

UNITED STATES COMMISSION OF FISH AND FISHERIES
SPENCER F. BAIRD, COMMISSIONER



THE FISHERIES
AND
FISHERY INDUSTRIES
OF THE
UNITED STATES

PREPARED THROUGH THE CO-OPERATION OF THE COMMISSIONER OF FISHERIES
AND THE SUPERINTENDENT OF THE TENTH CENSUS

BY

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SECTION II
A GEOGRAPHICAL REVIEW OF THE FISHERIES INDUSTRIES
AND FISHING COMMUNITIES FOR THE YEAR 1880

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LETTER OF TRANSMITTAL.

WASHINGTON, D. C., *March 1, 1883.*

Prof. SPENCER F. BAIRD,

U. S. Commissioner of Fish and Fisheries:

SIR: I have the honor to submit herewith a geographical review of the fisheries of the United States, including the fishery districts of the Atlantic, the Gulf, and the Pacific coasts, and of the great lakes. This report has been prepared by the following-named census agents and assistants of the United States Fish Commission: Dr. Tarleton H. Bean, Mr. A. Howard Clark, Capt. Joseph W. Collins, Mr. R. Edward Earll, Mr. Richard H. Edmonds, Mr. Ernest Ingersoll, Prof. David S. Jordan, Mr. Ludwig Kumlien, Col. Marshall McDonald, Mr. Frederick Mather, Mr. Silas Stearns, Mr. Frederick W. True, and Mr. W. A. Wilcox. The manuscript of this volume was prepared for the press by Mr. R. E. Earll, and has been printed under the editorial supervision of Mr. A. Howard Clark.

This report constitutes Section II of the Special Report on the Food Fishes and Fishery Industries of the United States, prepared through the co-operation of the Commission of Fish and Fisheries and the Superintendent of the Tenth Census. Section I, the Natural History of Useful Aquatic Animals, has already been published.

The accompanying statistical statement gives a summary of the fisheries of the country in 1880. We find that the total number of persons actually employed in the fishery industries, either as fishermen or in preparing the products for market, was 131,426, of whom 101,684 were fishermen, and the remainder shosmen. The fishing fleet consisted of 6,605 vessels (aggregating 208,297.82 tons) and 44,804 boats, and the total amount of capital invested was \$37,955,349, distributed as follows: Vessels, \$9,357,282; boats, \$2,465,393; minor apparatus and outfits, \$8,145,261; other capital, including shore property, \$17,987,413.

The value of the fisheries of the sea, of the great rivers, and of the great lakes was \$43,046,053, and that of those in minor inland waters was \$1,500,000; in all, \$44,546,053. These values were estimated upon the basis of the prices of the products received by the producers, and, if average wholesale prices had been considered, the value would have been much greater.

STATISTICS OF THE FISHERIES OF THE UNITED STATES IN 1880. (a)

| States and territories. | GRAND TOTAL. | | | PERSONS EMPLOYED. | | APPARATUS AND CAPITAL. | | |
|--|-------------------|-------------------|--------------------|-------------------|-------------|------------------------|------------|-------------|
| | Persons employed. | Capital invested. | Value of products. | Fisher-men. | Shores-men. | Vessels. | | |
| | | | | | | Number. | Tonnage. | Value. |
| The United States | 131,426 | \$37,953,340 | \$43,046,053 | 101,684 | 20,742 | 6,605 | 208,297.82 | \$9,357,282 |
| New England states | 37,043 | 10,937,607 | 14,270,393 | 29,838 | 7,205 | 2,066 | 113,602.59 | 4,562,131 |
| Middle states, exclusive of great lake fisheries | 14,961 | 4,426,078 | 8,676,579 | 12,584 | 2,397 | 1,210 | 23,566.93 | 1,382,000 |
| Southern Atlantic states | 52,418 | 8,951,722 | 9,602,737 | 38,774 | 13,644 | 3,014 | 60,886.15 | 2,375,450 |
| Gulf states | 5,131 | 645,584 | 1,227,544 | 4,382 | 749 | 197 | 3,009.86 | 308,051 |
| Pacific states and territories | 16,803 | 2,748,383 | 7,484,750 | 11,613 | 5,190 | 56 | 5,463.42 | 546,450 |
| Great lakes | 5,050 | 1,345,975 | 1,784,050 | 4,493 | 557 | 62 | 1,768.87 | 183,200 |
| 1 Alabama | 635 | 38,200 | 110,275 | 545 | 90 | 24 | 317.20 | 14,585 |
| 2 Alaska | 6,130 | 447,000 | 2,661,640 | 6,000 | 130 | | | |
| 3 California | 3,094 | 1,139,675 | 1,860,714 | 2,089 | 1,005 | 49 | 5,246.80 | 535,350 |
| 4 Connecticut | 3,131 | 1,421,020 | 1,456,866 | 2,585 | 546 | 291 | 9,215.95 | 514,050 |
| 5 Delaware | 1,979 | 268,231 | 997,695 | 1,662 | 317 | 60 | 1,226.00 | 51,600 |
| 6 Florida | 2,480 | 406,117 | 643,227 | 2,284 | 196 | 124 | 2,152.97 | 372,645 |
| 7 Georgia | 899 | 78,770 | 119,993 | 809 | 90 | 1 | 12.00 | 450 |
| 8 Illinois | 306 | 85,400 | 60,100 | 265 | 35 | 3 | 200.72 | 8,500 |
| 9 Indiana | 52 | 29,300 | 32,740 | 45 | 7 | 1 | 21.90 | 2,500 |
| 10 Louisiana | 1,597 | 97,621 | 392,610 | 1,300 | 297 | 49 | 539.69 | 20,821 |
| 11 Maine | 11,071 | 3,375,994 | 3,614,178 | 8,110 | 2,961 | 606 | 17,632.65 | 633,542 |
| 12 Maryland | 26,608 | 6,342,443 | 5,221,715 | 15,873 | 10,135 | 1,450 | 43,500.00 | 1,750,000 |
| 13 Massachusetts | 20,117 | 14,334,450 | 8,141,750 | 17,165 | 2,952 | 1,054 | 83,232.17 | 3,171,189 |
| 14 Michigan | 1,781 | 442,665 | 710,170 | 1,600 | 181 | 36 | 914.42 | 98,500 |
| 15 Minnesota | 35 | 10,160 | 5,200 | 30 | 5 | 1 | 33.59 | 5,000 |
| 16 Mississippi | 186 | 8,800 | 22,540 | 110 | 76 | | | |
| 17 New Hampshire | 414 | 209,465 | 176,684 | 376 | 38 | 23 | 1,019.05 | 51,500 |
| 18 New Jersey | 6,226 | 1,492,202 | 3,176,589 | 5,659 | 561 | 590 | 10,445.90 | 545,900 |
| 19 New York | 7,266 | 2,629,585 | 4,890,565 | 5,650 | 1,616 | 541 | 11,582.51 | 777,600 |
| 20 North Carolina | 5,274 | 596,561 | 845,695 | 4,729 | 545 | 95 | 1,457.90 | 39,000 |
| 21 Ohio | 1,046 | 473,800 | 518,420 | 925 | 121 | 9 | 359.51 | 38,400 |
| 22 Oregon | 6,825 | 1,131,350 | 2,781,024 | 2,795 | 4,040 | | | |
| 23 Pennsylvania | 552 | 119,810 | 320,050 | 511 | 41 | 11 | 321.99 | 10,500 |
| 24 Rhode Island | 2,310 | 596,078 | 880,915 | 1,602 | 708 | 92 | 2,502.77 | 191,850 |
| 25 South Carolina | 1,005 | 66,275 | 212,482 | 964 | 41 | 22 | 337.32 | 15,000 |
| 26 Texas | 601 | 42,400 | 128,300 | 491 | 110 | | | |
| 27 Virginia | 18,864 | 1,914,119 | 3,124,444 | 16,051 | 2,813 | 1,446 | 15,578.93 | 671,000 |
| 28 Washington | 744 | 30,358 | 181,372 | 729 | 15 | 7 | 216.62 | 11,100 |
| 29 Wisconsin | 800 | 222,840 | 253,100 | 730 | 70 | 11 | 220.25 | 26,700 |

a The value of fishery products taken by unprofessional fishermen in the minor inland waters of the United States is roughly estimated at \$1,500,000. It was impossible during the fishery investigation to obtain details of this industry.

STATISTICS OF THE FISHERIES OF THE UNITED STATES IN 1880.

| APPARATUS AND CAPITAL—continued. | | | | VALUE OF PRODUCTS BY FISHERIES. | | | | | | |
|----------------------------------|-------------|---------------------------------------|--|---------------------------------|----------------|---------------|-------------------|-----------------|-----------------|-----------------------|
| Boats. | | Value of minor apparatus and outfits. | Other capital, including shore property. | General fisheries. (b) | Whale fishery. | Seal fishery. | Menhaden fishery. | Oyster fishery. | Sponge fishery. | Marine-salt industry. |
| Number. | Value. | | | | | | | | | |
| 44,804 | \$2,463,393 | \$8,145,261 | \$17,987,413 | \$22,405,018 | \$2,323,943 | \$2,289,813 | \$2,116,787 | \$13,403,852 | \$200,750 | \$305,890 |
| 14,787 | 739,970 | 5,038,171 | 9,597,335 | 10,014,645 | 2,121,385 | 111,851 | 539,722 | 1,478,900 | | 3,890 |
| 8,293 | 546,647 | 674,951 | 1,822,480 | 2,882,294 | | | 1,261,385 | 4,532,900 | | |
| 13,331 | 640,508 | 1,145,878 | 4,789,886 | 2,217,797 | 408 | | 315,680 | 7,068,852 | | |
| 1,252 | 56,173 | 52,823 | 134,537 | 713,594 | | | | 313,200 | 200,750 | |
| 5,547 | 404,693 | 467,238 | 1,536,000 | 4,792,638 | 202,150 | 2,177,062 | | 10,000 | | 302,000 |
| 1,594 | 83,400 | 766,200 | 313,175 | 1,784,050 | | | | | | |
| 119 | 10,215 | 7,000 | 6,400 | 74,325 | | | | 44,950 | | |
| 3,000 | 60,000 | 7,000 | 280,000 | 564,640 | 500 | 2,006,500 | | | | |
| 853 | 91,485 | 205,840 | 307,000 | 1,341,314 | 201,650 | 15,750 | | | | 302,000 |
| 1,173 | 73,585 | 375,535 | 457,850 | 383,887 | 32,048 | 111,851 | 256,205 | 672,875 | | |
| 839 | 33,227 | 70,324 | 113,080 | 309,029 | | | 941 | 687,725 | | |
| 1,058 | 28,508 | 39,927 | 65,037 | 426,527 | | | | 15,950 | 200,750 | |
| 358 | 15,425 | 18,445 | 44,450 | 84,993 | | | | 35,000 | | |
| 101 | 2,000 | 11,900 | 61,000 | 61,000 | | | | | | |
| 15 | 1,650 | 20,210 | 5,000 | 32,740 | | | | | | |
| 165 | 4,800 | 18,000 | 50,000 | 192,610 | | | | 200,000 | | |
| 5,920 | 245,624 | 934,593 | 1,562,235 | 3,576,678 | | | | 37,500 | | |
| 2,825 | 186,448 | 297,145 | 4,168,850 | 479,388 | | | 11,851 | 4,730,476 | | |
| 6,749 | 351,736 | 3,528,925 | 7,282,600 | 5,581,204 | 2,089,337 | | 61,709 | 405,550 | | 3,800 |
| 454 | 10,345 | 272,920 | 60,900 | 716,170 | | | | | | |
| 10 | 900 | 3,780 | 500 | 5,200 | | | | | | |
| 58 | 4,600 | 1,600 | 2,600 | 12,540 | | | | 10,000 | | |
| 211 | 7,780 | 60,385 | 89,800 | 170,634 | | | | 6,050 | | |
| 4,065 | 223,963 | 232,339 | 490,000 | 949,673 | | | 146,286 | 2,080,625 | | |
| 8,441 | 289,885 | 390,200 | 1,171,900 | 1,689,357 | | | 1,114,158 | 1,577,050 | | |
| 2,714 | 123,175 | 225,436 | 118,950 | 785,267 | 408 | | | 60,000 | | |
| 487 | 29,830 | 253,795 | 151,775 | 518,420 | | | | | | |
| 1,360 | 216,600 | 245,750 | 639,000 | 2,776,724 | | 4,300 | | | | |
| 156 | 13,272 | 40,538 | 55,500 | 132,550 | | | | 187,500 | | |
| 734 | 61,245 | 133,733 | 204,850 | 302,242 | | | 221,748 | 356,925 | | |
| 501 | 9,790 | 25,985 | 15,500 | 192,482 | | | | 20,000 | | |
| 167 | 15,000 | 4,400 | 25,000 | 81,000 | | | | 47,300 | | |
| 6,618 | 292,720 | 560,763 | 489,636 | 602,239 | | | 363,829 | 2,218,376 | | |
| 334 | 6,610 | 8,643 | 4,000 | 109,060 | | 61,412 | | 10,000 | | |
| 319 | 24,975 | 145,165 | 26,000 | 253,100 | | | | | | |

b Includes fisheries for all food species except oysters.

Since 1865 the fisheries have greatly increased in extent and value, chiefly due to improved methods of preservation of products and means of transportation.

The fisheries of the New England States are the most important. They engage 37,043 men, 2,066 vessels, and 14,787 boats, and yield products to the value of \$14,270,393. In this district the principal fishing ports, in order of importance, are: Gloucester, Portland, Boston, Provincetown, and New Bedford, the latter being the center of the whale fishery. New England was settled in 1620 by colonists chiefly from the western counties of England, who selected that portion of the coast on account of its peculiar fitness for the prosecution of the fisheries, and by the middle of the seventeenth century there was a considerable fleet of ketches and snows engaged in the cod fishery on the off-shore banks, where—especially on the banks of Newfoundland—France, Spain, Portugal, and England already had a fleet of several hundred large vessels. Just before the war of the Revolution New England had 665 vessels and 4,405 men employed in its fisheries.

Next to New England in importance are the South Atlantic States, employing 52,418 men, 3,014 vessels (the majority of which are small and engaged in the shore and bay fisheries), and 13,331 boats, and returning products to the value of \$9,602,737.

Next are the Middle States, employing in the coast fisheries 14,981 men, 1,210 vessels, and 8,293 boats, with products to the amount of \$8,676,579.

Next are the Pacific States and Territories, with 16,803 men, 56 vessels, and 5,547 boats, with products to the amount of \$7,484,750. The fisheries of the great lakes employ 5,050 men, 62 vessels, and 1,594 boats, with products to the amount of \$1,784,050. The Gulf States employ 5,131 men, 197 vessels, and 1,252 boats, yielding products to the value of \$1,227,544.

Forty-three distinct fisheries are recognized by American writers, each being carried on in a special locality and with methods peculiar to itself. Among the most important of these are the oyster fishery, the off-shore cod fishery, the whale fishery, the fur-seal fishery, the mackerel fishery, the menhaden fishery, the halibut fishery, the antarctic seal and sea-elephant fishery, the west-coast salmon fishery, the lobster fishery, the shad and alewife fisheries, the swordfish fishery, and the clam fishery.

The off-shore fisheries are carried on by citizens of the New England and Middle States, and are prosecuted on the great oceanic banks extending from Nantucket to Labrador, and upon the ledges and shoals between these and the coast.

The great purse-seine fisheries for mackerel and menhaden are carried on north of Cape Hatteras, at distances from the shore varying from 1 mile to 150 miles. The fishing-grounds in the Gulf of Saint Lawrence, formerly frequented by many hundreds of American vessels, have been almost entirely abandoned since the introduction of the purse-seine, and in 1882 only one vessel visited those waters, returning with about 200 barrels of mackerel. The oyster fishery is located for the most part between Cape Hatteras and Cape Cod, chiefly in the great inland bays. In all the great rivers of the Atlantic coast are fisheries for the anadromous shad and the two species of alewife. About the keys of Southern Florida is an extensive sponge fishery, and on the shoals of the Gulf of Mexico the red-snapper and grouper fisheries are yearly increasing in value. The fur-seal fishery is chiefly located upon the Pribylov islands of Alaska. A small fleet of vessels yearly penetrates to the ice-bound islands of the Antarctic for seal-skins and sea-elephant oil. The whaling fleets, with headquarters at New Bedford and San Francisco, frequent all oceans, the larger vessels cruising chiefly in the North Pacific, while the smaller ones pursue their prey throughout the Atlantic and South Pacific. The salmon fishery is seated upon the Columbia River and its tributaries, though other rivers in Oregon and California produce large quantities of salmon, which is extensively canned and exported. The most valuable product of the great-lake fisheries is the whitefish. The swordfish fishery of Southern New England, though employing but 40 vessels and perhaps 160 men, produces 1,500,000 pounds weight annually.

The export of American fishery products is comparatively small, owing to the fact that the demand for such products for home consumption is really greater than the supply, and is constantly on the increase. In 1880 the total value of exported fish products amounted to \$5,744,580, of which, according to custom-house records, England received \$2,601,017. Of the quantity sent to England, \$1,596,007 was in canned preparations, and \$363,790 in fresh oysters, the remainder

being chiefly products of the whale fishery. In former years there was an extensive export trade in dried cod with Spain and Portugal. Large quantities of canned salmon are sent to China, Japan, and Australia.

At present no subsidies are allowed to fishermen, except that the duties on imported salt used in the preparation of fish are remitted. This practice was begun in 1866, at which time the old bounty law was repealed.

The United States, with the intention of aiding its fishermen, has paid to Great Britain the sum of \$5,500,000 for the privilege of fishing in the British provincial waters from 1873 to 1885.

Since 1871 the United States has appropriated over one million dollars to be used by the United States Fish Commission in behalf of the fishermen and fish consumers, and under the direction of the Commissioner, Prof. Spencer F. Baird, very important results have been accomplished. All the State Governments, with the exception of six, have established State fish commissions, and most of these have been liberally supported by grants of money.

The undeveloped fishery resources are very great. Many of the fishes and invertebrates which in Europe are highly valued by the poorer classes are never used here. Only about 150 of the 1,500 species of fishes known to inhabit the waters of the United States are ordinarily found in the markets.

Yours, very respectfully,

G. BROWN GOODE,

Special Agent Tenth Census, in charge of Fishery Investigation.

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