

REPORT OF THE DIVISION OF STATISTICS AND METHODS OF THE FISHERIES.

BY BARTON W. EVERMANN, *Assistant in Charge.*

At the beginning of the year the statistical agents of the division were engaged in canvassing the fisheries of the Middle Atlantic States. This work was completed, and a report on the fisheries of that region, which has since been issued, was prepared for publication. In the meantime a summary of the statistics embodied in the report was published as Statistical Bulletin No. 131.

Mr. F. F. Dimick and Capt. S. J. Martin, local statistical agents of the Commission at Boston and Gloucester, Mass., respectively, have continued to submit during the year their usual monthly returns of the quantity and value of fishery products landed at those ports by American fishing vessels.

Mr. A. B. Alexander, fishery expert of the steamer *Albatross*, was detailed in November, 1902, to Boston, Mass., to obtain statistics of the quantity and value of mackerel landed by the New England fleet during that year. In March, 1903, Mr. Alexander visited Seattle, Wash., and entered upon a statistical canvass of the salmon fisheries of Alaska for the seasons of 1901 and 1902. He was authorized to pursue the inquiry in such places on Puget Sound and the Columbia River as might be necessary to obtain the desired information. In June he joined the steamer *Albatross* at Seattle and went to Alaska as a member of the Alaska Salmon Commission under the direction of Dr. David S. Jordan, where the investigation was continued.

The fisheries of Porto Rico, including the wholesale fishery trade and the importation of fishery products, were investigated in January, February, and March, 1903, by Mr. W. A. Wilcox, the data being chiefly for the year 1902.

Mr. Charles H. Stevenson visited New York for a short time in March, 1903, for the purpose of obtaining information concerning the utilization of ivory, bones, shells, scales, etc., of aquatic animals.

An investigation of the fisheries of the South Atlantic and Gulf States was undertaken in February, 1903, the data being for the calendar year 1902, except the oyster fishery, for which it was necessary in some instances to obtain statistics for the last completed oyster

season. In connection with this inquiry Mr. John N. Cobb was assigned to canvass Florida and that part of North Carolina north of Beaufort and Hyde counties; Mr. Charles H. Stevenson, Louisiana, Texas, and the remainder of North Carolina south of Washington and Tyrrell counties; Mr. W. A. Roberts, Mississippi and Alabama; Messrs. W. A. Wilcox and T. M. Cogswell, South Carolina and Georgia. Except in part of the territory in North Carolina, the work was finished before the close of the fiscal year.

The salmon fisheries of Penobscot River and Bay for the year 1902 were investigated by Mr. Charles G. Atkins, superintendent of the United States Fish Commission station at Craig Brook, Me. A canvass of these fisheries, begun by Mr. Atkins the previous year for 1900 and 1901, was also completed.

The investigation of the fisheries of Colorado by Mr. E. A. Tulian, superintendent of the United States Fish Commission station at Leadville, Colo., was concluded, the data being for the year 1900. This work was authorized in connection with a canvass of the fisheries of Nevada and Utah, the results of which have already been published.

The publications prepared in this division and distributed during the year included statistical bulletins, issued as single sheets, and special reports on important fishery subjects. The following, exclusive of the usual monthly bulletins in single sheets showing the quantities and values of certain fishery products landed at Boston and Gloucester, Mass., by American fishing vessels, is a list of these publications:

Statistical Bulletin No. 130. Statement of the quantities and values of certain fishery products landed at Boston and Gloucester, Mass., by American fishing vessels during the year 1902.

Statistical Bulletin No. 131. Fisheries of the Middle Atlantic States, 1901.

The sponge fishery of Florida in 1900, by J. N. Cobb. < Report for 1902, pp. 161-175, plates 6-9. 1903.

Aquatic products in arts and industries, by C. H. Stevenson. < Report for 1902, pp. 177-279, plates 10-25. 1903.

The utilization of the skins of aquatic animals, by C. H. Stevenson. < Report for 1902, pp. 281-352, plates 26-38. 1903.

The fisheries and fish trade of Porto Rico, by W. A. Wilcox. < Report for 1902, pp. 367-395. 1903.

VESSEL FISHERIES OF BOSTON AND GLOUCESTER.

The quantity of fishery products landed at Boston and Gloucester, Mass., by American fishing vessels during the year 1902, as indicated by the returns received from the local agents at those ports, was 7,334 fares, which aggregated 167,954,875 pounds of fresh and salted fish, having a value to the fishermen of \$4,379,082. This is an increase, as compared with the previous year, of 370 fares, and of 16,789,684 pounds in the quantity and \$129,081 in the value of the products. In the quantity and value of fish landed at Boston there was an increase

of 578 fares, 19,981,865 pounds, and \$467,188; and at Gloucester a decrease of 208 fares, 3,192,181 pounds, and \$338,107.

The total number of fares landed at Boston was 3,981, and the products comprised 77,608,596 pounds of fresh fish, valued at \$1,994,198, and 1,365,400 pounds of salted fish, valued at \$48,440; a total of 78,973,996 pounds, valued at \$2,042,638. From the eastern banks there were 212 fares, amounting to 10,847,560 pounds, \$347,018, and from the banks off the New England coast 3,769 fares, with 68,126,436 pounds, \$1,695,620.

At Gloucester 3,353 fares were landed, having 39,614,878 pounds of fresh fish, valued at \$787,676, and 49,366,001 pounds of salted fish, valued at \$1,548,768; a total of 88,980,879 pounds, valued at \$2,336,444. Of this quantity 585 fares with 52,084,789 pounds of fresh and salted fish, valued at \$1,347,241, were from the eastern banks, and 2,768 fares with 36,896,090 pounds, valued at \$989,203, were from the banks off the New England coast.

Summary, by fishing-grounds, of certain fishery products landed at Boston, Mass., in 1902 by American fishing vessels.

Fishing-grounds.	No. of trips.	Cod.				Cusk.	
		Fresh.		Salted.		Fresh.	
		Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
East of 66° W. longitude:							
La Have Bank	71	1,402,500	\$35,490			225,200	\$3,399
Western Bank	42	1,185,000	30,568			13,300	215
Queereu Bank	14	175,000	2,750				
Green Bank	2	20,000	500				
Grand Bank	16	18,000	360				
St. Peters Bank	3						
Off Newfoundland	24			10,000	\$200		
Cape Shore	30	583,500	16,063			31,000	605
Gulf of St. Lawrence	10	1,000	20				
Total	212	3,385,000	85,751	10,000	200	269,500	4,219
West of 66° W. longitude:							
Browns Bank	36	597,900	15,137			115,000	1,661
Georges Bank	590	5,270,000	132,094			192,665	3,216
Cashes Bank	42	208,200	6,266			86,000	1,361
Clark Bank	7	36,500	938			4,000	44
Fippentles Bank	9	54,000	1,255			11,000	276
Tillies Bank	4	9,500	360			1,200	48
Middle Bank	235	428,300	11,904			38,000	843
Platts Bank	1	4,000	80				
Jeffreys Ledge	299	651,400	18,067			77,400	1,395
South Channel	642	5,354,700	121,604			103,500	1,534
Nantucket Shoals	142	2,158,500	34,361			700	10
Off Highland Light	52	124,300	3,970			10,200	371
Off Chatham	87	355,100	9,512			18,000	257
Shore, general	1,628	4,596,500	130,071			196,800	3,037
Total	3,769	19,848,900	485,664			854,465	14,053
Grand total	3,981	23,233,900	571,415	10,000	200	1,123,965	18,272

104 REPORT OF COMMISSIONER OF FISH AND FISHERIES.

Summary, by fishing-grounds, of certain fishery products landed at Boston, Mass., in 1902
by American fishing vessels—Continued.

Fishing-grounds.	Haddock, fresh.		Hake, fresh.		Pollock, fresh.		Halibut, fresh.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
East of 66° W. longitude:								
La Have Bank.....	1,517,500	\$32,938	248,000	\$3,668	62,500	\$1,096	74,260	\$6,134
Western Bank.....	140,600	3,633	118,000	1,585	24,000	585	361,900	29,695
Quereau Bank.....							298,000	23,370
Green Bank.....	20,000	600	35,000	495			45,000	2,100
Grand Bank.....							369,000	25,770
St. Peters Bank.....							67,000	4,470
Off Newfoundland.....							513,000	27,500
Cape Shore.....	453,500	11,835	93,000	1,500	40,000	759	2,900	312
Gulf of St. Lawrence.....							377,000	20,970
Total.....	2,131,500	48,906	494,000	7,248	126,500	2,440	2,103,060	140,321
West of 66° W. longitude:								
Browns Bank.....	741,300	17,855	67,000	1,325	54,500	778	8,500	993
Georges Bank.....	9,240,100	185,258	672,000	13,814	364,500	5,287	80,750	7,243
Cashes Bank.....	164,800	5,515	367,500	7,117	56,500	750	1,800	192
Clark Bank.....	76,500	1,730	48,000	500	1,000	5		
Fippenies Bank.....	50,400	910	27,000	707	4,500	113	400	40
Tillies Bank.....	25,000	885	1,000	23	1,500	60		
Middle Bank.....	1,502,800	37,391	257,000	5,347	220,000	3,553	300	30
Platts Bank.....					2,000	20		
Jeffreys Ledge.....	1,504,300	41,803	651,000	10,990	591,900	9,130	1,500	121
South Channel.....	11,323,900	263,064	4,067,400	66,173	623,900	7,648	24,350	1,401
Nantucket Shoals.....	355,200	6,380	25,000	286	197,150	2,187	2,500	200
Off Highland Light.....	426,500	11,468	80,500	1,122	52,500	889		
Off Chatham.....	1,287,800	29,509	151,500	2,371	129,600	1,999	1,000	120
Shore, general.....	5,318,750	130,425	1,314,950	24,581	944,813	14,472	34,660	2,868
Total.....	32,007,350	732,193	7,729,850	134,366	3,250,363	46,891	165,760	13,608
Grand total.....	34,138,860	781,099	8,223,850	141,604	3,376,863	49,331	2,258,820	153,929

Fishing-grounds.	Mackerel.				Other fish.			
	Fresh.		Salted.		Fresh.		Salted.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
East of 66° W. longitude:								
La Have Bank.....					1,600	\$184		
Off Newfoundland.....					1,571,000	44,715	710,000	\$10,680
Cape Shore.....			45,000	\$2,306	400	48		
Total.....			45,000	2,306	1,573,000	44,947	710,000	10,680
West of 66° W. longitude:								
Georges Bank.....	1,292,025	\$86,761	247,600	12,882	1,062,000	82,443		
Cashes Bank.....	2,250	225						
Fippenies Bank.....					600	90		
Middle Bank.....	147,000	8,535	12,000	675	600	48		
South Channel.....	60,750	4,050	14,000	744	4,200	346		
Nantucket Shoals.....					5,200	448		
Off Chatham.....					600	36		
Shore, general.....	593,973	41,226	326,800	20,953	510,150	9,393		
Total.....	2,095,998	140,797	600,400	35,254	1,583,350	92,804		
Grand total.....	2,095,998	140,797	645,400	37,560	3,156,350	137,751	710,000	10,680

REPORT OF COMMISSIONER OF FISH AND FISHERIES. 105

Summary, by fishing-grounds, of certain fishery products landed at Boston, Mass., in 1902 by American fishing vessels—Continued.

Fishing-grounds.	Total.				Grand total..	
	Fresh.		Salted.		Lbs.	Value.
	Lbs.	Value.	Lbs.	Value.		
East of 66° W. longitude:						
La Have Bank	3,531,560	\$82,909	.....	.....	3,531,560	\$82,909
Western Bank	1,842,700	66,181	.....	.....	1,842,700	66,181
Quereau Bank	468,000	26,120	.....	.....	468,000	26,120
Green Bank	120,000	3,695	.....	.....	120,000	3,695
Grand Bank	387,000	26,130	.....	.....	387,000	26,130
St. Peters Bank	67,000	4,470	.....	.....	67,000	4,470
Off Newfoundland	2,084,000	72,215	720,000	\$10,880	2,804,000	83,095
Cape Shore	1,204,300	31,122	46,000	2,306	1,249,300	33,428
Gulf of St. Lawrence	378,000	20,990	.....	.....	378,000	20,990
Total	10,082,560	333,832	765,000	13,186	10,847,560	347,018
West of 66° W. longitude:						
Browns Bank	1,584,200	37,749	.....	.....	1,584,200	37,749
Georges Bank	18,174,040	516,116	247,600	12,882	18,421,640	528,998
Cashes Bank	877,050	21,426	.....	.....	877,050	21,426
Clark Bank	166,000	3,262	.....	.....	166,000	3,262
Fippenies Bank	147,900	3,391	.....	.....	147,900	3,391
Tillies Bank	38,200	1,376	.....	.....	38,200	1,376
Platts Bank	2,594,000	67,651	12,000	675	2,606,000	68,326
Jeffreys Ledge	6,000	100	.....	.....	6,000	100
South Channel	3,477,500	81,506	.....	.....	3,477,500	81,506
Nantucket Shoals	21,568,700	466,220	14,000	744	21,582,700	466,964
Off Highland Light	2,744,250	43,872	.....	.....	2,744,250	43,872
Off Chatham	694,000	17,820	.....	.....	694,000	17,820
Shore, general	1,943,600	43,804	.....	.....	1,943,600	43,804
Total	13,510,596	356,073	326,800	20,953	13,837,396	377,026
Total	67,526,036	1,660,366	600,400	35,254	68,126,436	1,695,620
Grand total	77,608,596	1,994,198	1,365,400	48,440	78,973,996	2,042,638

Summary, by fishing-grounds, of certain fishery products landed at Gloucester, Mass., in 1902 by American fishing vessels.

Fishing-grounds.	No. of trips.	Cod.				Cusk.			
		Fresh.		Salted.		Fresh.		Salted.	
		Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
East of 66° W. long.:									
La Have Bank	77	2,141,120	\$35,943	377,000	\$12,968	129,000	\$1,539	.....	.....
Western Bank	49	1,825,270	32,087	775,560	25,407	56,000	682	.....	.....
Quereau Bank	207	5,490,205	81,659	8,583,967	248,155	70,000	830	13,000	\$243
Green Bank	1	.....	.....	4,000	150	.....	.....	.....	.....
Grand Bank	64	59,080	1,037	11,006,560	269,284	.....	.....	.....	.....
St. Peters Bank	5	.....	.....	46,840	1,624	.....	.....	.....	.....
Bacalleu Bank	37	.....	.....	70,235	2,167	.....	.....	.....	.....
Off Newfoundland	76	14,000	189	177,722	4,717	.....	.....	.....	.....
Cape North	1	.....	.....	180,000	3,800	.....	.....	.....	.....
Cape Shore	55	314,360	5,900	75,000	2,438	128,460	285	.....	.....
Gulf of St. Lawrence	18	70,000	840	116,068	3,532	.....	.....	.....	.....
Total	685	9,914,035	167,655	21,411,952	574,302	383,460	3,336	13,000	243
West of 66° W. long.:									
Browns Bank	40	721,132	10,375	124,740	3,855	59,340	705	3,000	75
Georges Bank	458	863,582	17,498	8,676,569	286,169	4,000	52	5,000	113
Cashes Bank	11	83,860	1,357	.....	.....	59,040	758	.....	.....
Ipswich Bay	18	9,000	159	.....	.....	.....	.....	.....	.....
South Channel	38	239,000	3,980	25,000	626	12,000	146	.....	.....
Off Chatham	2	.....	.....	.....	.....	.....	.....	.....	.....
Bay of Fundy	6	60,000	943	.....	.....	100,000	1,151	.....	.....
Shore, general	2,200	1,248,807	31,932	.....	.....	42,700	564	.....	.....
Total	2,768	3,225,381	66,244	8,826,309	290,650	277,080	3,376	8,000	188
Grand total	3,353	13,139,416	223,899	30,238,261	864,952	660,540	6,712	21,000	431

106 REPORT OF COMMISSIONER OF FISH AND FISHERIES.

Summary, by fishing-grounds, of certain fishery products, etc.—Continued.

Fishing grounds.	Haddock.				Hake.			
	Fresh.		Salted.		Fresh.		Salted.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
East of 66° W. long.:								
La Have Bank	365,280	\$6,303			2,648,500	\$24,374		
Western Bank	164,120	3,561			222,000	2,096		
Quereau Bank	155,931	2,147			197,000	1,646	85,000	\$1,063
Grand Bank	191,626	2,935						
Off Newfoundland					40,000	320		
Cape Shore	92,240	2,083			30,000	300	3,000	68
Total	969,197	17,029			3,137,500	28,736	88,000	1,131
West of 66° W. long.:								
Browne Bank	783,550	6,142	2,000	\$40	178,620	1,574	1,000	23
Georges Bank	1,066,255	24,641			10,000	148		
Cashes Bank	70,120	690			170,000	1,692		
South Channel	358,000	2,505			194,500	2,209		
Bay of Fundy	10,000	80			248,180	2,075		
Shore, general	399,342	6,377			2,100,872	28,518	45,000	1,238
Total	3,287,267	40,435	2,000	40	2,902,172	36,216	46,000	1,261
Grand total	4,256,464	57,464	2,000	40	6,039,672	64,952	134,000	2,392

Fishing grounds.	Pollock.				Halibut.			
	Fresh.		Salted.		Fresh.		Salted.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
East of 66° W. long.:								
La Have Bank	9,000	\$64			39,125	\$3,734		
Western Bank	4,000	82			151,679	11,494		
Quereau Bank					1,197,695	101,969	22,400	\$1,612
Green Bank					27,899	2,411		
Grand Bank					244,248	18,418	15,600	1,255
St. Peters Bank					24,948	2,187	4,000	360
Bacalleu Bank					996,800	53,394	693,500	46,801
Off Newfoundland					576,570	43,565	17,240	1,409
Cape Shore	12,000	82	10,000	\$125				
Gulf of St. Lawrence					382,067	18,789		
Total	25,000	178	10,000	125	3,641,031	265,951	762,740	51,437
West of 66° W. long.:								
Browns Bank					70,352	1,848		
Georges Bank	250	4	6,000	90	356,234	25,534		
Ipswich Bay	109,500	592						
Off Chatham	35,000	263						
Bay of Fundy					250	25		
Shore, general	9,032,975	68,119						
Total	9,177,725	68,978	6,000	90	426,836	27,407		
Grand total	9,202,725	69,156	16,000	215	4,067,867	283,358	762,740	51,437

Fishing grounds.	Mackerel.				Other fish.			
	Fresh.		Salted.		Fresh.		Salted.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
East of 66° W. long.:								
Quereau Bank					5,574	\$669		
Off Newfoundland					1,066,500	33,953	9,313,000	\$142,363
Cape Shore			1,353,800	\$80,133				
Total			1,353,800	80,133	1,072,074	34,622	9,313,000	142,363
West of 66° W. long.:								
Georges Bank	368,100	\$19,985	3,085,200	191,948	17,250	1,705		
South Channel	18,000	900			5,800	500		
Off Chatham					27,000	90		
Shore, general	290,070	18,419	2,454,600	191,829	449,900	5,854	1,395,400	23,028
Total	676,170	39,304	6,139,800	383,777	499,950	8,209	1,395,400	23,028
Grand total	676,170	39,304	7,489,600	463,910	1,572,024	42,831	10,708,400	165,391

REPORT OF COMMISSIONER OF FISH AND FISHERIES. 107

Summary, by fishing-grounds, of certain fishery products, etc.—Continued.

Fishing grounds.	Total.				Grand total.	
	Fresh.		Salted.		Lbs.	Value.
	Lbs.	Value.	Lbs.	Value.		
East of 66° W. long.:						
La Have Bank	5,892,025	\$71,957	377,000	\$12,968	5,709,025	\$84,925
Western Bank	2,423,069	49,952	776,560	25,407	3,198,629	75,359
Quereau Bank	7,116,405	188,920	8,704,367	251,133	16,820,772	440,053
Green Bank	27,899	2,411	4,000	150	31,899	2,561
Grand Bank	494,954	22,390	11,022,160	270,639	11,517,114	292,929
St. Peters Bank	24,948	2,187	50,840	1,984	76,788	4,171
Bacalleu Bank	996,800	53,994	763,735	48,968	1,760,535	102,362
Off Newfoundland	1,697,070	78,017	9,507,962	148,439	11,205,032	226,506
Cape North			180,000	3,800	180,000	3,800
Cape Shore	577,060	8,650	1,441,800	82,764	2,018,860	91,414
Gulf of St. Lawrence	452,067	19,629	115,068	3,532	567,135	28,161
Total	19,142,297	497,507	32,942,492	849,734	52,084,789	1,347,241
West of 66° W. long.:						
Browns Bank	1,812,994	20,644	190,740	3,993	1,943,734	24,637
Georges Bank	3,285,671	89,567	12,372,769	478,320	15,658,440	567,837
Cashes Bank	383,020	4,497			383,020	4,497
Ipswich Bay	118,500	751			118,500	751
South Channel	827,300	10,300	25,000	626	852,300	10,926
Off Chatham	62,000	353			62,000	353
Bay of Fundy	418,430	4,274			418,430	4,274
Shore, general	13,564,666	169,783	8,895,000	216,095	17,459,666	375,878
Total	20,472,581	290,169	16,423,509	699,034	36,896,090	989,203
Grand total	39,614,878	787,676	49,366,001	1,548,768	88,980,879	2,336,444

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., by American fishing vessels during the year 1902.

Months.	No. of trips.	Cod.				Cusk.			
		Fresh.		Salted.		Fresh.		Salted.	
		Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
January	389	1,584,700	\$46,541			128,600	\$2,462		
February	286	1,068,100	42,570			32,700	798		
March	425	2,700,400	66,688			69,500	1,257		
April	418	1,536,900	29,358			121,600	1,728		
May	295	1,940,600	33,464			169,500	2,037		
June	261	1,438,400	43,357			49,900	932		
July	361	2,999,300	48,662			49,000	685		
August	359	2,786,900	41,273	10,000	\$200	10,000	150		
September	304	2,317,600	52,690			75,465	1,003		
October	320	2,305,600	79,961			155,200	2,664		
November	304	1,656,200	48,446			141,800	2,067		
December	269	899,000	38,405			130,800	2,639		
Total landed at Boston	3,981	23,233,900	571,415	10,000	200	1,123,965	18,272		
January	163	366,285	11,279	429,660	16,127	6,000	75		
February	153	292,250	11,816	203,455	7,704	9,400	181		
March	220	1,824,347	29,005	399,704	14,533				
April	254	1,996,102	27,726	579,055	16,741	136,180	1,693		
May	262	1,876,377	26,011	2,814,110	76,656	196,260	1,063	8,000	\$138
June	248	406,305	5,581	3,160,137	71,942	27,000	311		
July	323	959,000	14,240	7,412,155	162,510	128,000	1,478		
August	194	1,456,800	20,629	1,512,000	40,816	32,000	384		
September	378	1,837,000	31,097	3,260,000	101,964	66,000	833	8,000	180
October	320	718,600	13,344	2,888,485	95,194	50,200	653	5,000	113
November	538	1,071,600	22,037	6,740,500	229,638	8,500	111		
December	305	335,850	11,134	849,000	32,137	2,000	30		
Total landed at Gloucester	3,353	13,139,416	223,899	30,238,261	864,952	660,540	6,712	21,000	431
Grand total	7,334	36,373,316	795,314	30,248,261	865,152	1,784,505	24,984	21,000	431
Grounds E. of 66° W. long.	797	13,299,035	243,406	21,421,952	574,502	652,960	7,555	13,000	243
Grounds W. of 66° W. long.	6,537	23,074,281	551,908	8,826,309	290,650	1,131,545	17,429	8,000	188
Landed at Boston in 1901	3,403	16,892,450	469,544	16,000	420	1,090,300	17,547		
Landed at Gloucester in 1901	3,561	19,080,074	380,154	29,702,801	973,974	938,618	14,422	51,980	1,377

108 REPORT OF COMMISSIONER OF FISH AND FISHERIES.

Statement, by months, of quantities and values of certain fishery products, etc.—Cont'd.

Months.	Haddock.				Hake.			
	Fresh.		Salted.		Fresh.		Salted.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
January.....	3,682,400	\$85,849			687,500	\$15,887		
February.....	3,689,700	92,115			140,900	4,749		
March.....	5,070,000	91,030			162,600	7,102		
April.....	2,983,000	43,546			195,500	2,474		
May.....	1,925,200	51,341			333,500	3,811		
June.....	1,900,900	45,437			595,000	8,125		
July.....	2,827,800	46,759			413,800	5,420		
August.....	2,705,150	49,625			777,600	8,465		
September.....	2,935,700	68,209			895,800	14,457		
October.....	3,231,700	96,595			1,487,500	26,854		
November.....	2,119,400	63,316			1,791,000	25,627		
December.....	1,087,900	47,277			753,150	18,633		
Total landed at Boston.....	34,138,850	781,099			8,223,850	141,604		
January.....	409,515	9,229			41,090	745		
February.....	679,983	13,970			16,000	380		
March.....	991,648	13,345						
April.....	1,128,630	8,083			164,000	1,514		
May.....	109,298	826	2,000	\$40	187,120	1,587	76,000	\$961
June.....	61,390	399			1,011,362	8,168	3,000	68
July.....	341,000	2,145			1,511,000	12,617		
August.....	105,800	800			264,000	2,112		
September.....	95,000	710			532,000	6,288	55,000	1,363
October.....	15,200	228			1,517,500	20,454		
November.....	204,600	4,364			655,000	9,150		
December.....	114,400	3,365			140,600	1,937		
Total landed at Gloucester.....	4,256,464	57,464	2,000	40	6,039,672	64,952	134,000	2,392
Grand total.....	38,395,314	838,563	2,000	40	14,263,522	206,556	184,000	2,392
Grounds E. of 66° W. long.....	3,100,697	65,935			3,631,500	35,984	88,000	1,131
Grounds W. of 66° W. long.....	35,294,617	772,628	2,000	40	10,632,022	170,572	46,000	1,261
Landed at Boston in 1901.....	24,731,350	618,235			7,467,850	117,327		
Landed at Gloucester in 1901.....	4,198,891	71,089	46,970	\$27	3,668,097	40,119	148,480	2,270

Months.	Pollock.				Halibut.			
	Fresh.		Salted.		Fresh.		Salted.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
January.....	198,900	\$4,697			178,700	\$15,479		
February.....	89,000	2,998			129,600	11,220		
March.....	35,800	993			150,700	12,140		
April.....	8,500	235			206,510	14,492		
May.....	29,300	291			354,500	17,950		
June.....	189,100	2,014			160,200	14,511		
July.....	309,400	2,653			252,860	15,699		
August.....	380,563	3,654			407,450	20,423		
September.....	347,300	5,453			134,800	9,418		
October.....	601,800	9,023			114,900	8,679		
November.....	839,200	8,933			166,200	13,658		
December.....	348,000	8,387			2,400	260		
Total landed at Boston.....	3,376,863	49,331			2,258,820	153,929		
January.....	17,810	204			152,670	14,928	6,950	\$556
February.....	11,465	191			255,915	23,358	2,500	225
March.....	2,630	26			404,594	30,476	7,000	630
April.....					362,703	27,930	11,240	899
May.....	46,000	413			602,514	30,424		
June.....	196,150	1,089			483,022	43,029	4,450	356
July.....	45,500	204			686,093	32,005	21,300	1,704
August.....	4,000	32			443,245	21,217	14,800	931
September.....	51,000	468			397,243	22,741	680,000	45,811

REPORT OF COMMISSIONER OF FISH AND FISHERIES. 109

Statement, by months, of quantities and values of certain fishery products, etc.—Cont'd.

Months.	Pollock.				Halibut.			
	Fresh.		Salted.		Fresh.		Salted.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
October	1,207,000	\$11,372	6,000	\$90	209,713	\$22,159	5,000	\$325
November	6,594,800	45,903	10,000	125	106,655	8,730	.....	.....
December	1,026,370	9,254	.....	.....	63,500	6,365	.....	.....
Total landed at Gloucester	9,202,725	69,166	16,000	215	4,067,867	283,358	752,740	51,437
Grand total	12,579,588	118,487	16,000	215	6,326,687	437,287	752,740	51,437
Grounds E. of 66° W. long.	151,500	2,618	10,000	125	5,744,091	396,272	752,740	51,437
Grounds W. of 66° W. long.	12,428,088	115,869	6,000	90	582,596	41,015	.....	.....
Landed at Boston in 1901	2,193,800	29,682	.....	.....	1,421,716	113,969	.....	.....
Landed at Gloucester in 1901	5,151,140	38,614	97,742	1,247	3,643,455	286,033	462,590	41,051

Months.	Mackerel.				Other fish. ^a			
	Fresh.		Salted.		Fresh.		Salted.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
January .....	.....	.....	.....	.....	620,000	\$16,500	350,000	\$6,280
February .....	.....	.....	.....	.....	326,000	8,965	.....	.....
March .....	.....	.....	.....	.....	550,000	17,000	.....	.....
April .....	.....	.....	.....	.....	.....	.....	.....	.....
May	21,600	\$1,728	52,000	\$2,600	.....	.....	.....	.....
June	274,125	12,403	78,000	4,041	900	6	.....	.....
July	1,189,675	77,837	283,400	12,149	436,900	30,851	.....	.....
August	360,500	23,425	60,800	3,901	563,700	44,795	.....	.....
September	267,675	25,057	218,200	14,614	136,000	11,633	.....	.....
October	2,623	247	8,000	255	261,050	2,943	.....	.....
November .....	.....	.....	.....	.....	145,550	1,818	.....	.....
December .....	.....	.....	.....	.....	116,250	3,240	360,000	5,400
Total landed at Boston	2,095,998	140,797	645,400	37,660	3,156,350	137,751	710,000	10,680
January .....	.....	.....	.....	.....	396,000	12,400	1,236,000	18,540
February .....	.....	.....	.....	.....	70,200	2,145	92,000	1,832
March .....	.....	.....	.....	.....	420,300	13,408	135,000	2,488
April .....	.....	.....	.....	.....	.....	.....	.....	.....
May	6,800	385	375,400	18,582	.....	.....	.....	.....
June	113,360	6,059	1,643,500	84,630	27,000	90	.....	.....
July	253,080	13,857	3,054,200	157,341	99,820	725	.....	.....
August	193,950	11,221	832,700	49,590	12,200	340	.....	.....
September	91,270	6,467	945,200	85,611	81,134	1,089	44,200	960
October	18,210	1,825	486,200	45,399	191,370	4,234	798,000	12,436
November .....	.....	.....	206,400	22,757	144,000	2,400	1,143,200	20,323
December .....	.....	.....	.....	.....	180,000	6,000	7,260,000	108,812
Total landed at Gloucester	676,170	39,304	7,493,600	463,910	1,572,024	42,831	10,708,400	165,391
Grand total	2,772,168	180,101	8,139,000	501,470	4,728,374	180,582	11,418,400	176,071
Grounds E. of 66° W. long. ....	.....	.....	1,398,800	82,439	2,645,074	79,569	10,023,000	153,043
Grounds W. of 66° W. long.	2,772,168	180,101	6,740,200	419,031	2,083,300	101,013	1,395,400	23,028
Landed at Boston in 1901	1,792,355	87,078	632,820	27,188	1,275,290	71,135	1,488,200	23,330
Landed at Gloucester in 1901	990,440	41,474	11,380,600	557,365	1,918,462	61,414	10,698,720	163,121

^aIncludes herring from Newfoundland, 2,637,500 pounds frozen, \$78,668, and 10,023,000 pounds salted, \$153,043.

110 REPORT OF COMMISSIONER OF FISH AND FISHERIES.

Statement, by months, of quantities and values of certain fishery products, etc.—Continued.

Months.	Total.				Grand total.	
	Fresh.		Salted.		Lbs.	Value.
	Lbs.	Value.	Lbs.	Value.		
January.....	7,080,800	\$187,415	350,000	\$5,280	7,430,800	\$192,695
February.....	5,456,000	163,415	.....	.....	5,456,000	163,415
March.....	8,719,000	196,210	.....	.....	8,719,000	196,210
April.....	5,051,910	91,833	.....	.....	5,051,910	91,833
May.....	4,774,200	110,622	52,000	2,600	4,826,200	113,222
June.....	4,608,525	126,785	78,000	4,041	4,686,525	130,826
July.....	8,458,635	228,566	233,400	12,149	8,692,035	240,715
August.....	7,991,863	191,810	70,800	4,101	8,062,663	195,911
September.....	7,110,340	187,920	218,200	14,614	7,328,540	202,534
October.....	8,160,473	226,866	3,000	255	8,163,473	227,121
November.....	6,859,350	163,865	.....	.....	6,859,350	163,865
December.....	3,337,500	118,891	360,000	5,400	3,697,500	124,291
Total landed at Boston.....	77,608,596	1,994,198	1,365,400	48,440	78,973,996	2,042,638
January.....	1,388,370	48,860	1,672,610	35,223	3,060,980	84,083
February.....	1,335,213	52,038	297,955	9,761	1,633,168	61,799
March.....	3,643,519	86,259	541,704	17,651	4,185,223	103,910
April.....	3,787,615	66,846	590,295	17,640	4,377,910	84,486
May.....	3,022,869	60,709	3,275,510	95,377	6,298,379	156,086
June.....	2,325,589	64,726	4,811,087	156,996	7,136,676	221,722
July.....	3,923,493	76,771	10,487,655	321,555	14,411,148	398,326
August.....	2,511,995	56,735	2,369,000	91,337	4,870,995	148,072
September.....	3,100,647	69,683	4,982,400	235,879	8,083,047	305,562
October.....	3,927,693	74,269	4,138,685	153,557	8,066,378	227,826
November.....	8,785,155	92,695	8,100,100	272,843	16,885,255	365,538
December.....	1,862,720	38,085	8,109,000	140,949	9,971,720	179,034
Total landed at Gloucester.....	39,614,878	787,676	49,366,001	1,548,768	88,980,879	2,336,444
Grand total.....	117,223,474	2,781,874	50,731,401	1,597,208	167,954,875	4,379,082
Grounds E. of 66° W. long.....	29,224,857	831,339	33,707,492	862,920	62,932,349	1,694,259
Grounds W. of 66° W. long.....	87,998,617	1,950,635	17,023,909	734,288	105,022,526	2,684,823
Landed at Boston in 1901.....	56,855,111	1,524,612	2,137,020	50,938	58,992,131	1,575,450
Landed at Gloucester in 1901.....	39,584,177	933,319	52,588,883	1,741,232	92,173,060	2,674,551

THE SALMON FISHERY OF PENOBSCOT RIVER AND BAY.

The results of the investigation of the salmon fishery of Penobscot River and Bay, by Mr. Charles G. Atkins, are here presented for the years 1900 and 1901, together with notes on certain fishes. The statistics of the salmon fishery for 1902 will be published at a later date in connection with the returns on the fisheries of Maine collected for that year by the field force of this division.

The salmon fishery of Penobscot River and Bay is located mainly in the river, but extends along the shores of the bay to Brooksville on the eastern side, to Lincolnville on the western side, and to Islesboro in the central bay. A few salmon were also taken at Criehaven, or Ragged Island, in 1901 and some earlier years, in connection with the fisheries for herring and other species. In the river the salmon are taken in weirs, and with set and drift gill nets, and in the bay they are caught chiefly in trap nets. The weirs have a leader and one or more floored pounds supported by stakes driven firmly in the ground. The leaders and the walls of the pounds are usually constructed of twine or wire

netting. The trap nets are also set with a leader, at the extreme end of which are two pounds, the "outer" and "inner" pounds, in which the salmon are captured. The trap nets are of twine netting supported by floats, rising and falling with the tide, and are held in place by long warps and anchors. The set and drift gill nets are each from 100 to 200 feet in length, and the size of the mesh is from 6 to 7 inches stretched. In the methods and location of this fishery there has been comparatively little change during the past thirty years.

The following table shows the extent of the salmon fishery of Penobscot River and Bay in 1900 and 1901:

Extent of the salmon fishery of Penobscot River and Bay in 1900 and 1901.

Towns.	Persons employed.		Weirs and traps.				Gill nets.			
			1900.		1901.		1900.		1901.	
	1900.	1901.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Brooksville (Cape Rosier)	1	1	2	\$270	2	\$270	.....	.....	.....	.....
Bucksport	7	5	11	511	9	420	.....	.....	.....	.....
Castine	2	2	2	200	2	210	.....	.....	.....	.....
Hampden	2	2	.....	.....	.....	.....	3	\$45	4	\$60
Islesboro	2	4	6	280	8	360	.....	.....	.....	.....
Lincolville	5	6	11	495	14	558	.....	.....	.....	.....
Ragged Island	2	2	1	800	1	800	.....	.....	.....	.....
Northport	4	4	15	870	12	700	.....	.....	.....	.....
Orland	13	16	14	544	16	676	.....	.....	.....	.....
Orrington	4	5	1	54	1	54	11	120	15	225
Penobscot	13	12	20	1,260	17	1,122	.....	.....	.....	.....
Searsport	2	2	3	540	3	540	.....	.....	.....	.....
South Brewer	1	1	.....	.....	.....	.....	1	15	1	15
Stockton and Prospect	14	15	17	1,094	17	1,094	.....	.....	.....	.....
Verona	13	14	30	2,500	32	2,610	.....	.....	.....	.....
Winterport	2	3	2	175	2	175	.....	.....	1	15
Bangor	1	1	.....	.....	.....	.....	1	15	1	15
Total	88	94	135	9,598	136	9,489	16	195	22	330

NOTE.—Above Bangor, between Vease and Enfield in 1901, 16 fishermen operated 8 gill nets, value \$120, with 8 boats, value \$120. The catch was 20 salmon, weighing 300 pounds, the value of which was \$40.

Towns.	Boats, scows, and rafts.				Shore and accessory property.		Total investment.	
	1900.		1901.		1900.	1901.	1900.	1901.
	No.	Value.	No.	Value.	.....	.....	.....	.....
Brooksville (Cape Rosier)	1	\$25	1	\$20	\$15	\$15	\$310	\$305
Bucksport	12	181	9	110	100	100	742	680
Castine	5	60	5	45	15	15	265	270
Hampden	2	24	2	24	.....	.....	69	84
Islesboro	2	55	5	95	15	25	350	480
Lincolville	5	83	6	98	150	150	728	806
Ragged Island	2	80	2	80	.....	.....	880	880
Northport	6	90	6	90	85	75	1,045	865
Orland	15	196	17	204	30	40	770	820
Orrington	5	100	6	115	60	60	334	454
Penobscot	27	362	29	362	200	210	1,812	1,684
Searsport	4	55	4	55	70	60	665	655
South Brewer	1	12	1	12	.....	.....	27	27
Stockton and Prospect	28	294	33	347	120	120	1,608	1,561
Verona	27	530	28	535	685	690	3,715	3,835
Winterport	2	12	3	24	15	15	202	229
Bangor	1	12	1	12	.....	.....	27	27
Total	145	2,101	158	2,218	1,560	1,575	13,449	13,612

112 REPORT OF COMMISSIONER OF FISH AND FISHERIES.

Extent of the salmon fishery of Penobscot River and Bay in 1900 and 1901—Continued.

Towns.	Catch of salmon.					
	1900.			1901.		
	No.	Lbs.	Value.	No.	Lbs.	Value.
Brooksville (Cape Rosier)	52	676	\$280	132	1,700	\$230
Bucksport	163	2,119	318	152	1,980	266
Castine	71	923	145	215	2,800	378
Hampden	21	250	52	31	403	87
Islesboro	208	2,704	447	442	5,748	773
Lincolnville	243	3,159	522	498	6,400	928
Ragged Island	151	1,510	151	83	544	54
Northport	342	4,450	755	477	6,200	834
Orland	67	881	170	163	2,118	405
Orrington	106	1,300	253	161	2,090	310
Penobscot	603	7,839	1,500	1,176	15,288	2,058
Searsport	201	2,600	470	459	4,475	651
South Brewer	9	75	16	17	230	42
Stockton and Prospect	466	6,058	1,100	1,079	13,487	1,889
Verona	777	9,324	1,554	1,618	21,034	3,131
Winterport	60	780	117	77	1,000	142
Bangor	1	12	2	20	260	50
Total	3,641	44,660	7,832	6,801	85,755	12,223

FISH TAKEN WITH SALMON.

With the salmon there are incidentally taken in the trap nets and weirs other marine or anadromous species, of which the following is nearly a complete list: Alewife (*Pomolobus pseudoharengus*), blueback (*Pomolobus æstivalis*), herring (*Clupea harengus*), shad (*Alosa sapidissima*), menhaden (*Brevoortia tyrannus*), striped bass (*Roccus lineatus*), cunner (*Tautoglabrus adspersus*), tautog (*Tautoga onitis*), sculpin (*Myoxocephalus grænlandicus*), mackerel (*Scomber scombrus*), lump-fish (*Cyclopterus lumpus*), cod (*Gadus callarius*), tomcod (*Microgadus tomcod*), pollock (*Pollachius virens*), English hake (*Merluccius bilinearis*), sturgeon (*Acipenser sturio*), eel (*Anguilla chrisypa*), lamprey (*Petromyzon marinus*), smelt (*Osmerus mordax*), killi-fish (*Fundulus heteroclitus*), winter flounder (*Pseudopleuronectes americanus*), eel-back flounder (*Liopsetta putnami*), and dog-fish (*Squalus acanthias*).

The list includes a number of species prominent as food fishes, and others which are used extensively for bait and fertilizer, while a few are of little or no economic importance. The alewife, however, is the only one for which a distinct fishery is maintained in these waters. This species is caught in considerable quantities in the weirs and trap-nets with the salmon, but more extensively in weirs set especially for its capture. The pollock and dogfish are also worthy of notice as they are probably more or less inimical to the salmon.

Alewives.—So far as known the alewife (*Pomolobus pseudoharengus*) of the Penobscot breeds almost exclusively in Alamoosook Lake, though a few ascend the main Penobscot to the vicinity of Bradley, where they gain access to two ponds in very limited numbers.

The principal fishery for alewives on the Penobscot River is at Orland, in Eastern River, which is the avenue by which they reach

Alamoosook Lake. In this district a few of the weirs catch alewives exclusively, a larger number catch alewives principally, with a few salmon, and in the remainder, while salmon are taken chiefly, alewives form an important part of the catch. In other towns the extent of the alewife fishery seems to decrease with the distance from Orland. In Verona, Bucksport, and Penobscot the fishery is still quite important, but much less so in Castine, Stockton Springs, and more distant localities. It is estimated that in this fishery in 1901, in all localities, the number of weirs fished was 112, and the catch 592,587 alewives, and that in 1902 the number of weirs was 132, and the catch 406,265 alewives. The catch is disposed of in various ways. A few are marketed in a fresh condition at about 50 cents a hundred fish, some are pickled and sold in barrels, but the greater part of the catch is smoked and disposed of in the local markets at an average of about 80 cents a hundred fish. The fishermen sometimes receive as high as from 1 to 1½ cents per fish. Alewives are rarely, if ever, sold by the pound in this region.

The "blueback" (*Pomolobus æstivalis*) is taken in nearly all the weirs with the alewives, but makes its appearance later in the season. It has been reported as sometimes taken at Orland Falls, above the lower dam. Though of excellent quality when fresh, its extreme fatness renders it difficult to cure in good condition, and it is therefore used chiefly for fertilizer, without any record being made of the number caught. While in some districts it is taken in greater numbers than the alewife, the catch in the aggregate is probably not so large as of that species.

Shad.—Shad are taken in very small numbers with the salmon. The fishermen, when referring to their catch, distinguish between the large "river shad" and the smaller "sea shad." Following is approximately the relative quantity of shad and salmon obtained in the weirs in a few localities: In Penobscot 10 fishermen caught 473 salmon and 106 shad; in Verona 9 fishermen caught 389 salmon and 56 shad; in Bucksport 5 fishermen caught 75 salmon and 37 shad, and in Winterport 2 fishermen caught 33 salmon and 70 shad; a total of 970 salmon and 269 shad. It should be explained that in some of these estimates only the "river shad" are included, the "sea shad" being omitted. The relative number of shad may therefore be nearly twice as large as the figures indicate.

Striped bass.—Striped bass are obtained in the Eastern River, where, in 1902, in the town of Orland, 86 were caught by 7 fishermen, and in Verona 47 were caught by 3 fishermen.

Pollock.—This species appeared in the river and bay in unusual numbers in 1901, and a considerable quantity of them was in some instances taken in the weirs. A fisherman in Penobscot reported the capture in his weirs of 132 pollock. In 1902, in Searsport, 300 pollock

were taken in 3 weirs; in Stockton Springs 85 pollock were caught in 4 weirs, while from 2 other weirs in the same locality 1,200 pounds, dressed weight, were taken. In Brooksville, in each of the years 1900 and 1901, about 200 pollock, weighing from 12 to 15 pounds each, were caught in 2 salmon traps. The presence of these active and ravenous fish is to be noted as having a possible influence in decreasing the supply of both salmon and alewives. It is not supposed that they will attack adult salmon, but the young salmon on their way to the marine feeding grounds must run the gauntlet of these foes, in consequence of which it is not improbable that their numbers are greatly reduced.

Dog-fish.—Dog-fish appeared on the coast in and near Penobscot Bay in unwonted numbers in 1902, and committed great havoc among the deep-water fishes. They appeared earlier than usual, being found near Monhegan Island as early as the middle of May, and becoming quite plentiful all along the coast in June; but August appears to have been as usual the month of greatest abundance. As illustrating their abundance and the damage wrought by them to the shore fisheries, Mr. John N. Harriman, of Stockton Springs, who fishes a great deal in the lower Penobscot Bay, near Matinicus, at Isle au Haut, etc., stated that he never knew dog-fish to be so plentiful. They came into the bay early, about June 1, and remained until late in the season. A Searsport fisherman also caught dog-fish just outside of Brigadier Island. Mr. Alvah G. Dorr, of Bucksport, who fishes for haddock, cod, etc., near Gotts Island, found dog-fish troublesome about the last of June. Around Mount Desert Rock, the large fleet of fishermen usually at work there were all driven from the fishing grounds by the dog-fish early in July, and had hardly begun again September 9. The dog-fish not only seize the bait on trawls, but attack other fish that have been hooked. On August 9 Mr. Dorr set his usual trawl, one "tub" of 500 hooks, about 1 mile outside of Gotts Island, and secured at one haul 217 dog-fish, 5 haddock, and a good many heads of haddock of which the rest had been eaten off by dog-fish. On the same day another man fishing in that locality, with about the same number of hooks, caught at one haul 224 dog-fish, 2 hake heads, and 3 skates. Mr. Dorr opened perhaps half a dozen dog-fish and found that nearly all were females with living young within, about 8 young fish to each mother, which would swim off on being thrown into the water. In the Penobscot River, near Sandy Point, a trawl set by Mr. Ernest A. Partridge, of Stockton Springs, in 15 fathoms of water, took 50 dog-fish in one day. Occasionally, but not very often, dog-fish are caught in the salmon weirs. The fishermen report 9 dog-fish caught in weirs at Stockton Springs, 6 at Penobscot, and 9 at Verona.

FISHERIES OF COLORADO.

The fisheries of Colorado, recently investigated by Mr. E. A. Tulian, in 1900 gave employment to 565 persons, of whom 546 were fishermen and the remainder shoresmen. The investment was \$128,568, which included 101 boats, \$2,400; 615 hand lines, \$3,610; 16 seines, \$1,755; 47 gill nets, \$415; shore and accessory property, \$118,888, and cash capital, \$1,500. The products aggregated 1,360,166 pounds of fish, valued at \$185,493. The catch with seines was 823,585 pounds, valued at \$13,146; with gill nets, 14,980 pounds, valued at \$3,645, and with hand lines, 521,601 pounds, valued at \$168,702. The more important species taken were black-spotted trout, 208,655 pounds, \$70,925; brook trout, 189,901 pounds, \$59,512; carp, 658,950 pounds, \$7,430, and rainbow trout, 130,155 pounds, \$41,547. Black bass, cat-fish, crappie, Loch Leven trout, suckers, and yellow perch were caught in smaller quantities.

An interesting fact in connection with the fisheries of Colorado is that the catch is comprised largely of introduced species. The yield of native species, black-spotted trout and suckers, was only 290,390 pounds, valued at \$72,146, while that of introduced species, consisting of black bass, brook trout, carp, cat-fish, crappie, rainbow trout, Loch Leven trout, and yellow perch, amounted to 1,069,776 pounds, valued at \$113,347.

The fisheries are prosecuted in a large number of streams, creeks, ponds, and reservoirs, some of which are public waters, while others are ponds constructed and owned by individual citizens.

The following tables show the number of persons employed, the number and value of boats, apparatus of capture, the value of shore and accessory property, the amount of cash capital, and the quantity and value of the products of the fisheries of Colorado in 1900:

Table showing, by counties, the number of persons employed in the fisheries of Colorado in 1900.

Counties.	Fishermen.	Shoresmen.	Total.
Arapahoe, Boulder, Delta, Jefferson, Larimer, and Weld.....	116	18	134
Clear Creek.....	31		31
Dolores.....	10		10
Eagle.....	12		12
Garfield.....	32		32
Gilpin.....	25		25
Grand.....	50		50
Gunnison.....	133		133
Hinsdale.....	25	1	26
Lake.....	3		3
La Plata.....	11		11
Mineral and Rio Grande.....	13		13
Montezuma.....	10		10
Montrose.....	18		18
Otero.....	2		2
Pitkin.....	5		5
Saguache.....	40		40
San Miguel.....	9		9
Summit.....	1		1
Total.....	546	19	565

116 REPORT OF COMMISSIONER OF FISH AND FISHERIES.

Table showing, by counties, the apparatus and capital employed in the fisheries of Colorado in 1900.*

Counties.	Boats.		Hand lines.		Seines.			Gill nets.			Shore and accessory property.	Cash capital.	Total investment.
	No.	Value.	No.	Value.	No.	Length (yards).	Value.	No.	Length (yards).	Value.			
Arapahoe, Boulder, Delta, Jefferson, Larimer, and Weld	33	\$1,100	120	\$775	8	3,150	\$1,530	21	2,550	\$135	\$52,173	\$1,500	\$57,213
Clear Creek	3	75	32	275							5,600		5,850
Dolores			10	50									50
Eagle	9	100	22	107							4,900		5,107
Garfield	2	50	32	255									305
Gilpin	5	100	65	350							2,500		2,950
Grand	10	200	50	300							250		750
Gunnison		50	130	650	3	175	75				2,000		2,775
Hinsdale	22	415	25	200				22	1,100	240	22,350		23,205
Lake	1	10	4	10	1	35	20				1,800		1,840
La Plata	2	50	10	35	1	100	40				1,800		1,925
Mineral and Rio Grande	2	50	25	175				4	200	40	9,165		9,430
Montezuma			10	50									50
Montrose			20	90							1,150		1,240
Otero	3	30	2	3	3	170	90				5,000		5,123
Pitkin			6	20							300		320
Saguache			40	200									200
San Miguel	4	120	9	45									165
Summit	3	50	3	20							10,000		10,070
Total	101	2,400	615	3,610	16	3,630	1,755	47	3,850	415	118,888	1,500	128,568

Table showing, by counties and apparatus, the yield of the fisheries of Colorado in 1900.

Apparatus and species.	Arapahoe, Boulder, Delta, Jefferson, Larimer, and Weld.		Clear Creek.		Dolores.		Eagle.		Garfield.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Seines:										
Black bass a	11,250	\$730								
Carp a	658,950	7,430								
Cat-fish a	21,800	915								
Crappie a	22,000	660								
Suckers	81,735	1,221								
Yellow perch a	18,500	680								
Total	814,235	11,636								
Gill nets:										
Black-spotted trout	6,765	1,190								
Hand lines:										
Black bass a	4,500	595								
Black-spotted trout	32,585	10,390	4,100	\$1,635	3,750	\$1,125	7,690	\$2,600	30,350	\$15,175
Brook trout a	30,250	9,520	9,520	8,790			3,581	1,092	2,400	1,200
Cat-fish a	750	60								
Loch Leven trout a			270	108						
Rainbow trout a	17,075	6,145	1,640	650			3,815	1,122	3,650	1,825
Yellow perch a	4,000	340								
Total	89,160	27,050	15,530	6,183	3,750	1,125	14,586	4,814	36,400	18,200
Total by species:										
Black bass a	15,750	1,825								
Black-spotted trout	39,350	11,580	4,100	1,635	3,750	1,125	7,690	2,600	30,350	15,175
Brook trout a	80,250	9,520	9,520	8,790			3,581	1,092	2,400	1,200
Carp a	658,950	7,430								
Cat-fish a	22,550	975								
Crappie a	22,000	660								
Loch Leven trout a			270	108						
Rainbow trout a	17,075	6,145	1,640	650			3,815	1,122	3,650	1,825
Suckers	81,735	1,221								
Yellow perch a	22,500	1,020								
Grand total	910,160	39,776	15,530	6,183	3,750	1,125	14,586	4,814	36,400	18,200

* Introduced.

REPORT OF COMMISSIONER OF FISH AND FISHERIES. 117

Table showing, by counties and apparatus, the yield of the fisheries, etc.—Continued.

Apparatus and species.	Gilpin.		Grand.		Gunnison.		Hinsdale.		Lake.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Seines:										
Brook trout ^a					2,650	\$690			200	\$70
Gill nets:										
Black-spotted trout.....							6,515	\$1,955		
Hand lines:										
Black-spotted trout.....	7,150	\$3,550	19,900	\$5,970	8,750	1,125	22,750	6,825		
Brook trout ^a	2,950	1,275			89,400	26,820	3,200	960	550	205
Rainbow trout ^a	2,925	1,310			61,950	18,585	2,300	690		
Total.....	13,025	6,135	19,900	5,970	155,100	46,530	28,250	8,475	550	205
Total by species:										
Black-spotted trout.....	7,150	3,550	19,900	5,970	3,750	1,125	29,265	8,780		
Brook trout ^a	2,950	1,275			92,050	27,510	3,200	960	750	275
Rainbow trout ^a	2,925	1,310			61,950	18,585	2,300	690		
Grand total.....	13,025	6,135	19,900	5,970	157,750	47,220	34,765	10,430	760	275

Apparatus and species.	La Plata.		Mineral and Rio Grande.		Montezuma.		Montrose.		Otero.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Seines:										
Black bass ^a									2,250	\$225
Brook trout ^a									3,750	375
Cat-fish ^a									6,000	600
Total.....	500	150								
Gill nets:										
Black-spotted trout.....			1,700	\$500						
Hand lines:										
Black bass ^a									1,700	170
Black-spotted trout.....	2,000	800	46,000	13,800	2,300	\$690	4,950	\$1,485		
Brook trout ^a	1,600	555	3,500	1,050			1,550	465		
Rainbow trout ^a	250	75	36,000	10,800			760	225		
Total.....	3,850	1,430	85,500	25,650	2,300	690	7,250	2,175	1,700	170
Total by species:										
Black bass ^a									3,950	395
Black-spotted trout.....	2,000	800	47,700	14,300	2,300	690	4,950	1,485		
Brook trout ^a	2,100	705	3,500	1,050			1,550	465		
Cat-fish ^a									3,750	375
Rainbow trout ^a	250	75	36,000	10,800			760	225		
Grand total.....	4,350	1,580	87,200	26,150	2,300	690	7,250	2,175	7,700	770

^a Introduced.

118 REPORT OF COMMISSIONER OF FISH AND FISHERIES.

Table showing, by counties and apparatus, the yield of the fisheries, etc.—Continued.

Apparatus and species.	Pitkin.		Saguache.		San Miguel.		Summit.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Seines:										
Black bass ^a									13,500	\$955
Brook trout ^a									3,350	910
Carp ^a									658,950	7,430
Cat-fish ^a									25,550	1,290
Crappie ^a									22,000	600
Suckers.....									81,735	1,221
Yellow perch ^a									18,500	680
Total.....									823,585	13,146
Gill nets:										
Black-spotted trout..									14,980	3,645
Hand lines:										
Black bass ^a									6,200	765
Black-spotted trout..	900	\$360			5,000	\$1,500	500	\$250	193,675	67,280
Brook trout ^a	1,350	540	36,100	\$10,830			600	300	186,551	58,602
Cat-fish ^a									750	60
Loch Leven trout ^a									270	108
Rainbow trout ^a	300	120							180,155	41,547
Yellow perch ^a									4,000	340
Total.....	2,550	1,020	36,100	10,830	5,000	1,500	1,100	550	521,601	168,702
Total by species:										
Black bass ^a									19,700	1,720
Black-spotted trout..	900	360			5,000	1,500	500	250	208,655	70,925
Brook trout ^a	1,350	540	36,100	10,830			600	300	189,901	59,512
Carp ^a									658,950	7,430
Cat-fish ^a									26,300	1,350
Crappie ^a									22,000	660
Loch Leven trout ^a									270	108
Rainbow trout ^a	300	120							180,155	41,547
Suckers.....									81,735	1,221
Yellow perch ^a									22,500	1,020
Grand total.....	2,550	1,020	36,100	10,830	5,000	1,500	1,100	550	1,360,166	185,493

^a Introduced.

FISHERIES OF THE MIDDLE ATLANTIC STATES.

The fisheries of the Middle Atlantic States in 1901 furnished employment to 93,661 persons, of whom 18,623 were on fishing and transporting vessels, 52,300 on boats in the shore fisheries, and 22,738 were engaged as shosmen in wholesale fish establishments, menhaden factories, oyster canneries, and other occupations on shore connected with the fisheries. The number of persons in the fisheries of the various states was as follows: New York, 11,564; New Jersey, 12,030; Pennsylvania, 2,484; Delaware, 1,998; Maryland, 36,260; and Virginia, 29,325.

The total amount of capital invested in the fisheries of this region was \$25,080,371. The investment in New York was \$9,444,271; in New Jersey, \$2,729,571; in Pennsylvania, \$2,110,162; in Delaware, \$657,197; in Maryland, \$6,506,066; and in Virginia, \$3,633,104. The number of vessels employed was 3,721, valued at \$3,657,103, with a net tonnage of 54,761 tons, and outfits valued at \$1,088,706. The number of boats in the shore fisheries was 36,237, valued at \$2,023,880. The apparatus of capture used on vessels and boats was valued at \$1,713,454, the shore and accessory property at \$9,561,356, and the cash capital amounted to \$7,035,872.

The products of the fisheries of those states aggregated 819,046,576 pounds, valued at \$17,485,500. The yield in New York was 228,092,285 pounds, valued at \$3,894,270; in New Jersey, 117,930,964 pounds, valued at \$4,755,522; in Pennsylvania, 6,029,538 pounds, valued at \$203,372; in Delaware, 5,835,186 pounds, valued at \$203,372; in Maryland, 82,975,245 pounds, valued at \$3,767,461; and in Virginia, 378,183,358 pounds, valued at \$4,613,384. Some of the more important species taken in these fisheries were: Oysters, 19,749,677 bushels, \$10,287,556; clams, hard and soft, 1,118,777 bushels, \$1,074,834; shad, 31,897,687 pounds, \$1,253,622; alewives, 33,198,605 pounds, \$243,340; blue-fish, 16,317,795 pounds, \$758,122; menhaden, 493,936,462 pounds, \$987,228; squeteague, 23,496,383 pounds, \$558,653; crabs, hard and soft, 70,951,965 in number, \$495,385. Many other species were also obtained in large quantities.

Considering this region as a whole, the returns for 1901, as compared with those for 1897, indicate a large increase during the past few years in the extent of the fisheries. There has been some falling off since 1897 in the number of persons employed, but the investment has increased \$4,973,900, and the products 224,874,366 pounds in quantity and \$3,161,037 in value. There has also been an increase in the quantity and value of a number of important forms of fishing apparatus, such as seines, pound nets, trap nets, weirs, fyke nets, lines, eel and lobster pots, dredges, tongs, and crab scrapes.

Fisheries of the Middle Atlantic States, 1901.

Items.	New York.		New Jersey.		Pennsylvania.		Delaware.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Persons employed	11,564		12,030		2,484		1,998	
Vessels and outfits	633	\$1,595,391	611	\$810,288	27	\$82,990	27	\$22,447
Tonnage					519		237	
Boats	11,641		6,714		526	30,583	910	23,901
Seines	4,656	317,447	6,473	602,666	120	12,615	192	9,091
Gill nets	335	53,075	483	38,785	228	13,193	691	22,343
Pound nets, traps, and weirs	3,918	67,347	5,052	145,306				
Stop nets	248	67,645	158	155,679			7	760
Fyke nets			14	1,660	16	905		
Bag nets	7,212	34,860	3,052	16,955	1,384	2,239	548	899
Lines, hand and trawl			89	3,110				
Fish baskets		6,694		4,473		659		56
Crab dredges and scrapes					122	1,686		
Dredges, tongs, rakes, and hoes			323	1,135				
Pots, eel	6,972	39,159	10,699	101,593	80	2,650	243	2,480
Pots, lobster	7,526	7,301	5,665	4,052	117	122	1,260	406
Minor apparatus	4,986	8,350	860	2,358			60	60
Shore and accessory property		276		533		570		118
Cash capital		4,221,226		785,428		1,168,243		352,086
		3,025,500		155,550		793,707		216,600
Total		9,444,271		2,729,571		2,110,162		657,197

120 REPORT OF COMMISSIONER OF FISH AND FISHERIES.

Fisheries of the Middle Atlantic States, 1901—Continued.

Products.	New York.		New Jersey.		Pennsylvania.		Delaware.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Albacore			15,143	\$259				
Alewives, fresh	1,363,614	\$19,106	3,347,491	19,425	801,925	\$2,448	597,374	\$4,816
Alewives, salted			374,000	2,865	334,000	6,960		
Black bass			3,000	159	7,556	762		
Blue-fish	9,350,502	473,366	6,110,318	254,682	1,345	67	400	20
Bonito	194,727	7,307	1,459,418	34,841				
Butter-fish	690,682	25,809	3,008,301	84,119				
Cat-fish	174,144	8,822	256,859	14,229	193,199	10,163	130,280	5,075
Cero	1,570	123	22,789	714				
Cod	1,172,291	51,921	2,300,771	67,603			1,250	50
Crevalle			58	1				
Croaker			226,360	5,663	6,231	141	28,730	666
Drum			68,330	868			3,200	56
Eels, fresh	722,859	50,033	1,302,988	70,636	140,504	6,161	230,650	9,127
Flounders	1,274,308	49,949	1,668,221	52,993	22,411	709	5,500	226
German carp	281,494	17,142	227,419	14,290	161,895	9,795	198,040	9,752
Haddock	160,703	6,516	226,963	8,101				
Hake	36,580	860	26,841	749				
Herring, salted	180,000	2,025						
Horse mackerel			224	5				
King-fish	29,826	3,418	21,036	3,083				
Ling	26,140	516	317,868	4,375				
Mackerel	507,838	19,454	10,005	1,577				
Menhaden	180,409,767	454,505	32,910,666	88,041			5,350	180
Mullet, fresh			36,300	1,842				
Mullet, salted			57,814	5,123				
Mummichog	140,000	800						
Perch, white	51,987	3,390	1,270,097	81,699	3,465	206	242,360	11,357
Perch, yellow	25,893	2,014	16,569	1,038	1,225	62		
Pike and pickerel	2,050	185	2,560	210			16,310	654
Pollock	42,681	1,240						
Salmon, Atlantic	163	78	233	73	1,397	202		
Scup	804,589	25,379	607,099	16,367	22,593	585		
Sea bass	281,517	15,216	1,495,247	76,003	687,412	32,791	500	25
Sea-robins	385,000	433						
Shad, fresh	3,432,472	110,682	14,031,002	475,202	2,982,868	124,328	1,367,952	56,605
Shark			500	10				
Sheepshead	100	12	7,285	905				
Skates	139,200	140	2,375	48				
Spanish mackerel	4,104	933	38,928	5,729				
Spot	4,800	206	299,092	3,471				
Squeteague	2,346,683	73,939	11,973,394	316,770	3,600	116	722,435	13,915
Striped bass	71,840	9,102	364,467	49,734	13,092	1,153	47,695	5,114
Sturgeon	112,626	6,108	108,919	8,393	530	43	75,892	3,678
Caviar	4,291	2,215	19,108	10,959			10,307	6,766
Suckers	218,874	11,023	110,415	5,459	29,355	1,313	2,500	101
Sun-fish	12,875	1,099			3,970	317	200	2
Swell-fish	184,870	101						
Tautog	49,662	1,798	91,105	3,136			3,600	180
Tomcod	38,300	1,152	265,041	4,519				
Wall-eyed pike					14,675	2,321		
Whitebait	24,510	1,784						
Whiting	33,975	480	405,804	7,874				
Clams, hard	1,478,368	257,696	4,246,070	552,953			8,200	1,203
Clams, soft	779,450	58,843	902,770	54,918				
Clams, surf			13,336	500				
Crabs, hard	791,725	4,993	719,995	23,558			150,509	5,587
Crabs, soft	40,440	2,104	417,910	61,861	800	240		
Frogs			409,800	1,711			720,400	2,380
King crabs			65,943	8,340			2,760	294
Lobsters	183,539	21,742	874,600	920				
Mussels	262,400	1,860						
Oysters, market	12,380,921	1,703,985	14,646,345	1,696,767	282,352	35,517	678,800	40,290
Oysters, seed	3,808,525	268,555	10,617,572	550,918	302,638	14,232	534,030	22,318
Shells	2,286,000	1,330	144,000	32				
Scallops	1,109,724	107,337	114,000	3,200				
Shrimp			4,095	1,988				
Squid	180,846	5,114	17,748	826				
Terrapin	340	340	8,232	3,135			512	491
Turtle			20,180	1,053	10,500	870	50,050	2,445
Total	228,092,285	3,894,270	117,930,964	4,755,522	6,029,538	251,491	5,835,186	203,372

Fisheries of the Middle Atlantic States, 1901—Continued.

Items.	Maryland.		Virginia.		Total.	
	No.	Value.	No.	Value.	No.	Value.
Persons employed.	36,260		29,325		93,661	
Vessels and outfits.	1,337	\$1,137,362	1,086	\$1,097,831	3,721	\$4,745,809
Tonnage.	20,067		15,583		54,761	
Boats.	11,498	553,526	12,174	589,757	36,237	2,023,850
Seltnes.	318	30,033	311	78,530	1,759	222,129
Gill nets.	3,653	34,660	10,437	50,035	23,979	332,884
Pound, nets, traps, and weirs.	1,017	99,265	1,605	314,116	3,049	637,465
Trammel nets.	18	1,570			18	1,570
Stop nets.					30	2,565
Fyke nets.	4,064	11,372	729	7,444	16,889	73,769
Bag nets.					89	3,110
Lines, hand and trawl.		4,722		3,579		20,183
Fish baskets.					122	1,686
Crab dredges and scrapes.	2,831	10,247	933	2,256	4,087	13,638
Dredges, tongs, rakes, and hoes.	19,766	167,398	14,461	72,592	52,221	375,822
Pots, eel.	4,389	2,248	579	585	19,536	14,714
Pots, lobster.					5,896	10,768
Minor apparatus.		1,899		255		3,151
Shore and accessory property.		2,164,749		869,624		9,561,356
Cash capital.		2,297,515		547,000		7,035,872
Total.		6,506,066		3,633,104		25,080,371
PRODUCTS.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Albacore.					15,143	\$259
Alewives, fresh.	13,454,767	\$87,021	18,633,444	\$110,524	33,198,605	243,340
Alewives, salted.	292,400	4,287	280,000	4,900	1,280,400	19,012
Black bass.	23,383	2,124	199,439	16,735	233,378	19,780
Blue-fish.	100,146	4,378	755,085	25,609	16,317,795	758,122
Bonito.	250	10	14,160	537	1,668,555	42,695
Butter-fish.	458,700	11,565	1,071,860	28,551	5,129,543	149,984
Cat-fish.	488,777	15,547	820,325	23,660	2,063,584	77,396
Cero.	600	10			24,859	847
Cod.	600	2	100	4	3,475,012	119,590
Crevalle.	400		468,791	13,533	469,244	13,536
Croaker.	303,405	4,239	3,937,168	53,493	4,501,894	64,201
Drum.	58,450	570	228,172	2,707	343,152	4,201
Eels, fresh.	334,811	12,309	105,815	4,430	2,897,627	152,686
Eels, salted.	2,200	60			2,200	60
Eels, smoked.	1,100	128			1,100	128
Flounders.	51,205	1,625	209,394	6,253	8,231,039	111,765
German carp.	163,180	6,319	127,930	2,940	1,159,958	59,238
Gizzard shad.	6,010	133	5,250	100	11,260	233
Haddock.					387,666	14,617
Hake.					68,421	1,009
Harvest-fish.	12,800	110			12,800	110
Herring, salted.					180,000	2,025
Hickory shad.	8,315	209	448,600	11,427	466,915	11,636
Hog-fish.			44,892	3,586	44,892	3,586
Horse mackerel.					224	5
King-fish.	7,215	955	91,122	3,436	149,199	10,892
Ling.					844,008	4,891
Mackerel.	1,800	180			519,643	21,211
Menhaden.	7,122,230	11,573	273,493,799	433,109	493,936,462	987,228
Moon-fish.			70,400	2,161	70,400	2,161
Mullet, fresh.	85,295	900	190,700	5,420	267,645	8,342
Mullet, salted.					57,314	5,123
Mummichog.					140,000	800
Perch, white.	452,815	25,005	781,925	32,582	2,752,649	154,239
Perch, yellow.	292,720	9,617	158,989	4,472	495,346	17,203
Pike and pickerel.	67,530	5,390	32,103	2,848	120,553	9,287
Pollock.					42,581	1,240
Pompano.	140	14	96,186	7,549	96,326	7,563
Roach.	200	1			200	1
Salmon, Atlantic.					1,793	553
Scup.	32,650	1,019			1,466,931	43,350
Sea bass.	50,800	2,540	2,200	93	2,467,675	126,668
Sea-robins.					385,000	433
Shad, fresh.	3,094,181	120,177	6,972,212	866,203	31,880,687	1,253,197
Shad, salted.	17,000	425			17,000	425
Shark.					500	10
Sheepshead.	1,350	52	8,480	348	17,165	1,317
Skates.					141,575	188

122 REPORT OF COMMISSIONER OF FISH AND FISHERIES.

Fisheries of the Middle Atlantic States, 1901—Continued.

Products.	Maryland.		Virginia.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Spanish mackerel.....	2,922	\$348	520,142	\$44,017	566,096	\$51,027
Spot.....	22,470	387	806,827	24,306	1,133,189	28,370
Squeteague.....	1,018,775	26,921	7,431,496	127,993	23,496,383	558,653
Striped bass.....	824,418	68,568	527,507	45,177	1,888,919	178,848
Sturgeon.....	107,620	3,503	183,023	12,161	648,610	33,886
Caviar.....	5,818	3,486	18,318	10,204	57,842	83,630
Suckers.....	14,750	281	48,165	927	424,059	19,104
Sun-fish.....	3,970	72	4,000	95	25,015	1,585
Swell-fish.....					134,870	101
Tarpon.....			75	1	75	1
Tautog.....					144,367	5,114
Tomcod.....					303,341	5,671
Wall-eyed pike.....					14,675	2,321
Whitebait.....					24,510	1,784
Whiting.....			600	12	440,379	8,366
Clams, hard.....	107,600	14,384	1,764,680	134,777	7,604,918	961,003
Clams, soft.....					1,682,220	118,761
Clams, surf.....					13,836	500
Crabs, hard.....	9,824,793	85,844	6,113,277	52,863	17,449,790	167,298
Crabs, soft.....	4,303,582	202,563	1,288,424	65,972	6,200,865	328,087
Frogs.....	130	50	15,377	1,283	1,130,200	1,573
King crabs.....					252,242	30,376
Lobsters.....					637,000	2,780
Mussels.....					110,260,528	9,129,992
Oysters, market.....	39,798,927	3,031,518	42,473,683	2,621,915	27,987,211	1,157,564
Oysters, seed.....			12,724,446	301,541		
Shells.....					2,430,000	1,362
Prawn.....			2,850	142	2,850	142
Scallops.....					1,223,724	110,537
Shrimp.....	728	708			4,823	2,696
Squid.....			5,130	1,444	198,594	5,940
Terrapin.....	1,593	1,139	56,897	1,444	15,807	6,549
Turtle.....	4,835	203			142,412	6,015
Total.....	82,976,246	3,767,461	378,183,358	4,613,384	819,046,576	17,485,500

NOTE.—The statistics of the oyster fishery given above are for the season of 1900-1901 for all territory except Long Island, New York; Delaware; Worcester County, Md.; and Accomac and Northampton counties, Va., where the data relating to this fishery were obtained for the calendar year 1901.

Supplementary table showing certain of the above products in number and bushels.

Products.	New York.		New Jersey.		Pennsylvania.		Delaware.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Clams, hard, bush.....	184,736	\$257,686	530,759	\$552,953			1,025	\$1,203
Clams, soft.....do.	77,945	58,843	90,277	54,918				
Clams, surf.....do.			1,667	500				
Crabs, hard.....do.	2,375,175	4,993	2,159,985	23,556				
Crabs, soft.....do.	121,320	2,104	1,253,730	51,861			451,527	5,587
King crabs.....do.			204,900	1,711			360,200	2,380
Mussels.....bush.	10,240	1,860	11,860	920				
Oysters, market, bushels.....	1,768,703	1,703,985	2,092,335	1,696,767	40,336	\$35,517	96,900	40,290
Oysters, seed, bush.....	544,075	268,565	1,516,796	550,918	43,234	14,232	76,290	22,318
Shells.....do.	383,100	1,330	2,400	32				
Scallops.....do.	184,954	107,337	7,333	3,200				

Products.	Maryland.		Virginia.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Clams, hard, bush.....	13,450	\$14,384	220,685	\$134,777	950,555	\$961,003
Clams, soft.....do.					168,222	118,761
Clams, surf.....do.					1,667	500
Crabs, hard.....do.	29,474,379	85,844	18,339,831	52,863	52,349,370	167,298
Crabs, soft.....do.	12,910,746	202,563	3,865,272	65,972	18,602,595	328,087
King crabs.....do.					565,100	4,091
Mussels.....bush.					22,100	2,780
Oysters, market, bushels.....	5,685,561	3,031,518	6,067,669	2,621,915	15,751,504	9,129,992
Oysters, seed, bush.....			1,817,778	301,541	3,998,178	1,157,564
Shells.....do.					40,500	1,362
Scallops.....do.					192,287	110,537