of the coast sections in 1880 and 1892:

Comparative table showing	ig the results of	the shad fishery of	1880 and 1892.
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	18	1880.		1892.		Increase or decrease.	
Sections.	Pounds.	Value.	Pounds.	Value.	Pounds	Value.	
New England. Middle Atlantic South Atlantic Pacific.	. 12, 024, 579 . 3, 932, 565	\$88, 730 526, 982 380, 078	1, 085, 339 27, 621, 440 9, 385, 354 738, 844	1, 332, 854	- 1, 032, 053 +15, 696, 861 + 5, 452, 791 + 738, 844		
Total	18, 074, 534	995, 790	38, 830, 977	1, 879, 688	+20, 756, 443	+ 883, 89	

The changes that have taken place in the oyster production since 1880 have been among the most noticeable features of the fisheries during that period. The question of the preservation and increase of the supply has been widely discussed. The threatened exhaustion of the natural beds in the most prolific sections has drawn special attention to the value of and necessity for artificial methods in maintaining the crop. The increased output shown by the table, while in some States due to a development of the natural resources, has in others been mainly attributable to the application of planting methods made possible by the enactment of protective and stimulative laws.

In the New England States the increased yield has been over 300 per cent, with a reduction in the average price to the consumer. In the principal oyster-producing region, the Middle Atlantic States, the increase is less than 5 per cent, with an advance in the average price per bushel. The South Atlantic section presents an augmentation in the yield of about 350 per cent, with a large diminution in the average price, as is also the case in the Gulf States, where the catch has increased over 500 per cent. The most remarkable change has occurred in the Pacific States, where in 1880 only 15,000 bushels of oysters, mostly native, were taken, while the annual output at the present time is between 300,000 and 400,000 bushels, in large part eastern oysters introduced as seed; the average price per bushel in 1880 was 66 cents, while now it is over \$2.50, the demand for the more desirable oysters brought from the Atlantic coast being very great.

Considering the entire country, an increase has occurred since 1880 amounting to 6,067,000 bushels, having a value of \$4,122,755, the average price increasing from 55 cents to 57 cents a bushel.

Comparison of the output of the oyster fishery in 1880 and 1892.

	1880.		1892.		Increase.	
Sections.	Bushels.	Value.	Bushels.	Value.	Bushels.	Value.
New England States	536, 650 20, 755, 540 310, 000 578, 725 15, 000	\$654, 775 10, 931, 527 120, 000 313, 200 10, 000	2, 160, 863 21, 625, 931 1, 192, 115 2, 941, 014 343, 924	\$1, 751, 981 12, 500, 759 254, 141 796, 062 849, 314	+1,624,213 + 870,391 + 882,115 +2,362,289 + 328,924	+ 482, 862
Total	22, 195, 915	12, 029, 502	28, 263, 847	16, 152, 257	+6,067,932	+ 4, 122, 755

Among other important products the comparison of whose past and present abundance, as shown by the catch, may be of general interest, are bluefish, alewives, sea bass, squeteague, Spanish mackerel, salmon, cod, mackerel, and lobsters. Comparative figures for each of these are given by geographical sections in the following table:

Comparative statistics of the catch of certain products in 1880 and 1892.

	188	30.	18	92.	Increase o	r decrease.
Sections.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Alewives: New England States. Middle Atlantic States South Atlantic States	9, 728, 261 19, 901, 072 16, 055, 000	\$103, 285 267, 527 155, 734	7, 128, 945 35, 503, 455 16, 543, 783	\$102, 029 286, 605 166, 106	$\begin{array}{r} -2,599,316 \\ +15,602,383 \\ +488,783 \end{array}$	- \$1,256 + 19,078 + 10,372
Total	45, 684, 333	526, 546	59, 176, 183	554, 740	+13,491,850	+ 28,194
Bluefish: New England States. Middle Atlantic States South Atlantic States Gulf States.	5, 526, 341 8, 267, 217 850, 000 * 64, 250	161, 418 187, 653 16, 600 1, 085	1, 303, 110 12, 591, 486 1, 452, 984 610, 256	77, 545 504, 466 36, 918 18, 376	- 4, 223, 231 + 4, 324, 269 + 602, 984 + 546, 006	- 83,873 + 316,813 + 20,318 + 17,291
Total	14, 707, 708	366, 756	15, 957, 836	637, 305	+ 1, 250, 128	+ 270,549
Cod: New England States Middle Atlantic States Pacific States	110, 282, 350 5, 247, 000 3, 608, 000	3, 286, 525 98, 381 90, 200,	84, 334, 990 2, 954, 317 5, 354, 504	2, 745, 613 110, 612 140, 466	-25, 947, 360 - 2, 292, 683 + 1, 746, 504	- 540, 912 + 12, 231 + 50, 266
Total	119, 137, 350	3, 475, 106	92, 643, 811	2, 996, 691	<b>—26, 493, 539</b>	<b>— 478, 415</b>
Lobsters: New England States Middle Atlantic States	19, 946, 733 291, 950	620, 821 10, 948	22, 983, 951 317, 198	1, 023, 751 26, 926	+ 3,037,218 + 25,248	+ 402,930 + 15,978
Total	20, 238, 683	631, 769	23, 301, 149	1, 050, 677	+ 3,062,466	+ 418,908
Mackerel: New England States Middle Atlantic States	72, 567, 563 750, 000	1,833,910 † 30,000	17, 018, 829 22, 907	1, 099, 904 2, 747	-55, 548, 734 - 727, 093	- 734, 006 - 27, 253
Total	73, 317, 563	1, 863, 910	17, 041, 736	1, 102, 651	56, 275, 827	<b>— 761, 259</b>
Mullet: Middle Atlantic States South Atlantic States Gulf States	115, 700 4, 369, 000 2, 217, 250	3, 991 112, 597 108, 421	456, 100 5, 573, 623 15, 185, 117	15, 753 133, 635 238, 528	+ 340, 400 + 1, 204, 623 +12, 967, 867	+ 11,762 + 21,038 + 130,107
Total	6, 701, 950	225, 009	21, 214, 840	387, 916	+14,512,890	+ 162, 907
Salmon: Atlantic States Pacific States	111, 324 51, 522, 500	21, 952 1, 064, 387	138, 549 93, 687, <b>9</b> 78	20, 166 3, 710, 250	+ 27, 225 +42, 165, 478	- 1, 786 $+$ 2, 645, 863
Total	51, 633, 824	1, 086, 339	93, 826, 527	3, 730, 416	+42, 192, 703	+2,644,077
Sea bass: New England States Middle Atlantic States South Atlantic States	629, 450 1, 486, 200 527, 000	21, 511 76, 485 15, 180	1, 928, 440 5, 593, 429 879, 684	95, 386 231, 820 28, 396	+ 1, 298, 990 + 4, 107, 229 + 352, 684	+ 73, 875 + 155, 335 + 13, 216
Total	2, 642, 650	113, 176	8, 401, 553	355, 602	+ 5,758,903	+ 242, 426
Spanish mackerel: New England States. Middle Atlantic States South Atlantic States Gulf States	3, 260 1, 852, 663 11, 500 20, 000	295 129, 709 635 1, 000	4, 285 976, 837 91, 500 700, 459	1, 026 79, 287 6, 254 42, 692	+ 1,025 - 875,826 + 80,000 + 680,459	+ 731 - 50,422 + 5,619 + 41,692
Total	1, 887, 423	131, 639	1, 773, 081	129, 259	- 114, 342	- 2, 380
Squeteagne: New England States. Middle Atlantic States South Atlantic States Gulf States	532, 060 12, 604, 500 1, 827, 000 †500, 000	18, 622 363, 045 40, 355 15, 000	1, 415 220 15, 507, 713 2, 368, 067 2, 959, 433	48, 243 469, 751 68, 266 122, 570	+ 883, 160 + 2, 993, 213 + 541, 067 + 2, 459, 433	+ 29, 621 + 106, 706 + 27, 911 + 107, 570
Total	15, 463, 560	437, 022	22, 340, 433	708. 830	+ 6, 876, 873	4 271,808
	<del>,                                    </del>					

 $<sup>\</sup>star$  Partly estimated.

† Estimated.

The change in the relative positions of the different States, as determined by the value of the catch in 1880 and at this time, is a matter having considerable general Massachusetts heads the list, followed, as in 1880, by Maryland and New York. Maine, which ranked fourth, gives place to Virginia, which formerly ranked sixth. New Jersey has the same position, viz, fifth. Alaska, which held the seventh place, is supplanted by California, and takes the rank California formerly occupied, viz, eighth. Delaware has dropped from the ninth to the twenty-first place. Connecticut advances one point, from 10 to 9. North Carolina remains in eleventh place. Michigan drops from the rank of 12 to that of 13, its place being taken by Washington, which moves upward four places. The remaining States which have increased their rank are Florida, from 14 to 10; Oregon, from 15 to 14; Washington, from 17 to 12; Louisiana, from 18 to 16; Pennsylvania, from 19 to 18; Wisconsin, from 20 to 19; Texas, from 23 to 20; Alabama, from 25 to 24; and Mississippi, from 28 to 22. The other States which have lost prestige are Ohio, which drops from 16 to 17: South Carolina, from 21 to 23; New Hampshire, from 22 to 26; Georgia, from 24 to 25; Illinois, from 26 to 27; and Indiana, from 27 to 28. Minnesota remains at the end of the list.

Table showing the relative rank, based on value of the products, of the coast and Great Lakes States in 1880 and 1892.

Rank.	1880.	1892.
1	Massachusetts	Massachusetts.
	Maryland	Maryland.
3	New York	New York.
ã.	Maine	Virginia.
5	New Jersey	New Jersey.
6	Virginia	California.
2 3 4 5 6 7	Alaska	Alaska.
8	California	Maine.
9	Delaware	Connecticut.
10	Connecticut	Florida.
ii	North Carolina	North Carolina.
12	Michigan	Washington.
13	Rhode Island	Michigan.
14	Florida	Oregon.
15	Oregon	Rhode Island.
16	Ohio	Louisiana.
17	Washington	Ohio.
18	Louisiana	Pennsylvania.
19	Pennsylvania	Wisconsin.
20	Wisconsin	Texas.
21	South Carolina	Delaware.
$\frac{1}{22}$	New Hampshire	Mississippi.
23	Texas	South Carolina.
24	Georgia	Alabama.
25	Alabama	Georgia.
26	Illinois	New Hampshire.
27	Indiana	Illinois.
28	Mississippi	Indiana.
29	Minnesota	Minnesota.

F. C. B. 1893-27