
STATISTICS
OF THE
FISHERIES OF THE MIDDLE ATLANTIC STATES.

**PREPARED IN THE DIVISION OF STATISTICS AND METHODS OF THE
FISHERIES, UNITED STATES FISH COMMISSION.**

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INTRODUCTORY NOTE.

The following report on the fisheries of the Middle Atlantic States has been prepared from data collected by agents of this Commission in 1898 and 1899, the information relating to the year 1897, with supplementary statistics on New York and New Jersey for 1898.

The statistics presented for the various States of this region relate wholly to the commercial fisheries of the coastal waters, in which are included the lower sections of the coast rivers. The fisheries of the interior waters have not been considered.

The general results of this work have already been published in Statistical Bulletins Nos. 11 and 13, and in the report of the Commissioner for 1899.

The report has been prepared under the direction of Mr. C. H. Townsend, assistant in charge of the division of fisheries.

The inquiries in the field were made by agents of the division, as follows: C. H. Stevenson in Maryland and New York; W. A. Wilcox in Virginia; T. M. Cogswell in Virginia and Maryland; Ansley Hall in Virginia, Maryland, Delaware, and New Jersey; John N. Cobb in Maryland, Delaware, Pennsylvania, and New Jersey; W. A. Roberts in Virginia, Maryland, and New Jersey; and E. S. King in Maryland, Delaware, and Pennsylvania.

Mr. Townsend spent a few days in visiting certain fisheries in New Jersey and New York, and Mr. J. B. Wilson was employed temporarily in Virginia and New York.

The field agents have assisted in the preparation of the statistical tables and have made contributions to the explanatory notes relating to the States canvassed by them.

GEO. M. BOWERS, *Commissioner.*

STATISTICS OF THE FISHERIES OF THE MIDDLE ATLANTIC STATES.

GENERAL NOTES AND STATISTICS.

The number of persons engaged in the coast fisheries of the Middle Atlantic States in 1897 was 95,316. Of this number, 73,169 were fishermen and 22,147 shoresmen. The States which had the greatest number of persons employed in their fisheries were Maryland and Virginia, the former having 42,812 and the latter 28,277. New Jersey comes third, with 12,494, followed by New York with 7,443, Delaware with 2,392, and Pennsylvania with 1,898. Since the general canvass of the fisheries of this region in 1891 there has been an increase in the number of persons employed of 5,808. This increase has taken place in four of the States here considered, while in two States there have been decreases. The largest increase has occurred in Virginia, amounting to 4,682 persons.

The capital invested in the fisheries of the region amounted to \$15,188,615. In Maryland the investment was \$5,821,610; in Virginia, \$2,891,536; in New Jersey, \$2,371,253; in New York, \$2,094,869; in Pennsylvania, \$1,601,528, and in Delaware, \$407,819. As compared with the year 1891 the capital invested in the fisheries is shown to have increased \$787,807, the increase being largest in New York.

The number of vessels employed was 3,874, having a tonnage of 58,315 tons, and a value, with their outfits, of \$4,167,469. The boats employed in the shore fisheries numbered 32,290, and were valued, with accessory scows and floats, at \$1,875,965. The apparatus of capture was valued at \$1,515,723. The value of shore property and cash capital was \$7,629,458.

The products of the fisheries, aggregating 594,172,210 pounds, were valued at \$14,324,463. This amount is apportioned as follows: Maryland, \$3,617,306; New Jersey, \$3,614,434; New York, \$3,391,595; Virginia, \$3,179,498; Pennsylvania, \$269,507, and Delaware, \$252,123. The oyster fishery, which is the most important in this region, was valued at \$8,866,829. The shad fishery ranks next in importance, being valued at \$981,246. The clam fishery was valued at \$937,872. Other important species were blue-fish, valued at \$581,563; menhaden, at \$473,359; squeteague, at \$380,371; crabs, at \$337,264, and alewives, at \$229,983.

The fishery products since 1891 have increased 3,717,841 pounds in quantity and have decreased \$4,699,011 in value. The States which show an increase in the quantity of their products are New Jersey, Delaware, and Virginia, while there has been a decrease in value in all of the States except New Jersey. It is interesting to note that the yield of shad, a species which has been the subject of extensive artificial propagation in this region, has increased 5,655,151 pounds in quantity and has decreased \$235,343 in value. The yield of cod has increased 2,480,537 pounds and \$25,205 in value. The cod has also been extensively planted in the inshore waters north of this region.

In making comparisons of the present condition of the fisheries of this region with their condition in former years, the following earlier publications of the United States Fish Commission may be consulted advantageously:

- The Fishery Industries of the United States, section II. Geographical Review of the Fisheries for 1880. Parts VI to XI, inclusive.
- The Fishery Industries of the United States, section V. History and Methods of the Fisheries.
- A Statistical Report on the Fisheries of the Middle Atlantic States, by Hugh M. Smith, M. D. Bull. U. S. Fish Com. 1894, pp. 339-467.
- The Oyster Industry of Maryland, by Charles H. Stevenson. Bull. U. S. Fish Com. 1892, pp. 203-297.
- The Sturgeon and Sturgeon Industries of the Eastern Coast of the United States, by John A. Ryder. Bull. U. S. Fish Com. 1888, pp. 231-328.
- The Sturgeon Fishery of Delaware River and Bay, by John N. Cobb. Rept. U. S. Fish Com. 1899, pp. 369-380.
- Notes on the Oyster Industry of New Jersey, by Ansley Hall. Rept. U. S. Fish Com. 1892, pp. 463-528.
- The Shad Fisheries of the Atlantic Coast of the United States, by Charles H. Stevenson. Rept. U. S. Fish Com. 1898, pp. 101-269.
- Notes on the Extent and Condition of the Alewife Fisheries of the United States in 1896, by Hugh M. Smith. Rept. U. S. Fish Com. 1898, pp. 31-43.

The three following tables show in detail the number of persons employed, capital invested, and the quantity and value of the products in 1897:

Table showing the number of persons engaged in the fisheries of the Middle Atlantic States in 1897.

States.	Fisher- men.	Shores- men.	Total.
New York	6,937	506	*7,443
New Jersey	11,894	610	12,494
Pennsylvania	1,461	437	1,898
Delaware	2,008	384	2,392
Maryland	26,627	16,185	42,812
Virginia	24,252	4,025	28,277
Total	78,169	22,147	95,816

*Exclusive of persons engaged in the wholesale trade of New York city.

Table showing the investment in the fisheries of the Middle Atlantic States in 1897.

Items.	New York.		New Jersey.	
	No.	Value.	No.	Value.
Vessels.....	643	\$810,575	675	\$649,451
Tonnage.....	9,664		8,452	
Outfit.....		201,075		117,393
Boats.....	4,089	267,181	6,365	485,059
Scows, floats, etc.....		7,160		
Seines.....	179	26,810	522	89,894
Gill nets.....	3,169	65,187	4,142	124,158
Pound nets, traps, and weirs.....	197	53,780	180	98,995
Fyke nets.....	3,487	17,195	2,556	16,488
Stop nets.....			82	5,178
Dip nets.....	13	7		
Lines.....		6,763		6,385
Pots, eel and lobster.....	8,940	10,992	4,484	5,176
Dredges, tongs, rakes, and hoes.....		32,658		83,966
Crab scrapes or dredges.....			144	612
Other apparatus.....		56		1,156
Shore and accessory property.....		* 437,930		563,992
Cash capital.....		* 157,500		173,400
Total.....		2,094,869		2,371,253

Items.	Pennsylvania.		Delaware.	
	No.	Value.	No.	Value.
Vessels.....	40	\$71,200	42	\$32,375
Tonnage.....	757		554	
Outfit.....		20,655		5,479
Boats.....	504	21,485	953	39,349
Seines.....	125	12,921	176	8,676
Gill nets.....	177	9,711	983	31,037
Pound nets, traps, and weirs.....			8	625
Fyke nets.....	1,120	1,508	656	1,125
Dip nets.....	110	320		
Lines.....		172		101
Pots, eel and lobster.....	125	90	077	354
Dredges, tongs, rakes, and hoes.....		2,500		3,725
Other apparatus.....		390		399
Shore and accessory property.....		828,576		196,374
Cash capital.....		632,100		88,200
Total.....		1,601,628		407,819

Items.	Maryland.		Virginia.		Total.	
	No.	Value.	No.	Value.	No.	Value.
Vessels.....	1,419	\$1,078,560	1,055	\$675,862	3,874	\$3,318,023
Tonnage.....	23,670		15,218		58,315	
Outfit.....		265,982		238,962		849,446
Boats.....	10,077	562,455	10,802	493,276	32,290	1,868,805
Scows, floats, etc.....						7,160
Seines.....	380	89,282	145	54,012	1,477	181,695
Gill nets.....	8,464	77,264	9,307	46,235	26,242	353,592
Pound nets, traps, and weirs.....	856	81,115	1,250	264,600	2,491	499,115
Fyke nets.....	7,117	23,108	861	4,687	15,297	64,061
Stop nets.....					82	5,178
Dip nets.....					123	327
Trammel nets.....					81	2,320
Slat traps.....	31	2,820				1,345
Lines.....		2,238	68	1,345	68	17,291
Pots, eel and lobster.....		2,546		1,632		19,562
Dredges, tongs, rakes, and hoes.....	4,910		270	404	19,406	354,117
Crab scrapes or dredges.....		155,464		75,804		12,969
Other apparatus.....	2,806	10,294	826	2,063	3,776	4,251
Shore and accessory property.....		2,023		222		* 4,518,223
Cash capital.....		1,878,669		607,682		* 3,116,235
		1,640,285		424,750		
Total.....		5,821,610		2,891,636		15,188,615

* Exclusive of the shore property and cash capital in the wholesale trade of New York city.

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Table showing the quantity and value of products taken in the fisheries of the Middle Atlantic States in 1897.

Species.	New York.		New Jersey.		Pennsylvania.		Delaware.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	955,000	\$11,867	2,053,802	\$9,529	422,335	\$2,883	1,924,607	\$11,910
Black bass.....			150	12	4,103	418		
Blue-fish.....	11,146,424	391,027	5,164,173	148,257	12,800	321		
Bonito.....	42,823	2,103	358,700	9,605				
Butter-fish.....	728,616	26,125	217,057	5,867				
Carp.....	205,560	8,318	785,409	39,370	114,950	6,685	111,300	5,192
Cat-fish.....	90,090	5,656	221,985	11,114	120,096	6,985	68,290	3,847
Cero.....			6,100	160				
Cod.....	2,116,316	69,879	3,481,890	71,208				
Croakers.....			280,800	5,021			297,600	2,554
Drum.....			82,900	842				
Eels.....	420,730	29,226	749,405	35,862	51,794	4,273	128,810	6,362
Flounders.....	1,108,057	85,174	1,225,725	29,018	31,545	792	2,000	85
Haddock.....	153,320	4,904	167,375	3,060				
Hake.....	24,800	608	69,735	1,538				
Hickory shad.....			3,719	229				
King-fish.....	10,440	872	43,027	3,766				
Mackerel.....	140,812	6,978	24,800	1,628				
Menhaden.....	60,605,712	147,697	80,552,825	70,056				
Mullet.....			22,075	537			37,700	844
Perch, white.....	62,490	8,244	596,917	37,924			399,300	19,128
Perch, yellow.....	8,100	121	5,960	297				
Pike and pickerel.....			2,770	152			41,250	2,027
Pollock.....	3,000	90	300	9				
Pompano.....			40	10				
Scup.....	746,878	16,911	757,450	18,816	29,150	719		
Sea bass.....	354,441	16,245	2,131,480	74,281	900,000	36,000	1,900	95
Shad.....	1,884,228	62,953	13,000,783	342,981	2,007,325	63,587	1,620,364	47,962
Sheepshead.....	4,900	262	49,835	8,565				
Spanish mackerel.....	11,360	1,825	108,030	11,539				
Spots.....			20,700	682				
Squeteague.....	2,561,527	69,474	8,679,182	180,989			1,440,880	25,149
Striped bass.....	116,465	14,177	287,189	31,978	9,556	991	128,770	12,033
Sturgeon.....	427,547	26,248	813,449	26,464	9,945	200	280,350	9,014
Suckers.....	16,050	635	142,130	6,720	25,250	1,244	35,200	1,543
Tautog.....	49,181	1,534	289,400	5,513			4,800	240
Tomcod or frost-fish.....	41,000	912	1,850	20				
Whiting.....	9,000	250	4,000	50				
Other fish.....	1,239,200	6,066	27,972	1,816	1,952	173		
Crabs, hard.....	809,333	2,473	585,088	14,411			13,800	266
Crabs, soft.....	108,847	8,502	260,213	25,658			155,000	5,138
King crabs.....			1,124,800	4,495			676,000	2,025
Lobsters.....	881,020	31,468	99,230	8,573			5,095	459
Shrimp.....			2,896	1,565			320	160
Squid.....	151,000	8,393						
Clams, hard.....	1,472,304	198,930	4,780,177	543,795			6,800	1,530
Clams, soft.....	747,000	54,953	745,000	63,725				
Oysters, market.....	13,559,630	1,954,995	9,545,361	1,453,369	1,861,538	143,974	644,560	46,974
Oysters, seed.....	1,327,410	95,063	11,489,980	228,646			501,830	17,923
Mussels.....	30,000	960	2,520,000	1,575				
Scallops.....	885,960	80,122	72,000	4,000				
Terrapins.....			13,528	6,096	825	98	8,322	2,566
Turtles.....			14,550	999	1,021	78	44,570	2,396
Frogs and crawfish.....					78	16		
Caviar.....			200,155	67,592			69,479	25,736
Shells.....	5,310,000	4,875						
Total.....	109,555,566	3,391,595	108,782,517	3,614,434	5,604,263	269,507	8,647,897	252,123

Species.	Maryland.		Virginia.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	17,139,459	\$123,453	13,089,510	\$70,841	36,184,713	\$229,983
Black bass.....	6,765	613	14,075	654	25,093	1,697
Blue-fish.....	186,708	7,156	1,505,228	34,802	18,015,333	581,568
Bonito.....	1,000	60	25,350	798	427,873	12,556
Butter-fish.....	87,040	2,348	465,828	10,624	1,498,541	44,964
Carp.....	110,925	3,825	5,119	167	1,333,263	68,567
Cat-fish.....	578,021	19,644	457,417	12,292	1,535,899	59,538
Cero.....	1,000	60	1,200	73	7,300	283
Cod.....			800	40	5,599,006	141,127
Croakers.....	236,295	2,889	4,161,529	28,144	4,976,224	88,608
Drum.....	48,000	386	114,420	1,094	240,320	2,822
Eels.....	406,744	14,684	84,560	2,780	1,842,048	93,187
Flounders.....	27,357	1,097	265,280	7,930	2,659,964	74,096
Haddock.....					320,695	7,964
Hake.....					94,035	2,146
Hickory shad.....	3,752	53	196,916	8,409	204,387	3,691
King-fish.....	1,000	85	120,075	4,970	174,542	9,648

Table showing the quantity and value of products taken in the fisheries of the Middle Atlantic States in 1897—Continued.

Species.	Maryland.		Virginia.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Mackerel			300	\$18	165,412	\$8,624
Menhaden	353,100	\$365	178,656,362	255,241	270,167,999	473,359
Mullet	1,500	60	54,521	1,196	115,796	2,637
Perch, white	925,545	49,963	273,294	13,527	2,257,546	123,786
Perch, yellow	395,735	12,283	118,885	2,993	518,680	15,694
Pike and pickerel	114,710	8,919	84,963	2,680	198,693	13,778
Pollock					3,300	99
Pompano	310	35	70,135	5,615	70,485	5,560
Scup			4,000	120	1,586,973	81,566
Sea bass			1,765	40	3,405,786	127,351
Shad	16,200	690				
Sheepshead	5,799,563	159,865	11,529,474	304,448	35,841,737	981,246
Spanish mackerel	200	12	28,968	1,905	83,903	10,734
Spots	9,762	833	563,106	99,911	632,258	54,108
Squeteague	2,923	139	1,081,292	26,539	1,104,920	27,360
Striped bass	597,179	14,792	6,525,806	89,967	19,804,524	980,871
Sturgeon	935,947	70,045	576,202	36,079	2,053,569	164,303
Suckers	145,569	5,008	631,619	16,563	2,308,479	83,557
Tautog	83,030	1,801	75,600	2,250	877,266	14,138
Tomcod or frost-fish					348,381	7,287
Whiting			14,100	285	42,650	7,932
Other fish	4,000	152	169,534	4,256	1,442,658	11,963
Crabs, hard	5,333,316	89,949	5,331,398	28,331	11,522,935	85,420
Crabs, soft	4,116,379	177,637	1,068,116	39,914	5,703,055	251,844
King crabs					1,789,800	6,520
Lobsters					485,345	40,490
Shrimp	1,020	510			4,235	2,235
Squid					151,000	3,393
Clams, hard	122,288	8,842	841,563	66,097	7,173,137	819,194
Clams, soft					1,492,000	113,678
Oysters, market	50,784,638	2,885,202	49,166,936	2,041,683	125,562,563	8,525,197
Oysters, seed					13,319,220	841,632
Mussels					2,550,000	2,535
Scallops					967,960	84,122
Terrapins	7,266	3,226	11,822	2,104	41,763	14,030
Turtles	5,465	289	50,825	1,077	122,431	4,389
Frogs and crawfish	2,903	262	1,025	108	4,011	380
Caviar	1,594	644	63,960	19,023	835,188	112,995
Shells					5,310,000	4,875
Total	88,688,018	8,617,806	277,986,949	3,179,498	594,172,210	14,324,463

Certain crustacean and molluscan products obtained in the fisheries of the Middle Atlantic States in 1897, which have been designated in pounds in the foregoing table, are presented in number or bushels in the following supplementary table:

Products.	New York.		New Jersey.		Pennsylvania.		Delaware.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Crabs, hard	927,999	\$2,473	1,605,264	\$14,411			41,400	\$256
Crabs, soft	811,541	3,502	780,039	25,658			465,000	5,133
King crabs			562,400	4,495			337,500	2,025
Clams, hard	184,038	198,930	591,272	543,785			850	1,530
Clams, soft	74,700	54,953	74,500	63,725				
Oysters	2,126,720	2,050,058	3,005,049	1,682,015	265,934	\$148,974	163,770	63,897
Mussels	8,000	960	50,400	1,575				
Scallops	147,660	80,122	12,000	4,000				
Shells	88,500	4,875						

Products.	Maryland.		Virginia.		Total.	
	No.	Value.	No.	Value.	No.	Value.
Crabs, hard	15,999,948	\$39,949	15,994,194	\$28,331	34,568,805	\$85,420
Crabs, soft	12,347,637	177,637	3,204,348	39,914	17,109,165	251,844
King crabs					399,900	6,520
Clams, hard	15,286	8,842	105,196	66,097	896,042	819,194
Clams, soft					149,200	118,678
Oysters	7,254,934	2,885,202	7,023,848	2,041,683	19,840,254	8,966,829
Mussels					53,400	2,535
Scallops					159,660	84,122
Shells					88,500	4,875

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Comparative table showing the extent of the fisheries of the Middle Atlantic States in 1891 and 1897.

PERSONS ENGAGED.

States.	1891.	1897.	Increase or decrease in 1897 compared with 1891.	Percentage of increase or decrease in 1897 compared with 1891.
New York.....	12,246	8,862	-3,384	-27.63
New Jersey.....	10,639	12,494	+1,855	+17.44
Pennsylvania.....	2,273	1,898	-375	-16.50
Delaware.....	2,230	2,392	+162	+7.26
Maryland.....	39,944	42,812	+2,868	+7.18
Virginia.....	23,595	23,277	-318	-1.37
Total.....	90,927	96,735	+5,808	+6.38

CAPITAL INVESTED.

States.	1891.	1897.	Increase or decrease in 1897 compared with 1891.	Percentage of increase or decrease in 1897 compared with 1891.
New York.....	\$5,283,200	\$7,012,725	+\$1,729,525	+32.73
New Jersey.....	2,467,865	2,871,258	+403,393	+16.35
Pennsylvania.....	944,140	1,601,528	+657,388	+69.63
Delaware.....	208,082	407,819	+199,737	+95.99
Maryland.....	7,466,718	5,821,610	-1,645,108	-22.03
Virginia.....	2,948,659	2,891,536	-57,123	-1.94
Total.....	19,318,664	20,106,471	+787,807	+4.07

PRODUCTS.

States.	Pounds.		Increase or decrease in 1897 compared with 1891.	Percentage of increase or decrease in 1897 compared with 1891.
	1891.	1897.		
New York.....	170,885,022	109,555,566	-61,329,456	-35.89
New Jersey.....	79,116,380	103,782,517	+24,666,137	+31.18
Pennsylvania.....	7,683,657	5,604,263	-1,979,394	-26.10
Delaware.....	7,697,649	8,047,897	+350,248	+4.54
Maryland.....	141,177,827	88,588,018	-52,589,809	-37.25
Virginia.....	183,993,834	277,993,949	+94,000,115	+51.09
Total.....	590,454,369	594,172,210	+3,717,841	+0.63

States.	Value.			Percentage of increase or decrease in 1897 compared with 1891.
	1891.	1897.	Increase or decrease in 1897 compared with 1891.	
New York.....	\$4,817,369	\$3,391,595	-\$1,425,774	-29.60
New Jersey.....	3,520,057	3,614,434	+94,377	+2.68
Pennsylvania.....	822,021	269,607	-552,414	-67.32
Delaware.....	255,423	252,123	-3,300	-1.29
Maryland.....	6,460,759	3,617,306	-2,843,453	-44.01
Virginia.....	8,647,845	3,179,498	-5,468,347	-63.14
Total.....	19,023,474	14,324,463	-4,699,011	-24.70

NOTE.—In the first two sections of the above table, comparing the statistics for 1897 with those for 1891, it has been necessary, in order to secure the same basis of comparison for both years, to include in the data for 1897 an estimate of the number of persons engaged and the amount of capital invested in the wholesale fishery trade of New York City, based on statistics for the year 1898, no data on the wholesale trade of that city having been obtained for the year 1897.

FISHERIES OF NEW YORK.

Compared with 1891 the returns for the fishery industries of New York State show a considerable decrease as regards the total number of persons employed and the value of the products, the former item decreasing from 12,246 in 1891 to 9,185 in 1898, and the latter from \$4,817,369 to \$3,545,189 in the same period. In the item of value of investment there has been a large increase—from \$5,283,200 in 1891 to \$7,589,787 in 1898; but this increase has been principally in the valuation of shore property and cash capital, the returns for which show an increase from \$3,374,655 to \$5,741,221. Omitting these items, the value of investment has decreased during the period under comparison from \$1,908,545 to \$1,848,566.

The decrease in the number of fishermen of this State has been principally in the shore or boat fisheries, due not only to the reduced extent of the fisheries, but also to the semiprofessional fishermen finding employment in the various other industries developing along the coast. The number of shosmen has also decreased, while on the other hand the vessel fisheries have largely increased, especially those for blue-fish and menhaden.

The most important fishery industry of the State is the oyster industry, which in 1898 yielded 56 per cent in value of the total products. Next comes the menhaden fishery, with a yield of \$405,488, or 8 per cent of the total; but these figures fail in doing justice to that industry, since the rendering of the fish into oil and fertilizer gives employment to nearly as many men and as large a capitalization as the taking of the fish. The blue-fish fishery is almost as important as the menhaden, the value of the product in 1898 being \$387,167. This is the most important fishery of the State for the taking of food-fish proper, and its extent has increased almost constantly during the past ten years, the total yield in 1898 being 11,214,433 pounds, whereas ten years previously it was less than half that amount. This is not due to an increase in abundance of that species, but to its enhanced popularity as a food article and to an increase in the size of the fleet and the extension of the fishing season and grounds, vessels now leaving port in March and going as far south as Cape Lookout. The fisheries for hard clams, cod, shad, squeteague, and soft clams, which, in the order named, rank next in value, all show a decrease from the extent of ten years ago. With the exception of blue-fish and menhaden, the only products showing an increase as compared with ten years ago are sturgeon, lobsters, mackerel, and scallops.

The returns for the extent of the fisheries of New York in 1897 and 1898 are here presented in three tables, relating, respectively, to quantity and value of the products, the persons employed, and the capital invested.

Table of products.

Species.	1897.		1898.	
	Lbs.	Value.	Lbs.	Value.
Alewives.....	955,000	\$11,367	1,028,110	\$12,652
Blue-fish.....	11,146,424	391,027	11,214,433	387,167
Bonito.....	42,823	2,103	63,244	1,718
Butter-fish.....	728,616	26,125	470,836	15,468
Carp.....	205,560	8,318	286,400	11,543
Cat-fish.....	90,090	5,556	102,340	6,151
Cod.....	2,116,316	69,879	2,040,137	69,032
Eels.....	420,730	29,226	396,945	27,517
Flounders.....	1,108,057	35,174	876,688	28,455
Haddock.....	153,320	4,904	172,883	5,548
Hake.....	24,300	608	32,621	1,084
King-fish.....	10,440	872	11,854	978
Mackerel.....	140,812	6,978	84,458	6,208
Menhaden.....	60,605,712	147,697	163,280,345	405,488
Perch, white.....	62,490	3,244	60,310	3,245
Perch, yellow.....	3,100	121	3,040	117
Pike.....			1,800	90
Pollock.....	3,000	90	4,635	130
Scup.....	746,373	16,911	645,397	14,102
Sea bass.....	354,441	16,245	311,181	13,990
Shad.....	1,884,228	62,953	1,828,977	62,745
Sheepshead.....	4,900	252	3,150	174
Skates.....	150,000	100	127,500	85
Snappers, red.....	92,000	3,680	76,000	3,040
Spanish mackerel.....	11,360	1,825	13,007	2,061
Squeteague.....	2,561,527	69,474	2,076,930	53,706
Striped bass.....	116,465	14,177	81,795	9,765
Sturgeon ^a	427,547	26,248	391,065	34,581
Suckers.....	16,050	636	17,550	753
Sun-fish.....			2,000	100
Tautog.....	49,181	1,684	51,260	1,607
Tomcod or frost-fish.....	41,000	912	34,700	699
Whiting.....	9,000	250	15,473	449
Other fish.....	997,200	2,286	847,298	1,756
Caviar ^a			17,256	11,992
Crabs, hard.....	¹ 809,333	2,473	² 246,633	1,793
Crabs, soft.....	³ 103,847	3,502	⁴ 100,823	3,394
Lobsters.....	381,020	31,458	332,378	30,235
Squid.....	151,000	3,393	276,257	6,188
Clams, hard.....	⁵ 1,472,304	198,930	⁶ 1,503,192	205,952
Clams, soft.....	⁷ 747,000	54,953	⁸ 817,800	60,797
Oysters, market.....	⁹ 18,559,630	1,954,995	¹⁰ 12,823,237	1,863,607
Oysters, seed.....	¹¹ 1,327,410	95,063	¹² 1,612,275	121,422
Mussels.....	¹³ 30,000	960		
Scallops.....	¹⁴ 885,960	80,122	¹⁵ 653,178	53,430
Shells.....	¹⁶ 5,310,000	4,875	¹⁷ 5,460,000	4,560
Total.....	109,555,566	3,391,595	210,497,376	3,545,189

^a The returns for sturgeon in 1897 show the gross weight and value of the fish, whereas those for 1898 show the net or dressed weight of the fish and its value—the weight and value of the caviar being listed separately.

- ¹ 927,999 in number. ⁶ 187,899 bushels. ¹⁰ 1,831,891 bushels. ¹⁴ 147,660 bushels.
- ² 739,899 in number. ⁷ 74,700 bushels. ¹¹ 189,630 bushels. ¹⁵ 108,863 bushels.
- ³ 311,641 in number. ⁸ 81,780 bushels. ¹² 230,325 bushels. ¹⁶ 89,500 bushels.
- ⁴ 802,469 in number. ⁹ 1,987,090 bushels. ¹³ 3,000 bushels. ¹⁷ 91,000 bushels.
- ⁵ 184,038 bushels.

A supplementary table is here presented showing for the same period as above noted the product of mollusks and crustaceans according to the unit of quantity in which they are usually sold, instead of by pounds, which for the purpose of comparison is the unit of quantity employed in the main tables:

Products.	1897.		1898.	
	No.	Value.	No.	Value.
Crabs, hard.....	927,999	\$2,473	739,899	\$1,793
Crabs, soft.....	311,641	3,502	302,469	3,394
Clams, hard.....	184,038	198,930	187,899	205,952
Clams, soft.....	74,700	54,953	81,780	60,797
Oysters, market.....	1,937,090	1,954,995	1,831,891	1,863,607
Oysters, seed.....	189,630	95,063	230,325	121,422
Mussels.....	3,000	960		
Scallops.....	147,660	80,122	108,863	53,430
Shells.....	88,500	4,875	91,000	4,560

Number of persons employed.

How engaged.	1897.	1898.
On vessels fishing	2,010	2,549
On vessels transporting	271	270
In shore or boat fisheries	4,656	4,522
Shoremen	*506	1,844
Total	*7,443	9,185

* Exclusive of persons in the wholesale trade of New York City.

Table of apparatus and capital.

Items.	1897.		1898.	
	No.	Value.	No.	Value.
Vessels fishing	477	\$682,790	501	\$940,415
Tonnage	7,413		9,258	
Outfit		191,782		256,486
Vessels transporting	166	127,785	166	148,895
Tonnage	2,261		2,365	
Outfit		9,293		9,789
Boats	4,089	267,181	3,970	258,262
Apparatus—vessel fisheries:				
Seines	89	16,800	81	38,250
Gill nets	51	4,770	69	4,641
Lines		5,025		5,085
Eel pots	655	653	661	647
Lobster pots	2,236	3,698	2,796	4,668
Dredges	1,156	9,644	1,159	9,735
Tongs and rakes	603	4,222	590	8,932
Apparatus—shore fisheries:				
Seines	140	10,010	148	9,840
Gill nets	3,118	60,417	2,870	59,048
Pound nets	197	53,780	195	55,385
Fyke nets	3,487	17,195	3,581	16,016
Dip nets	13	7	13	7
Lines		1,738		1,927
Eel pots	3,572	4,167	3,399	3,926
Lobster pots	2,477	2,474	2,873	2,856
Spears	94	56	85	51
Dredges	1,381	5,282	1,294	4,674
Tongs and rakes	2,899	13,134	2,300	12,607
Hocs and forks	632	376	656	899
Scows, floats, etc.	30	7,160	23	6,530
Shore property		*437,930		2,760,421
Cash capital		*157,500		2,980,800
Total		*2,094,869		7,589,787

* Exclusive of shore property and cash capital in the wholesale trade of New York City.

STATISTICS OF THE FISHERIES BY COUNTIES.

The following tables show the extent of the fisheries of New York by counties. Suffolk County easily leads in persons employed and in quantity and value of products, the yield amounting to 87 per cent of the total weight and 43 per cent of the total value in the State. It also has the greatest variety of products, nearly every kind of fishery products in the State being found in the limits of that county. The most important fisheries are for oysters and menhaden, their value aggregating \$1,181,013, or 75 per cent of the value of the total yield. Prominent among other products in this county are hard clams, scallops, squeteague, sturgeon, flounders, blue-fish, butter-fish, and scup. The sturgeon fishery, prosecuted on the south side of this county from Fire Island to Amaganset, is a comparatively new industry, originating about seven years ago.

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Next to Suffolk, the counties most prominent in the fisheries are Queens, New York, Richmond, and Kings, in the order named, the value of products in those counties in 1898 ranging from \$620,591 in Queens to \$374,870 in Kings County. The oyster yield is the most valuable in each except New York, in which the blue-fish fishery is far the most valuable. In those counties bordering on the Hudson the fisheries are of much less importance, the principal species being shad and alewives, which are taken chiefly in gill nets and seines.

Table showing, by counties, the number of persons employed in the fisheries of New York in 1897 and 1898.

Counties.	On vessels fishing.		On vessels transporting.		In shore or boat fisheries.		Shoresmen.		Total.	
	1897.	1898.	1897.	1898.	1897.	1898.	1897.	1898.	1897.	1898.
Albany					50	49			50	49
Columbia					57	61			57	62
Dutchess					216	204	2	1	218	206
Greene					78	89	2	2	80	91
Kings	75	90	45	47	495	481	82	10	697	568
New York	629	671	8	8				1,419	* 637	2,098
Orange					68	64			68	64
Putnam					14	10			14	10
Queens	161	176	104	90	998	932	9	9	1,272	1,227
Rensselaer					80	80			80	80
Richmond	252	245			330	322	5	13	567	580
Rockland					123	119			123	119
Suffolk	873	1,406	114	125	1,539	1,498	391	373	2,917	3,402
Ulster					268	264	9	9	277	273
Westchester	20	21			390	379	6	6	416	406
Total	2,010	2,549	271	270	4,656	4,522	* 506	1,844	* 7,448	9,185

* Exclusive of persons engaged in the wholesale trade of New York City.

Table showing, by counties, the vessels, boats, and apparatus employed in the fisheries of New York in 1897 and 1898.

Items.	Albany.				Columbia.				Dutchess.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	No.	Val.	No.	Val.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Boats	19	\$430	19	\$430	25	\$750	30	\$1,182	111	\$4,815	105	\$4,616
Apparatus—shore fisheries:												
Seines	5	370	5	350	8	775	5	525	8	360	6	495
Gill nets					10	406	10	406	100	6,571	97	6,296
Fyke nets	60	210	54	190	52	270	60	274	76	284	77	300
Eel pots	12	15	12	15					26	26	27	27
Shore property		220		220		575		660		1,655		1,855
Total		1,245		1,205		2,776		3,037		13,721		13,589

Items.	Greene.				Orange.				Putnam.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Val.	No.	Val.
Boats	46	\$1,146	55	\$1,269	37	\$1,707	35	\$1,517	7	\$402	5	\$272
Apparatus—shore fisheries:												
Seines	11	1,070	11	1,055	1	40	1	40	1	40	1	45
Gill nets	17	612	24	770	38	2,320	30	1,995	6	430	4	320
Fyke nets	40	140	36	128	74	562	70	548		90		60
Shore property		655		770		750		745				
Total		3,623		3,992		5,379		4,845		962		697

Table showing, by counties, the vessels, boats, and apparatus employed, etc.—Continued.

Items.	Kings.				New York.				Queens.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	15	\$22,200	13	\$7,120	59	\$196,500	63	\$203,550	53	\$39,065	58	\$49,200
Tonnage	229	79	2,648	2,648	2,886	481	460	481	460	460	460	
Outfit	10,015	2,648	100,612	108,468	9,901	10,976	9,901	10,976	9,901	10,976	10,976	
Vessels transporting	84	22,680	36	22,750	3	3,670	3	3,650	56	41,175	49	35,570
Tonnage	364	387	66	66	66	66	66	66	802	695	695	695
Outfit	1,715	1,763	560	575	2,703	2,863	2,703	2,863	2,703	2,863	2,863	
Boats	378	21,930	374	21,240	1,016	76,144	956	71,984	1,016	76,144	956	71,984
Apparatus—vessel fisheries:												
Seines	4	2,000	4	1,800	4	1,750	4	1,750	4	500	3	300
Gill nets	4	200	4	200	4	200	4	200	11	1,185	11	1,160
Lines	241	236	4,320	4,525	243	253	243	253	243	253	253	
Eel pots	175	123	1,100	1,697	1,660	2,662	80	861	100	1,176	100	1,176
Lobster pots	28	495	24	895	6	24	6	24	6	24	6	24
Tongs and rakes												
Apparatus—shore fisheries:												
Seines	174	5,410	108	4,176	23	1,595	20	1,215	23	1,595	20	1,215
Gill nets	3	900	3	980	10	760	9	635	10	760	9	635
Pound nets	86	900	84	870	6	1,820	3	900	6	1,820	3	900
Fyke nets	274	290	290	290	1	25	1	25	1	25	1	25
Lines	504	463	488	444	98	74	98	74	98	74	98	74
Eel pots	310	190	670	864	702	1,022	652	964	702	1,022	652	964
Lobster pots	30	18	26	16	28	15	24	13	28	15	24	13
Spears	90	210	24	167	874	2,271	335	2,094	874	2,271	335	2,094
Dredges	391	1,954	379	1,890	697	3,580	665	3,383	697	3,580	665	3,383
Tongs and rakes	184	96	210	126	255	149	250	144	255	149	250	144
Hoos and forks	2	160	1	80	14	1,400	14	1,250	14	1,400	14	1,250
Scows, floats, etc.	62,900	27,200	45,000	2,048,556	2,809,200	59,855	64,780	59,855	64,780	59,855	64,780	
Shore property	45,000											
Cash capital												
Total	199,384	92,478	809,854	5,238,631	244,411	248,423	244,411	248,423	244,411	248,423	244,411	248,423

Items.	Richmond.				Suffolk.				Westchester.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	No.	Val.	No.	Val.	No.	Val.	No.	Val.	No.	Val.	No.	Val.
Vessels fishing	83	\$89,845	81	\$85,180	256	\$329,185	276	\$589,875	11	\$6,025	10	\$5,490
Tonnage	1,014	987	2,999	4,764	92	82	92	82	92	82	92	82
Outfits	10,410	9,870	78	59,794	128,677	1,050	847	1,050	847	1,050	847	
Vessels transporting					73	60,260	78	81,425				
Tonnage					1,029	1,217	1,217	1,217				
Outfit					4,315	5,098	5,098	5,098				
Boats	819	23,797	309	22,420	1,592	113,489	1,566	112,123	319	13,117	305	12,606
Apparatus—vessel fisheries:												
Seines					27	12,500	74	36,200				
Gill nets					36	3,885	54	3,281				
Lines					221	71	71	71				
Eel pots					480	525	486	524				
Lobster pots					1,136	2,001	1,136	2,001				
Dredges	96	3,720	92	3,560	916	4,333	913	4,404	35	235	30	200
Tongs and rakes	268	2,844	261	2,580	313	1,258	309	1,244	16	96	14	84
Apparatus—shore fisheries:												
Seines					69	3,780	78	4,075	6	400	7	400
Gill nets	193	2,930	159	3,185	524	19,405	630	21,804	430	9,483	1,151	8,962
Pound nets	1	400	1	360	187	50,660	188	58,145				
Fyke nets	13	1,270	9	730	2,638	9,834	2,745	9,878	231	2,086	189	1,555
Dip nets					13	7	13	7				
Lines		52		28	1,314	1,535	1,535	1,535				
Eel pots	20	30	20	30	2,075	2,436	1,984	2,288	215	155	200	140
Lobster pots	1,605	1,159	1,510	1,072	319	518	411	732	243	607	282	688
Spears					36	23	35	22				
Dredges					957	2,661	919	2,361	20	140	16	112
Tongs and rakes	395	3,436	388	3,425	780	3,123	738	2,903	136	979	180	946
Hoos and forks					135	86	136	86	62	45	60	43
Scows, floats, etc.	14	5,600	13	5,200								
Shore property	15,055	15,405				286,630		590,560		5,870		5,880
Cash capital						112,500		111,600				
Total	160,610	153,045	1,084,173	1,766,039	40,288	37,853	40,288	37,853	40,288	37,853	40,288	37,853

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Table showing, by counties, the vessels, boats, and apparatus employed, etc.—Continued.

Items.	Rensselaer.				Rockland.				Ulster.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Boats	13	\$240	14	\$255	67	\$3,055	66	\$2,790	140	\$6,179	131	\$5,658
Apparatus—shore fisheries:												
Seines	3	165	3	165					10	1,415	11	1,475
Gill nets					490	2,960	516	2,784	136	9,130	132	7,655
Fyke nets	48	156	44	140	72	854	67	780	146	604	145	698
Eel pots					18	20	16	18				
Shore property		160		120		895		875		2,610		2,645
Total		721		680		7,784		7,247		19,938		18,031

Table showing, by counties, the yield of the fisheries of New York in 1897 and 1898.

Species.	Albany.				Columbia.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives	61,600	\$853	83,000	\$1,187	84,640	\$1,156	62,400	\$970
Carp	1,900	110	1,520	91	250	14	350	20
Cat-fish	3,400	264	3,230	254	7,800	604	8,800	804
Eels	700	48	635	48	90	7	100	8
Perch, white	1,880	96	1,500	96	170	8	140	7
Perch, yellow					3,100	121	3,040	117
Shad	256	13	758	40	47,438	2,007	60,244	2,304
Striped bass	1,030	142	1,090	140	260	87	380	46
Sturgeon					300	12	220	9
Suckers	1,000	50	850	43	3,950	118	4,250	128
Total	71,766	1,576	92,583	1,849	147,998	4,084	139,924	4,413

Species.	Dutchess.				Greene.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives	155,826	\$1,320	130,800	\$1,412	256,640	\$3,299	298,000	\$3,736
Carp	1,150	47	1,430	58	350	17	610	30
Cat-fish	5,200	395	5,450	396	3,490	247	3,270	238
Eels	600	48	610	48				
Perch, white	2,450	87	2,450	100	1,330	87	1,040	70
Shad	387,710	11,068	356,488	10,876	52,716	2,389	55,151	2,273
Striped bass	100	12	180	24	280	84	400	48
Sturgeon	29,767	1,710	11,441	1,028	3,520	281	1,125	56
Suckers	800	10	300	11	650	32	580	29
Total	582,603	14,697	508,149	13,953	818,976	6,336	360,176	6,480

Species.	Richmond.				Rockland.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives	3,520	\$44						
Carp					150	26	420	\$19
Cat-fish	400	31			4,200	272	5,000	360
Cod	111,000	3,370	19,650	\$834				
Eels	2,380	181	2,100	168	1,800	126	1,600	112
Perch, white	260	15			3,800	258	4,300	294
Shad	167,725	5,675	157,567	6,584	117,044	3,984	110,947	3,875
Striped bass	300	36			5,720	752	8,000	360
Sturgeon	800	22	640	21	2,000	86	2,100	98
Suckers					1,100	47	1,220	51
Lobsters	43,200	4,268	39,968	4,053				
Clams, hard	108,920	12,625	87,880	10,233				
Oysters, market	2,590,280	368,045	2,337,895	\$26,807				
Oysters, seed	238,350	18,615	567,850	32,620				
Scallops	20,400	2,210	22,800	2,470				
Total	8,287,535	395,137	8,225,850	384,090	185,814	5,531	128,587	5,169

Table showing, by counties, the yield of fisheries of New York in 1897 and 1898—Cont'd.

Species.	Kings.				New York.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	2,000	\$20	19,200	\$555				
Blue-fish.....	145,860	7,386	173,450	8,699	9,899,465	\$336,059	10,222,689	\$340,051
Bonito.....					4,703	139	5,856	159
Cod.....	191,890	5,430	196,830	5,544	1,182,410	38,300	1,266,150	42,712
Eels.....	101,520	8,867	96,650	8,362				
Flounders.....	9,510	393	16,170	608	1,045	41	1,179	41
Haddock.....	6,650	178	7,400	194	78,870	2,637	75,383	2,548
Hake.....	400	15	300	9	1,000	20	1,190	28
Mackerel.....	1,080	83	1,200	96	9,000	720	8,600	680
Menhaden.....	13,206,752	33,048	14,700	98				
Scup.....					45,200	1,266	85,555	1,892
Sea bass.....	1,550	106	1,525	104	166,095	6,838	201,612	8,117
Shad.....	182,029	6,257	128,170	4,593				
Sheepshead.....	300	18						
Snappers, red.....					92,000	3,680	76,000	3,040
Squeteague.....	21,300	772	86,300	1,414	1,100	13	2,241	12
Striped bass.....	2,700	284	2,810	297				
Tautog.....	380	19	450	23				
Tomcod or frost-fish.....	400	18	200	8				
Other fish.....							98	4
Crabs, soft.....	680	102	480	114				
Lobsters.....	12,860	1,193	26,240	2,302	230,420	16,445	188,410	15,078
Clams, hard.....	206,504	24,980	214,240	26,476				
Clams, soft.....	373,000	27,110	446,650	33,104				
Oysters, market.....	2,201,500	322,755	1,937,670	282,210	528,500	61,080	486,150	54,162
Mussels.....	30,000	960						
Total.....	16,698,865	439,939	3,370,635	374,870	12,239,808	467,238	12,620,018	468,519

Species.	Queens.				Suffolk.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	3,944	886			48,210	\$960	26,230	\$524
Blue-fish.....	485,400	24,097	368,950	\$18,532	615,699	23,535	449,344	19,885
Bonito.....					38,120	1,964	57,338	1,559
Butter-fish.....	800	64			727,816	26,061	470,836	15,480
Carp.....					162,500	6,500	228,250	8,930
Cat-fish.....					41,000	2,002	48,150	1,883
Cod.....	143,500	5,490	130,000	4,960	487,215	17,284	427,807	14,981
Eels.....	90,410	6,417	79,610	5,620	205,680	12,163	198,290	11,789
Flounders.....	106,700	4,243	96,900	3,833	990,802	30,497	762,434	23,973
Haddock.....	11,800	882	12,600	425	56,000	1,707	77,600	2,381
Hake.....					22,900	573	31,131	647
King-fish.....					10,440	872	11,854	978
Mackerel.....					130,132	6,103	73,808	5,314
Menhaden.....	600	72	950	118	47,882,160	114,542	168,247,645	406,270
Perch, white.....	16,800	112	18,000	120	38,800	1,940	34,600	1,730
Pike.....							1,800	90
Pollock.....					3,000	90	4,636	180
Scup.....	10,750	488	8,500	390	690,423	15,157	561,342	11,820
Sea bass.....					186,796	9,301	108,044	5,769
Shad.....	8,385	804	2,347	160	20,040	864	5,223	233
Sheepshead.....	4,600	234	3,150	174				
Skates.....					150,000	100	127,500	85
Spanish mackerel.....	900	210	1,310	269	10,460	1,615	11,697	1,802
Squeteague.....	397,900	12,346	209,550	9,227	2,141,227	56,343	1,688,839	43,053
Striped bass.....	15,450	2,046	11,160	1,389	63,165	7,658	49,135	5,836
Sturgeon.....			30	2	340,860	21,511	353,969	31,872
Tautog.....					48,801	1,515	50,780	1,582
Tomcod or frost-fish.....					40,600	894	34,600	691
Whiting.....					9,000	250	15,473	449
Other fish.....					997,200	2,286	847,200	1,752
Caviar.....							17,256	11,992
Crabs, hard.....	26,667	240	21,333	180	282,666	2,233	225,300	1,613
Crabs, soft.....	88,000	1,770	86,280	1,650	15,167	1,630	14,063	1,630
Lobsters.....					72,440	6,514	58,480	5,683
Squid.....					151,000	3,303	276,257	6,188
Clams, hard.....	435,520	64,990	434,832	65,667	537,760	78,115	631,040	85,289
Clams, soft.....	231,000	15,655	231,300	15,747	106,000	7,348	105,350	7,384
Oysters, market.....	3,558,550	553,476	2,971,822	480,511	4,425,750	633,935	4,909,625	698,258
Oysters, seed.....	174,160	11,838	137,620	10,637	898,100	68,030	896,105	77,485
Scallops.....	9,000	750	12,000	1,000	856,560	77,162	618,378	49,960
Shells.....					5,310,000	4,875	5,460,000	4,560
Total.....	5,815,886	705,309	4,928,034	620,591	68,304,490	1,248,422	183,202,358	1,570,522

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Table showing, by counties, the yield of fisheries of New York in 1897 and 1898—Cont'd.

Species.	Orange.				Putnam.				Rensselaer.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	13,600	\$136	18,400	\$192	.....	.....	.....	.....	89,600	\$1,077	114,400	\$1,324
Carp.....	3,800	154	4,500	180	4,000	\$160	5,000	\$200	110	6	140	8
Cat-fish.....	3,000	216	2,600	182	.....	.....	.....	.....	2,400	169	2,000	141
Eels.....	250	15	200	12	.....	.....	.....	.....	.....	.....	.....	.....
Perch, white.....	800	48	700	42	.....	.....	.....	.....	800	49	680	42
Shad.....	80,450	3,043	93,243	3,443	15,225	584	14,025	550	180	10	406	22
Striped bass.....	750	90	1,000	125	.....	.....	.....	.....	640	86	1,000	134
Sturgeon.....	21,050	1,180	6,600	516	2,120	120	.....	.....	.....	.....	.....	.....
Suckers.....	950	40	1,000	42	500	20	400	16	800	46	550	30
Total.....	124,650	4,922	128,243	4,784	21,845	884	20,025	766	94,530	1,443	119,176	1,701

Species.	Ulster.				Westchester.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	232,600	\$2,357	273,000	\$2,748	3,320	\$59	2,680	\$54
Carp.....	1,150	56	1,800	70	80,200	1,248	47,380	1,937
Cat-fish.....	8,750	610	12,600	1,008	10,450	846	11,240	885
Cod.....	900	5	700	11	.....	.....	.....	.....
Eels.....	.....	.....	400	40	17,300	1,354	16,850	1,810
Perch, white.....	4,100	207	4,900	260	8,100	449	10,000	604
Shad.....	523,752	16,867	541,433	16,541	281,278	9,918	303,375	10,951
Striped bass.....	600	72	760	81	25,470	2,928	10,900	1,285
Sturgeon.....	3,700	190	9,600	695	23,430	1,186	5,360	286
Suckers.....	3,000	120	3,300	142	3,800	152	5,100	266
Sun-fish.....	.....	.....	2,000	100	.....	.....	.....	.....
Lobsters.....	.....	.....	.....	.....	22,100	3,038	19,280	3,064
Clams, hard.....	.....	.....	.....	.....	183,600	18,220	135,200	18,293
Clams, soft.....	.....	.....	.....	.....	87,000	4,840	34,600	4,562
Oysters, market.....	.....	.....	.....	.....	260,050	80,705	180,075	21,659
Oysters, seed.....	.....	.....	.....	.....	16,800	1,180	11,200	680
Total.....	777,952	19,984	850,483	21,696	872,898	76,123	793,140	65,836

THE SHAD FISHERY.

Compared with other fisheries of New York State, the shad fishery bears a relatively less important position than in any other of the Middle Atlantic States. Most of the catch in this State is taken from the Hudson River. The principal shad counties are Ulster, Dutchess, and Westchester, which yielded more in 1897 and 1898 than all other counties combined, as shown by the following table:

Counties.	1897.		1898.	
	No.	Value.	No.	Value.
Albany.....	68	\$13	202	\$40
Columbia.....	12,650	2,007	16,065	2,304
Dutchess.....	103,116	11,068	94,789	10,876
Greene.....	14,626	2,389	14,740	2,273
Kings.....	48,548	6,257	34,179	4,593
Orange.....	21,720	3,048	24,865	3,443
Putnam.....	4,060	554	3,900	550
Queens.....	2,236	804	626	160
Rensselaer.....	48	10	108	22
Richmond.....	45,208	5,675	42,018	6,884
Rockland.....	31,215	3,984	29,586	3,875
Suffolk.....	8,344	864	1,393	233
Ulster.....	143,000	16,867	145,230	16,541
Westchester.....	74,474	9,918	80,900	10,951
Total.....	1,506,278	62,958	1,488,611	62,745

¹ 1,884,228 pounds.

² 1,828,977 pounds.

THE PRODUCTS BY DIFFERENT FORMS OF APPARATUS.

The yield of the fisheries according to the apparatus used is given in detail for each form of apparatus in the following series of tables. As regards value of the product, dredges, tongs, and rakes are the most important forms of apparatus, their catch in 1898 being valued at \$2,310,876, consisting chiefly of oysters, hard clams, and soft clams, and, to a less extent, of scallops, shells, and hard crabs. The shells reported in these returns are the shells of jingles and quarter-decks, which are caught in Peconic Bay for sale to Connecticut oyster-growers.

Of the forms of apparatus employed in taking fish proper the seine is the most important, although in value of the product it is nearly equaled by lines, the value of the yield of the former in 1898 being \$456,381, and of the latter \$441,251. The principal species taken by means of seines is the menhaden, the yield of which was 159,992,645 pounds, worth \$399,558. Practically all of these were used in the manufacture of oil and fertilizer. The yield of food-fish by seines is very small, amounting in 1898 to only 1,892,847 pounds, worth \$56,823, and consisting principally of shad, carp, squeteague, striped bass, flounders, etc.

Lines constitute the most important form of apparatus for the capture of food-fish in New York State, the yield in 1898 aggregating \$441,251, or more than the yield of food fish proper in all other apparatus in the State. The most important species in the line fishery is the blue-fish, the yield of which in 1898 was valued at \$353,160, or 80 per cent of the total line catch. Cod ranks second in importance as regards the value of the catch, amounting to \$67,725, or over three times as much as all other species taken, exclusive of blue-fish. The other species consist principally of sea bass, haddock, and red snapper.

The gill-net fishery is prosecuted in nearly every county bordering the coastal waters, and next to the line fishery it yields the greatest return of food-fish, amounting in 1898 to 4,849,397 pounds, worth \$144,607. Shad, sturgeon, and squeteague made up the principal items, the yield of shad being 1,509,737 pounds, worth \$52,736; of sturgeon, 406,011 pounds, worth \$46,468, including the caviar; and of squeteague, 351,255 pounds, worth \$12,225.

The pound-net fishery, which is prosecuted in Suffolk, Kings, Queens, and Richmond counties, but principally in the first named, shows somewhat of a decrease from the conditions of 1891, when the yield was 9,953,928 pounds, worth \$125,719. In 1898 the yield was 6,219,601 pounds, worth \$108,939, the most important items being squeteague, 1,486,545 pounds, for which the fishermen received \$33,735; butter-fish, 461,436 pounds, worth \$15,251; flounders, 439,836 pounds, worth \$13,367; and scup, 536,532 pounds, worth \$11,348.

The principal fyke-net fishery in New York is for flounders, etc., in the vicinity of Sag Harbor and Springs, Suffolk County, and for shad

in Richmond and Kings counties. The total fyke-net yield is comparatively small, aggregating 638,880 pounds, with a valuation of \$24,226. The more important items in this yield are flounders, 316,000 pounds, worth \$10,229; cat-fish, 79,510 pounds, worth \$4,671; and shad, 35,130 pounds, worth \$1,356.

The eel-pot and spear fisheries yielded 374,685 pounds of eels and 1,160 pounds of flounders, the value of the former being \$25,982, and of the latter \$62. These fisheries are carried on principally in Suffolk, Kings, and Queens counties.

Notwithstanding the decrease in the lobster yield in most of the New England States, the returns for that fishery in New York show a considerable increase, due to an increase in the number of pots used rather than an increased abundance of that crustacean.

The following tables, relating to the years 1897 and 1898, present, by counties, detailed statistics of the yield by each form of apparatus:

Table showing, by counties, the yield of the seine fisheries of New York in 1897 and 1898.

Species.	Albany.				Columbia.				Dutchess.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Alewives	61,600	\$853	83,000	\$1,137	70,800	\$991	56,800	\$900	106,526	\$872	76,800	\$860
Carp	1,500	90	1,100	70	250	14	350	20	50	3	80	4
Cat-fish	900	64	1,030	78	2,400	192	3,000	340	200	15	250	17
Eels	300	18	160	12	90	7	100	8				
Perch, white and yellow...	1,080	48	800	40	270	14	180	9	50	3	100	6
Shad	256	13	758	40	20,775	913	21,225	761	31,150	824	29,813	816
Striped bass	430	60	290	42	60	7	120	14				
Sturgeon					300	12	220	9				
Total	66,066	1,146	87,138	1,419	94,945	2,150	81,995	2,061	137,976	1,717	107,043	1,703

Species.	Kings.*		New York.				Queens.			
	1897.		1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:										
Blue-fish							39,800	\$1,960	23,000	\$1,210
Flounders							31,400	1,450	22,000	970
Menhaden	13,200,000	\$33,000								
Scup			42,000	\$1,170	36,760	\$1,070	2,550	115	2,600	119
Sea bass			49,000	1,994	45,496	1,765				
Sheepshead							1,100	59	950	54
Spanish mackerel							50	10	100	18
Squeteague							34,000	1,060	23,500	645
Striped bass							800	41	500	74
Total	13,200,000	33,000	91,000	3,164	82,256	2,835	109,200	4,685	72,650	3,090
Shore fisheries:										
Blue-fish							160,100	8,012	87,850	4,512
Eels							700	62	3,450	280
Flounders							75,300	2,793	74,900	2,863
Mackerel								100	16	
Menhaden							16,800	112	18,000	120
Scup							8,200	373	5,900	271
Sheepshead							3,500	175	2,200	120
Spanish mackerel							350	80	480	96
Squeteague							236,600	7,324	156,200	4,893
Striped bass							13,950	1,861	10,660	1,315
Total							515,500	20,792	359,230	14,485
Total vessel and shore..	13,200,000	33,000	91,000	3,164	82,256	2,835	624,700	25,477	431,880	17,575

* Statistics for 1898 can not be given.

Table showing the yield of the seine fisheries of New York in 1897 and 1898—Continued.

Species.	Greene.				Orange.				Putnam.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Alewives.....	190,000	\$2,456	217,200	\$2,738								
Carp.....	300	15	510	25	3,600	\$146	4,200	\$168	4,000	\$160	5,000	\$200
Cat-fish.....	1,490	117	1,470	116								
Perch, white and yellow	530	31	440	28								
Shad.....	49,416	2,146	50,851	2,051								
Striped bass.....	180	22	200	24								
Sturgeon.....	200	8	200	8								
Suckers.....	50	2	80	4	450	18	500	20	500	20	400	16
Total.....	242,166	4,797	270,961	4,994	4,050	164	4,700	188	4,500	180	5,400	216

Species.	Ulster.				Westchester.				Rensselaer.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Alewives.....	171,760	\$1,768	179,600	\$1,824	1,000	\$30	1,000	\$30	89,600	\$1,077	114,400	\$1,324
Carp.....					30,000	1,240	46,980	1,921	60	8	60	3
Cat-fish.....	250	20	400	32	600	60	580	50	600	43	500	36
Perch, white and yellow	100	7			1,600	96	2,000	120	150	10	180	12
Shad.....	183,916	3,953	157,058	3,968			750	40	180	10	406	22
Striped bass.....	300	27	450	36	3,300	384	3,050	352	340	48	350	50
Sturgeon.....	580	28	240	16	500	25	600	80				
Suckers.....					2,500	100	2,700	110				
Total.....	306,906	5,803	337,748	5,876	39,500	1,935	57,600	2,653	90,930	1,191	115,896	1,447

Species.	Suffolk.				Total.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Blue-fish.....	1,200	\$82	1,300	\$91	41,000	\$2,042	24,300	\$1,301
Flounders.....					31,400	1,450	22,000	970
Menhaden.....	42,884,160	106,907	159,590,645	398,478	56,084,160	139,007	159,590,645	398,478
Scup.....					44,550	1,235	39,360	1,189
Sea bass.....					49,000	1,994	45,495	1,765
Sheepshead.....					1,100	59	950	75
Spanish mack'l.....					50	10	100	18
Squeteague.....	20,000	525	15,000	440	54,000	1,575	38,500	1,085
Striped bass.....	1,370	165	2,000	245	1,670	206	2,500	319
Total.....	42,906,730	107,679	159,608,945	399,254	56,306,930	148,528	159,763,851	405,179
Shore fisheries:								
Alewives.....					691,286	8,047	728,800	8,813
Blue-fish.....	250	18	100	6	180,350	8,025	87,450	4,518
Carp.....	151,000	6,040	212,000	8,480	190,760	7,711	270,280	10,891
Cat-fish.....	7,700	273	8,700	810	14,140	784	15,930	979
Cod.....	6,300	246	3,800	153	6,300	246	3,800	153
Eels.....	6,400	874	7,900	466	7,490	461	11,610	766
Flounders.....	5,200	208	6,600	280	80,500	3,001	81,500	3,123
Haddock.....	400	16	400	16	400	16	400	16
Mackerel.....							100	16
Menhaden.....	300,000	760	384,000	960	319,300	862	402,000	1,080
Perch, white and yellow	20,500	1,025	24,500	1,225	24,280	1,234	28,200	1,440
Scup.....					8,200	373	5,900	271
Shad.....					235,693	7,859	260,861	7,688
Sheepshead.....					8,500	175	2,200	120
Spanish mack'l.....					850	80	480	95
Squeteague.....	1,200	36	3,100	276	237,300	7,360	159,300	5,169
Striped bass.....	40,400	5,122	26,580	3,368	58,960	7,531	41,690	5,201
Sturgeon.....					1,580	73	1,260	63
Suckers.....					3,500	140	3,680	150
Other fish.....	22,200	986	16,200	640	22,200	986	16,200	640
Total.....	561,550	15,089	693,880	16,160	2,064,089	54,964	2,121,641	51,202
Total vessel and shore.....	43,468,280	122,768	160,302,825	415,414	58,371,019	203,492	161,885,492	456,381

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Table showing, by counties, the yield of the gill-net fisheries of New York in 1897 and 1898.

Species.	Columbia.				Dutchess.				Greene.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Alewives.....	13,840	\$165	5,600	\$70	48,800	\$448	54,000	\$552	66,640	\$843	80,800	\$998
Shad.....	26,663	1,094	39,019	1,643	356,560	10,244	325,675	10,060	8,800	243	4,800	222
Sturgeon.....					29,767	1,710	11,441	1,028	8,820	223	925	48
Total.....	40,503	1,255	44,619	1,613	435,127	12,402	391,116	11,640	73,260	1,309	86,025	1,268

Species.	New York.				Kings.				Queens.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Vessel fisheries:												
Blue-fish.....									150,500	\$7,525	132,000	\$6,600
Mackerel.....	9,000	\$720	8,500	\$680					400	48	500	60
Spanish mackerel.....											300	60
Squeteague.....									74,000	2,255	73,500	2,275
Total.....	9,000	720	8,500	680					224,900	9,828	206,300	8,995
Shore fisheries:												
Blue-fish.....									68,500	3,275	70,100	3,385
Cod.....					160	\$10	80	\$6				
Flounders.....					100	8	200	15				
Mackerel.....									200	24	350	42
Shad.....					150,228	5,271	101,782	3,744	750	62	247	20
Spanish mackerel.....									300	80	200	40
Squeteague.....									45,000	1,395	42,000	1,270
Total.....					150,478	5,289	102,062	3,765	114,750	4,836	112,897	4,767
Total vessel and shore.....	9,000	720	8,500	680	150,478	5,289	102,062	3,765	389,650	14,664	319,197	18,752

Species.	Richmond.				Rockland.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Carp.....							200	\$10
Cat-fish.....					2,000	\$140	3,000	240
Perch.....					8,000	210	8,600	252
Shad.....	132,213	\$4,442	132,899	\$5,795	117,044	3,984	110,947	3,875
Striped bass.....					5,120	680	2,000	240
Sturgeon.....					1,600	64	1,800	81
Suckers.....					800	32	900	36
Total.....	132,213	4,442	132,899	5,795	129,564	5,110	122,447	4,734

Species.	Orange.				Putnam.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Alewives.....	13,600	\$136	18,400	\$192				
Shad.....	80,450	3,043	93,243	3,443	15,225	\$654	14,625	\$550
Sturgeon.....	21,050	1,180	6,600	516	2,120	120		
Total.....	115,100	4,359	118,243	4,151	17,345	674	14,625	550

Table showing the yield of the gill-net fisheries of New York in 1897 and 1898—Continued.

Species.	Ulster.				Westchester.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Alewives.....	60,840	\$589	93,400	\$924	2,320	\$29	1,680	\$24
Carp.....							100	4
Cat-fish.....					3,800	278	8,500	245
Cod.....	300	5	700	11				
Perch.....					5,600	308	7,200	444
Shad.....	389,836	12,414	384,375	12,573	281,278	9,918	302,625	10,911
Striped bass.....					16,800	1,840	3,550	416
Sturgeon.....	9,120	162	9,860	679	22,680	1,148	4,660	252
Suckers.....					600	20	1,800	182
Total.....	454,096	13,170	487,835	14,187	382,428	13,541	825,115	12,428

Species.	Suffolk.				Total.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Blue-fish.....	110,362	\$5,812	65,604	\$3,704	260,852	\$13,337	197,604	\$10,304
Bonito.....	1,320	78	84	5	1,320	78	84	5
Carp.....	7,000	280	8,000	320	7,000	280	8,000	320
Cat-fish.....	500	20	400	16	500	20	400	16
Flounders.....	1,510	68	950	47	1,510	68	950	47
Mackerel.....	750	87			10,150	855	9,000	740
Menhaden.....	774,000	1,360	450,300	843	774,000	1,360	450,300	843
Perch, white.....	300	15	200	10	300	15	200	10
Scup.....	1,100	55	1,500	70	1,100	55	1,500	70
Spanish mackerel.....	500	82	700	93	500	82	1,000	153
Squeteague.....	107,410	4,499	92,205	3,474	181,410	6,764	165,705	5,749
Striped bass.....	2,270	292	1,720	210	2,270	292	1,720	210
Sturgeon.....			68,800	4,118			68,800	4,118
Tautog.....	16	1	26	1	16	1	26	1
Caviar.....			4,200	2,620			4,200	2,620
Total.....	1,007,028	12,649	694,689	15,531	1,240,928	23,197	909,489	25,206
Shore fisheries:								
Alewives.....					206,040	2,210	253,880	2,760
Blue-fish.....	190,800	5,879	184,250	7,084	259,800	9,154	204,350	10,469
Bonito.....	350	14	200	8	350	14	200	8
Butter-fish.....	500	25	400	24	500	25	400	24
Carp.....							300	14
Cat-fish.....					5,800	418	6,500	485
Cod.....					450	15	780	17
Flounders.....	6,900	226	5,400	216	7,000	234	5,600	231
Mackerel.....	57,200	1,666	9,100	1,413	57,400	1,690	9,450	1,455
Menhaden.....	1,632,000	2,740	1,401,000	2,560	1,632,000	2,740	1,401,000	2,560
Perch.....					8,600	518	10,800	696
Pike.....			1,800	90			1,800	90
Scup.....	6,000	363	2,800	160	6,000	363	2,800	160
Sea bass.....	1,900	153	1,250	100	1,900	163	1,250	100
Shad.....					1,553,547	51,209	1,509,737	52,736
Spanish mackerel.....	1,150	244	1,050	200	1,450	324	1,250	240
Squeteague.....	157,300	5,671	143,550	5,206	202,300	7,066	185,550	6,476
Striped bass.....	2,600	314	3,000	326	24,020	2,834	8,550	982
Sturgeon.....	340,860	21,511	285,169	27,754	424,467	26,118	319,955	30,358
Suckers.....					1,300	52	2,700	168
Caviar.....			18,056	9,372			13,056	9,372
Total.....	2,397,580	38,806	2,002,025	54,513	4,892,424	105,197	3,939,908	119,401
Total of vessel and shore.....	3,404,688	51,465	2,096,714	70,044	5,633,352	128,394	4,849,397	144,607

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Table showing, by counties, the yield of the pound-net fisheries of New York in 1897 and 1898.

Species.	Kings.				Queens.				Richmond.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Alewives.....	2,000	\$20	1,200	\$15	3,944	\$86						
Butter-fish.....					800	64						
Flounders.....	3,000	90	9,530	305								
Menhaden.....	6,752	43	14,700	98								
Shad.....	16,925	495	10,526	337	7,635	742	2,100	\$140	5,925	\$221	5,400	\$245
Squeteague.....	8,600	184	72,150	760	2,200	138						
Striped bass.....	800	76	600	68	1,200	144						
Sturgeon.....									800	22	640	21
Tautog.....									30	2		
Total.....	87,477	909	108,706	1,573	15,779	1,174	2,130	142	6,725	243	6,040	266

Species.	Suffolk.				Total.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Alewives.....	48,210	\$960	26,230	\$524	54,154	\$1,066	27,430	\$539
Blue-fish.....	181,985	6,452	211,582	7,177	181,985	6,452	211,582	7,177
Bonito.....	34,760	1,807	55,104	1,472	34,760	1,807	55,104	1,472
Butter-fish.....	720,816	25,886	461,436	15,251	721,616	25,950	461,436	15,251
Cod.....	86,145	1,084	70,057	1,137	36,145	1,084	70,057	1,137
Flounders.....	627,272	18,961	430,306	13,062	630,272	19,051	439,836	13,367
Hake.....	20,200	504	27,131	560	20,200	504	27,131	560
King-fish.....	10,440	872	11,854	978	10,440	872	11,854	978
Mackerel.....	70,182	4,285	64,708	3,901	70,182	4,285	64,708	3,901
Menhaden.....	1,771,000	2,745	1,397,700	2,385	1,777,752	2,788	1,412,400	2,483
Pollock.....	3,000	90	4,635	130	3,000	90	4,635	130
Scup.....	676,290	14,553	536,532	11,343	676,290	14,553	536,532	11,343
Sea bass.....	150,410	7,580	86,286	4,395	150,410	7,580	86,286	4,395
Shad.....	20,040	864	5,223	233	49,925	2,323	23,249	956
Skates.....	150,000	100	127,500	85	150,000	100	127,500	85
Spanish mackerel.....	7,880	1,136	8,977	1,342	7,860	1,136	8,977	1,342
Squeteague.....	1,837,900	45,039	1,414,395	32,975	1,848,700	45,361	1,486,545	33,735
Squid.....	151,000	8,393	276,257	6,188	161,000	3,393	276,257	6,188
Striped bass.....	12,977	1,384	13,685	1,402	14,977	1,564	14,285	1,400
Sturgeon.....					800	22	640	21
Tautog.....	26,285	829	26,664	852	26,285	829	26,684	854
Whiting.....	9,000	250	15,473	449	9,000	250	15,473	449
Other fish.....	975,000	1,800	831,000	1,112	975,000	1,300	831,000	1,112
Total.....	7,540,762	140,024	6,102,725	106,958	7,600,743	142,350	6,219,601	108,939

Table showing, by counties, the yield of the fyke-net fisheries of New York in 1897 and 1898.

Species.	Greene.				Kings.				Orange.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Alewives.....							18,000	\$540				
Carp.....	50	\$2	100	\$5					200	\$8	300	\$12
Cat-fish.....	2,000	130	1,800	122					8,000	216	2,600	182
Eels.....					3,000	\$270	2,200	198	250	15	200	12
Flounders.....					1,400	52	1,600	59				
Perch, white.....	800	56	600	42					800	48	700	42
Shad.....					15,476	490	15,862	512				
Squeteague.....					1,200	36	1,000	20				
Striped bass.....	100	12	200	24	1,000	120	1,100	132	750	90	1,000	125
Suckers.....	600	90	500	25					500	22	500	22
Tomcod or frost-fish.....												
Crabs, soft.....					200	10						
					680	102	480	114				
Total.....	3,550	230	3,200	218	22,966	1,080	40,242	1,575	5,500	399	5,300	395

Table showing the yield of the fyke-net fisheries of New York in 1897 and 1898—Continued.

Species.	Albany.				Columbia.				Dutchess.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Carp	400	\$20	420	\$21					1,100	\$44	1,850	\$54
Cat-fish	2,600	200	2,200	176	5,400	\$412	5,800	\$404	5,000	380	5,200	379
Eels												
Perch, white	800	48	700	56					2,400	84	2,350	94
Perch, yellow					3,000	115	3,000	115				
Striped bass	600	82	800	98	200	30	260	32	100	12	180	24
Suckers	1,000	50	850	43	3,950	118	4,250	128	300	10	300	11
Total	5,300	400	5,020	398	12,550	675	13,310	739	8,900	530	9,380	562

Species.	Queens.				Rensselaer.				Richmond.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Alewives									3,520	\$44		
Carp					50	\$3	80	\$5	400			
Cat-fish					1,800	126	1,500	105	380	31		
Eels	1,280	\$100	1,500	\$120					21			
Perch, white					650	39	500	30	260	15		
Shad									29,587	1,012	19,268	\$844
Striped bass					300	38	650	84	800	96		
Suckers					800	46	550	80				
Total	1,280	100	1,500	120	3,600	252	3,280	254	34,447	1,159	19,268	844

Species.	Rockland.				Westchester.				Ulster.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Carp	150	\$6	220	\$9	200	\$8	300	\$12	1,150	\$56	1,800	\$70
Cat-fish	2,200	132	2,000	120	6,050	608	7,160	690	8,500	590	12,200	976
Eels	600	42	500	35	1,500	90	2,100	130			400	40
Perch, white	800	48	700	42	900	45	800	40	4,000	200	4,900	260
Striped bass	600	72	1,000	120	5,870	704	4,300	517	300	45	300	45
Sturgeon	400	22	300	17	300	13	100	4				
Suckers	300	15	320	16	800	32	600	24	3,000	120	3,800	142
Sun-fish											2,000	100
Lobsters					3,000	420	2,730	410				
Total	5,050	337	5,040	358	18,620	1,820	18,090	1,727	16,950	1,011	24,900	1,638

Species.	Suffolk.				Total.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Alewives					3,520	\$44	18,000	\$540
Blue-fish	5,000	\$250	5,100	\$238	5,000	250	5,100	238
Butter-fish	6,500	150	9,000	213	6,500	150	9,000	213
Carp	4,500	180	3,250	130	7,800	327	7,820	318
Cat-fish	32,800	1,709	39,050	1,557	69,550	4,434	79,510	4,671
Eels	5,000	278	3,700	280	12,010	816	10,050	769
Flounders	333,680	10,466	314,400	10,170	335,080	10,518	316,000	10,229
Menhaden	21,000	40	24,000	44	21,000	40	24,000	44
Perch, white	18,000	900	9,900	495	29,410	1,438	21,150	1,101
Perch, yellow					3,000	115	3,000	115
Scup	7,000	185	10,000	231	7,000	185	10,000	231
Sea bass	600	30	200	10	600	30	200	10
Shad					45,063	1,502	35,130	1,356
Squeteague	4,800	192	11,000	380	6,000	228	12,000	400
Striped bass	8,450	420	2,150	285	13,570	1,661	11,940	1,436
Sturgeon					700	35	400	21
Suckers					11,250	443	11,170	440
Sun-fish							2,000	100
Tautog	22,500	685	24,100	729	22,500	685	24,100	729
Tomcod or frost-fish	40,600	894	34,500	691	40,800	904	34,500	691
Crabs, soft					680	102	480	114
Lobsters					3,000	420	2,730	410
Total	505,480	16,879	490,850	15,403	644,138	24,372	638,680	24,223

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Table showing, by counties, the catch of soft crabs by dip nets and hands in New York in 1897 and 1898.

Counties.	1897.		1898.	
	Lbs.	Value.	Lbs.	Value.
Shore fisheries:				
Queens.....	88,000	\$1,770	86,280	\$1,650
Suffolk.....	10,167	1,330	10,063	1,390
Total.....	98,167	3,100	96,343	3,040

The crabs in Queens County were caught without apparatus.

Table showing, by counties, the quantity and value of lobsters taken in pots in New York in 1897 and 1898.

Counties.	1897.		1898.	
	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:				
New York.....	230,420	\$16,445	188,410	\$15,073
Suffolk.....	54,190	4,962	44,150	4,242
Total.....	284,610	21,407	232,560	19,315
Shore fisheries:				
Kings.....	12,860	1,193	26,240	2,362
Richmond.....	43,200	4,268	39,968	4,053
Suffolk.....	18,250	1,552	14,330	1,441
Westchester.....	19,100	2,618	16,550	2,654
Total.....	93,410	9,631	97,088	10,510
Vessel and shore:				
Kings.....	12,860	1,193	26,240	2,362
New York.....	230,420	16,445	188,410	15,073
Richmond.....	43,200	4,268	39,968	4,053
Suffolk.....	72,440	6,514	58,480	5,683
Westchester.....	19,100	2,618	16,550	2,654
Grand total.....	378,020	31,038	329,648	29,825

Table showing, by counties, the yield of the line fisheries of New York in 1897 and 1898.

Species.	Queens.				Richmond.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Blue-fish.....	42,500	\$2,125	44,000	\$2,200				
Cod.....	97,500	3,730	92,000	3,550				
Haddock.....	11,000	350	11,500	390				
Spanish mackerel.....	150	30	200	40				
Squeteague.....	4,500	180	3,000	100				
Total.....	155,650	6,365	150,700	6,280				
Shore fisheries:								
Blue-fish.....	24,000	1,200	12,500	625				
Cod.....	46,000	1,760	38,000	1,400	111,000	\$3,370	19,650	\$334
Haddock.....	800	32	1,000	35				
Spanish mackerel.....	50	10	30	6				
Squeteague.....	1,600	54	1,350	44				
Total.....	72,450	3,056	52,880	2,110	111,000	3,370	19,650	334
Total vessel and shore.....	228,100	9,421	203,580	8,390	111,000	3,370	19,650	334

Table showing the yield of the line fisheries of New York in 1897 and 1898—Continued.

Species.	Kings.				New York.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Blue-fish	87,300	\$4,406	93,770	\$4,715	9,899,465	\$336,059	10,222,689	\$340,051
Bonito					4,703	139	5,856	159
Cod	120,740	3,285	111,500	3,018	1,182,410	38,300	1,265,150	42,712
Flounders	150	11	280	19	1,045	41	1,179	41
Haddock	3,650	103	3,400	94	78,870	2,637	75,883	2,548
Hake	400	15	300	9	1,000	20	1,190	28
Mackerel	1,080	83	1,200	96				
Scup					3,200	96	48,795	822
Sea bass	1,250	88	1,325	92	117,095	4,844	156,116	6,352
Sheepshead	300	18						
Snappers, red					92,000	3,680	76,000	3,040
Squeteague	6,500	812	6,750	324	1,100	13	2,241	12
Striped bass	180	16	250	25				
Tautog	80	4	100	5				
Other fish							98	4
Total	221,600	8,341	218,875	8,397	11,380,888	385,829	11,854,697	395,769
Shore fisheries:								
Blue-fish	58,560	2,980	79,680	3,984				
Cod	71,000	2,135	85,250	2,520				
Flounders	3,700	170	3,400	148				
Haddock	3,000	75	4,000	100				
Sea bass	800	18	200	12				
Squeteague	5,000	240	6,400	310				
Striped bass	750	72	860	82				
Tautog	300	15	350	18				
Tomcod or frost-fish	200	8	200	8				
Total	142,810	5,668	180,340	7,182				
Total vessel and shore	364,410	14,004	399,215	15,579	11,380,888	385,829	11,854,697	395,769

Species.	Suffolk.				Total.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Blue-fish	110,612	\$4,272	10,408	\$585	10,139,877	\$346,862	10,370,367	\$347,501
Bonito	1,000	34	1,200	39	5,708	173	7,056	198
Cod	121,271	4,514			1,521,921	49,829	1,468,650	49,280
Flounders	13,240	418	1,578	58	14,435	470	3,037	118
Haddock	6,000	210			99,520	3,300	90,283	3,032
Hake	150	5			1,550	40	1,490	37
Mackerel					1,080	88	1,200	96
Scup	83	1	510	11	8,233	97	49,305	833
Sea bass	23,886	854	9,308	524	142,281	5,786	166,749	6,968
Sheepshead					300	18		
Snappers, red					92,000	3,680	76,000	3,040
Spanish mackerel	450	78	420	72	600	103	620	112
Squeteague	9,617	289	5,889	194	21,717	744	17,880	630
Striped bass	98	11			248	27	250	25
Tautog					80	4	100	5
Other fish							98	4
Total	286,357	10,681	29,313	1,433	12,044,495	411,216	12,253,685	411,879
Shore fisheries:								
Blue-fish	15,500	776	21,000	1,050	98,060	4,905	113,180	5,659
Bonito	700	31	800	35	700	31	800	35
Cod	323,500	11,440	353,950	13,691	551,500	18,705	496,850	18,445
Flounders	3,000	150	3,200	160	6,700	920	6,600	808
Haddock	49,600	1,481	77,200	2,365	53,400	1,588	82,200	2,500
Hake	2,550	64	4,000	87	2,550	64	4,000	87
Mackerel	2,000	65			2,000	65		
Sea bass	10,000	684	11,000	740	10,800	702	11,260	752
Spanish mackerel	500	80	550	95	550	95	580	101
Squeteague	8,000	92	3,700	108	9,600	386	11,450	462
Striped bass					750	72	860	82
Tautog					800	15	350	18
Tomcod or frost-fish					200	8	200	8
Crabs, hard	140,000	1,038	102,500	675	140,000	1,038	102,500	675
Crabs, soft	5,000	800	4,000	240	5,000	800	4,000	240
Total	555,350	16,200	581,900	19,246	881,610	28,289	834,770	29,372
Total vessel and shore	841,707	26,881	611,213	20,679	12,926,105	439,505	13,088,355	441,251

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Table showing, by counties, the yield of eel pots and spears in New York in 1897 and 1898.

Counties.	Vessel fisheries.		Shore fisheries.				Total.	
	Eels.		Eels.		Flounders.			
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
1897.								
Albany.....			400	\$30			400	\$30
Dutchess.....			600	48			600	48
Kings.....	23,100	\$2,060	75,420	6,537	1,160	\$62	99,680	8,659
Queens.....			88,430	6,255			88,430	6,255
Richmond.....			2,000	160			2,000	160
Rockland.....			1,200	84			1,200	84
Suffolk.....	29,500	1,605	164,780	9,906			194,280	11,511
Westchester.....			15,800	1,264			15,800	1,264
Total.....	52,600	3,665	348,630	24,284	1,160	62	402,390	28,011
1898.								
Albany.....			425	32			425	32
Dutchess.....			610	48			610	48
Kings.....	23,200	2,060	71,250	6,104	1,160	62	95,610	8,226
Queens.....			74,560	5,220			74,560	5,220
Richmond.....			2,100	168			2,100	168
Rockland.....			1,100	77			1,100	77
Suffolk.....	31,320	1,704	155,370	9,389			186,690	11,098
Westchester.....			14,750	1,180			14,750	1,180
Total.....	54,520	3,764	320,165	22,218	1,160	62	375,845	26,044

Table showing, by counties, the catch by dredges, tongs, rakes, etc., in New York in 1897 and 1898.

Species.	Queens.				Richmond.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Clams, hard.....	6,720	\$990	2,800	\$440	42,080	\$4,785	27,360	\$3,034
Oysters, market.....	464,100	68,060	601,818	94,870	1,593,060	216,173	1,258,705	176,980
Oysters, seed.....	88,160	6,783	98,420	8,747				
Total.....	553,980	75,813	703,038	104,057	1,635,140	220,958	1,286,065	180,014
Shore fisheries:								
Crabs, hard.....	26,667	240	21,333	180				
Clams, hard.....	428,800	64,000	432,032	65,227	60,840	7,840	60,520	7,199
Clams, soft.....	231,000	15,655	231,300	15,747				
Oysters, market.....	3,089,450	485,415	2,370,004	385,641	997,220	186,872	1,079,190	149,827
Oysters, seed.....	91,000	4,575	89,200	1,890	238,350	13,615	567,350	32,620
Scallops.....	9,000	760	12,000	1,000	20,400	2,210	22,800	2,470
Total.....	3,875,917	570,635	3,105,869	469,685	1,322,810	160,537	1,729,860	192,116
Total vessel and shore.....	4,429,897	646,448	3,808,907	578,742	2,957,950	381,495	3,015,925	372,130

Species.	Kings.				New York.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Oysters, market.....					528,500	\$61,080	486,150	\$54,162
Shore fisheries:								
Clams, hard.....	206,504	\$24,980	214,240	\$26,476				
Clams, soft.....	373,000	27,110	446,650	83,104				
Oysters, market.....	2,201,500	322,765	1,987,670	282,210				
Mussels.....	30,000	960						
Total.....	2,811,004	375,805	2,598,560	341,790	528,500	61,080	486,150	54,162

Table showing, by counties, the catch by dredges, tongs, rakes, etc., in New York in 1897 and 1898—Continued.

Species.	Suffolk.				Westchester.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Crabs, hard	129,388	\$1,070	122,800	\$938				
Clams, hard	219,040	30,265	257,440	35,726				
Oysters, market	3,065,300	432,401	3,681,650	518,350	88,550	\$11,380	68,950	\$7,685
Oysters, seed	556,500	52,460	636,405	62,205	16,800	1,180	11,200	680
Scallops	358,860	32,995	243,228	20,248				
Shells	5,310,000	4,875	5,460,000	4,550				
Total.....	9,639,033	554,066	10,401,523	642,017	105,350	12,560	80,150	8,365
Shore fisheries:								
Crabs, hard	13,383	125						
Clams, hard	368,720	47,850	378,600	49,567	133,600	18,220	185,200	18,293
Clams, soft	106,000	7,348	105,350	7,384	37,000	4,840	34,500	4,562
Oysters, market	1,360,450	201,534	1,227,975	179,908	171,600	19,325	111,125	18,974
Oysters, seed	341,600	16,470	259,700	15,280				
Scallops	497,700	44,167	375,160	29,712				
Total.....	2,687,803	317,494	2,341,775	281,841	342,100	42,385	280,825	36,829
Total vessel and shore.....	12,326,836	871,560	12,748,298	923,858	447,450	54,945	360,975	45,194

SUMMARY.

Species.	1897.		1898.	
	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:				
Crabs, hard	129,388	\$1,070	122,800	\$938
Clams, hard	267,840	36,040	287,600	39,200
Oysters, market	5,789,610	789,094	6,097,273	852,047
Oysters, seed	656,460	60,403	746,025	71,632
Scallops	358,860	32,995	243,228	20,248
Shells	5,310,000	4,875	5,460,000	4,550
Total.....	12,462,003	924,477	12,956,926	988,615
Shore fisheries:				
Crabs, hard	40,000	365	21,333	180
Clams, hard	1,204,464	162,890	1,215,592	166,752
Clams, soft	747,000	54,953	817,800	60,797
Oysters, market	7,820,120	1,165,901	6,725,964	1,011,560
Oysters, seed	670,950	34,660	866,250	49,790
Mussels	30,000	960		
Scallops	527,100	47,127	409,950	38,182
Total.....	11,039,634	1,466,856	10,056,889	1,322,261
Total vessel and shore.....	23,501,637	2,391,333	23,013,815	2,310,876

THE MENHADEN INDUSTRY.

In comparing the menhaden industry of New York in 1898 with that of previous years, a considerable difference is noticed, due to a consolidation of the principal menhaden plants on the coast. Several factories were closed and the facilities of those operated were greatly augmented. Most of the steamers on the North Atlantic were included in the consolidation, and as the home office of the association is in New York, all the vessels are reported from this State in 1898, though a very large portion of their catch was landed at factories in Delaware, Rhode Island, and Maine.

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Table showing the extent of the menhaden industry of New York in 1897 and 1898.

Items.	1897.		1898.	
	No.	Value.	No.	Value.
Factories.....	7	\$248,500	3	\$508,500
Cash capital.....		147,500		101,600
Persons in factories.....	291		191	
Persons on vessels.....	326		822	
Menhaden pressed.....	119,326,400	169,114	78,691,670	116,728
Tons of dry scrap prepared.....	6,042	117,401	3,409	65,238
Tons of acidulated and crude scrap prepared.....	4,209	40,926	1,925	18,976
Gallons of oil made.....	763,531	169,133	529,919	106,611
Steam vessels fishing.....	14	164,500	*36	406,750
Tonnage.....	1,222		2,864	
Outfit.....		37,840		100,740
Purse seines.....	28	13,900	72	35,800
Sail vessels fishing.....	1	900		
Tonnage.....	20			
Outfit.....		50		
Purse seines.....	1	200		

* These steam vessels also supplied menhaden to factories in Delaware, Rhode Island, and Maine.

Table showing the extent of the wholesale trade in fishery products of New York City in 1898.

Items.	Fresh fish and lobster trade.	Salt fish trade.	Oyster trade.	Total.	Products.	
					Items.	Value.
Number of firms.....	41	11	25	77	Fresh fish and lobsters.....	\$7,523,006
Number of persons engaged.....	483	243	693	1,419	Salted fish.....	3,376,923
Value of shore property..	\$1,203,506	\$717,100	\$128,050	\$2,048,656	Oysters.....	2,047,663
Amount of cash capital..	\$1,439,200	\$651,000	\$779,000	\$2,869,200	Clams.....	603,924
Amount paid for wages..	\$398,899	\$140,900	\$442,065	\$921,864		
						13,551,416

FISHERIES OF NEW JERSEY.

Though New Jersey is comparatively small in area, its great length of coast line and favorable geographical position make it well adapted for the prosecution of extensive commercial fisheries.

The lower part of the Hudson River forms the eastern boundary between New York and New Jersey for about 22 miles, affording the citizens of the latter State an opportunity for sharing in the shad fisheries of that river to the extent of nearly 50 per cent of the value of the catch. The quantity of shad taken on the Hudson in 1897 was approximately 2,701,649 pounds, valued at \$93,512. Of this quantity 1,195,600 pounds, valued at \$44,159, represents the part belonging to New Jersey. In 1898 the total catch on the river was 2,745,590 pounds, valued at \$92,228, of which 1,209,920 pounds, valued at \$41,353, were taken by the New Jersey fishermen.

The other waters valuable for their fisheries which skirt the east side of the State north of Sandy Hook are New York Bay, Staten Island Sound, and Raritan and Princess bays. These are especially productive of oysters and clams, the two last named having considerable areas suitable for oyster cultivation. Sandy Hook Bay and the Navesink and Shrewsbury rivers inside of Sandy Hook also add materially

to the resources of the clam and oyster fisheries. The coast from Sandy Hook to Cape May lying directly on the Atlantic Ocean has long been noted for its pound-net and hand-line fisheries. The shallow bays throughout the part of this region from Bay Head southward, inclosed from the ocean by a series of sandy islands or bars, are also very productive in oysters, clams, and various species of fish.

The west side of the State is also highly favored in point of fishery resources, its entire length being traversed by the Delaware River and Bay. The three most important fisheries prosecuted in these waters are the shad, sturgeon, and oyster. The total yield of the river and bay for these three fisheries in 1897, as near as can be approximated, was 14,727,296 pounds of shad, valued at \$378,476; 2,428,616 pounds of sturgeon (1,058,666 pounds after being dressed), having a value, including caviar, of \$124,440, and 2,475,860 bushels of oysters, valued at \$1,118,650; a total value of \$1,621,566. The part of this output taken by the fishermen of New Jersey was 11,554,307 pounds of shad, valued at \$285,125; 1,951,421 pounds of sturgeon, or 772,349 pounds after being dressed, valued, including the caviar, at \$89,430, and 2,046,156 bushels of oysters, valued at \$910,779; a total value of \$1,285,334, or 79 per cent of the total value of the products of these three fisheries, the remainder being credited to Pennsylvania and Delaware. In 1898 the quantity of shad taken from this river and bay by New Jersey fishermen was 11,433,634 pounds, valued at \$241,374; of sturgeon, 1,298,315 pounds, or about 513,847 pounds after being dressed, valued, including caviar, at \$96,236, and of oysters about 1,535,397 bushels, valued at \$947,638; a total value of \$1,285,248.

Statistics of Pennsylvania and Delaware not being obtained for 1898, the proportion of the three leading products of the Delaware River and Bay taken by New Jersey in that year can not be shown, but the foregoing are sufficient to illustrate how largely this State is interested in the fisheries of the two important rivers, the Delaware and the Hudson, which separate it from adjacent States.

GENERAL STATISTICS.

In all important respects the fisheries of New Jersey in 1897 and 1898 show an increase over former years, except that the products, while greater in quantity, were less in value than in 1892. There has been an increase over each of the years from 1889 to 1892 in the number of persons and vessels employed, the value of fishing apparatus, and, with the exception noted, in the quantity and value of the products.

In 1897 the number of persons engaged in the fisheries of the State was 12,494. Of these, 2,484 were employed on vessels fishing and transporting fishery products, 9,400 in the shore or boat fisheries, and 610 in factories and other branches of shore industry connected with the fisheries.

The number of vessels fishing and transporting was 675, having a value, with their outfits, of \$766,844; the number of boats in the shore fisheries was 6,365, valued at \$485,059; the apparatus, consisting of seines, gill nets, pound nets and weirs, fyke nets, stop nets, hand and trawl lines, lobster and eel pots, oyster tongs, rakes and dredges, clam tongs, rakes and hoes, and various small apparatus, was valued at \$381,958, \$46,759 of this value being used on vessels and \$335,199 on boats. The value of shore and accessory property was \$563,992, and the amount of cash capital utilized was \$173,400, a total investment, including the cash capital, of \$2,371,253.

In 1898 the number of persons engaged was slightly less than in the former year, being 12,270—2,213 on vessels, 9,413 on boats, and 644 in shore industries. The number of vessels employed was 648, being 27 less than in 1897, and valued, with their outfits, at \$746,575; the number of boats was 6,424, valued at \$483,889; the fishing apparatus used was valued at \$380,111; the shore and accessory property at \$561,048; the cash capital was \$165,800, and the total investment \$2,337,428, being \$33,830 less than in the preceding year.

The products of the fisheries in 1897 consisted of 72,429,539 pounds of fish, valued at \$1,189,935; 200,155 pounds of caviar, valued at \$67,592; 1,605,264 hard crabs in number, valued at \$14,411; 780,639 soft crabs, valued at \$25,658; 562,400 king crabs, valued at \$4,495; 99,230 pounds of lobsters, valued at \$8,573; 2,896 pounds of shrimp, valued at \$1,565; 3,005,048 bushels of oysters, valued at \$1,682,015; 591,272 bushels of hard clams, valued at \$543,795; 74,500 bushels of soft clams, valued at \$63,725; 12,000 bushels of scallops, valued at \$4,000; 50,400 bushels of mussels, valued at \$1,575; 13,528 pounds of terrapin, valued at \$6,096, and 14,550 pounds of turtles, valued at \$999; a total value of \$3,614,434.

The value of all species classed as fish, including caviar, a product of the sturgeon, was \$1,257,527; of the molluscan species, \$2,295,110, and of the crustacean and reptilian species, \$61,797. The species of fish taken in greatest quantity were alewives, 2,053,802 pounds, \$9,529; blue-fish, 5,164,173 pounds, \$148,257; cod, 3,481,890 pounds, \$71,208; flounders, 1,225,725 pounds, \$29,018; menhaden, 30,552,825 pounds, \$70,056; sea bass, 2,131,480 pounds, \$74,281; shad, 13,000,783 pounds, \$342,931, and squeteague, 8,679,132 pounds, \$180,989.

The molluscan fisheries surpass all others in value, the oysters alone having a greater value than all the species of fish combined. The most important crustaceans are the hard and soft crabs, although in weight the catch of king crabs exceeds all the other varieties. The yield of lobsters is not large, and shrimp are taken only in small quantities. The catch of shad in New Jersey is greater than in any other State, and comprises about one-fourth of the shad taken in the entire country.

In 1898 the value of all species classed as fish, including caviar, was \$1,239,519; of the molluscan species, \$2,264,833, and of the crustacean and reptilian species, \$59,414—a total value of \$3,563,766, being \$50,668 less than in the previous year. There was no marked decrease in any single fishery, but a slight falling off in a number of species contributed to this result.

The three tables which follow show in a condensed form the number of persons engaged, the number and value of vessels, boats, and of the various kinds of apparatus employed, the value of shore and accessory property, and the amount of cash capital in the fisheries of New Jersey in 1897 and 1898:

Number of persons employed.

How engaged.	1897.	1898.
On vessels fishing.....	2,169	1,926
On vessels transporting.....	315	287
In shore or boat fisheries.....	9,400	9,433
Shoreshmen.....	610	644
Total.....	12,494	12,270

Table of apparatus and capital.

Items.	1897.		1898.	
	No.	Value.	No.	Value.
Vessels fishing.....	542	\$499,576	531	\$465,875
Tonnage.....	6,185		5,564	
Outfit.....		96,501		92,161
Vessels transporting.....	133	149,875	117	168,775
Tonnage.....	2,267		2,019	
Outfit.....		20,892		19,764
Boats.....	6,365	485,059	6,424	483,889
Apparatus—vessel fisheries:				
Seines.....	17	5,268	16	4,588
Gill nets.....	6	640	13	900
Fyke nets.....	150	1,314	170	1,526
Stop nets.....	2	400	2	400
Lines.....		984		1,096
Pots.....	175	143	815	253
Oyster dredges and tongs.....	1,388	30,963	1,867	82,018
Clam tongs and rakes.....	584	6,435	564	6,468
Crab dredges.....	144	612	182	736
Apparatus—shore fisheries:				
Seines.....	505	34,626	527	34,509
Gill nets.....	4,136	123,518	4,291	126,842
Pound nets and weirs.....	180	98,995	172	88,885
Fyke nets.....	2,406	15,124	2,665	16,044
Stop nets.....	80	4,778	65	4,253
Lines.....		5,401		6,844
Pots.....	4,309	5,033	4,385	5,109
Oyster tongs, rakes, and dredges.....	4,823	26,722	4,908	27,094
Clam tongs, rakes, and hoes.....	8,463	19,846	8,523	20,529
Minor apparatus.....		1,156		737
Shore and accessory property.....		563,992		561,048
Cash capital.....		173,400		165,800
Total.....		2,371,253		2,337,423

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Table of products.

Species.	1897.		1898.	
	Lbs.	Value.	Lbs.	Value.
Albacore	14,120	\$294	16,550	\$333
Alewives	2,058,802	9,529	1,609,947	8,707
Blue-fish	5,164,173	148,257	5,077,085	163,620
Bonito	358,700	9,605	876,822	9,943
Butter-fish	217,057	5,867	262,627	8,080
Carp	785,409	39,870	245,983	13,844
Cat-fish	221,985	11,114	229,648	11,688
Cod	3,481,890	71,208	2,582,990	82,374
Croakers	280,800	5,021	412,320	7,375
Drum	82,900	5,842	82,644	7,822
Eels	749,405	35,862	799,488	38,309
Flounders	1,225,725	29,018	1,333,735	32,659
Haddock	167,375	3,060	240,050	7,806
Hake	69,735	1,538	98,042	2,359
Hickory shad	8,719	229	3,500	2,220
King-fish	43,027	3,766	44,002	3,935
Mackerel	24,300	1,628	16,480	1,322
Menhaden	30,552,825	70,056	22,193,520	53,726
Mullet, fresh	21,275	497	27,500	667
Mullet, salted	800	40	500	25
Perch, white	596,917	37,924	631,522	39,381
Perch, yellow	5,960	267	4,810	239
Pike and pickerel	2,770	152	2,560	150
Salmon	2,222	73	1,116	389
Scup	757,450	13,816	622,165	13,672
Sea bass	2,131,480	74,281	2,189,593	79,889
Shad	13,000,793	342,931	12,844,482	293,173
Sheepshead	49,835	8,565	42,735	7,273
Skates	11,650	291	12,750	319
Spanish mackerel	108,630	11,539	83,125	9,726
Spots	20,700	382	22,350	788
Squeteague, fresh	8,662,232	180,018	9,884,453	202,457
Squeteague, salted	16,900	871	16,760	862
Striped bass	237,189	31,978	274,353	28,695
Sturgeon	813,449	26,464	719,024	21,273
Suckers	142,130	6,720	155,511	7,383
Tautog	289,400	5,513	314,748	6,029
Miscellaneous fish	11,440	261	11,360	274
Caviar	200,155	67,592	149,302	79,693
Crabs, hard	1,535,088	14,411	2,614,785	15,826
Crabs, soft	260,213	25,658	4269,078	25,805
King crabs	51,124,800	4,495	61,062,190	4,843
Lobsters	99,230	8,573	123,876	11,097
Shrimp	2,896	1,565	2,085	1,465
Oysters, market	79,545,861	1,453,369	89,894,147	1,309,411
Oysters, seed	911,489,980	228,646	107,970,592	359,913
Clams, hard	114,780,177	543,795	124,495,073	524,339
Clams, soft	18745,000	63,725	14795,000	66,345
Scallops	1572,000	4,000	1855,800	3,100
Mussels	172,520,000	1,575	182,365,000	1,725
Terrapin	13,528	6,096	.....	.....
Turtles	14,556	999	12,850	878
Total	103,782,517	3,614,434	90,297,118	3,563,766

- 1 1,605,264 in number.
- 2 1,844,355 in number.
- 3 780,639 in number.
- 4 807,234 in number.
- 5 562,400 in number.
- 6 531,095 in number.
- 7 1,363,623 bushels.
- 8 1,342,021 bushels.
- 9 1,641,425 bushels.
- 10 1,138,656 bushels.
- 11 591,272 bushels.
- 12 561,884 bushels.
- 13 74,550 bushels.
- 14 79,500 bushels.
- 15 12,000 bushels.
- 16 9,300 bushels.
- 17 50,400 bushels.
- 18 47,700 bushels.

Some of the products shown above in pounds are exhibited in the following supplementary table in number or bushels, the unit of measure by which they are usually sold:

Products.	1897.		1898.	
	No.	Value.	No.	Value.
Crabs, hard	1,605,264	\$14,411	1,844,355	\$15,826
Crabs, soft	780,639	25,658	807,234	25,805
King crabs	562,400	4,495	531,095	4,843
Clams, hard	591,272	543,795	551,884	524,339
Clams, soft	74,500	63,725	79,500	66,345
Oysters, market	1,363,623	1,453,369	1,342,021	1,309,411
Oysters, seed	1,641,425	228,646	1,138,656	359,913
Mussels	50,400	1,575	47,700	1,725
Scallops	12,000	4,000	9,300	3,100

STATISTICS OF THE FISHERIES BY COUNTIES.

There are 21 counties in New Jersey, 18 of which are interested to a greater or less extent in the fishery industry. Essex County is interested only in respect to the fishery trade which is carried on at Newark, but the remaining 17 counties are directly engaged in fisheries. Seven of these counties, Bergen, Hudson, Union, Middlesex, Monmouth, Ocean, and Atlantic, and the east side of Burlington and Cape May, are on the eastern side of the State, prosecuting their fisheries mainly in the Atlantic Ocean and tributary bays and rivers, while the remaining counties, Sussex, Warren, Hunterdon, Mercer, Camden, Gloucester, Salem, Cumberland, and the west side of Burlington and Cape May, are on the Delaware River and Bay.

The county having the most extensive fisheries, as determined by the value of the products, is Monmouth. The number of persons engaged in the fisheries of this county in 1897 was 2,209. Of these, 403 were employed on vessels, 1,689 on boats, and 117 were shoresmen. The investment in vessels, boats, fishing apparatus, shore property, and cash capital amounted to \$545,445. The products, consisting of a large variety of species, were valued at \$977,683.

In 1898 the number of persons engaged in all branches of fisheries in the county was 2,279; the amount of capital invested was \$563,774, and the value of the products \$971,418. The species taken in greatest abundance in 1897 were blue-fish, 4,264,400 pounds, \$113,197; cod, 2,222,000 pounds, \$32,620; menhaden, 20,223,800 pounds, \$50,266; squeteague, 5,499,919 pounds, \$97,653; oysters, 188,487 bushels, \$186,090; hard clams, 267,861 bushels, \$290,654; and soft clams, 70,300 bushels, \$61,625. In 1898 blue-fish aggregated 4,163,070 pounds, \$125,548; cod, 1,200,200 pounds, \$34,920; menhaden, 16,413,500 pounds, \$43,078; squeteague, 6,279,603 pounds, \$118,845; oysters, 148,239 bushels, \$147,224; hard clams, 258,546 bushels, \$282,348; and soft clams, 75,500 bushels, \$64,345. In addition to these there were more than thirty other varieties, many of which are important food species and are taken in comparatively large quantities.

Cumberland County, which ranks next in the value of its fishery products, exceeded Monmouth in the number of persons employed and capital invested in 1897, but only in the investment in 1898. The number of persons engaged in the fisheries of this county in 1897 was 1,420 on vessels, 709 in shore or boat fisheries, and 263 on shore; a total of 2,392. The amount of capital invested was \$678,788, and the products, consisting largely of oysters, were valued at \$859,950.

In 1898 the fisheries of this county employed 2,111 persons, the amount of capital invested was \$645,680, and the value of the products was \$867,549. The excess of capital in this county as compared with Monmouth is due to the employment of a much larger number of vessels.

The principal species taken in this county in 1897 were shad, 593,230 pounds, \$17,509; sturgeon, including caviar, 307,685 pounds, \$27,493; and oysters, 1,847,458 bushels, \$801,386. In 1898 the yield of shad was 668,300 pounds, \$17,150; of sturgeon and caviar, 362,806 pounds, \$31,605; and of oysters, 1,316,738 bushels, \$806,177.

Other counties having important fisheries are Atlantic, Ocean, Cape May and Salem. The fisheries of Atlantic County in 1897 employed 1,143 persons; the amount of capital invested was \$156,965, and the value of the products was \$447,942. In 1898 there were 1,170 persons employed, \$160,843 invested, and the products were valued at \$435,320. Ocean County, which ranks next in the extent of its fisheries to Monmouth and Cumberland, in 1897 had 1,620 persons employed, \$257,164 invested, and its products were valued at \$424,194. In 1898 it had 1,638 persons employed, \$254,923 invested, and the products were valued at \$350,681. The fisheries of Cape May County in 1897 employed 1,004 persons, the investment was \$99,427, and the value of the products \$234,926. In 1898 the number of persons employed was 985, the investment \$92,916, and the value of the products \$237,615. Salem County had, in 1897, 1,488 persons engaged in its fisheries, an investment of \$227,181, and products valued at \$232,096. In 1898 there were 1,382 persons employed, \$230,909 invested, and the value of the products was \$209,315. In the remaining counties the fisheries were less extensive, the largest number of persons employed in any of them for either year being 624 in Burlington, the largest amount of capital invested being \$110,064, and the greatest value of products \$142,431, in Camden.

The three tables which follow show the extent of the fisheries in each county of New Jersey in 1897 and 1898:

Table showing, by counties, the number of persons employed in the fisheries of New Jersey in 1897 and 1898.

Counties.	In vessel fisheries.		On vessels transporting.		In shore or boat fisheries.		Shoresmen.		Total.	
	1897.	1898.	1897.	1898.	1897.	1898.	1897.	1898.	1897.	1898.
Atlantic	142	156	44	40	943	960	14	14	1,143	1,170
Bergen					98	98	7	7	105	105
Burlington	8	8	15	15	569	559	32	32	624	614
Camden	154	171	14		381	357	14	10	563	538
Cape May	110	100	16	13	876	870	2	2	1,004	985
Cumberland	1,377	1,115	43	52	709	683	263	261	2,392	2,111
Essex							60	61	60	61
Gloucester	3	3	4	6	315	315	8	8	330	332
Hudson	10	12	3		185	215	5	5	203	232
Hunterdon					91	91			91	91
Warren					105	101			105	101
Mercer					223	230			223	230
Middlesex	3	7	13	16	184	204	4	4	204	231
Monmouth	318	311	85	73	1,689	1,744	117	151	2,209	2,279
Ocean	39	37	35	26	1,520	1,546	28	29	1,620	1,638
Salem	6	6	43	46	1,388	1,276	52	54	1,488	1,382
Sussex					14	14			14	14
Union					110	160	6	6	116	156
Total	2,169	1,926	315	287	9,400	9,413	610	644	12,494	12,270

Table showing, by counties, the vessels, boats, and apparatus employed in the fisheries of New Jersey in 1897 and 1898.

Designation.	Atlantic.				Bergen.				Burlington.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	46	\$44,475	50	\$48,775					2	\$1,350	2	\$1,350
Tonnage	391		436						24		24	
Outfit		7,549		8,319						95		95
Vessels transporting	19	17,050	17	16,300					6	3,600	6	3,600
Tonnage	296		278						124		124	
Outfit		2,625		2,440						556		580
Boats	863	56,555	858	57,119	69	\$2,920	08	\$3,015	283	27,028	280	27,058
Apparatus—vessel fisheries:												
Seine	3	1,070	3	1,070					3	258	3	258
Fyke nets	4	100	6	150					8	260	8	260
Lines, hand and trawl		865		967								
Oyster dredges and tongs	89	680	93	696					6	21	6	21
Clam tongs and rakes	46	302	39	291								
Apparatus—shore fisheries:												
Seine	76	3,135	79	3,135					46	5,635	46	5,570
Gill nets	113	568	110	535	665	9,224	700	9,103	168	4,968	170	4,972
Pound nets and weirs	3	2,500	3	2,500								
Fyke nets	51	930	70	875					340	2,040	344	2,100
Stop nets	4	45										
Lines, hand and trawl		738		738						8		8
Pots, eel and lobster	18	15	18	15	94	141	100	109				
Oyster tongs, rakes, and dredges	716	3,193	716	3,193					133	709	144	799
Clam tongs, rakes, and hoes	823	4,975	836	5,160					1	22	1	22
Minor apparatus		145		115						3		
Shore and accessory property		9,450		9,450		4,032		3,979		14,349		14,314
Total		156,965		160,843		16,317		16,205		60,896		61,002

Designation.	Camden.		Cape May.		Cumberland.							
	1897.		1898.		1897.		1898.					
	No.	Value.	No.	Value.	No.	Value.	No.	Value.				
Vessels fishing	25	\$30,450	28	\$31,700	30	\$38,100	32	\$33,275	290	\$201,101	274	\$268,175
Tonnage	421		415		305		308		3,575		2,895	
Outfit		5,969		7,288		5,027		5,318		52,410		45,188
Vessels transporting	7	6,700			5	5,700	5	3,900	23	37,750	23	37,750
Tonnage	91				123		100		264		264	
Outfit		644				700		570		3,034		3,034
Boats	170	15,893	158	14,675	657	23,777	654	24,397	357	44,048	340	39,588
Apparatus—vessel fisheries:												
Seine					2	530	1	30				
Fyke nets					36	36	36	86				
Stop nets					1	100	1	100				
Lines, hand and trawl		17		17		90		80				25
Pots, eel and lobster					85	28	35	28				
Oyster dredges and tongs	92	2,140	112	2,760	64	1,190	74	1,462	1,082	23,825	1,016	25,405
Clam tongs and rakes					2	19	2	19	28	146	2	16
Apparatus—shore fisheries:												
Seine	15	8,825	15	2,745	85	2,122	93	2,353	26	810	21	670
Gill nets	112	3,611	112	3,611	25	1,645	23	1,470	161	13,080	171	13,465
Pound nets and weirs					111	6,945	109	6,085				
Fyke nets	172	225	172	225	12	310	20	505	256	250	250	244
Stop nets	10	470	10	470					6	300	5	200
Lines, hand and trawl		5		5		1,073		1,310		7		7
Pots, eel and lobster					30	10	30	10				
Oyster tongs, rakes, and dredges					122	618	124	540	308	8,904	277	8,690
Clam tongs, rakes, and hoes						332	2,543	324	2,561			
Minor apparatus						214		32				
Shore and accessory property		40,115		24,625		8,650		8,835		194,623		194,723
Cash capital										18,500		13,500
Total		110,064		88,121		99,427		92,916		678,788		645,680

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Table showing, by counties, the vessels, boats, and apparatus employed in the fisheries of New Jersey in 1897 and 1898—Continued.

Designation.	Essex.		Gloucester.				Hudson.			
	1897.	1898.	1897.		1898.		1897.		1898.	
	Value.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing			1	\$300	1	\$300	3	\$13,000	4	\$13,600
Tonnage			6		6		143		154	
Outfit				162		120		2,085		2,090
Vessels transporting			2	950	3	1,950	1	3,000		
Tonnage			19		36		27			
Outfit				110		180		225		
Boats			150	14,715	159	15,290	102	5,575	118	6,375
Apparatus—vessel fisheries:										
Seines			1	100	1	100				
Stop nets			1	300	1	300				
Pots, eel and lobster							60	70	100	135
Oyster dredges and tongs							12	1,190	12	1,190
Crab dredges							10	60		
Apparatus—shore fisheries:										
Seines			9	1,145	9	1,145				
Gill nets			96	11,030	96	11,030	634	6,530	634	6,530
Fyke nets			520	825	520	825	248	3,635	253	3,593
Stop nets			24	2,063	24	2,063				
Pots, eel and lobster							240	305	280	345
Oyster tongs, rakes, and dredges							70	350	100	500
Minor apparatus				36		36				
Shore and accessory property	\$26,000	\$26,000		8,485		8,500		8,020		8,025
Cash capital	24,500	24,500								
Total	50,500	50,500		40,221		41,839		44,045		42,383

Designation.	Hunterdon.				Mercer.				Middlesex.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing									2	\$750	4	\$1,400
Tonnage									15		26	
Outfit										170		441
Vessels transporting									4	6,200	5	6,700
Tonnage									65		76	
Outfit										780		1,165
Boats	26	\$707	26	\$707	92	\$2,323	96	\$2,433	120	6,388	135	6,740
Apparatus—vessel fisheries:												
Clam tongs and rakes									5	60	17	204
Apparatus—shore fisheries:												
Seines	21	1,740	21	1,740	30	2,970	33	3,135	5	3,150	6	3,350
Gill nets					51	940	51	940	15	90	15	90
Pound nets and weirs									1	300		
Fyke nets					380	760	380	760	14	580	15	570
Lines, hand and trawl		18		18						2		2
Pots, eel and lobster									112	141	172	216
Oyster tongs, rakes, and dredges									154	823	169	903
Clam tongs, rakes, and hoes									9	103	9	103
Shore and accessory property		7,670		7,670		7,490		7,665		10,938		10,938
Cash capital										19,600		19,700
Total		10,135		10,135		14,483		14,933		50,030		52,522

Designation.	Union.				Warren.			
	1897.		1898.		1897.		1898.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Boats	55	\$2,750	75	\$3,750	29	\$475	28	\$460
Apparatus—shore fisheries:								
Seines					23	967	22	917
Oyster tongs, rakes, and dredges			110	650	150	750		
Minor apparatus						120		120
Shore and accessory property				500		500		3,245
Cash capital				500		500		
Total				4,300		5,600		4,742

Table showing, by counties, the vessels, boats, and apparatus employed in the fisheries of New Jersey in 1897 and 1898—Continued.

Designation.	Monmouth.				Ocean.			
	1897.		1898.		1897.		1898.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	125	\$68,850	123	\$59,100	10	\$10,300	11	\$7,300
Tonnage	1,159		1,169		120		115	
Outfit		19,675		19,592		3,162		3,382
Vessels transporting	84	3,600	29	34,700	16	10,925	12	8,525
Tonnage	501		417		183		125	
Outfit		6,162		5,853		1,687		1,467
Boats	1,254	61,572	1,322	64,183	1,369	131,933	1,891	128,329
Apparatus—vessel fisheries:								
Seines	7	2,810	7	2,680	1	500	1	450
Gill nets	4	400	10	580	2	240	3	320
Fyke nets	102	918	120	1,080				
Lines, hand and trawl		10		5				
Pots, eel and lobster					90	45	180	90
Oyster dredges and tongs	43	1,917	50	1,312				
Clam tongs and rakes	460	5,795	461	5,765	43	178	43	178
Crab dredges	134	562	182	736				
Apparatus—shore fisheries:								
Seines	17	815	21	1,060	117	5,532	123	5,899
Gill nets	836	7,062	760	6,922	690	7,375	861	9,459
Pound nets and weirs	63	85,800	59	77,800	2	3,950	1	2,500
Fyke nets	273	4,385	272	4,365	140	1,234	369	2,882
Lines, hand and trawl		3,273		3,642		278		615
Pots, eel and lobster	1,910	3,046	1,974	3,180	1,905	1,375	1,811	1,284
Oyster tongs, rakes, and dredges	415	2,602	423	2,695	2,795	13,968	2,805	14,024
Clam tongs, rakes, and hoes	1,484	8,177	1,536	8,582	814	4,026	817	4,101
Minor apparatus		189		133		246		248
Shore and accessory property		161,445		170,609		45,225		48,825
Cash capital		97,000		89,200		15,000		15,000
Total		545,445		563,774		257,164		254,923

Designation.	Salem.				Sussex.			
	1897.		1898.		1897.		1898.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	2	\$900	2	\$900				
Tonnage	26		26					
Outfit		207		328				
Vessels transporting	16	54,400	17	56,350				
Tonnage	574		599					
Outfit		4,370		4,475				
Boats	776	88,340	703	89,710	3	\$60	3	\$60
Apparatus—vessel fisheries:								
Lines, hand and trawl		2		2				
Oyster dredges and tongs			4	72				
Apparatus—shore fisheries:								
Seines	32	2,680	32	2,680	3	110	3	110
Gill nets	570	57,395	588	58,715				
Stop nets	36	1,900	26	1,500				
Lines, hand and trawl		4		4				
Minor apparatus		253		53				
Shore and accessory property		13,430		12,720		325		325
Cash capital		3,300		3,400				
Total		227,181		230,909		495		495

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Table showing, by counties, the yield of the fisheries of New Jersey in 1897 and 1898.

Species.	Atlantic.				Burlington.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	15,600	\$78	32,780	\$142	520,500	\$1,785	78,000	\$315
Blue-fish.....	136,200	5,783	143,700	6,103				
Butter-fish.....	10,000	500	10,000	500				
Carp.....					74,900	3,956	27,050	1,431
Cat-fish.....	500	35	800	48	48,870	2,230	49,626	2,254
Cod.....	1,056,500	33,768	1,002,500	35,668				
Croakers.....	40,600	581	39,870	615				
Drum.....	3,400	84	3,400	84				
Eels.....	159,131	6,945	160,466	6,975	24,999	1,338	24,373	1,276
Flounders.....	263,310	6,748	248,320	6,351	990	49	900	45
Haddock.....	11,525	687	11,825	722				
Hake.....	9,700	398	9,900	407				
King-fish.....	21,280	1,086	21,600	1,099				
Menhaden.....	5,225,625	10,887	3,104,130	6,467				
Mullet, fresh.....	1,600	88	1,900	73				
Mullet, salted.....	800	40	500	25				
Perch, white.....	149,215	10,499	120,480	8,512	80,420	5,103	64,105	3,846
Perch, yellow.....					2,060	106	1,500	78
Pike and pickerel.....	510	23	485	21	500	80	375	23
Salmon.....					48	12	31	12
Scup.....	56,000	1,145	61,950	1,310				
Sea bass.....	369,050	14,469	384,300	15,038				
Shad.....	1,000	74	200	15	1,164,560	29,762	957,948	21,514
Sheepshead.....	39,735	7,161	32,780	5,862				
Spots.....	1,750	80	1,750	80				
Squeteague, fresh.....	1,155,700	34,661	1,278,225	37,737	13,700	685	18,800	940
Striped bass.....	46,830	5,888	28,207	3,550	21,320	2,768	17,585	2,169
Sturgeon.....					15,960	827	7,790	459
Suckers.....	1,100	32	2,100	77	55,031	2,597	57,352	2,629
Tautog.....	700	32	700	32				
Caviar.....					6,060	2,290	2,625	1,687
Crabs, hard.....	154,000	4,650	154,000	4,650				
Crabs, soft.....	6,000	775	6,000	775				
Shrimp.....	600	200	600	200				
Oysters, market.....	1,230,845	187,866	1,197,280	182,842	186,410	20,974	165,550	18,641
Oysters, seed.....	350,455	14,554	324,835	15,196	24,500	1,200	24,600	1,200
Clams, hard.....	913,667	96,008	850,116	92,709	81,700	7,821	76,200	7,294
Mussels.....	2,520,000	1,575	2,360,000	1,475				
Terrapin.....	1,103	626			2,431	309		
Turtles.....	600	36	1,000	60	400	34		
Total.....	13,953,681	447,942	11,596,099	436,320	2,325,349	83,876	1,574,310	65,813

Species.	Bergen.				Camden.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....					490,200	\$1,602	202,250	\$823
Blue-fish.....					7,500	300	6,000	240
Carp.....					73,558	4,382	25,488	1,521
Cat-fish.....					25,164	1,258	25,291	1,264
Eels.....	10,666	\$775	18,066	\$991	13,466	808	11,598	696
Flounders.....					5,200	130	5,000	125
Perch, white.....					1,846	81	1,523	66
Perch, yellow.....					1,125	58	780	40
Salmon.....					794	264		
Scup.....					6,000	150	7,200	180
Sea bass.....					120,000	4,800	112,000	4,480
Shad.....	400,800	17,934	519,420	18,510	1,404,515	33,434	1,014,330	17,328
Striped bass.....	11,000	970	21,750	1,896	9,000	900	2,900	290
Sturgeon.....					1,000	25	450	12
Suckers.....					11,330	591	9,426	405
Oysters, market.....					409,625	71,958	637,903	85,462
Oysters, seed.....					777,700	11,346	686,238	29,410
Total.....	482,466	19,679	559,286	21,896	3,358,024	132,087	2,748,377	142,431

Table showing the yield of the fisheries of New Jersey in 1897 and 1898—Cont'd.

Species.	Cape May.				Cumberland.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Albacore.....	5,970	\$150	6,800	\$176				
Alewives.....	69,700	1,316	67,050	1,376	46,700	\$277	63,600	\$336
Blue-fish.....	244,188	10,991	327,450	14,873				
Bonito.....	3,700	165	4,700	209				
Butter-fish.....	44,657	1,637	41,887	1,500				
Carp.....	10,300	309	2,914	87	41,065	1,297	16,525	517
Cat-fish.....	3,205	194	3,815	231	38,354	2,083	39,170	2,111
Cod.....	170,840	4,134	208,450	5,506				
Croakers.....	167,700	3,032	225,300	4,050			6,000	150
Drum.....	77,000	780	77,200	767				
Eels.....	104,364	4,998	96,930	4,655	7,733	324	6,100	352
Flounders.....	70,510	2,111	80,800	2,429				
Hake.....	16,935	458	24,200	515				
Hickory shad.....	2,000	160	2,000	160				
King-fish.....	14,322	1,719	15,419	1,907				
Menhaden.....	306,000	808	80,000	538				
Mullet, fresh.....	19,575	403	21,700	464				
Perch, white.....	31,680	2,415	32,655	2,482	15,392	744	15,832	761
Perch, yellow.....	650	39	570	34				
Pompano.....	40	10	40	10				
Salmon.....							22	10
Scup.....	166,650	4,798	223,665	6,403			200	5
Sea bass.....	468,365	17,545	582,950	21,900			3,000	120
Shad.....	3,822	174	3,480	164	593,230	17,509	668,300	17,150
Sheepshead.....	2,460	468	2,520	478				
Spanish mackerel.....	4,280	738	7,500	1,175				
Spots.....	14,250	516	14,800	550				
Squeteague, fresh.....	1,004,668	25,121	1,161,285	28,397	80,330	3,458	78,940	3,193
Squeteague, salted.....	16,700	961	16,650	957				
Striped bass.....	50,453	5,091	47,463	3,701	59,716	4,338	60,103	4,344
Sturgeon.....	33,250	1,647	16,710	756	243,925	6,240	315,083	5,088
Suckers.....	300	15	600	18	5,840	210	5,043	185
Tautog.....	400	12	400	12				
Tomcod or frost-fish.....	200	6	200	6				
Violar.....	7,020	2,844	2,340	1,482	63,760	21,258	47,723	26,517
Crabs, hard.....	25,587	868	31,096	920				
King crabs.....	976,800	4,125	946,190	4,053	148,000	376	116,000	290
Oysters, market.....	462,616	66,906	565,981	71,625	3,787,896	654,245	4,037,782	586,427
Oysters, seed.....	221,900	4,471	19,775	860	9,144,310	147,141	5,179,384	219,750
Clams, hard.....	701,262	58,901	615,997	52,149	2,000	250	600	75
Terrapin.....	7,613	3,820						
Turtles.....	1,500	75	1,200	60	2,700	216	2,100	163
Total.....	5,637,752	234,925	5,520,662	237,615	14,230,951	859,950	10,661,507	867,549

Species.	Mercer.				Middlesex.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	7,500	\$55	6,000	\$45	48,000	\$90	6,000	\$12
Blue-fish.....					12,300	440	12,800	448
Carp.....	3,810	200	2,718	138				
Cat-fish.....	29,630	1,396	30,664	1,659				
Eels.....	15,766	945	16,946	1,017	14,399	864	15,733	950
Flounders.....					3,000	160	3,200	172
Menhaden.....					564,400	907	658,400	1,113
Perch, white.....	800	82	600	24	100	10	2,100	110
Perch, yellow.....	200	8	250	10				
Salmon.....	47	12	7	1				
Shad.....	311,600	12,181	242,040	12,630	11,176	624	13,102	623
Squeteague, fresh.....					15,800	493	16,500	780
Striped bass.....	3,460	333	4,455	402	1,300	88	2,000	174
Sturgeon.....			60	4				
Suckers.....	22,120	1,073	23,505	1,129				
Crabs, hard.....							1,200	45
Oysters, market.....					151,480	21,758	325,550	45,238
Oysters, seed.....					380,700	20,515	569,720	80,036
Clams, hard.....					12,816	1,720	25,480	3,110
Scallops.....					5,400	800	5,400	800
Total.....	894,928	16,185	827,245	17,069	1,220,871	47,957	1,648,185	88,121

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Table showing the yield of the fisheries of New Jersey in 1897 and 1898—Cont'd.

Species:	Gloucester.				Hudson.				Hunterdon.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Alewives.....	54,390	\$227	55,255	\$232								
Black bass.....									150	\$12	100	\$8
Carp.....	189,326	9,646	74,800	4,488					1,350	25	1,088	20
Cat-fish.....	40,341	2,104	40,393	2,104					550	26	510	23
Eels.....	22,177	1,331	23,866	1,432	5,000	\$285	8,333	\$470	133	10	133	10
Perch, white.....	434	20	575	25								
Perch, yellow.....	925	46	910	45								
Salmon.....	24	12							151	20		
Shad.....	1,468,920	33,189	1,671,450	30,418	784,800	26,225	690,600	22,843	108,400	6,349	77,616	4,590
Striped bass.....	800	80	1,200	120	1,450	163	990	105	1,195	120	2,055	206
Suckers.....	7,034	322	8,331	386					8,800	397	8,050	364
Crabs, hard.....					26,067	800						
Lobsters.....					31,200	2,190	41,250	3,340				
Oysters, market.....					385,000	28,750	420,000	32,500				
Oysters, seed.....					161,000	8,650	392,000	23,000				
Total.....	1,784,371	46,977	1,776,780	39,250	1,345,117	67,063	1,653,073	82,258	120,729	6,959	89,552	5,221

Species.	Monmouth.				Ocean.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Albacore.....	7,150	\$134	9,750	\$157	1,000	\$10		
Alewives.....	35,112	606	27,362	426	713,100	3,250	1,011,650	\$4,600
Blue-fish.....	4,264,400	113,197	4,163,070	125,548	499,585	17,548	424,065	16,408
Bonito.....	336,800	9,011	332,422	8,784	18,200	429	39,700	950
Butter-fish.....	152,900	3,535	170,060	4,061	9,600	165	40,700	2,019
Cat-fish.....					500	45	1,000	75
Cero.....	4,950	164	5,170	159	150	6	500	20
Cod.....	2,222,000	32,620	1,200,200	34,920	32,650	680	171,840	6,280
Croakers.....	60,800	1,174	130,810	2,356	11,700	234	10,340	204
Drum.....	2,500	28	2,044	21				
Eels.....	216,732	11,149	289,729	12,515	149,788	5,663	172,549	6,586
Flounders.....	746,976	16,426	823,625	17,768	135,760	4,394	171,880	6,769
Hadcock.....	154,400	2,347	214,400	6,547	1,450	26	18,225	537
Hake.....	41,300	646	66,942	1,163	1,800	36	7,000	274
Hickory shad.....	1,719	69	1,500	60				
King-fish.....	6,650	864	6,103	808	705	97	875	121
Mackerel.....	24,800	1,028	16,480	1,322				
Menhaden.....	20,228,800	50,266	16,413,500	43,078	4,233,000	7,188	1,937,500	2,530
Mullet, fresh.....	100	6	3,500	110			1,000	30
Perch, white.....	7,450	467	5,960	363	307,855	18,484	385,682	23,113
Pike and pickerel.....					1,760	99	1,700	106
Pollock.....	300	9	300	9				
Salmon.....	1,021	368	1,025	360				
Scup.....	514,300	7,406	316,160	5,411	15,500	817	13,000	263
Sea bass.....	997,600	31,716	902,618	31,186	170,465	5,761	204,665	7,185
Shad.....	167,300	8,996	123,676	6,428	71,400	3,953	65,900	3,540
Sheepshead.....	7,050	867	7,265	910	600	69	170	23
Skates.....	11,650	231	12,760	319				
Spanish mackerel.....	96,600	9,997	67,400	7,107	7,150	804	8,225	1,444
Spots.....	2,300	43	3,000	96	2,400	93	2,800	112
Squeteague, fresh.....	5,499,919	97,653	6,279,608	118,845	864,215	16,399	523,600	11,068
Squeteague, salted.....					200	10	100	5
Striped bass.....	4,300	451	7,800	663	52,215	8,375	54,395	8,781
Sturgeon.....	19,358	936	22,473	1,163	4,150	221	2,160	150
Suckers.....	1,000	30	3,000	115	1,300	30	8,200	491
Tautog.....	287,700	5,467	313,548	5,980	600	12	100	5
Tomcod or frost-fish.....	1,650	14	1,950	15				
Whiting.....	4,000	50	3,100	47				
Caviar.....	600	300	1,373	575				
Crabs, hard.....	188,467	4,634	388,090	9,511	186,367	8,459	1,045	570
Crabs, soft.....	180,000	17,075	196,000	17,950	74,213	7,808	67,078	7,080
Lobsters.....	63,600	6,004	79,500	7,615	4,430	879	3,126	142
Shrimp.....					2,296	1,365	2,085	1,265
Oysters, market.....	1,319,409	186,090	1,034,873	147,064	1,612,079	214,822	1,065,316	139,052
Oysters, seed.....			2,800	160	236,915	9,769	256,340	10,301
Clams, hard.....	2,142,888	290,654	2,063,368	282,348	875,844	88,441	858,312	86,654
Clams, soft.....	703,000	61,625	755,000	64,345	42,000	2,100	40,000	2,000
Scallops.....	66,600	3,700	50,400	2,800				
Mussels.....			5,000	250				
Terrapin.....					2,381	1,841		
Turtles.....					3,350	278	3,350	278
Total.....	40,790,650	977,683	36,469,684	971,418	10,304,458	424,194	7,612,622	350,681

Table showing the yield of the fisheries of New Jersey in 1897 and 1898—Cont'd.

Species.	Salem.				Sussex.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	68,000	\$253	60,000	\$400				
Carp.....	391,100	19,565	95,400	5,682				
Cat-fish.....	34,871	1,743	38,379	1,919				
Perch, white.....	1,725	69	2,020	80				
Perch, yellow.....	1,000	40	800	32				
Salmon.....	117	53						
Shad.....	6,436,400	148,050	6,839,550	133,394	8,800	\$660	6,800	\$510
Squeteague, fresh.....	27,900	1,563	27,600	1,547				
Striped bass.....	24,150	2,415	23,450	2,345				
Sturgeon.....	495,806	16,668	353,858	13,641				
Suckers.....	13,045	522	15,019	601				
Caviar.....	122,715	40,905	94,196	48,862				
Oysters, market.....				500				
Turtle.....	6,000	360	5,200	312				
Total.....	7,607,829	232,096	7,558,284	209,315	8,800	660	6,800	510

Species.	Union.				Warren.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Eels.....					5,066	\$432	4,666	\$384
Salmon.....							81	6
Shad.....					54,000	3,867	50,120	3,526
Suckers.....					15,030	901	14,885	893
Oysters, seed.....	192,500	\$11,000	525,000	\$30,000				
Total.....	192,500	11,000	525,000	30,000	74,096	5,200	69,702	4,809

The shad fishery of New Jersey exceeds in value that of any other species of fish proper taken in the State. About 89 per cent of the catch is from the Delaware River, a little over 9 per cent from the Hudson River, and less than 2 per cent from other waters. Nearly half of the catch is credited to Salem County. An interesting feature in connection with this fishery on the Delaware River is the recent introduction of naphtha motors for propelling shad gill-net boats. At Bridgeport, N. J., one boat used naphtha in 1898, and four in 1899.

Table showing the number of shad taken in each county of New Jersey in 1897 and 1898.

Counties.	1897.		1898.	
	No.	Value.	No.	Value.
Atlantic.....	250	\$74	50	\$15
Bergen.....	115,200	17,934	129,855	18,610
Burlington.....	283,492	29,762	224,347	21,514
Camden.....	351,863	33,484	237,010	17,328
Cape May.....	970	174	870	154
Cumberland.....	119,846	17,509	195,150	17,150
Gloucester.....	814,740	33,189	342,600	30,418
Hudson.....	183,700	26,225	172,625	22,843
Hunterdon.....	27,100	6,349	19,404	4,590
Mercer.....	67,625	12,131	51,800	12,630
Middlesex.....	2,469	624	3,038	623
Monmouth.....	33,325	8,995	25,419	6,428
Ocean.....	17,850	3,953	16,475	3,540
Salem.....	1,294,806	148,050	1,376,350	133,394
Sussex.....	2,200	660	1,700	510
Warren.....	18,500	3,867	12,590	8,523
Total.....	12,828,930	342,931	12,749,723	293,173

113,000, 783 pounds.

12,844, 432 pounds.

THE PRODUCTS BY APPARATUS.

The products of the vessel fisheries of New Jersey in 1897 were valued at \$1,167,553, and those of the shore fisheries at \$2,446,881. In 1898 the vessel fisheries yielded \$1,192,723, and the shore fisheries \$2,371,043. The more important forms of apparatus are used on both vessels and boats, but pound nets, weirs, and a variety of smaller apparatus are employed exclusively in the shore fisheries.

Seines are used on vessels chiefly for capturing menhaden, and occasionally for other species. In shore fisheries they are more widely distributed than any other apparatus, taking principally alewives, carp, cat-fish, eels, flounders, menhaden, white perch, shad, squeteague, striped bass, suckers, and soft crabs. The catch taken with them by vessels and boats in 1897 aggregated 31,398,546 pounds, valued at \$235,745, and in 1898, 23,403,012 pounds, valued at \$193,457.

Gill nets were used extensively in the shore fisheries, but on vessels to a limited extent only, in Monmouth and Ocean counties. They are especially important in the capture of shad and sturgeon. In 1897 they took 11,161,755 pounds of shad, valued at \$277,529, and 989,096 pounds of sturgeon, including caviar, valued at \$92,682; and in 1898, 11,447,220 pounds of shad, valued at \$248,867, and 847,740 pounds of sturgeon products, valued at \$99,720. In addition to this there were large quantities of other species taken, the more important being blue-fish, white perch, and squeteague. The yield of the gill-net fisheries in 1897 was 12,875,038 pounds, valued at \$400,459, and in 1898 12,980,292 pounds, valued at \$378,997.

Pound nets are employed to a greater or less extent in five counties, but principally in Monmouth and Cape May. The more important localities in Monmouth County in which they are used are Keansburg, Port Monmouth and vicinity, and along the ocean shore from Sandy Hook to Manasquan. The remaining pound nets on the eastern side of the State are in Middlesex, Ocean, Atlantic, and Cape May counties. In Cape May County a large number of small pound nets are set in various localities on the Delaware Bay shore for fish and king crabs, and a considerable number of weirs are fished exclusively for king crabs. In 1897 the catch of all species in pound nets and weirs was 16,013,724 pounds, valued at \$214,068; and in 1898 14,070,839 pounds, valued at \$216,455. The species taken in greatest abundance were blue-fish, bonito, butter-fish, cod, croakers, flounders, menhaden, scup, sea bass, shad, Spanish mackerel, squeteague, tautog, and king crabs. Squeteague was the most important species, and comprised about one-half the quantity and value of the entire catch. Cod were also abundant, especially as compared with former years.

Fyke nets and stop nets are used to a limited extent in the vessel and shore fisheries, the value of the catch by fyke nets in 1897 being \$38,929 and in 1898 \$36,412; and by stop nets \$20,617 and \$7,471 for each year, respectively. Stop nets are set at high tide across the

entrance of creeks and at other convenient places to prevent fish (chiefly carp) from escaping when the tide recedes.

The products of the hand, trawl, and trot line fisheries by vessels and boats in 1897 aggregated 11,604,721 pounds, valued at \$335,715, and in 1898, 12,263,640 pounds, valued at \$395,781; the most important species being blue-fish, cod, sea bass, and squeteague.

The group of apparatus yielding the largest returns, in both the vessel and shore fisheries, included oyster tongs and dredges, crab dredges, clam tongs, rakes, and hoes. The products of these in 1897 were valued at \$2,303,383. The most important items in this value were oysters and clams, the former being valued at \$1,682,015 and the latter at \$607,520. The catch by these forms of apparatus in 1898 was worth \$2,274,594, the value of the oyster fishery being \$1,669,324, and of the clam fishery \$590,684. Other products secured in considerable quantities each year were hard crabs, scallops and mussels.

Pots for lobsters and eels were operated to a limited extent, the catch being worth \$22,978 in 1897, and \$27,166 in 1898.

The products taken with minor forms of apparatus employed in the shore fisheries were worth \$42,540 in 1897, and \$33,433 in 1898.

The following tables show the quantity and value of the products by counties and apparatus for the years 1897 and 1898:

Table showing, by counties, the yield of the seine fisheries of New Jersey in 1897 and 1898.

Species.	Atlantic.				Burlington.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Menhaden.....	5,225,625	\$10,887	3,104,130	\$6,467				
Perch, white.....	665	65	500	50	1,530	\$111	645	\$49
Squeteague.....					3,000	150	3,000	150
Striped bass.....	5,350	960	4,000	720	820	54	130	27
Total.....	5,231,640	11,912	3,108,630	7,237	4,850	315	3,775	226
Shore fisheries:								
Alewives.....	14,200	65	29,880	107	520,500	1,785	78,000	315
Blue-fish.....	4,250	210	4,150	205				
Carp.....					74,900	3,956	27,050	1,431
Cat-fish.....					26,565	1,231	25,669	1,184
Drum.....	1,000	10	1,000	10				
Eels.....	38,999	1,899	45,600	2,149				
Flounders.....	74,010	2,119	68,500	1,852	300	15	200	10
King-fish.....	2,230	147	2,300	146				
Mullet, fresh.....	1,600	88	1,300	73				
Mullet, salted.....	800	40	500	25				
Perch, white.....	85,800	6,263	66,150	4,849	36,375	2,200	27,550	1,565
Perch, yellow.....					2,060	106	1,500	78
Pike and pickerel.....	75	6	50	4	500	30*	375	23
Salmon.....					37	8	8	4
Scup.....	100	2	100	2				
Sea bass.....	700	14	700	14				
Shad.....	100	10	100	10	406,600	10,900	323,898	7,658
Sheepshead.....	9,000	1,670	6,000	1,080				
Spots.....	1,300	18	1,300	18				
Squeteague.....	349,200	10,937	374,500	11,706	3,000	150	3,000	150
Striped bass.....	27,435	3,189	17,715	2,086	12,373	1,489	11,562	1,310
Sturgeon.....					300	8	450	20
Suckers.....	200	5	200	5	44,481	2,173	45,952	2,173
Terrapin.....	1,103	626						
Total.....	612,102	27,298	620,045	24,340	1,127,941	24,051	545,214	15,921
Grand total ..	5,843,742	89,210	3,728,675	31,577	1,132,791	24,366	548,989	16,147

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Table showing the yield of the seine fisheries of New Jersey, etc.—Continued.

Species.	Camden.				Cape May.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Alewives.....					7,000	\$70	4,000	\$40
Blue-fish.....					500	15		
Carp.....					2,300	69	914	27
Cat-fish.....					380	22	515	31
Croakers.....					1,500	30		
Flounders.....					500	15		
Perch, white.....					1,500	75	1,800	90
Scup.....					1,000	30		
Sea bass.....					2,000	60		
Squeteague.....					4,700	158	2,000	80
Striped bass.....					1,743	122	1,305	91
Suckers.....					500	15	600	18
Total.....					23,623	681	11,134	377
Shore fisheries:								
Alewives.....	400,200	\$1,602	202,250	\$823	61,500	1,222	61,850	1,312
Blue-fish.....					1,600	80	2,150	103
Butter-fish.....					3,300	150	3,250	150
Carp.....	38,913	2,303	12,300	780				
Cat-fish.....	18,664	933	17,391	869				
Drum.....					725	8	600	6
Eels.....					48,933	2,358	37,466	1,643
Flounders.....					19,150	696	18,476	693
King-fish.....					3,700	224	8,545	223
Mullet, fresh.....					19,325	398	21,600	452
Perch, white.....	1,500	67	1,223	63	18,695	1,492	18,910	1,501
Perch, yellow.....	1,125	58	780	40	650	39	670	84
Salmon.....	746	237						
Sea bass.....							285	10
Shad.....	532,200	15,988	256,080	5,196				
Spots.....					4,500	210	5,000	240
Squeteague.....					220,250	7,177	202,650	6,824
Striped bass.....	6,900	690	1,300	130	24,180	2,612	25,058	1,495
Sturgeon.....	1,000	25	450	12				
Suckers.....	11,330	591	9,426	495				
Total.....	1,102,678	22,494	501,200	8,348	426,508	16,566	401,409	14,886
Total vessel and shore.....	1,102,578	22,494	501,200	8,348	450,131	17,247	412,643	15,263

Species.	Cumberland.				Gloucester.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Carp.....					2,900	\$125	1,400	\$84
Cat-fish.....					1,845	92	2,000	100
Perch, white.....					145	7	100	5
Perch, yellow.....					300	15	250	12
Suckers.....					1,600	80	2,200	110
Total.....					6,790	319	5,950	311
Shore fisheries:								
Alewives.....	45,500	\$265	61,500	\$315	54,390	227	55,255	232
Carp.....	25,565	767	10,440	313	31,026	1,571	9,100	546
Cat-fish.....	18,054	973	21,225	1,135	9,396	474	11,060	596
Perch, white.....	12,692	609	12,832	611	289	13	475	20
Perch, yellow.....					625	31	660	33
Salmon.....					24	12		
Shad.....	7,800	430	10,500	575	158,920	4,809	214,450	4,970
Squeteague.....	44,530	1,966	42,340	1,718				
Striped bass.....	49,766	3,545	49,003	3,500	800	80	1,200	120
Sturgeon.....	1,050	15	700	10				
Suckers.....	6,840	210	5,043	185	5,434	242	6,131	276
Total.....	210,797	8,780	214,083	8,362	260,904	7,459	298,931	6,793
Total vessel and shore.....	210,797	8,780	214,083	8,362	267,694	7,778	304,881	7,104

Table showing the yield of the seine fisheries of New Jersey, etc.—Continued.

Species.	Middlesex.				Monmouth.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Flounders							450	\$12
Menhaden					15,120,000	\$37,950	12,720,000	34,226
Squeteague							400	8
Striped bass							4,000	280
Total					15,120,000	37,950	12,724,850	34,526
Shore fisheries:								
Alewives	48,000	\$80	6,000	\$12	8,112	66	10,112	81
Blue-fish	10,300	340	10,800	348	1,800	80	6,000	250
Bonito					200	8	100	4
Eels	2,666	160	666	40	5,000	200	15,666	700
Flounders	1,000	60	1,200	72	2,500	65	2,500	80
Menhaden	444,400	707	658,400	1,113	640,000	1,000	240,000	375
Perch, white	100	10	100	10	2,000	110	1,600	88
Shad	3,476	174	7,152	278	3,400	200	2,800	160
Squeteague	13,500	375	16,000	700	25,500	520	29,250	645
Striped bass	300	26	800	78	500	46	1,000	84
Suckers					1,000	80	3,000	115
Crabs, soft					12,000	900	18,000	1,350
Total	523,742	1,932	701,118	2,651	702,012	3,225	330,028	3,382
Total vessel and shore	523,742	1,932	701,118	2,651	15,822,012	41,175	13,054,878	38,358

Species.	Ocean.				Salem.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Menhaden	4,200,000	\$7,000	1,920,000	\$2,400				
Shore fisheries:								
Alewives	697,500	3,130	980,300	4,280	53,000	\$253	60,000	\$400
Blue-fish	4,100	160	1,100	40				
Carp					129,100	6,455	38,100	2,286
Cat-fish	500	45	1,000	75	27,261	1,362	32,914	1,646
Cod	50	2	40	2				
Eels			2,666	120				
Flounders	4,000	106	3,000	162				
Kingfish	20	5	40	10				
Menhaden	12,000	100	13,500	105				
Mullet, fresh			1,000	80				
Perch, white	265,275	15,107	317,240	17,713	1,525	61	1,720	68
Perch, yellow					1,000	40	800	32
Pike and pickerel	300	24	300	24				
Scup	2,700	72	200	2				
Sea bass	100	5	100	5				
Shad	1,400	95	1,400	95	66,900	2,175	80,550	2,299
Sheepshead	150	23						
Spots	2,300	92	2,300	92				
Squeteague	98,615	2,441	57,450	1,204				
Striped bass	46,760	7,644	49,950	8,126	24,100	2,410	28,300	2,330
Suckers	100	6	8,200	491	13,045	522	15,019	601
Tautog	100	5	100	5				
Crabs, hard	3,400	102	3,333	100				
Crabs, soft	40,757	4,134	45,901	4,695				
Terrapin	184	110						
Total	1,180,811	33,408	1,489,120	37,376	815,931	13,278	252,403	9,662
Total vessel and shore	5,380,311	40,408	3,409,120	39,776	815,931	13,278	252,403	9,662

Species.	Sussex.				Warren.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Scup					54,000	\$1,367	50,120	\$6
Sheepshead	3,800	\$600	6,800	\$510	15,030	901	14,886	893
Tautog								
Total	3,800	660	6,800	510	69,030	4,768	65,086	4,425

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Table showing the yield of the seine fisheries of New Jersey, etc.—Continued.

Species.	Hunterdon.				Mercer.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Alewives.....					7,500	\$55	6,000	\$45
Carp.....	1,350	\$25	1,088	\$20	8,810	200	2,718	188
Cat-fish.....	150	6	210	8	7,715	389	8,232	463
Perch, white.....					800	82	600	24
Perch, yellow.....					200	8	250	10
Salmon.....	151	20			36	9	7	1
Shad.....	108,400	6,349	77,616	4,590	106,100	4,713	70,040	4,030
Striped bass.....	395	40	455	46	3,460	333	4,455	402
Sturgeon.....							60	4
Suckers.....	8,800	397	8,050	364	22,120	1,073	23,505	1,129
Total.....	119,246	6,837	87,419	5,028	151,741	6,812	115,867	6,246

SUMMARY.

Species.	1897.		1898.	
	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:				
Alewives.....	7,000	\$70	4,000	\$40
Blue-fish.....	500	15		
Carp.....	5,200	194	2,314	111
Cat-fish.....	2,225	114	2,515	181
Croakers.....	1,600	30		
Flounders.....	500	15	450	12
Menhaden.....	24,545,625	55,837	17,744,130	43,093
Perch, white.....	3,840	253	3,045	194
Perch, yellow.....	300	15	250	12
Scup.....	1,000	30		
Sea bass.....	2,000	60		
Squeteague.....	7,700	308	5,400	238
Striped bass.....	7,413	1,136	9,435	1,118
Suckers.....	2,100	95	2,800	128
Total.....	24,586,903	68,177	17,774,339	46,077
Shore fisheries:				
Alewives.....	2,000,402	8,750	1,551,147	7,922
Blue-fish.....	22,050	870	24,200	946
Bonito.....	200	8	100	4
Butter-fish.....	3,300	150	3,250	150
Carp.....	304,664	15,277	100,796	5,464
Cat-fish.....	108,305	5,413	118,301	5,976
Cod.....	50	2	40	2
Drum.....	1,725	18	1,600	16
Eels.....	95,598	4,617	102,064	4,852
Flounders.....	100,960	3,061	93,375	2,369
King-fish.....	5,950	876	5,885	379
Menhaden.....	1,096,400	1,807	911,900	1,533
Mullet, fresh.....	20,925	486	23,000	555
Mullet, salted.....	800	40	600	25
Perch, white.....	425,051	25,964	448,400	26,502
Perch, yellow.....	5,660	282	4,560	227
Pike and pickerel.....	875	60	725	51
Salmon.....	994	286	46	11
Scup.....	2,800	74	300	4
Sea bass.....	800	19	1,085	29
Shad.....	1,458,096	50,370	1,101,505	33,897
Sheepshead.....	9,150	1,693	6,000	1,080
Spots.....	8,100	320	8,600	350
Squeteague.....	754,595	23,566	725,690	22,346
Striped bass.....	196,969	21,984	185,798	19,707
Sturgeon.....	2,350	48	1,660	46
Suckers.....	127,330	6,150	139,411	6,727
Tautog.....	100	5	100	5
Crabs, hard.....	3,400	102	3,333	100
Crabs, soft.....	52,757	5,034	63,901	6,045
Terrapin.....	1,287	736		
Total.....	6,811,643	177,568	5,628,673	148,380
Total vessel and shore.....	31,398,546	235,745	23,403,012	193,457

Table showing, by counties, the yield of the gill-net fisheries of New Jersey in 1897 and 1898.

Species.	Atlantic.				Bergen.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Alewives.....	1,400	\$13	2,900	\$35				
Blue-fish.....	3,800	190	3,800	190				
Cat-fish.....	500	35	600	38				
Flounders.....	6,400	128	3,200	64				
King-fish.....	250	13	250	13				
Perch, white.....	36,350	2,933	28,750	2,401				
Pike and pickerel.....	435	17	435	17				
Shad.....	750	55			460,800	\$17,934	519,420	\$18,510
Spots.....	250	4	250	4				
Squeteague.....	20,300	438	20,400	456				
Striped bass.....	2,335	847	1,190	172	11,000	970	21,750	1,895
Suckers.....	900	27	1,900	72				
Tautog.....	100	2	100	2				
Total.....	73,770	4,202	63,775	3,464	471,800	18,904	541,170	20,405

Species.	Burlington.				Camden.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Perch, white.....	1,000	\$50	1,000	\$50				
Salmon.....	11	4	23	8	48	\$27		
Shad.....	757,960	18,862	684,050	13,856	872,315	17,446	758,250	\$12,132
Squeteague.....	4,200	210	9,300	465				
Sturgeon.....	15,680	819	7,840	439				
Suckers.....	10,600	424	11,400	456				
Caviar.....	6,060	2,290	2,625	1,687				
Total.....	795,491	22,659	665,738	16,961	872,363	17,473	758,250	12,132

Species.	Gloucester.				Hudson.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Carp.....	2,200	\$110	1,800	\$108				
Shad.....	1,810,000	28,380	1,857,000	25,448	448,800	\$15,820	467,600	\$15,938
Total.....	1,812,200	28,490	1,858,800	25,556	448,800	15,820	467,600	15,938

Species.	Middlesex.				Monmouth.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Blue-fish.....							200	\$10
Butter-fish.....							400	82
Cod.....							250	10
Croakers.....							5,000	50
Shad.....					9,500	\$360	12,000	380
Squeteague.....							6,000	120
Total.....					9,500	360	23,860	612
Shore fisheries:								
Blue-fish.....					119,700	3,660	70,000	2,190
Bonito.....					1,100	38	1,100	33
Croakers.....					3,000	60	2,800	56
Flounders.....					800	16	700	14
Shad.....	1,200	\$60	1,200	\$60	71,600	4,440	45,600	2,863
Spanish mackerel.....					11,000	1,350	6,000	750
Squeteague.....					25,500	510	26,000	520
Sturgeon.....							6,750	405
Caviar.....							770	308
Total.....	1,200	60	1,200	60	232,700	10,069	169,720	7,189
Total vessel and shore...	1,200	60	1,200	60	242,200	10,429	188,570	7,751

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Table showing the yield of the gill-net fisheries of New Jersey in 1897 and 1898—Continued.

Species.	Cape May.				Cumberland.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Alewives	1,200	\$24	1,200	\$24	1,200	\$12	2,100	\$21
Blue-fish	80	5	800	8				
Butter-fish	100	5						
Croakers			800	12				
Drum	10,000	100	10,000	100				
King-fish			50	2				
Perch, white	2,600	234	2,600	234	2,700	135	3,000	150
Salmon							22	10
Shad					585,430	17,079	657,800	16,575
Squeteague	1,200	40			6,300	252	5,000	200
Striped bass					9,950	793	11,100	844
Sturgeon	31,750	1,587	15,210	696	242,875	6,225	914,383	5,078
Caviar	7,020	2,844	2,340	1,482	63,760	21,253	47,723	26,517
Total	63,950	4,839	32,500	2,558	912,215	45,749	1,041,128	49,395
	Mercer.				Salem.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Carp					5,900	\$295	4,000	\$240
Salmon	11	\$3			117	53		
Shad	205,600	7,418	172,000	\$8,600	6,369,500	145,875	6,759,000	131,095
Striped bass					50	5	150	15
Sturgeon					495,806	16,568	853,858	13,641
Caviar					122,715	40,905	94,196	48,862
Total	205,511	7,421	172,000	8,600	6,994,088	203,701	7,211,204	193,853
	Ocean.				Total for State.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Blue-fish							200	\$10
Butter-fish							400	32
Cod							250	10
Croakers							5,000	50
Shad	8,000	\$350	8,000	\$350	17,500	\$710	20,000	740
Squeteague							6,000	120
Sturgeon	3,400	188	1,600	80	3,400	188	1,600	80
Caviar			945	525			945	525
Total	11,400	538	10,545	955	20,900	898	34,395	1,567
Shore fisheries:								
Alewives	15,600	120	30,600	305	19,400	169	36,800	385
Blue-fish	189,820	9,022	168,165	8,623	812,900	12,877	242,255	10,911
Bonito	2,200	54	500	19	3,300	87	1,600	52
Butter-fish	500	15	700	19	600	20	700	19
Carp					8,100	405	5,800	348
Cat-fish					500	35	600	38
Cod	2,500	38	100	2	2,500	38	100	2
Croakers	5,700	114	4,340	84	8,700	174	7,940	152
Drum					10,000	100	10,000	100
Flounders	200	10	500	13	7,400	154	4,400	91
King-fish	85	13	85	13	335	26	885	28
Menhaden			4,000	25			4,000	25
Perch, white	36,825	2,973	62,347	4,983	79,475	6,825	97,697	7,818
Pike and pickerel	1,460	75	1,400	82	1,895	92	1,835	99
Salmon					1,187	87	45	18
Scup			300	9			800	9
Sea bass	5,000	87	2,500	87	5,000	87	2,500	87
Shad	60,400	3,450	55,800	3,050	11,144,255	276,819	11,427,220	248,127
Spanish mackerel	1,660	254	5,225	694	12,650	1,604	11,225	1,444
Spots					250	4	250	4
Squeteague	155,800	3,691	135,450	3,251	213,300	5,141	196,150	4,892
Striped bass	1,560	231	1,300	210	24,895	2,346	35,490	3,136
Sturgeon	50	8			786,141	25,202	697,541	20,259
Suckers	1,200	24			12,700	475	13,300	528
Tautog					100	2	100	2
Caviar					199,555	67,292	147,664	78,856
Total	480,050	20,174	472,812	21,369	12,854,133	399,561	12,945,897	377,430
Grand total	491,450	20,712	488,357	22,324	12,875,038	400,459	12,980,292	378,997

Table showing the yield of the stop-net fisheries of New Jersey in 1897 and 1898.

Species.	Atlantic.				Camden.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Carp					34,645	\$2,079	13,188	\$791
Perch, white	665	\$40						
Striped bass	445	80						
Total	1,110	120			34,645	2,079	13,188	791

Species.	Cape May.				Cumberland.				Gloucester.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Vessel fisheries:												
Carp	8,000	\$240	2,000	\$60					8,100	\$405	4,200	\$252
Shore fisheries:												
Carp					15,500	\$530	6,085	\$204	134,700	6,915	56,300	\$,378
Total vessel and shore	8,000	240	2,000	60	15,500	530	6,085	204	142,800	7,320	60,500	3,630

Species.	Salem.				Total.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Carp					16,100	\$645	6,200	\$312
Shore fisheries:								
Carp	199,800	\$9,990	43,600	\$2,574	384,645	19,514	119,173	6,947
Cat-fish	6,600	330	4,000	200	6,600	330	4,000	200
Perch, white	200	8	800	12	865	48	800	12
Striped bass					445	80		
Total	206,600	10,328	47,900	2,786	392,555	19,972	123,473	7,159
Total vessel and shore	206,600	10,328	47,900	2,786	408,655	20,617	129,673	7,471

Table showing the yield of the pound-net and weir fisheries of New Jersey in 1897 and 1898.

Species.	Atlantic.				Cape May.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Albacore					4,000	\$80	4,000	\$80
Blue-fish	100	\$5	100	\$5	8,283	839	8,320	842
Butter-fish	10,000	500	10,000	500	41,257	1,482	38,617	1,350
Cod	12,000	180	9,000	180	8,000	100	8,000	160
Croakers					12,000	240	12,000	240
Drum	200	2	200	2	2,575	98	3,100	80
Eels	1,000	30	1,000	30	11,066	581	6,266	329
Flounders	15,000	800	11,200	224	14,500	385	10,800	301
Hake					5,100	210	8,400	108
Hickory shad					2,000	160	2,000	160
King-fish	6,000	800	6,000	300	4,617	655	4,484	635
Menhaden					306,000	808	80,000	588
Mullet					250	5	100	2
Perch, white	1,500	120	1,000	80	7,800	544	5,010	327
Pompano					40	10	40	10
Scup					40,000	1,200	40,000	1,200
Shad	150	9	100	5	3,882	174	3,480	154
Sheepshead	100	10	80	8	2,000	400	2,000	400
Spanish mackerel					3,000	600	2,400	480
Spots					8,550	186	8,600	190
Squeteague	80,000	900	112,000	1,000	479,168	10,172	585,335	12,200
Striped bass	3,000	300	2,000	200	21,280	2,127	14,800	1,435
Sturgeon					1,500	60	1,500	60
Tautog					400	12	400	12
Crabs, hard					29,587	868	31,096	920
King crabs					926,800	3,912	906,190	3,873
Total	129,050	2,656	162,680	2,534	1,943,605	25,408	1,781,888	25,636

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Table showing the yield of the pound-net and weir fisheries of New Jersey in 1897 and 1898—Continued.

Species.	Middlesex.				Ocean.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Albacore.....					1,000	\$10		
Blue-fish.....					2,000	60	20,000	\$1,000
Bonito.....					8,000	240	30,000	750
Butter-fish.....					9,000	180	40,000	2,000
Cero.....					150	6	500	20
Cod.....					1,000	30	20,000	400
Croakers.....					6,000	120	6,000	120
Flounders.....					16,000	300	25,000	500
King-fish.....					250	29	400	48
Menhaden.....	120,000	\$200			21,000	88		
Scup.....					12,000	229	10,000	200
Sea bass.....					9,000	160	1,000	30
Shad.....					1,600	58	1,200	45
Sheepshead.....					50	6	120	18
Spanish mackerel.....					5,600	650	3,000	750
Spots.....					100	1	500	20
Squeteague.....	2,000	100			550,000	7,750	270,000	4,050
Sturgeon.....					700	30	1,000	70
Tautog.....					500	7		
Caviar.....							100	45
Total.....	122,000	300			642,850	9,854	428,820	10,066

Species.	Monmouth.				Total.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Albacore.....	7,150	\$134	9,750	\$157	12,150	\$224	13,750	\$287
Alewives.....	26,000	520	16,250	825	26,000	520	16,250	825
Blue-fish.....	61,100	2,107	66,470	2,238	71,483	2,511	94,890	8,580
Bonito.....	270,000	6,970	245,722	6,152	278,000	7,210	275,722	6,902
Butter-fish.....	162,900	3,535	169,660	4,029	213,157	6,697	258,277	7,879
Cero.....	4,950	154	5,170	159	5,100	160	5,670	179
Cod.....	1,170,000	14,425	243,000	4,850	1,191,000	14,795	280,000	5,590
Croakers.....	67,800	1,114	128,010	2,250	76,800	1,474	141,010	2,610
Drum.....	2,500	28	2,044	21	5,275	68	5,344	63
Eels.....	300	11	230	6	12,386	622	7,496	365
Flounders.....	435,600	7,982	490,800	9,505	480,100	8,967	537,800	10,530
Haddock.....	100	3	100	3	100	3	100	3
Hake.....	14,600	161	15,442	173	19,700	371	18,842	281
Hickory shad.....	1,719	69	1,500	60	3,719	229	3,500	220
King-fish.....	6,530	842	5,988	781	17,397	1,826	16,822	1,764
Mackerel.....	24,300	1,628	16,480	1,322	24,300	1,628	16,480	1,322
Menhaden.....	4,446,300	11,283	3,425,600	8,427	4,893,300	12,379	8,505,500	8,965
Mullet.....			2,500	50	250	6	2,600	52
Perch, white.....					9,300	664	6,010	407
Pollock.....	300	9	300	9	300	9	300	9
Pompano.....					40	10	40	10
Salmon.....	1,021	358	1,025	360	1,021	358	1,025	360
Scup.....	499,100	7,002	289,160	4,626	551,100	8,431	339,150	6,026
Sea bass.....	328,400	5,958	186,468	3,577	337,400	6,118	187,468	3,607
Shad.....	82,672	3,988	63,100	3,003	88,304	4,229	67,880	3,207
Sheepshead.....	7,060	867	7,265	910	9,200	1,263	9,465	1,336
Skates.....	7,650	191	6,750	169	7,650	191	6,750	169
Spanish mackerel.....	85,500	8,637	61,800	6,347	94,000	9,787	66,700	7,577
Spots.....	2,300	48	3,000	90	10,950	230	12,100	306
Squeteague.....	5,400,019	95,427	6,161,953	116,307	6,511,187	114,349	7,129,288	133,557
Striped bass.....					24,230	2,427	16,300	1,635
Sturgeon.....	19,358	936	15,723	758	21,658	1,026	18,223	888
Tautog.....	69,400	1,163	70,848	1,380	60,300	1,182	70,748	1,392
Tomcod or frost-fish.....	1,000	5	1,850	7	1,000	5	1,350	7
Crabs, hard.....					29,587	868	31,096	920
King crabs.....					928,800	3,912	906,190	3,873
Caviar.....	600	800	603	267	600	800	703	812
Total.....	18,176,219	175,850	11,707,951	178,319	16,013,724	214,968	14,070,889	216,455

Table showing, by counties, the yield of the fyke-net fisheries of New Jersey in 1897 and 1898.

Species.	Atlantic.				Burlington.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Perch, white	1,500	\$90	4,100	\$246	3,980	\$255	2,045	\$132
Striped bass	1,500	225	130	20	620	84	315	42
Total	3,000	315	4,230	266	4,550	339	2,360	174
Shore fisheries:								
Cat-fish			200	10	22,305	999	23,957	1,070
Eels			267	10	24,999	1,338	24,378	1,276
Flounders					680	34	700	35
Perch, white	22,735	988	19,980	886	37,085	2,462	32,365	2,025
Striped bass	6,765	807	3,172	352	8,007	1,141	5,578	790
Turtles	600	36	1,000	60				
Total	30,100	1,831	24,619	1,318	93,076	5,974	86,978	5,196
Total vessel and shore...	33,100	2,146	28,849	1,584	97,626	6,313	89,338	5,370

Species.	Gloucester.				Hudson.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Cat-fish	29,100	\$1,538	26,788	\$1,408			2,333	\$170
Eels	22,177	1,331	23,866	1,432	1,000	85	222,900	6,905
Shad					286,000	10,405	990	105
Striped bass					1,450	163		
Total	51,277	2,869	50,659	2,840	288,450	10,653	226,223	7,180

Species.	Mercer.				Middlesex.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Cat-fish	21,915	\$1,007	22,432	\$1,196				
Eels	16,766	945	16,946	1,017				
Flounders					2,000	\$100	2,000	\$100
Perch, white							2,000	100
Shad					6,500	390	4,750	285
Squeteague					300	18	500	30
Striped bass					1,000	60	1,200	96
Crabs, hard							1,200	45
Total	37,671	1,952	39,378	2,213	9,800	568	11,650	656

Species.	Cape May.				Ocean.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Cat-fish	2,700	\$162	3,200	\$192				
Eels	2,533	95	2,000	75				
Total	5,233	257	5,200	267				
Shore fisheries:								
Alewives							750	\$15
Cat-fish	125	10	100	8				
Eels	7,466	658	18,688	1,012				
Flounders	1,100	55	1,400	64	74,400	\$3,045	89,040	3,977
Perch, white	1,085	70	4,335	830	5,155	368	5,945	408
Striped bass	3,200	320	6,650	665	1,025	175	1,495	162
Total	12,976	1,111	81,151	2,079	81,180	3,588	97,280	4,562
Total vessel and shore...	18,209	1,808	86,851	2,846	81,180	3,588	97,280	4,562

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Table showing the yield of the fyke-net fisheries of New Jersey in 1897 and 1898—Cont'd.

Species.	Camden.				Cumberland.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Cat-fish	2,400	\$120	4,900	\$245	20,300	\$1,110	17,945	\$976
Eels	12,400	744	10,132	608	7,733	324	6,100	362
Turtles					2,700	216	2,100	168
Total	14,800	864	15,032	853	30,733	1,650	26,145	1,496
	Monmouth.				Total.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Cat-fish					2,700	\$162	3,200	\$192
Eels					2,533	95	2,000	75
Flounders	16,000	\$640	8,000	\$480	16,000	640	8,000	480
Perch, white					5,430	345	6,145	378
Striped bass					2,120	309	445	62
Total	16,000	640	8,000	480	28,783	1,551	19,790	1,187
Shore fisheries:								
Alewives	1,000	20	1,000	20	1,000	20	1,750	35
Blue-fish	1,300	65	1,400	70	1,300	65	1,400	70
Cat-fish					96,145	4,784	96,207	4,913
Eels	52,900	2,578	55,000	2,605	144,431	8,001	157,683	8,482
Flounders	50,975	1,901	57,675	2,407	129,155	6,135	150,815	6,583
King-fish	120	22	120	27	120	22	120	27
Menhaden	17,500	33	28,000	50	17,500	33	28,000	50
Mullet	100	6	1,000	60	100	6	1,000	60
Perch, white	5,450	367	4,350	275	71,510	4,245	68,975	4,024
Seup			1,000	15			1,000	15
Shad	128	8	176	12	292,628	10,803	227,826	7,202
Squeteague	16,600	350	19,500	405	16,900	368	20,000	435
Striped bass	3,800	405	2,800	299	25,847	3,071	21,885	2,469
Tautog	25,800	514	27,600	532	25,800	514	27,600	532
Tomcod or frost-fish	650	9	600	8	650	9	600	8
Whiting	4,000	50	3,100	47	4,000	50	3,100	47
Crabs, hard							1,200	45
Turtles					3,300	252	3,100	228
Total	180,323	6,318	203,321	6,832	830,386	37,378	812,821	35,225
Total vessel and shore...	196,323	6,958	211,321	7,312	859,169	38,929	832,111	36,412

Table showing, by counties, the yield of the line fisheries of New Jersey in 1897 and 1898.

Species.	Middlesex.				Burlington.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Blue-fish	2,000	\$100	2,000	\$100				
Perch, white					500	\$25	500	\$25
Squeteague, fresh					3,500	175	3,500	175
Total	2,000	100	2,000	100	4,000	200	4,000	200

Table showing the yield of the line fisheries of New Jersey in 1897 and 1898—Continued.

Species.	Atlantic.				Monmouth.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Blue-fish	29,800	\$1,241	36,400	\$1,509	1,000	\$50		
Cod	768,000	24,850	722,000	27,350				
Croakers	10,100	149	12,370	185				
Flounders	24,550	734	25,020	723				
Haddock	9,525	667	9,825	602				
Huke	6,700	278	6,900	287				
King-fish	1,100	44	1,125	45				
Scup	24,200	561	31,000	717				
Sea bass	213,000	8,185	242,300	9,307	12,000	360	4,000	\$109
Sheepshead	4,100	738	5,100	918				
Squeteague	44,500	1,191	47,125	1,261				
Total	1,120,575	38,538	1,139,165	42,904	13,000	410	4,000	100
Shore fisheries:								
Blue-fish	98,250	4,137	99,250	4,194	4,079,500	107,235	4,019,000	120,795
Bonito					65,500	2,000	85,500	2,695
Cod	291,500	8,738	271,500	8,138	1,052,000	18,195	956,950	30,060
Croakers	30,500	432	27,500	430				
Drum	2,200	22	2,200	22				
Eels	4,266	164	4,633	176	2,000	60	3,000	90
Flounders	143,350	3,467	140,400	3,488	241,100	4,822	263,500	5,270
Haddock	2,000	120	2,000	120	164,300	2,344	214,300	6,544
Hake	3,000	120	3,000	120	26,700	485	41,600	990
King-fish	11,700	582	11,925	595				
Scup	80,700	582	30,850	591	15,200	404	26,000	770
Sea bass	155,850	6,260	141,300	5,717	657,200	26,398	712,150	27,489
Sheepshead	26,635	4,743	21,600	3,856				
Skates					4,000	100	6,000	150
Spanish mackerel					100	10	100	10
Spots	200	8	200	8				
Squeteague, fresh	661,700	21,185	724,200	23,315	32,300	846	36,500	940
Autog	600	30	600	30	202,500	3,780	215,600	4,068
Crabs, hard	64,000	2,500	64,000	2,500				
Total	1,625,851	68,090	1,545,058	53,300	6,532,400	165,679	6,580,100	199,771
Total vessel and shore	2,646,426	91,628	2,684,223	96,204	6,545,400	166,089	6,584,100	199,871

Species.	Cumberland.				Hunterdon.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Croakers			6,000	\$150				
Scup			200	5				
Sea bass			3,000	120				
Squeteague			5,000	150				
Total			14,200	425				
Shore fisheries:								
Black bass					150	\$12	100	\$8
Cat-fish					400	20	300	15
Eels					133	10	183	10
Squeteague, fresh	29,500	\$1,235	26,100	1,125				
Striped bass					800	80	1,600	160
Total	29,500	1,235	26,100	1,125	1,483	122	2,133	193
Total vessel and shore	29,500	1,235	40,300	1,550	1,483	122	2,133	193

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Table showing the yield of the line fisheries of New Jersey in 1897 and 1898—Continued.

Species.	Camden.				Cape May.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Blue-fish	7,500	\$300	6,000	\$240	3,650	\$110	1,840	\$55
Cod					10,300	258	600	16
Croakers					16,300	306	16,700	334
Drum					600	6	800	8
Flounders	5,200	180	5,000	125	3,200	96	2,725	87
King-fish					75	19	90	22
Scup	6,000	150	7,200	180	5,650	170	9,165	275
Sea bass	120,000	4,800	112,000	4,480	33,765	957	33,665	1,010
Sheepshead							20	9
Squeteague					20,000	400	21,700	484
Total	138,700	5,380	180,200	5,025	92,540	2,322	87,305	2,244
Shore fisheries:								
Albacore					1,970	70	2,800	96
Blue-fish					230,075	10,442	314,840	14,365
Bonito					3,700	165	4,700	209
Cat-fish	4,100	205	8,000	150				
Cod					152,540	3,716	199,850	5,330
Croakers					138,900	2,456	195,800	3,464
Drum					63,100	628	62,700	623
Eels	1,066	64	1,466	88	2,100	103	3,333	175
Flounders					82,060	864	47,400	1,284
Hake					11,835	248	20,300	407
King-fish					6,000	821	7,300	1,025
Perch, white	346	14	300	12				
Scup					120,000	8,398	174,500	4,928
Sea bass					432,600	16,528	540,000	20,890
Sheepshead					450	68	500	75
Spanish mackerel					1,280	138	5,100	695
Spots					1,200	120	1,200	120
Squeteague, fresh					279,350	7,174	349,600	8,859
Squeteague, salted					16,700	961	16,650	957
Striped bass	2,100	210	1,600	160	100	10	150	15
Tomcod or frost-fish					200	6	200	6
Total	7,612	493	6,386	410	1,494,160	47,916	1,956,423	63,513
Total vessel and shore	146,312	5,873	186,586	5,485	1,586,700	50,238	2,043,728	65,757

Species.	Ocean.				Salem.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Squeteague					9,900	\$558	12,500	\$706
Shore fisheries:								
Blue-fish	304,165	\$3,304	234,800	\$6,845				
Bonito	8,000	185	9,200	181				
Cod	29,000	616	151,700	5,876				
Flounders	42,150	938	54,350	1,117				
Haddock	1,450	26	13,825	537				
Hake	1,800	36	7,000	274				
King-fish	350	50	350	50				
Perch, white	600	36	150	9				
Scup	800	16	2,500	52				
Sea bass	162,365	5,509	201,065	7,063				
Sheepshead	400	40	50	5				
Squeteague, fresh	59,800	2,517	60,700	2,563	18,000	1,005	15,000	841
Squeteague, salted	200	10	100	5				
Striped bass	2,270	325	1,650	233				
Turtles	1,650	114	1,650	114				
Total	615,000	18,667	739,090	24,924	18,000	1,005	15,000	841
Total vessel and shore	615,000	18,667	739,090	24,924	27,900	1,563	27,500	1,547

Summary of the yield of the line fisheries of New Jersey in 1897 and 1898.

Species.	1897.		1898.	
	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:				
Blue-fish	41,950	\$1,701	44,240	\$1,804
Cod	763,800	25,108	722,600	27,366
Croakers	25,400	465	36,070	669
Drum	600	6	800	8
Flounders	32,950	960	32,745	935
Haddock	9,525	567	9,825	602
Hake	6,700	278	6,900	287
King-fish	1,175	63	1,215	67
Scup	35,850	881	47,565	1,177
Sea bass	378,765	14,302	394,965	15,017
Sheepshead	4,100	738	5,120	921
Squeteague	74,400	2,149	86,325	2,551
Total.....	1,374,715	47,208	1,387,370	51,404
Shore fisheries:				
Albacore	1,970	70	2,800	96
Black bass	150	12	100	8
Blue-fish	4,713,990	130,218	4,669,890	146,299
Bonito	77,200	2,800	99,400	2,935
Cat-fish	4,500	225	3,900	165
Cod	1,525,040	31,265	1,580,000	49,404
Croakers	169,400	2,888	223,300	3,894
Drum	65,300	650	64,900	645
Eels	9,565	401	12,4 ^f	539
Flounders	458,660	10,086	505,65 ^c	11,159
Haddock	167,750	2,490	230,125	7,201
Hake	43,385	889	72,300	1,791
King-fish	18,050	1,453	19,575	1,670
Perch, white	1,446	75	950	46
Scup	166,700	4,400	238,850	6,341
Sea bass	1,407,515	53,695	1,603,515	61,149
Sheepshead	27,385	4,851	22,150	3,936
Skates	4,000	100	6,000	150
Spanish mackerel	1,380	148	5,200	705
Spots	1,400	128	1,400	128
Squeteague, fresh	1,084,150	34,137	1,215,600	37,818
Squeteague, salted	16,900	971	16,750	962
Striped bass	5,270	625	5,000	568
Tautog	203,100	3,810	216,200	4,098
Tomcod or frost-fish	200	6	200	6
Crabs, hard	64,000	2,600	64,000	2,500
Turtles	1,650	114	1,650	114
Total.....	10,230,006	288,507	10,876,270	344,377
Total vessel and shore.....	11,604,721	335,715	12,263,640	395,781

Table showing the catch of eels and lobsters by pots in New Jersey in 1897 and 1898.

Counties.	Vessel fisheries.				Shore fisheries.				Total.	
	Eels.		Lobsters.		Eels.		Lobsters.		Lbs.	Value.
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.		
1897.										
Atlantic					8,800	\$352			8,800	\$352
Bergen					10,666	775			10,666	775
Cape May	20,000	\$600			1,866	56			21,866	656
Hudson			5,000	\$400	4,000	200	26,200	\$1,790	36,200	2,390
Middlesex					11,733	704			11,733	704
Monmouth					186,266	7,200	63,600	6,004	199,866	13,204
Ocean	4,000	120			120,060	4,898	4,430	879	128,480	4,897
Total	24,000	720	5,000	400	293,381	13,685	94,230	8,173	416,611	22,978
1898.										
Atlantic					8,666	345			8,666	345
Bergen					18,066	991			18,066	991
Cape May	17,338	650			1,866	56			19,199	706
Hudson			10,000	800	6,000	300	81,250	2,540	47,250	3,640
Middlesex					15,067	910			15,067	910
Monmouth					143,338	7,494	79,500	7,815	222,838	15,109
Ocean	6,667	240			187,888	5,983	8,123	142	147,676	5,465
Total.....	24,000	890	10,000	800	380,881	15,179	118,376	10,267	478,757	27,166

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Table showing the catch by dredges, tongs, rakes, etc., in New Jersey in 1897 and 1898.

Species.	Atlantic.				Burlington.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Oysters, market ...	35,840	\$4,139	39,970	\$4,507	2,800	\$320	2,800	\$320
Oysters, seed	41,755	1,836	39,410	1,801				
Clams, hard	56,947	5,806	53,300	5,622				
Total.....	134,542	11,781	132,680	11,930	2,800	320	2,800	320
Shore fisheries:								
Crabs, hard	10,000	150	10,000	150				
Oysters, market ...	1,195,005	183,727	1,157,310	178,335	133,610	20,654	162,750	18,321
Oysters, seed	308,700	12,718	285,425	13,395	24,500	1,200	24,500	1,200
Clams, hard	856,720	90,202	796,816	87,087	81,700	7,821	76,200	7,294
Mussels	2,520,000	1,575	2,360,000	1,475				
Total.....	4,890,425	288,372	4,609,551	280,442	289,810	29,675	263,450	26,815
Total vessel and shore...	5,024,967	300,153	4,742,231	292,372	292,610	29,995	266,250	27,135

Species.	Camden.				Cape May.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Oysters, market ...	409,626	\$71,958	637,903	\$85,462	109,031	\$18,725	152,215	\$22,124
Oysters, seed	777,700	11,346	686,238	29,410	221,900	4,471	19,775	860
Clams, hard					3,022	262	2,844	200
Total.....	1,187,326	83,304	1,324,141	114,872	332,953	23,458	174,834	23,184
Shore fisheries:								
Oysters, market ...					354,585	48,181	353,766	49,501
Clams, soft					698,240	58,639	613,153	51,949
Total.....					1,052,825	106,820	966,919	101,450
Total vessel and shore...	1,187,326	83,304	1,324,141	114,872	1,385,778	130,278	1,141,753	124,634

Species.	Cumberland.				Hudson.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Crabs, hard					26,667	\$900		
Oysters, market ...	3,710,056	\$641,087	3,978,345	\$578,261	385,000	28,750	420,000	\$32,500
Oysters, seed	8,564,990	128,744	4,677,302	200,555	38,500	1,650	42,000	3,000
Clams, hard	2,000	250	600	75				
Total.....	12,277,046	770,031	8,656,247	778,891	450,167	31,200	462,000	35,500
Shore fisheries:								
Oysters, market ...	77,840	18,208	59,437	8,166				
Oysters, seed	579,320	18,397	602,082	19,185	122,500	7,000	350,000	20,000
Total.....	657,160	31,605	561,519	27,351	122,500	7,000	350,000	20,000
Total vessel and shore...	12,934,206	801,636	9,217,766	806,252	572,667	38,200	812,000	55,500

Table showing the catch by dredges, tongs, rakes, etc., in New Jersey in 1897 and 1898—
Continued.

Species.	Middlesex.				Monmouth.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Crabs, hard					169,667	\$4,070	374,050	\$9,091
Oysters, market					319,900	40,100	215,670	29,482
Oysters, seed	1,400	\$80					2,800	160
Clams, hard	800	80	13,280	\$1,460	706,544	87,185	647,232	80,256
Scallops	5,400	300	5,400	300	66,600	3,700	50,400	2,800
Mussels							5,000	250
Total	7,600	400	18,680	1,760	1,262,711	135,055	1,295,192	122,059
Shore fisheries:								
Oysters, market	151,480	21,758	326,550	45,298	999,509	145,990	819,203	117,572
Oysters, seed	379,300	20,435	559,720	30,036				
Clams, hard	12,016	1,640	12,200	1,650	1,456,344	203,469	1,421,136	202,082
Clams, soft					708,000	61,025	755,000	64,345
Total	542,796	43,833	898,470	76,984	3,138,863	411,034	2,995,339	383,999
Total vessel and shore	560,396	44,233	917,150	78,744	4,401,564	546,189	4,290,531	506,058

Species.	Ocean.				Salem.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Oysters, market							2,912	\$600
Clams, hard	22,440	\$2,345	24,040	\$2,470				
Total	22,440	2,345	24,040	2,470			2,912	600
Shore fisheries:								
Crabs, hard	129,101	3,233	34,086	520				
Oysters, market	1,612,079	214,822	1,065,316	139,052				
Oysters, seed	286,915	9,769	256,340	10,301				
Clams, hard	853,404	86,096	884,272	84,184				
Clams, soft	42,000	2,100	40,000	2,000				
Total	2,873,499	316,040	2,229,994	236,057				
Total vessel and shore	2,895,939	318,385	2,254,034	238,527			2,912	600

Species.	Union.				Total for State.			
	1897.		1898.		1897.		1898.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Crabs, hard					196,384	\$4,870	374,090	\$9,091
Oysters, market					4,971,253	805,029	5,449,815	753,165
Oysters, seed					9,646,245	148,127	6,467,525	235,786
Clams, hard					791,753	95,928	741,296	90,093
Scallops					72,000	4,000	55,800	3,100
Mussels							5,000	250
Total					15,677,586	1,057,954	12,093,526	1,091,486
Shore fisheries:								
Crabs, hard					139,101	3,408	44,066	670
Oysters, market					4,574,108	648,340	3,944,332	555,245
Oysters, seed	192,500	\$11,000	525,000	\$30,000	1,848,785	80,519	2,503,067	124,127
Clams, hard					3,938,424	447,867	3,753,777	434,246
Clams, soft					745,000	63,725	795,000	66,345
Mussels					2,520,000	1,575	2,360,000	1,475
Total	192,500	11,000	525,000	30,000	18,780,868	1,245,429	18,400,242	1,188,108
Total vessel and shore	192,500	11,000	525,000	30,000	29,437,953	2,303,383	25,493,768	2,274,594

Table showing the catch by minor apparatus in New Jersey in 1897 and 1898.

Species.	Atlantic.				Burlington.				Cape May.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Eels.....	106,066	\$4,500	100,400	\$4,265	.....	.....	.....	.....	10,400	\$544	10,000	\$615
Crabs, hard.....	80,000	2,000	80,000	2,000	.....	.....	.....	.....	.....	.....	.....	.....
Crabs, soft.....	6,000	775	6,000	775	.....	.....	.....	.....	.....	.....	.....	.....
King crabs.....	.....	.....	.....	.....	.....	.....	.....	.....	50,000	213	40,000	180
Shrimp.....	600	200	600	200	.....	.....	.....	.....	.....	.....	.....	.....
Terrapin.....	.....	.....	.....	.....	2,431	\$309	.....	.....	7,613	3,820	.....	.....
Turtles.....	.....	.....	.....	.....	400	34	.....	.....	1,500	76	1,200	60
Total.....	192,666	7,475	187,000	7,240	2,831	343	.....	.....	69,513	4,652	51,200	755

Species.	Cumberland.				Gloucester.				Monmouth.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Carp.....	.....	.....	.....	.....	10,400	\$520	2,000	\$120	.....	.....	.....	.....
Eels.....	.....	.....	.....	.....	.....	.....	.....	.....	20,266	\$1,100	22,500	\$1,620
Crabs, hard.....	.....	.....	.....	.....	.....	.....	.....	.....	18,800	564	14,000	420
Crabs, soft.....	.....	.....	.....	.....	.....	.....	.....	.....	168,000	16,175	178,000	16,600
King crabs.....	148,000	\$370	116,000	\$290	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	148,000	370	116,000	290	10,400	520	2,000	120	207,066	17,839	214,500	18,640

Species.	Ocean.				Salem.				Warren.			
	1897.		1898.		1897.		1898.		1897.		1898.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Carp.....	.....	.....	.....	.....	56,800	\$2,815	9,700	\$582	.....	.....	.....	.....
Cat-fish.....	.....	.....	.....	.....	1,010	51	1,465	73	.....	.....	.....	.....
Eels.....	25,732	\$1,145	25,338	\$1,143	.....	.....	.....	.....	5,066	\$132	4,666	\$384
Crabs, hard.....	3,866	104	3,000	80	.....	.....	.....	.....	.....	.....	.....	.....
Crabs, soft.....	33,456	3,674	21,177	2,385	.....	.....	.....	.....	.....	.....	.....	.....
Shrimp.....	2,295	1,365	2,085	1,265	.....	.....	.....	.....	.....	.....	.....	.....
Terrapin.....	2,197	1,231	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Turtles.....	1,700	104	1,700	164	6,000	360	5,200	312	.....	.....	.....	.....
Total.....	69,248	7,683	53,295	5,037	63,310	3,226	16,365	987	5,066	482	4,666	384

SUMMARY.

Species.	1897.		1898.	
	Lbs.	Value.	Lbs.	Value.
Shore fisheries:				
Carp.....	66,700	\$3,335	11,700	\$702
Cat-fish.....	1,010	51	1,465	73
Eels.....	167,531	7,721	162,899	7,927
Crabs, hard.....	102,666	2,668	97,000	2,500
Crabs, soft.....	207,456	20,624	205,177	19,700
King crabs.....	198,000	583	156,000	470
Shrimp.....	2,896	1,565	2,685	1,465
Terrapin.....	12,241	5,360	.....	.....
Turtles.....	9,600	633	8,100	586
Total.....	768,100	42,540	645,025	33,433

THE MENHADEN INDUSTRY.

New Jersey maintains a small menhaden industry. In 1897 there were 4 factories in operation, valued at \$43,045. These were located as follows: 1 at Leesburg, Cumberland County; 2 at Port Monmouth, Monmouth County; and 1 at Tuckerton, Ocean County. In 1898 there were 6 factories, valued at \$57,995. Their location was the same as in the previous year, the 2 additional factories being in Monmouth County—1 at Keansburg and the other at Port Monmouth. The number of persons employed in 1897 was 53 in the factories and 128 on vessels; and in 1898, 92 in the factories and 112 on vessels. The total amount of the investment, including cash capital, was \$115,038 and \$137,110 each year, respectively.

The number of menhaden caught by the vessels in this fishery in 1897 was 39,709,375, valued at \$55,837; and in 1898, 29,573,550, valued at \$43,093. A large portion of these, together with considerable quantities of menhaden taken by pound nets in the shore fisheries, were pressed at the factories, the remainder of the vessel catch being sold chiefly for bait.

The number of menhaden utilized by the factories in 1897 was 19,279,375, costing \$21,567; and in 1898, 15,907,350, costing \$16,395. The products, consisting of oil and fertilizer, prepared in the former year were valued at \$31,816, and in the latter at \$34,910.

The following table shows in detail the extent of the menhaden industry of this State in 1897 and 1898:

Table showing the extent of the menhaden industry of New Jersey in 1897 and 1898.

Items.	1897.		1898.	
	No.	Value.	No.	Value.
Factories.....	4	\$43,045	6	\$57,995
Cash capital.....		31,000		42,500
Wages paid factory employees.....		7,272		9,400
Persons in factories.....	53		92	
Persons on vessels.....	128		112	
Menhaden pressed.....	19,279,375	21,567	15,907,350	16,395
Menhaden caught by vessels.....	39,709,375	55,837	29,573,550	43,093
Tons of dry scrap prepared.....	566	12,661	745	18,173
Tons of acidulated and crude scrap prepared.....	505	5,340	193	2,028
Gallons of oil made.....	68,510	18,815	70,166	14,709
Steam vessels fishing.....	2	12,000	2	9,000
Tonnage.....	77		72	
Outfit.....		3,971		3,716
Purse seines.....	3	1,500	3	1,450
Sail vessels fishing.....	7	6,400	6	5,400
Tonnage.....	163		186	
Outfit.....		3,500		3,300
Purse seines.....	7	2,810	6	2,610
Sail vessels transporting.....	14	9,250	12	9,650
Tonnage.....	171		145	
Outfit.....		1,572		1,489

THE WHOLESALE FISHERY TRADE.

The wholesale trade in fishery products in New Jersey is of minor consequence, the greater part of the products of all branches of the fisheries being shipped to dealers in New York and Philadelphia. Of the 14 firms handling oysters, clams, and fish at wholesale, 5 are located at Newark, 1 at Elizabethport, 1 at Belford, and 7 at Seaside. The following table exhibits the extent of this trade in 1897 and 1898:

Table showing the wholesale trade in fishery products of New Jersey in 1897 and 1898.

Items.	1897.		1898.	
	No.	Value.	No.	Value.
Establishments.....	14	\$34,025	14	\$34,025
Cash capital.....		27,200		27,200
Wages paid.....		37,020		37,744
Persons engaged.....	96		96	
	Lbs.	Value.	Lbs.	Value.
Products sold:				
Alewives.....	18,000	\$520	13,000	\$520
Blue-fish.....	180,000	7,800	146,000	8,700
Bonito.....	4,000	320	4,000	820
Butter-fish.....	12,500	1,000	11,500	920
Cisco.....	30,000	1,200	31,500	1,260
Cod.....	347,000	17,350	355,000	17,760
Croakers and spots.....	55,000	3,300	55,000	8,800
Cusk.....	8,200	96	3,500	105
Eels.....	88,500	8,465	48,000	4,320
Flounders.....	28,500	1,140	32,000	1,280
Haddock, fresh.....	36,000	1,080	44,000	1,320
Haddock, smoked.....	13,500	1,080	13,500	1,080
Hake.....	7,500	300	9,500	380
Halibut.....	170,000	18,700	177,000	19,470
Herring.....	165,000	6,200	165,000	6,200
Mackerel.....	9,000	900	9,500	960
Perch, white and yellow.....	4,000	280	4,000	280
Pike and pickerel.....	2,400	216	3,200	288
Pollock.....	1,000	40	1,000	40
Pompano.....	800	120	800	120
Red snappers.....	7,000	700	7,000	700
Scup.....	392,500	19,625	425,000	21,250
Sea bass.....	34,000	2,380	44,000	3,080
Shad.....	487,500	39,000	525,000	42,000
Smelt.....	170,000	10,200	160,000	9,600
Spanish mackerel.....	8,500	1,275	9,500	1,425
Squeteague.....	149,500	5,980	156,000	6,240
Striped bass.....	20,000	2,400	26,000	3,120
White bass.....	3,500	280	4,000	320
Crabs, hard.....	166,667	4,000	266,667	4,000
Crabs, soft.....	226,000	4,550	426,000	4,550
Lobsters.....	60,800	4,864	47,500	3,800
Oysters.....	560,000	113,000	469,931	96,025
Clams, hard.....	7185,000	23,850	8221,200	38,213
Clams, soft.....	9115,800	9,580	10166,800	13,820
Clams, soft, opened.....	11900,000	56,260	12889,000	55,000
Total.....	4,197,667	363,041	4,340,598	371,746

¹200,000 in number.
⁴78,000 in number.
⁷16,875 bushels.
¹⁰15,680 bushels.

²200,000 in number.
⁶80,000 bushels.
⁸27,650 bushels.
¹¹90,000 bushels.

³78,000 in number.
⁶67,133 bushels.
⁹11,580 bushels.
¹²88,000 bushels.

FISHERIES OF PENNSYLVANIA.

Pennsylvania is the only State in the Middle Atlantic region which has no frontage on the ocean. By means of a small fleet of vessels, however, there is carried on a line fishery for salt-water species in the ocean, and also a large fishery for oysters in Delaware Bay. The principal other coast fisheries of the State are those of the Delaware and Susquehanna rivers. The statistics here presented relate to coast fisheries and therefore do not cover that part of the State bordering on Lake Erie, nor the Susquehanna River and tributaries above York and Lancaster counties, though since the break in the dam at Columbia shad have ascended the Susquehanna River as far as Duncannon and the Juniata River as far as Newport.

The most important fisheries are those with seines and gill nets for shad on the Delaware and Susquehanna rivers and the vessel fishery for oysters in Delaware Bay. A considerable part of the oyster industry of New Jersey and Delaware and some of the largest seine fisheries in New Jersey are controlled in Pennsylvania.

The number of persons engaged in the coast fisheries of the State was 1,898, of whom 318 were on vessels fishing and transporting, 1,143 in the shore fisheries, and 437 were shoresmen. The number of vessels fishing and transporting fishery products was 40, having a value, with their outfits, of \$91,755; the number of the boats in the shore fisheries was 504, valued at \$21,485; the apparatus of capture used on vessels was valued at \$2,591, and on boats, \$25,021; the value of the shore and accessory property was \$828,576, and the amount of cash capital utilized, \$632,100; a total investment, including the cash capital, of \$1,601,528.

The products of the fisheries comprised 3,740,801 pounds of fish, having a value of \$125,341; 265,934 bushels of oysters, valued at \$143,974; and 1,924 pounds of terrapins, turtles, and frogs, worth \$192; the total value of products being \$269,507.

The three tables which follow show in detail the extent of the coast fisheries of Pennsylvania in 1897:

Table of persons employed.

How engaged.	No.
On vessels fishing	302
On vessels transporting.....	16
On boats in shore fisheries	1,143
Shoresmen	437
Total	1,898

Table of apparatus and capital.

Items.	No.	Value.	Items.	No.	Value.
Vessels fishing.....	86	\$62,800	Apparatus—shore fisheries:		
Tonnage.....	639		Seines (total length 23,617 yards)...	125	\$12,921
Outfit.....		19,690	Gill nets (total length 65,337 yards)...	177	9,711
Vessels transporting.....		8,400	Fyke nets.....	1,120	1,508
Tonnage.....	118		Lines.....		81
Boats.....		865	Eel pots.....	125	90
Outfit.....	504	21,485	Dip nets.....	110	320
Apparatus—vessel fisheries:			Other apparatus.....		890
Lines.....		91	Shore and accessory property.....		828,576
Dredges.....	83	2,500	Cash capital.....		632,100
			Total.....		1,601,628

Table of products.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Alewives, fresh.....	143,503	\$1,297	Striped bass.....	9,556	\$991
Alewives, salted.....	278,832	1,586	Sturgeon.....	9,945	260
Black bass.....	4,103	418	Suckers.....	25,250	1,244
Blue-fish.....	12,800	321	Sun-fish.....	1,010	26
Carp.....	114,950	6,695	Wall-eyed pike.....	528	66
Cat-fish.....	120,096	6,985	Oysters.....	*1,861,588	143,974
Eels.....	51,794	4,273	Terrapins.....	825	98
Flounders.....	31,545	792	Turtles.....	1,021	78
Salmon.....	414	81	Frogs.....	78	16
Scup.....	29,150	719	Total.....	5,604,263	269,507
Sea bass.....	900,000	36,000			
Shad.....	2,007,825	63,587			

* Represents 265,934 bushels.

THE FISHERIES BY COUNTIES.

There are eight counties in the eastern part of Pennsylvania which maintain fisheries: Lancaster and York counties on the Susquehanna River, and Pike, Monroe, Northampton, Bucks, Philadelphia, and Delaware counties on the Delaware River. In the counties on the Susquehanna River 346 persons were employed; the investment was \$8,610, and the products, principally shad, were valued at \$15,872; while in the counties bordering on the Delaware River 1,552 persons were employed, \$1,592,918 invested, and the products were valued at \$253,635. The species in the counties on the Delaware River having the greatest value were sea bass, shad, and oysters.

The fisheries of Philadelphia County are the most extensive. They gave employment to 952 persons, a larger number than were employed in all the other counties combined. The amount of capital invested was \$1,499,948, and the products aggregated 3,443,772 pounds, valued at \$200,776. The whole of the vessel fisheries of this section of the State and a considerable part of the shore fisheries are centered in this county. The large investment, as compared with other counties, is due chiefly to the extensive wholesale trade of the city of Philadelphia.

The fisheries of Bucks County are next in importance. The number of persons employed was 378, the investment was \$65,655, and the

products amounted to 1,313,388 pounds, valued at \$37,349. The species taken in greatest quantity and value were shad and alewives.

The relative importance of the fisheries of each county in 1897 is exhibited in the three following tables:

Table showing, by counties, the number of persons employed in the fisheries of Pennsylvania in 1897.

Counties.	In vessel fisheries.	On vessels transporting.	In shore or boat fisheries.	Shores-men.	Total.
Bucks			361	17	378
Delaware			134	24	158
Lancaster			191		191
Monroe			21		21
Northampton			20		20
Philadelphia	302	16	236	396	952
Pike			23		23
York			155		155
Total	302	16	1,143	437	1,898

Table showing, by counties, the vessels, boats, apparatus, and shore property employed in the fisheries of Pennsylvania in 1897.

Items.	Bucks.		Delaware.		Lancaster.		Monroc.		Northampton.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Boats	137	\$5,566	72	\$5,990	94	\$2,080	4	\$70	4	\$76
Apparatus—shore fisheries:										
Seines	42	7,051	7	940	25	1,320	4	170	4	235
Gill nets	42	1,425	64	5,999						
Fyke nets			175	175	18	18				
Lines		12		10		61				
Eel pots			55	55						
Dip nets					75	204				
Other apparatus						180				
Shore and accessory property		51,601		8,400		1,515		500		360
Cash capital				3,200						
Total		65,655		24,769		5,868		740		671

Items.	Philadelphia.		Pike.		York.		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	36	\$62,800					36	\$62,800
Tonnage	639						639	
Outfit		19,690						19,690
Vessels transporting	4	8,400					4	8,400
Tonnage	118						118	
Outfit		865						865
Boats	108	6,670	5	\$100	80	\$933	504	21,485
Apparatus—vessel fisheries:								
Dredges	83	2,500					83	2,500
Lines		91						91
Apparatus—shore fisheries:								
Seines	19	2,050	5	250	19	905	125	12,921
Gill nets	71	2,287					177	9,711
Fyke nets	892	1,278			35	37	1,120	1,508
Lines						8		81
Eel pots	70	35					125	90
Dip nets	7	32			28	84	110	320
Other apparatus						210		390
Shore and accessory property		764,350		785		1,065		828,576
Cash capital		628,900						682,100
Total		1,499,948		1,185		3,242		1,601,528

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Table showing, by counties and species, the yield of the fisheries of Pennsylvania in 1897.

Species.	Bucks.		Delaware.		Lancaster.		Monroe.		Northampton.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	91,670	\$755	29,500	\$383						
Alewives, salted	278,832	1,586								
Black bass	100	33			3,265	\$330				
Carp	27,655	1,399	18,075	1,103	12,000	820				
Cat-fish	8,930	451	9,600	632	14,507	1,040				
Eels	1,130	113	7,000	502	11,711	910				
Salmon	354	68	86	8						
Shad	883,535	31,733	445,690	9,063	151,532	8,178	17,400	\$1,150	7,640	\$529
Striped bass	1,786	168	5,170	515	200	20				
Sturgeon	985	53	8,960	207						
Suckers	17,400	939			4,900	182				
Sun-fish	110	5			100	5				
Wall-eyed pike					528	66				
Terrapins					825	98				
Turtles	901	66			120	12				
Frogs					42	7				
Total	1,313,388	37,349	524,031	12,413	199,730	11,368	17,400	1,150	7,640	529

Species.	Philadelphia.		Pike.		York.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	22,333	\$159					143,503	\$1,297
Alewives, salted							278,832	1,586
Black bass					738	\$75	4,103	418
Blue-fish	12,800	321					12,800	321
Carp	56,370	3,631			850	42	114,960	6,695
Cat-fish	82,637	4,498			4,422	364	120,096	6,985
Eels	17,475	1,562			14,478	1,186	51,794	4,273
Flounders	31,545	792					31,545	792
Salmon	24	5					414	81
Scup	29,150	719					29,150	719
Sea bass	900,000	36,000					900,000	36,000
Shad	425,400	8,741	24,960	\$1,418	51,168	2,775	2,007,325	63,587
Striped bass	2,400	288					9,556	991
Sturgeon							9,945	260
Suckers	1,300	70			1,650	53	25,250	1,244
Sun-fish	800	16					1,010	26
Wall-eyed pike							528	66
Oysters	1,861,538	143,974					1,861,538	143,974
Terrapins							825	98
Turtles							1,021	78
Frogs					36	9	78	16
Total	3,443,772	200,776	24,960	1,418	73,342	4,504	5,604,263	269,507

THE CATCH OF SHAD.

The following supplementary table shows in number, instead of pounds, the catch of shad, and the value, in each county of Pennsylvania on the Delaware and Susquehanna rivers in 1897:

Counties.	No.	Value.
Bucks	220,884	\$31,733
Delaware	111,423	9,063
Lancaster	87,883	8,178
Monroe	4,350	1,150
Northampton	1,910	529
Philadelphia	106,350	8,741
Pike	6,240	1,418
York	12,792	2,775
Total	*501,832	63,587

* 2,007,325 pounds.

THE FISHERIES, BY APPARATUS.

In the vessel fisheries lines and oyster dredges are the only apparatus of capture. The principal species in the line fishery are sea bass and flounders. This fishery is prosecuted in the ocean during the summer months by vessels which are engaged in the oyster fishery or the coasting trade the rest of the year. The line catch amounted to 973,495 pounds, valued at \$37,832. The oyster fishery is carried on entirely in the waters of New Jersey and Delaware, principally the latter, where most of the planted beds owned directly by Pennsylvanians are located. The catch of oysters amounted to 1,861,538 pounds, or 265,934 bushels, valued at \$143,974. The total catch in the vessel fisheries was 2,835,033 pounds, valued at \$181,806.

In the shore fisheries seines are the most important apparatus employed. The quantity of products taken by them was 1,479,834 pounds, valued at \$50,177, the principal species being shad and alewives. This is the oldest method of fishing on the Delaware River, and some of these seine fisheries have been in operation since before the beginning of the present century. The yield of gill nets was 1,065,581 pounds, valued at \$23,522, more shad being taken in them than in any other form of apparatus. Fyke nets and dip nets produced respectively 86,117 pounds, valued at \$5,429, and 82,713 pounds, valued at \$4,247. Lines, pots, and minor apparatus secured 2,769,230 pounds, valued at \$87,701.

The two tables which follow show the quantity and value of products in the vessel and shore fisheries by each form of apparatus:

Table showing the yield of the vessel fisheries of Pennsylvania in 1897.

Apparatus and species.	Philadelphia County.	
	Lbs.	Value.
Lines:		
Blue-fish	12,800	\$321
Flounders	31,645	792
Scup	29,150	719
Sea bass	900,000	36,000
Total	973,495	37,832
Dredges:		
Oysters	1,861,538	143,974
Grand total	2,835,033	181,806

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Table showing, by counties and apparatus of capture, the yield of the shore fisheries of Pennsylvania in 1897.

Species.	Bucks.		Delaware.		Lancaster.		Philadelphia.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Seines:								
Alewives, fresh	91,670	\$755	500	\$8			18,667	\$137
Alewives, salted	278,832	1,586						
Carp	27,655	1,399	18,075	1,103	12,000	\$520	55,160	3,510
Cat-fish	7,600	380	300	15			27,100	1,526
Eels								252
Salmon	314	63						
Shad	694,440	26,112	240	6	83,932	4,778	41,200	1,030
Striped bass	1,786	168	60	4			2,400	288
Sturgeon	985	53						
Suckers	17,400	939			4,000	165	1,300	70
Sun-fish							800	16
Wall-eyed pike					100	12		
Total	1,120,682	31,455	19,175	1,136	100,032	5,465	150,527	6,829
Gill nets:								
Alewives			29,000	375			3,665	22
Salmon	40	5	36	8			24	5
Shad	189,095	5,621	445,450	9,057			384,200	7,711
Striped bass			5,110	511				
Sturgeon			8,960	207				
Total	189,135	5,626	488,556	10,158			387,890	7,738
Fyke nets:								
Cat-fish			8,800	592	10,000	700	54,737	2,932
Eels			300	24			10,630	1,015
Total			9,100	616	10,000	700	65,367	3,947
Dip nets:								
Carp							1,210	121
Cat-fish							800	40
Shad					67,600	3,400		
Terrapins					225	38		
Frogs					42	7		
Total					67,867	3,445	2,010	161
Lines:								
Black bass	100	13			3,265	330		
Cat-fish	1,330	71	500	25	2,007	160		
Eels	1,130	113	900	72	1,211	110		
Striped bass					200	20		
Sun-fish	110	5			100	5		
Wall-eyed pike					428	64		
Terrapins					600	60		
Turtles	901	65			120	12		
Total	3,571	268	1,400	97	7,981	751		
Pots:								
Eels			5,800	406			2,945	295
Other apparatus:								
Cat-fish					2,500	180		
Eels					10,500	800		
Suckers					900	27		
Total					13,900	1,007		
Grand total	1,313,388	37,349	524,031	12,413	199,730	11,868	608,739	18,970

Table showing, by counties and apparatus of capture, the yield of the shore fisheries of Pennsylvania in 1897—Continued.

Species.	Monroe.		Northampton.		Pike.		York.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Seines:								
Carp							850	\$42
Shad	17,400	\$1,150	7,640	\$629	24,960	\$1,418	38,368	2,143
Suckers							200	10
Total	17,400	1,150	7,640	629	24,960	1,418	39,418	2,195
Fyke nets:								
Cat-fish							800	96
Eels							700	66
Suckers							150	4
Total							1,650	166
Dip nets:								
Shad							12,800	632
Frogs							36	9
Total							12,836	641
Lines:								
Black bass							738	75
Cat-fish							622	48
Eels							2,778	300
Total							4,138	423
Other apparatus:								
Cat-fish							3,000	220
Eels							11,000	820
Suckers							1,300	39
Total							15,300	1,079
Grand total	17,400	1,150	7,640	629	24,960	1,418	73,342	4,504

SUMMARY.

Species.	Pounds.	Value.	Species.	Pounds.	Value.
Seines:			Dip nets:		
Alewives, fresh	110,837	\$900	Carp	1,210	\$121
Alewives, salted	278,832	1,586	Cat-fish	800	40
Carp	113,740	6,574	Shad	80,400	4,032
Cat-fish	35,000	1,921	Terrapins	225	38
Eels	3,900	252	Frogs	78	16
Salmon	314	63	Total	82,713	4,247
Shad	908,180	37,166	Lines:		
Striped bass	4,246	460	Black bass	4,103	418
Sturgeon	985	68	Cat-fish	4,459	304
Suckers	22,900	1,174	Eels	6,019	595
Sun-fish	800	16	Striped bass	200	20
Wall-eyed pike	100	12	Sun-fish	210	10
Total	1,479,834	50,177	Wall-eyed pike	428	54
Gill nets:			Terrapins	600	60
Alewives	32,666	397	Turtles	1,021	78
Salmon	100	18	Total	17,040	1,539
Shad	1,018,745	22,389	Pots:		
Striped bass	5,110	511	Eels	8,745	701
Sturgeon	8,960	207	Other apparatus:		
Total	1,065,681	23,522	Cat-fish	5,500	400
Fyke nets:			Eels	21,500	1,620
Cat-fish	74,337	4,320	Suckers	2,200	66
Eels	11,630	1,105	Total	29,200	2,086
Suckers	150	4	Grand total	2,769,230	87,701
Total	86,117	5,429			

THE WHOLESALE FISHERY TRADE OF PHILADELPHIA AND CHESTER.

The wholesale fish and oyster dealers of Philadelphia handle a great part of the fishery products taken on the Delaware River and Bay, and also considerable quantities from other sections of the country. Since 1897, the year covered by the present investigation, a large wholesale fresh-fish market has been built, taking the place of the former small market. The trade in oysters and fresh, salted, and smoked fish is extensive. Among the fresh-water species there is a large quantity of carp. There were 76 firms in the wholesale trade of Philadelphia, in which 396 persons were employed, and the investment, including cash capital, but exclusive of wages, amounted to \$1,391,601. The products were valued at \$3,937,686.

At Chester there were six wholesale firms, having 24 persons engaged, and an investment of \$11,050. The products, consisting largely of shad, were valued at \$60,046.

The extent of the wholesale fishery trade of Philadelphia and Chester in 1897 is presented in the following table:

Table showing the extent of the wholesale trade in fishery products of Philadelphia and Chester, Pa., in 1897.

Items.	Philadelphia.		Chester.		Total.	
	No.	Value.	No.	Value.	No.	Value.
Establishments	76	\$762,701	6	\$7,850	82	\$770,551
Cash capital		628,900		3,200		632,100
Wages paid		187,295		1,478		188,773
Persons engaged	396		24		420	
<i>Products handled.</i>						
Oysters opened	60,001	51,500			60,001	51,500
Oysters in shell	938,111	1,084,172	12,450	18,390	950,561	1,102,562
Clams	36,232,000	90,580	160,000	560	36,392,000	91,140
Lobsters	130,000	19,950			130,000	19,950
Crabs	701,090	7,517			701,090	7,517
Crab meat	5,000	5,000			5,000	5,000
Salmon, canned	22,000	99,000			22,000	99,000
Terrapin	6,260	18,244			6,260	18,244
Fish, fresh	35,095,901	1,418,248	1,693,998	41,046	36,789,894	1,459,294
Fish, dried, salted, and smoked, pounds	18,901,820	1,148,475			18,901,820	1,148,475
Caviar			130	50	130	50
Value of products		3,937,686		60,046		3,997,732

FISHERIES OF DELAWARE.

The fisheries of this State are prosecuted in the Delaware River and Bay and the Atlantic Ocean, and to a small extent in the Nanticoke River, a tributary of Chesapeake Bay.

The number of persons engaged in the fisheries in 1897 was 2,392, of whom 120 were on fishing and transporting vessels; 1,888 on boats in the shore fisheries, and 384 in fishery industries on shore.

The number of vessels fishing and transporting was 42, valued with their outfits at \$37,854. The number of boats in the shore fisheries was 953, valued at \$39,349.

The value of apparatus connected with the vessel fisheries, consisting almost entirely of oyster dredges, was \$2,886, while in the shore fisheries numerous forms of apparatus were employed having an aggregate value of \$43,156. The more important of these were gill nets, valued at \$31,037; seines, \$8,676; fyke nets, \$1,125; and pound nets, \$625. The value of shore property and cash capital amounted to \$284,574, the total investment being \$407,819.

The products of the fisheries aggregated 8,647,897 pounds, worth \$252,123. The most important species in value were shad, worth \$47,962; squeteague, \$25,149; perch, \$19,128; striped bass, \$12,033; and alewives, \$11,910. The yield of the oyster fishery was valued at \$63,897, and of the sturgeon fishery \$34,750. Of the latter amount, \$25,736 represents the value of the caviar.

The three tables which follow show by counties the number and value of vessels, boats, and fishing apparatus, the number of persons employed; the value of the shore and accessory property, the amount of cash capital, and the quantity and value of the products of the fisheries of Delaware in the year 1897:

Table showing, by counties, the vessels, boats, apparatus, and shore property employed in the fisheries of Delaware in 1897.

Items.	Kent.		Newcastle.		Sussex.		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	24	\$20,625					24	\$20,625
Tonnage	211						211	
Outfit		8,900						8,900
Vessels transporting	3	1,650	5	\$4,300	10	\$5,800	18	11,750
Tonnage	55		110		178		343	
Outfit		50		265		1,264		1,579
Boats	820	11,146	272	23,209	861	4,985	953	39,349
Apparatus—vessel fisheries:								
Dredges	72	2,880					72	2,880
Lines		6						6
Apparatus—shore fisheries:								
Pound nets			4	160	4	475	8	625
Seines (total length 22,101 yards)	41	2,330	23	1,378	112	4,968	176	8,676
Gill nets (total length 246,345 yards)	226	6,691	242	20,742	515	3,604	983	31,037
Fyke nets	260	305	170	261	226	559	656	1,125
Minor nets	54	180	1	2	98	121	153	303
Lines		17		41		37		95
Eel pots and spears	72	18	50	45	558	196	680	259
Lobster pots					100	100	100	100
Tongs	95	682			22	163	117	845
Other apparatus		7		27		57		91
Shore and accessory property		9,835		19,694		166,845		196,374
Cash capital		1,500		4,200		82,600		88,200
Total		61,821		74,314		271,684		407,819

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Table showing, by counties, the number of persons employed in the fisheries of Delaware in 1897.

Items.	Kent.	Newcas- tle.	Sussex.	Total.
On vessels fishing.....	87			87
On vessels transporting.....		10	23	33
On boats, in shore fisheries.....	576	496	816	1,888
Shoresmen.....	7	46	331	384
Total.....	670	562	1,170	2,892

Table showing, by counties and species, the yield of the fisheries of Delaware in 1897.

Species.	Kent.		Newcastle.		Sussex.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh.....	35,400	\$550	350,000	\$1,647	1,637,207	\$9,668	1,922,607	\$11,865
Alewives, salted.....			2,000	45			2,000	45
Carp.....	28,300	1,442	83,000	3,750			111,300	5,192
Cat-fish.....	22,800	1,488	25,340	1,573	20,650	786	68,290	3,847
Croakers.....	215,000	1,470			82,600	1,084	297,600	2,554
Eels.....	7,410	516	29,800	1,394	91,600	4,442	128,810	6,352
Flounders.....					2,000	85	2,000	85
Mullet, fresh.....					34,700	804	34,700	804
Mullet, salted.....					3,000	40	3,000	40
Perch.....	87,800	4,060	41,500	3,276	270,000	11,792	399,300	19,128
Pike.....	10,600	781			30,650	1,246	41,250	2,027
Sea bass.....					1,900	95	1,900	95
Shad.....	247,332	7,932	974,216	26,928	393,816	13,104	1,620,364	47,962
Squeteague.....	631,100	9,087	400	16	809,380	16,046	1,440,880	25,149
Striped bass.....	38,410	3,160	25,500	2,365	64,860	6,508	128,770	12,033
Sturgeon.....	85,860	2,905	187,380	5,638	7,110	471	280,350	9,014
Suckers.....	29,900	1,300			5,300	243	35,200	1,543
Tautog.....					4,800	240	4,800	240
Crabs, soft.....					155,000	5,133	155,000	5,133
Crabs, hard.....	7,800	136			6,000	120	13,800	256
King-crabs.....	676,000	2,025					676,000	2,025
Shrimp.....			320	160			320	160
Lobsters.....					5,095	459	5,095	459
Oysters, market.....	411,600	32,602			232,960	13,472	644,560	46,074
Oysters, seed.....	501,830	17,925					501,830	17,923
Clams.....	640	150			6,160	1,880	6,800	1,530
Turtle.....	14,800	730	5,400	293	24,870	1,373	44,570	2,396
Terrapin.....	3,135	725	1,166	139	4,031	1,692	8,322	2,656
Caviar.....	21,870	8,100	46,103	17,075	1,606	661	69,479	25,736
Total.....	3,076,087	96,982	1,772,115	64,297	3,799,695	90,844	8,647,897	262,123

¹ 465,000 in number.
² 41,400 in number.

³ 337,500 in number.
⁴ 92,080 bushels.

⁵ 71,690 bushels.
⁶ 850 bushels.

THE SHAD FISHERY.

The shad fishery of Delaware is prosecuted chiefly in the Delaware and Nanticoke rivers. In the former the yield was 1,368,364 pounds, valued at \$40,717, and in the latter 252,000 pounds, valued at \$7,245.

The following table shows the quantity of shad taken in each county of the State, in number instead of pounds, for the year 1897:

Counties.	No.	Value.
Kent.....	65,955	\$7,932
Newcastle.....	259,791	26,928
Sussex.....	106,361	13,104
Total.....	¹ 432,097	47,962

¹ 1,620,364 pounds.

FISHERIES BY APPARATUS.

The vessel fisheries of this State are confined to Kent County, the catch consisting almost entirely of oysters, of which 339,990 pounds (48,570 bushels), valued at \$24,707, were secured. Some squeteague were taken on lines by vessels which carry out pleasure parties during the summer season. At Lewes, in Sussex County, a few steamers land part of their fish at the menhaden factories, but as these steamers belong in other States their catch has not been credited to Delaware.

In the shore fisheries, so far as the quantity of fish secured is concerned, seines rank first, they having taken 3,677,291 pounds, valued at \$64,498, but in value of catch gill nets are first, having taken 2,577,114 pounds, valued at \$98,598. The principal species taken in seines are alewives, squeteague, and shad, while in gill nets the principal species are shad, sturgeon, and squeteague. The yield by oyster tongs is next in importance, its value being \$39,190. Fyke nets caught 157,310 pounds, valued at \$6,469, and pound nets 93,770 pounds, valued at \$2,197. Lines, pots, spears, miscellaneous nets, and other minor forms of apparatus were also used. A small lobster fishery, with pots, is carried on at Lewes. This is the southernmost point on the Atlantic seaboard where the lobster fishery is prosecuted.

The two tables which follow show the products of the vessel and shore fisheries, by each form of apparatus, for the year 1897:

Table showing the yield of the vessel fisheries of Delaware in 1897.

Apparatus and species.	Kent County.	
	Lbs.	Value.
Lines:		
Squeteague	9,400	\$188
Dredges:		
Oysters, market	167,160	18,534
Oysters, seed	172,830	6,173
Total	339,990	24,707
Grand total	349,390	24,895

Table showing, by counties and apparatus of capture, the yield of the shore fisheries of Delaware in 1897.

Apparatus and species.	Kent.		Newcastle.		Sussex.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Gill nets:								
Alewives	8,600	\$60	52,800	\$440	15,500	\$90	71,900	\$590
Carp			20,000	000			20,000	600
Cat-fish					600	82	600	82
Croukers	88,000	440			88,000	190	126,000	630
Mullet					1,200	24	1,200	24
Perch	48,000	2,542	40,400	3,232	78,700	3,633	167,100	9,407
Pike	8,500	827			6,700	896	15,200	1,023
Shad	219,544	6,872	970,176	26,804	197,476	6,027	1,887,296	89,603
Squeteague	197,200	8,534			164,700	3,364	861,900	6,888
Striped bass	26,210	1,940	6,100	814	15,000	1,120	47,310	3,374
Sturgeon	85,880	2,805	187,380	5,638	7,010	468	280,250	9,011
Suckers	23,600	1,048			5,800	248	28,900	1,291
Caviar	21,870	8,100	46,103	17,075	1,485	560	69,458	25,725
Total	722,484	27,868	1,822,959	54,608	531,671	16,127	2,577,114	98,598

Table showing the yield of the shore fisheries of Delaware in 1897—Continued.

Apparatus and species.	Kent.		Newcastle.		Sussex.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Pound nets:								
Alewives.....					22,000	\$225	22,000	\$225
Cat-fish.....			600	\$60	1,300	65	1,900	125
Croakers.....					25,000	125	25,000	125
Eels.....					100	8	100	8
Perch.....			300	12	15,650	808	15,950	815
Shad.....					4,040	182	4,040	182
Squeteague.....			400	16	23,200	528	23,600	544
Striped bass.....			600	60	460	46	1,060	106
Terrapin.....			120	67			120	67
Total.....			2,020	215	91,760	1,982	93,770	2,197
Selnes:								
Alewives, fresh.....	31,800	\$490	297,200	1,207	1,469,707	9,173	1,788,707	10,870
Alewives, salted.....			2,000	45			2,000	45
Carp.....	21,000	1,050	63,000	3,150			84,000	4,200
Cat-fish.....	1,000	40	10,840	636	18,750	689	30,590	1,365
Croakers.....	127,000	1,030			16,600	649	143,600	1,679
Eels.....					54,000	2,270	54,000	2,270
Flounders.....					2,000	85	2,000	85
Mullet, fresh.....					33,500	780	33,500	780
Mullet, salted.....					3,000	40	3,000	40
Perch.....	32,800	1,224	800	32	156,350	6,704	189,950	7,960
Pike.....					17,950	550	17,950	550
Shad.....	22,888	1,044	4,040	122	193,700	6,760	220,628	7,926
Squeteague.....	397,000	4,830			612,380	11,821	1,009,380	16,651
Striped bass.....	12,200	1,220	18,800	1,491	49,400	5,342	80,400	8,053
Sturgeon.....					100	8	100	8
Terrapin.....	3,090	710	36	12	3,489	1,072	6,615	1,794
Crabs, hard.....	4,800	96			6,000	120	10,800	216
Caviar.....					21	11	21	11
Total.....	653,578	11,734	396,716	6,695	2,626,947	46,069	3,677,241	64,498
Fyke nets:								
Alewives.....					40,000	180	40,000	180
Cat-fish.....	20,300	1,398	13,900	877			34,200	2,275
Eels.....	2,910	246	15,000	722	500	20	18,410	988
Perch.....	4,600	190			19,300	652	23,900	842
Pike.....	2,100	164					2,100	154
Suckers.....	6,300	252					6,300	252
Turtle.....	14,400	714			18,000	1,064	32,400	1,778
Total.....	60,610	2,954	28,900	1,699	77,800	1,916	157,310	6,469
Minor nets:								
Carp.....	7,800	392					7,800	392
Cat-fish.....	1,000	50					1,000	50
Perch.....	2,400	104					2,400	104
Shad.....	4,800	216			3,600	135	8,400	351
Shrimp.....			320	160			320	160
Crabs, soft.....					155,000	5,133	155,000	5,133
Turtle.....					3,200	160	3,200	160
Total.....	15,500	762	320	160	161,800	5,428	177,620	6,350
Lines:								
Croakers.....					3,000	120	3,000	120
Pike.....					6,000	300	6,000	300
Sea bass.....					1,900	95	1,900	95
Squeteague.....	27,500	535			9,100	343	36,600	878
Tautog.....					4,800	240	4,800	240
Crabs, hard.....	3,000	40					3,000	40
Total.....	30,500	575			24,800	1,068	55,300	1,678
Pots and spears:								
Eels.....	4,500	270	14,800	672	87,000	2,144	56,300	3,086
Lobsters.....					5,095	459	5,095	459
Total.....	4,500	270	14,800	672	42,095	2,603	61,395	3,545
Tongs:								
Oysters, market.....	244,440	13,968			232,960	13,472	477,400	27,440
Oysters, seed.....	329,000	11,750					329,000	11,750
Total.....	573,440	25,718			232,960	13,472	806,400	39,190
Other apparatus:								
Clams.....	640	150			6,160	1,380	6,800	1,530
King crabs.....	675,000	2,025					675,000	2,025
Turtle.....	400	16	5,400	298	3,170	149	8,970	458
Terrapin.....	45	15	1,000	60	542	620	1,587	695
Total.....	676,085	2,206	6,400	353	9,872	2,149	692,867	4,708
Grand total.....	2,726,697	72,087	1,772,115	64,297	3,799,695	90,844	8,298,567	227,228

THE MENHADEN INDUSTRY.

The menhaden factories in Delaware are located at Lewes, in Sussex County. After the season of 1897 had closed they were purchased by the American Fisheries Company. In 1897 there were three factories in operation, valued at \$150,000, in which 105 persons were engaged. The amount of cash capital employed was \$50,000. The vessels supplying the factories with fish were owned in other States, and have therefore not been included in the following table showing the extent of the industry in Delaware:

Items.	No.	Value.
Factories.....	3	\$150,000
Cash capital.....		50,000
Persons in factories.....	105	
Menhaden utilized.....	100,000,000	125,000
Tons of dry and acidulated scrap.....	7,700	92,850
Gallons of oil made.....	316,800	69,300

THE KING-CRAB INDUSTRY.

The preparation of fertilizer from king-crabs in Delaware is carried on in Kent County. The property used in the business is valued at \$3,000, and six persons only are employed. Six hundred and seventy-five thousand king crabs, costing \$4,050, were utilized to make 225 tons of fertilizer, worth \$6,975.

THE WHOLESALE FISHERY TRADE.

The wholesale trade in fishery products in Delaware is centered chiefly at Wilmington and Seaford. At the former place the trade is principally in fresh fish, shad being the most important species, and at the latter oysters are the most important product. There are a number of shucking houses at Seaford where the greater part of the oysters are opened before shipment to market. At various other localities in the State shad, sturgeon, and other species are handled in small quantities. The following table shows the extent of the wholesale trade at Wilmington and Seaford in 1897:

Items.	Wilmington.		Seaford.		Total.	
	No.	Value.	No.	Value.	No.	Value.
Establishments.....	6	\$15,800	6	\$11,000	12	\$26,800
Cash capital.....		4,200		32,500		86,700
Persons engaged.....	18		226		244	
<i>Products handled.</i>						
Oysters opened..... gallons..			178,500	145,556	178,500	145,556
Oysters in shell..... bushels..	12,120	10,296			12,120	10,296
Clams.....	384,000	1,283			384,000	1,283
Crabs, hard.....	165,000	1,650			165,000	1,650
Fish, fresh..... pounds..	859,980	82,718	178,750	6,820	1,038,680	89,038
Value of products.....		45,947		161,976		197,823

FISHERIES OF MARYLAND.

The fisheries of Maryland are prosecuted chiefly on the Chesapeake Bay and its tributaries. This bay, the greater part of which is within the jurisdiction of Maryland, is the largest on the coast of the United States, and may properly be regarded as the world's greatest natural oyster-producing area. In addition to the great output of oysters, for which it has long been remarkable, it also produces large quantities of fish of various species, crabs, shrimp, clams (*Venus mercenaria*), terrapin, and turtles.

The rivers flowing into the Chesapeake, some of which are of considerable importance to navigation, also contribute very largely to the fishery resources of the State. The more important of these are the Potomac, which forms the boundary between Maryland and Virginia on the west and south, the Patuxent, Susquehanna, Chester, Choptank, Nanticoke, Wicomico, and Pocomoke. All of these rivers have fisheries of greater or less importance, the larger ones being especially noted for their abundant yield of shad.

The principal localities or fishing centers of the State are Baltimore, Annapolis, and Havre de Grace, on the western shore, and St. Michaels, Oxford, Cambridge, and Crisfield, on the eastern shore. The fishing operations are, however, not confined to these localities, but are prosecuted more or less extensively at almost every village or settlement along the shores.

Considering that only one county of Maryland reaches the seacoast, and that all the others are located on the Chesapeake Bay and its tributaries, the fisheries of the State are very extensive. They surpass, in value of products, those of any other State in the Middle Atlantic region.

The number of persons employed on vessels fishing and transporting fishery products in 1897 was 8,087; on boats used in various branches of shore fisheries, 18,540; in oyster canneries, shucking and packing houses, 16,185; a total of 42,812.

The fishing fleet comprised 1,419 vessels, engaged in fishing and transporting, having a net register of 23,670 tons and valued at \$1,078,560. Their outfits, consisting chiefly of provisions, were valued at \$265,982. In the shore fisheries there were 10,077 boats used, having a value of \$562,455.

The various forms of apparatus of capture used on vessels were oyster and crab dredges, oyster tongs, seines, lines, and eel pots, the value of which was \$67,537. The apparatus used in the shore or boat fisheries consisted principally of seines, gill nets, pound nets, trap nets, weirs, fyke nets, trammel nets, lines, eel pots, spears, oyster and crab dredges, and oyster tongs, valued at \$328,122; the total value of apparatus being \$395,659.

The value of oyster canneries, oyster and crab houses, wholesale fish establishments, and all other shore property connected with the fisheries was \$1,878,669, the amount of cash or working capital required in conducting the various branches of trade in fishery products was \$1,640,285, and the total investment in the fisheries and related industries, including vessels, outfits, boats, apparatus of capture, shore and accessory property, and cash capital, amounted to \$5,821,610.

The products taken by all kinds of apparatus consisted of 28,213,744 pounds of fish, fresh and salted, valued at \$500,745; soft crabs 12,347,637 in number, valued at \$177,637; hard crabs 15,999,948 in number, valued at \$39,949; shrimp, 1,020 pounds, valued at \$510; crawfish, 2,908 pounds, valued at \$262; oysters, 7,254,934 bushels, valued at \$2,885,202; clams, 15,286 bushels, valued at \$8,842; turtles, 5,465 pounds, valued at \$289, and terrapin, principally diamond-back, 7,266 pounds, valued at \$3,226; the total value, including 1,594 pounds of caviar, valued at \$644, being \$3,617,306.

Oysters were taken in greater abundance than any other species, the catch comprising nearly 80 per cent of the value of the entire product. The crab catch is next in importance, aggregating in number of soft and hard crabs 28,347,585, and in value \$217,586. The shad is also an important species; the quantity taken and sold fresh was 5,779,563 pounds, valued at \$158,865, besides which 20,000 pounds, valued at \$500, were sold in a salted condition. Alewives are also very abundant, the quantity sold fresh being 11,727,199 pounds, valued at \$72,657, and salted 5,408,900 pounds, valued at \$50,676. Various other species, as blue-fish, butter-fish, carp, cat-fish, croakers, eels, menhaden, white and yellow perch, pike, squeteague, striped bass, sturgeon, and suckers, are also taken in considerable quantities. The diamond-back terrapin, which has heretofore been a prominent species in this section, has largely decreased in abundance. The catch of menhaden is also not so large as it has been in previous years, chiefly from the fact that while a number of vessels belonging to Maryland were engaged in this fishery they were chartered in Virginia and their catch has been properly credited to that State.

The three following tables exhibit the number of persons, the number and value of vessels, boats, and apparatus of capture, the value of the shore and accessory property, the amount of cash capital employed, and the quantity and value of the products of the fisheries of Maryland in 1897:

Persons employed.

How engaged.	No.
On vessels fishing	6,962
On vessels transporting	1,125
In shore or boat fisheries	18,540
Shoremen	16,185
Total	42,812

Table of apparatus and capital.

Items.	No.	Value.	Items.	No.	Value.
Vessels fishing.....	1,067	\$650,275	Apparatus—shore fisheries—		
Tonnage.....	13,162		continued.		
Outfit.....		218,044	Pound nets.....	839	\$80,340
Vessels transporting.....	332	428,285	Trap nets and weirs.....	17	775
Tonnage.....	10,508		Fyke nets.....	7,117	23,108
Outfit.....		47,938	Trammel nets (total length,		
Boats.....	10,077	562,465	6,504 yards).....	31	2,320
Apparatus—vessel fisheries:			Minor nets.....	833	1,915
Oyster dredges or scrapes.....	3,877	65,306	Lines.....		2,233
Crab dredges or scrapes.....	119	475	Eel pots.....	3,360	1,770
Tongs.....	72	560	Spears.....	50	113
Seines.....	2	415	Oyster dredges or scrapes.....	1,837	23,511
Lines.....		5	Crab dredges or scrapes.....		9,819
Eel pots.....	1,550	776	Tongs.....	11,119	66,087
Apparatus—shore fisheries:			Shore and accessory property.....		1,878,669
Seines (total length, 73,866			Cash capital.....		1,840,285
yards).....	828	88,867			
Gill nets (total length, 938,888			Total.....		5,821,610
yards).....	8,464	77,264			

Table of products.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Alewives, fresh.....	11,727,199	\$72,657	Sea bass.....	16,200	\$690
Alewives, salted.....	5,408,900	50,676	Shad, fresh.....	5,779,583	158,865
Alewives, smoked.....	3,360	120	Shad, salted.....	20,000	500
Black bass.....	6,765	613	Bicepshead.....	200	12
Blue-fish.....	186,708	7,156	Spanish mackerel.....	9,762	833
Bonito.....	1,000	50	Spots.....	2,928	139
Butter-fish.....	87,040	2,348	Squeteague.....	597,179	14,792
Carp.....	110,925	3,825	Striped bass.....	935,347	70,045
Cat-fish.....	578,021	19,644	Sturgeon.....	145,569	5,008
Cero.....	1,000	50	Suckers.....	83,030	1,801
Croakers.....	236,295	2,889	Sun-fish.....	4,000	152
Drum.....	43,000	386	Crabs, soft.....	14,115,879	177,637
Eels.....	406,744	14,684	Crabs, hard.....	2,583,316	39,949
Flounders.....	27,357	1,097	Shrimp.....	1,020	510
Hickory shad.....	8,752	58	Craw-fish.....	2,908	262
King-fish.....	1,000	85	Oysters.....	80,784,538	2,885,202
Menhaden.....	353,100	865	Clams.....	4,122,288	8,842
Mullet.....	1,500	60	Turtles.....	5,465	289
Perch, white.....	925,545	49,968	Terrapins.....	7,266	8,226
Perch, yellow.....	395,735	12,283	Caviar.....	1,594	644
Pike.....	114,710	8,919			
Pompano.....	310	85	Total.....	88,588,018	3,617,306

¹ 12,347,637 in number. ² 15,999,948 in number. ³ 7,254,934 bushels. ⁴ 15,286 bushels.

The catch of hard and soft crabs, clams, and oysters in Maryland for 1897, which, for purposes of comparison, have been shown in the general products tables in pounds, are presented in the following table in number and bushels:

Products.	No.	Value.
Crabs, hard.....	number..	15,999,948
Crabs, soft.....	do.....	12,847,687
Clams.....	bushels..	15,286
Oysters.....	do.....	7,254,934
		2,885,202

THE FISHERIES BY COUNTIES.

The State is divided by the Chesapeake Bay and the Susquehanna River, which flows into its head waters, into two great sections. In the eastern part of the State there are 9 counties, all of which are interested in the fisheries. These are Cecil, Kent, Queen Anne, Talbot, Caroline, Dorchester, Wicomico, Somerset, and Worcester. They

are all located on the Chesapeake except Worcester, which borders on the Atlantic Ocean and has a coast line about 35 miles long. Of the 14 counties in the western part of the State, 7 have fishery interests. These are Harford, Baltimore, Anne Arundel, and Calvert, on the bay; Prince George and Charles, on the Potomac River, and St. Mary, bordering the Potomac and Patuxent rivers and the bay.

The counties having the most important fisheries were Anne Arundel, Baltimore, Dorchester, Somerset, and Talbot. The number of persons employed in the industry in Anne Arundel County was 2,893, the amount of capital invested \$160,370, and the value of the products \$263,366. In Baltimore County the number of persons employed was 13,823, capital invested \$3,422,885, and the value of the products \$254,887. The large number of persons employed and amount of capital invested in this county are chiefly due to the extensive oyster-canning industry and opened-oyster trade of the city of Baltimore. The products of the fisheries proper do not equal those of Anne Arundel County. The fisheries of Dorchester County gave employment to 5,963 persons, the capital invested amounted to \$570,911, and the value of the products to \$684,847. The number of persons employed in Somerset County was 7,069, capital invested \$755,420, and the products were valued at \$671,365. Talbot county had 3,011 persons employed, \$262,069 invested, and the value of the products was \$384,383. These counties were also the most prominent ones in the vessel fisheries. The largest number of vessels was in Somerset and Dorchester, the former having 433 and the latter 394. The fisheries of Worcester County were also important, the value of its products amounting to \$307,030, being surpassed in this respect only by Dorchester, Somerset, and Talbot counties. The oyster fisheries were of greatest importance in Dorchester County, the crab fisheries in Somerset, and, in value, the shad fisheries in Talbot.

The three following tables show the extent of the fisheries in each county of Maryland in 1897:

Table showing the number of persons employed in the fisheries of Maryland in 1897.

Counties.	In vessel fisheries.	On transporting vessels.	In shore or boat fisheries.	Shoremen.	Total.
Anne Arundel.....	105	77	2,352	350	2,893
Baltimore.....	1,581	395	161	11,686	13,823
Calvert.....	180	52	1,217	73	1,522
Caroline.....			361		361
Cecil.....			633	32	665
Charles.....	15	11	658	80	714
Dorchester.....	2,006	186	2,741	1,030	5,963
Harford.....		11	570	275	856
Kent.....	13	41	1,260		1,314
Prince George.....			142		142
Queen Anne.....		27	1,135		1,162
St. Mary.....	70	56	1,039		1,165
Somerset.....	2,285	169	2,790	1,825	7,069
Talbot.....	628	56	1,585	742	3,011
Wicomico.....	79	22	1,036	112	1,249
Worcester.....		22	860	21	903
Total.....	6,962	1,125	18,640	16,185	42,812

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Table showing, by counties, the vessels, boats, apparatus, and shore property employed in the fisheries of Maryland in 1897.

Items.	Anne Arundel.		Baltimore.		Calvert.		Caroline.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	27	\$9,665	183	\$230,385	27	\$10,955		
Tonnage	216		4,469		342			
Outfit		3,209		59,470		5,045		
Vessels transporting	34	20,775	92	194,050	14	12,200		
Tonnage	442		4,334		451			
Outfit		3,062		18,802		1,970		
Boats	921	67,000	73	3,031	565	35,350	159	\$1,697
Apparatus—vessel fisheries:								
Oyster dredges or scrapes	88	815	629	12,671	106	1,598		
Tongs	35	224			15	192		
Lines				5				
Apparatus—shore fisheries:								
Seines	26	2,376	13	3,650	10	965	17	1,835
Gill nets	26	466	21	385	17	160	506	5,079
Pound nets	60	6,240	10	850	36	5,950	15	800
Trap nets and weirs			2	30				
Fyke nets	25	290	806	2,110			52	233
Trammel nets	3	210						
Minor nets	132	94	6	30				
Lines		136						
Eel pots	198	98	82	24	15	5		
Oyster dredges or scrapes	17	425	4	125	70	1,050		
Tongs	1,467	9,353			1,148	8,857		
Shore and accessory property		20,532		1,533,807		1,535		5,190
Cash capital		15,400		1,363,460				
Total		160,370		3,422,885		85,832		14,834

Items.	Ceecil.		Charles.		Dorchester.		Harford.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing			3	\$1,450	344	\$147,335		
Tonnage			22		2,929			
Outfit				525		52,457		
Vessels transporting			4	2,650	50	79,450	5	\$6,850
Tonnage			95		2,171		49	
Outfit				420		7,604		360
Boats	276	\$12,873	313	13,670	1,642	94,082	237	20,155
Apparatus—vessel fisheries:								
Oyster dredges or scrapes			6	105	1,352	21,940		
Crab dredges or scrapes					19	57		
Tongs					12	87		
Eel pots					1,550	776		
Apparatus—shore fisheries:								
Seines	14	4,745	6	3,250	8	415	14	9,615
Gill nets	234	9,583	239	7,279	771	3,214	356	10,454
Pound nets	144	10,280	66	5,675	137	10,810	16	1,460
Trap nets and weirs	9	580						
Fyke nets	4,322	9,245			72	368	1,285	3,144
Trammel nets	2	150			12	35	14	1,915
Minor nets	7	21	4	20	134	325	7	350
Lines				9		171		29
Eel pots	905	486	88	45	753	374	506	343
Oyster dredges or scrapes			11	77	678	7,523		
Crab dredges or scrapes					198	594		
Tongs				1,453	2,277	13,464		
Shore and accessory property		9,200		5,350		62,528		43,195
Cash capital		500				67,300		6,000
Total		57,673		41,972		570,911		103,870

Table showing, by counties, the vessels, boats, apparatus, and shore property employed in the fisheries of Maryland in 1897—Continued.

Items.	Kent.		Prince George.		Queen Anne.		St. Mary.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing.....	2	\$1,375	.....	.....	.....	.....	14	\$5,450
Tonnage.....	25	.....	.....	.....	.....	.....	118	.....
Outfit.....	.....	900	.....	.....	.....	.....	.....	2,048
Vessels transporting.....	17	11,160	.....	.....	11	\$8,200	19	13,050
Tonnage.....	341	.....	.....	.....	187	.....	344	.....
Outfit.....	.....	2,008	.....	.....	.....	1,315	.....	2,239
Boats.....	711	40,627	55	\$1,401	641	31,231	589	19,540
Apparatus—vessel fisheries:	.....	.....	.....	.....	.....	.....	.....	.....
Oyster dredges or scrapes.....	2	.....	.....	.....	.....	.....	28	407
Seines.....	.....	415	.....	.....	.....	.....	.....	.....
Apparatus—shore fisheries:	.....	.....	.....	.....	.....	.....	.....	.....
Seines.....	34	1,924	14	2,640	59	1,597	2	375
Gill nets.....	2,305	23,323	30	610	145	1,034	12	585
Pound nets.....	98	7,110	8	570	20	3,120	06	9,105
Trap nets and weirs.....	.....	.....	1	15	.....	.....	.....	.....
Fyke nets.....	175	2,705	.....	.....	90	778	.....	.....
Minor nets.....	.....	.....	8	40	.....	.....	30	8
Lines.....	.....	407	.....	.....	.....	245	.....	64
Eel pots.....	54	18	.....	.....	172	84	95	38
Oyster dredges or scrapes.....	.....	.....	.....	.....	.....	.....	74	704
Tongs.....	750	4,500	.....	.....	792	4,878	814	4,135
Shore and accessory property.....	.....	6,634	.....	915	.....	4,556	.....	1,120
Total.....	.....	102,496	.....	6,191	.....	57,093	.....	58,868

Items.	Somerset.		Talbot.		Wicomico.		Worcester.		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing.....	381	\$179,545	92	\$57,015	14	\$7,100	.....	.....	1,087	\$650,275
Tonnage.....	4,092	.....	835	.....	124	.....	.....	.....	13,162	.....
Outfit.....	.....	71,746	.....	21,175	.....	1,469	.....	.....	.....	218,044
Vessels transporting.....	52	46,760	19	18,250	8	5,700	7	\$9,150	332	428,285
Tonnage.....	1,350	.....	383	.....	146	.....	215	.....	10,508	.....
Outfit.....	.....	6,951	.....	1,935	.....	837	.....	435	.....	47,938
Boats.....	1,720	116,690	1,050	65,123	669	26,761	506	13,224	10,077	562,455
Apparatus—vessel fisheries:	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oyster dredges or scrapes.....	1,298	21,442	368	5,520	52	808	.....	.....	3,877	65,306
Crab dredges or scrapes.....	100	418	.....	.....	.....	.....	.....	.....	119	475
Tongs.....	9	45	.....	.....	1	12	.....	.....	72	560
Seines.....	.....	.....	.....	.....	.....	.....	.....	.....	2	415
Lines.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
Eel pots.....	.....	.....	.....	.....	.....	.....	.....	.....	1,550	776
Apparatus—shore fisheries:	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Seines.....	.....	.....	2	200	8	225	106	5,655	*328	38,867
Gill nets.....	75	510	1,240	4,157	588	5,821	1,898	4,604	†8,464	77,264
Pound nets.....	34	4,885	101	7,335	21	3,150	1	3,000	.....	80,340
Trap nets and weirs.....	.....	.....	5	150	.....	.....	.....	.....	.....	17
Fyke nets.....	24	445	43	394	223	3,401	.....	.....	.....	7,117
Trammel nets.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	†31
Minor nets.....	302	541	119	128	15	50	69	308	.....	833
Lines.....	.....	102	.....	780	.....	143	.....	153	.....	2,283
Eel pots.....	87	33	88	44	179	109	138	69	.....	3,360
Spears.....	50	113	.....	.....	.....	.....	.....	.....	.....	60
Oyster dredges or scrapes.....	897	12,725	68	630	18	202	.....	.....	.....	1,837
Crab dredges or scrapes.....	2,489	9,225	.....	.....	.....	.....	.....	.....	.....	2,687
Tongs.....	1,493	6,828	1,115	7,224	653	3,924	305	1,469	.....	11,119
Shore and accessory property.....	.....	118,876	.....	48,884	.....	3,635	.....	17,712	.....	1,878,669
Cash capital.....	.....	162,550	.....	23,075	.....	2,000	.....	.....	.....	1,640,285
Total.....	.....	755,420	.....	262,069	.....	55,347	.....	56,779	.....	5,821,610

* Total length of seines, 73,866 yards.

† Total length of gill nets, 938,388 yards.

‡ Total length of trammel nets, 6,504 yards.

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Table showing, by counties, the yield of the fisheries of Maryland in 1897.

Species.	Cecll.		Charles.		Dorchester.		Harford.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	1,908,440	\$8,847	1,153,000	\$5,336	1,122,484	\$7,727	1,682,520	\$8,568
Alewives, salted	1,785,360	15,966	248,000	1,580			3,279,740	31,898
Alewives, smoked							8,360	120
Black bass	5,280	620					8,675	56
Blue-fish			1,350	48	8,100	318	2,150	107
Carp	6,100	141	820	25			8,820	120
Cat-fish	76,645	2,763	33,130	880	55,325	1,820	64,427	1,979
Croakers			1,000	20	7,250	170		
Drum					400	4		
Eels	71,830	2,238	4,200	192	89,910	3,594	52,360	1,983
Flounders			300	6	1,625	63		
Menhaden					5,000	5		
Perch, white	179,787	8,020	58,858	2,595	29,175	1,683	58,290	8,000
Perch, yellow	131,760	4,046	11,150	279	9,875	290	17,600	478
Pike	19,692	1,687			8,233	257	4,898	395
Shad, fresh	680,281	18,824	735,732	14,825	449,590	15,559	492,361	11,668
Shad, salted			20,000	500				
Sheepshead					200	12		
Spots					600	48		
Squeteague			1,625	61	7,550	262		
Striped bass	85,540	7,276	74,064	3,669	28,312	2,112	133,178	9,844
Sturgeon			12,984	628	42,215	1,660		
Suckers	25,100	520			4,020	107	17,400	831
Sun-fish	850	30					150	2
Crabs, soft					199,767	8,976		
Crabs, hard			5,600	36	1,356,250	10,635		
Crawfish			833	75				
Oysters			524,230	29,147	13,212,059	627,575		
Turtles	1,400	49			1,306	65		
Terrapin					3,652	1,905		
Caviar			954	420				
Total	4,978,065	70,927	2,882,830	60,322	16,637,892	684,847	5,737,929	70,549

Species.	Somerset.		Talbot.		Wicomico.		Worcester.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	139,600	\$665	455,720	\$3,186	426,440	\$2,482	592,200	\$4,563
Blue-fish	25,190	651	63,320	2,515	100	6	14,840	696
Bonito							1,000	60
Butter-fish	400	3			640	25	86,000	2,320
Cat-fish	9,235	314	21,890	636	80,404	3,386	4,600	143
Cero							1,000	60
Croakers	163,700	1,099	880	27			16,000	516
Drum	32,100	277					10,500	105
Eels	35,276	1,133	18,100	593	9,350	481	11,500	492
Flounders	2,000	46	900	36	3,450	153	1,800	72
King-fish							1,000	35
Menhaden	69,400	90					73,500	188
Mullet							1,500	60
Perch, white	11,885	332	28,780	1,268	29,330	2,157	201,665	11,918
Perch, yellow			8,750	395	10,200	330	1,500	63
Pike			2,410	167	5,374	633	17,870	558
Pompano	110	11					200	24
Sea bass							8,200	410
Shad, fresh	99,310	3,071	729,395	21,068	457,052	17,580	72,500	2,576
Spanish mackerel	600	48	2,400	212			800	96
Spots							1,200	62
Squeteague	87,950	1,258	9,250	366	705	43	390,700	9,214
Striped bass	5,725	348	19,850	1,377	18,526	1,567	76,940	10,965
Sturgeon	735	27			80,985	2,323	4,500	220
Suckers			1,400	32	9,250	188		
Crabs, soft	3,395,837	141,349	150,042	5,658				
Crabs, hard	682,667	5,344	2,231,793	14,511				
Oysters	8,944,568	510,669	7,055,874	332,436	1,717,450	96,956	2,250,607	256,642
Clams	49,368	3,780					72,920	5,062
Turtles					2,765	175		
Terrapin	1,143	850			2,231	248		
Total	13,706,289	671,365	10,800,254	384,383	2,854,252	128,583	3,914,942	307,030

Table showing, by counties, the yield of the fisheries of Maryland in 1897—Continued.

Species.	Anne Arundel.		Baltimore.		Calvert.		Caroline.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	928,000	\$4,404	134,267	\$428	626,400	\$3,580	247,640	\$1,771
Alewives, salted	3,000	72						
Blue-fish	23,560	1,057	4,100	144	4,550	194		
Carp	28,660	1,446	36,990	1,110	3,550	117	1,550	40
Cat-fish	20,170	880	46,250	958	7,200	285	11,330	411
Croakers	12,750	443	2,400	48	19,700	296		
Eels	33,475	1,289	26,028	561	1,640	55	1,950	77
Flounders					7,150	293		
Menhaden	25,200	42						
Perch, white	24,630	1,600	33,219	1,686	8,425	331	22,470	948
Perch, yellow	16,350	501	104,600	2,213	2,630	84	11,310	562
Pike	2,795	160	40,798	3,846			1,940	144
Sea bass			8,000	280				
Shad, fresh	171,375	4,877	30,800	770	160,120	3,516	657,596	17,159
Squeteague	45,475	1,799	3,300	99	15,200	456		
Striped bass	24,950	1,870	66,320	4,406	42,100	2,819	10,132	776
Sturgeon					350	15		
Suckers	700	19	9,300	181	700	21	4,380	129
Sun-fish	3,000	120						
Crabs, soft	154,461	8,398						
Crabs, hard	220,200	1,685						
Shrimp			1,020	510				
Oysters	4,093,869	232,681	3,300,010	237,647	1,903,055	138,163		
Terrapin	20	23			220	200		
Caviar					40	14		
Total	5,831,040	263,366	3,847,402	254,887	2,803,030	150,444	970,298	22,012

Species.	Kent.		Prince George.		Queen Anne.		St. Mary.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	778,560	\$5,514	529,700	\$2,482	396,760	\$2,855	605,468	\$10,249
Alewives, salted	92,800	1,160						
Black bass			810	37				
Blue-fish	8,400	269			7,650	232	23,398	919
Carp	3,000	90	3,965	146	17,180	451	5,290	139
Cat-fish	63,800	2,355	39,130	1,472	46,810	1,187	7,675	175
Croakers	850	36			2,350	56	9,415	178
Eels	10,705	364	2,600	78	82,620	1,366	5,200	238
Flounders							10,132	428
Hickory shad							3,752	58
Menhaden							180,000	90
Perch, white								
Perch, yellow	178,964	11,039	22,555	1,172	19,088	1,100	28,524	1,124
Pike	29,200	1,877	12,400	382	25,560	1,206	3,680	77
Shad, fresh	11,610	881	2,800	151	1,790	145		
Spanish mackerel	544,708	13,733	186,182	3,868	118,476	4,473	254,085	5,308
Spots							5,962	477
Squeteague	2,740	93			6,100	183	1,128	39
Striped bass	201,909	13,205	17,690	1,036	84,257	6,369	26,584	958
Sturgeon							46,364	2,406
Suckers	2,400	70	5,550	128	2,830	75	3,800	135
Crabs, soft	76,080	6,166			122,192	7,515	18,000	675
Crabs, hard	282,633	3,232			528,440	3,906	75,833	600
Crawfish								
Oysters	2,325,834	140,625	2,075	187	2,725,821	122,953	2,731,771	159,703
Caviar							600	210
Total	4,614,093	199,209	824,957	11,129	4,137,924	154,072	4,046,821	184,181

The number and value of shad taken in each county of Maryland in 1897 is shown in the following table:

Counties.	No.	Value.	Counties.	No.	Value.
Anne Arundel	48,964	\$4,877	Prince George	53,195	\$3,868
Baltimore	8,800	770	Queen Anne	38,860	4,473
Calvert	45,749	3,516	St. Mary	72,596	5,308
Caroline	187,885	17,169	Somerset	28,374	3,071
Cecil	194,366	18,824	Talbot	208,399	21,068
Charles	215,923	15,325	Wicomico	180,586	17,580
Dorchester	128,454	15,569	Worcester	20,714	2,576
Harford	123,632	11,668			
Kent	155,631	13,733	Total	*1,057,018	169,365

*5,799,563 pounds.

PRODUCTS TAKEN BY VESSELS AND BOATS WITH EACH APPARATUS.

Owing to the large quantity of oysters taken in this State, dredges and tongs are the most productive forms of apparatus employed in both the vessel and shore fisheries. In the vessel fisheries, dredges are more generally used than tongs. The catch taken with them consisted of 2,416,446 bushels of oysters valued at \$943,051; soft crabs, 358,851 in number, valued at \$5,312; and hard crabs, 47,601 in number, valued at \$142. Tongs were also used to some extent, the catch by them being 31,578 bushels of oysters valued at \$13,357. In the shore or boat fisheries, tongs are the principal apparatus, the quantity of oysters obtained with them being 4,118,717 bushels valued at \$1,667,651, and of clams 15,286 bushels valued at \$8,842. Dredges or scrapes are also used extensively by small boats in the oyster and crab fisheries. The quantity of oysters secured by small boats with dredges was 688,193 bushels valued at \$261,143; of soft crabs 9,940,308 in number valued at \$138,512, and of hard crabs 602,100 in number valued at \$1,756. The value of all products taken with dredges in the vessel and shore fisheries combined was \$1,349,916, and with tongs \$1,689,850; a total of \$3,039,766.

Seines are the next most important apparatus, with respect to the value of the catch. They were used in the vessel fisheries to a limited extent, but were operated chiefly by small boats. The catch with seines by vessels was 42,004 pounds of fish valued at \$2,642, and by small boats in the shore fisheries 10,445,422 pounds of fish valued at \$142,249, soft crabs 606,816 in number, valued at \$12,931, and 220 pounds of terrapin valued at \$200; the total value of the catch with this apparatus being \$158,022. The principal species of fish taken were alewives, cat-fish, white and yellow perch, shad, squeteague, and striped bass.

The pound-net fisheries, embracing pound nets, trap nets, and weirs, were also of considerable importance. The catch of fish in this group of apparatus exceeded both in quantity and value that of seines, but the entire yield was slightly less in value. The products of this fishery consisted of 11,407,942 pounds of fish valued at \$157,518, and 600 pounds of caviar valued at \$210; a total of 11,408,542 pounds, having a value of \$157,728. The species secured in largest quantities were alewives, blue-fish, cat-fish, croakers, menhaden, white and yellow perch, shad, squeteague, and striped bass.

Gill nets were fished to a greater or less extent in every county having fisheries, and were the only apparatus, except pound nets, so widely distributed. The products derived were 4,653,198 pounds of fish valued at \$137,649, and 994 pounds of caviar valued at \$434; a total of 4,654,192 pounds valued at \$138,083, the value being second to that of the pound-net catch. Gill nets surpass every other single apparatus in the capture of shad, the catch of that species being

3,226,983 pounds valued at \$85,152. Alewives, blue-fish, white perch, striped bass, and sturgeon were also taken in large quantities.

The products taken with other kinds of apparatus are also noteworthy. The catch obtained by vessels with hand lines was 12,000 pounds of blue-fish and sea bass valued at \$420; and by boats with hand lines and trot lines, 224,750 pounds of fish valued at \$8,535; soft crabs, 248,127 in number, valued at \$1,518; hard crabs, 15,349,248 in number, valued at \$38,049; and 2,025 pounds of turtle valued at \$131, the total value of the catch with lines being \$48,653. The quantity of fish in fyke nets was 961,024 pounds valued at \$33,645; of terrapin 3,837 pounds valued at \$1,693, and of turtle 3,440 pounds valued at \$158; the total catch of all species being 968,301 pounds valued at \$35,496.

A variety of minor nets, consisting chiefly of dip nets, bow nets, terrapin nets, crawfish nets or dredges, turtle pots, and sunken fyke nets, was also operated, obtaining 103,519 pounds of fish valued at \$3,508; hard and soft crabs 1,194,534 in number, valued at \$19,366; shrimp 1,020 pounds valued at \$510; crawfish 2,908 pounds valued at \$262; terrapin 3,209 pounds valued at \$1,333; the total value being \$24,979. The quantity of eels caught by vessels with eel pots was 61,000 pounds valued at \$2,440, and by boats with eel pots and spears 245,295 pounds valued at \$8,600, a total of 306,295 pounds valued at \$11,040. In trammel nets 57,590 pounds of fish, principally white perch and striped bass, were taken, having a value of \$3,539. The apparatus of capture employed in the vessel fisheries of the State was not so varied nor the products obtained so valuable as in the shore or boat fisheries. The aggregate value of the products of the vessel fisheries was \$967,364, and of the shore fisheries \$2,649,942.

Following are tables showing by counties the quantity and value of all species taken by vessels and boats with each apparatus in 1897:

Table showing, by counties, the seine catch of Maryland in 1897.

Species.	Anne Arundel.		Baltimore.		Calvert.		Caroline.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Alewives, fresh ...	41,000	\$246	67,800	\$193	62,500	\$313	170,708	\$991
Blue-fish	11,715	471	.....	.....	875	24	.....	.....
Carp	23,000	1,420	35,000	1,050	1,100	44	920	21
Cat-fish	13,600	562	23,050	468	6,000	244	4,680	152
Croakers	12,750	443	2,400	48	.....	.....	.....	.....
Eels	8,525	321	5,400	112	300	14	800	32
Flounders .....	.....	.....	.....	.....	500	24	.....	.....
Perch, white	12,630	717	15,205	784	3,775	151	14,500	532
Perch, yellow	14,800	479	34,700	747	2,000	65	4,490	201
Pike	725	61	9,300	860	.....	.....	410	31
Shad, fresh	11,200	280	11,600	290	21,200	530	190,939	5,542
Squeteague	44,025	1,741	1,800	54	.....	.....	.....	.....
Striped bass	17,400	1,270	48,460	2,875	6,000	360	1,770	140
Suckers	700	19	3,700	69	700	21	950	30
Sun-fish	1,800	72	.....	.....	.....	.....	.....	.....
Crabs, soft	4,000	250
Terrapin	220	200
Total	222,870	8,352	258,405	7,550	104,670	1,990	390,167	7,672

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Table showing, by counties, the seine catch of Maryland in 1897—Continued.

Species.	Cecil.		Charles.		Dorchester.		Harford.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Alewives, fresh...	607,600	\$3,985	450,000	\$1,625	75,000	\$438	1,548,600	\$7,524
Alewives, salted...	1,140,400	8,866	240,000	1,500			3,279,740	31,898
Alewives, smoked.							3,360	120
Black bass	4,020	894					100	10
Blue-fish			350	12	6,300	252	2,150	107
Carp	2,600	60	820	25			3,080	98
Cat-fish	3,000	113	6,750	168	1,375	34	1,000	20
Eels	680	29	250	5			1,000	20
Perch, white	6,100	304	29,025	1,238	3,425	144	1,900	79
Perch, yellow	10,100	302			1,000	45	1,000	89
Pike	6,000	584			1,200	15	700	7
Shad, fresh	111,961	3,170	87,400	2,425	9,600	288	97,165	3,241
Shad, salted			20,000	500				
Spots					600	48		
Squeteague			750	26	4,400	175		
Striped bass	55,180	4,837	34,945	1,561	4,700	986	49,738	3,135
Suckers	4,300	85			700	14	800	16
Sun-fish	850	30					150	2
Total	1,952,791	22,759	870,290	9,085	107,300	1,839	4,989,883	46,816

Species.	Talbot.		Prince George.		Queen Anne.		St. Mary.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Alewives, fresh...	16,320	\$136	421,500	\$1,928	14,760	\$183		
Black bass			810	37				
Blue-fish					250	10	2,770	\$97
Carp			3,765	136	780	20		
Cat-fish	240	10	34,680	1,330	5,260	201	1,750	63
Croakers					2,850	56		
Eels			2,600	78	1,030	38	800	22
Perch, white	400	20	17,530	896	4,638	302	18,200	728
Perch, yellow	650	26	10,000	316	16,560	784		
Pike			2,000	121	1,440	116		
Shad, fresh	26,100	678	66,475	1,570	13,910	748		
Squeteague							5,825	280
Striped bass	200	14	12,810	743	54,890	4,066	23,925	1,061
Suckers			4,950	116	180	5		
Crabs, soft					122,192	7,515		
Total	43,910	884	677,120	7,271	238,190	14,044	53,270	2,191

Species.	Kent.		Wicomico.		Worcester.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Alewives, fresh...	5,200	\$75	14,000	\$93	408,000	\$8,716	3,902,988	\$21,446
Alewives, salted							4,660,140	42,264
Alewives, smoked.							3,360	120
Black bass							4,930	441
Blue-fish	6,200	186					30,110	1,159
Carp	8,000	90					79,065	2,964
Cat-fish	7,900	268	2,400	88	4,600	143	116,285	3,854
Croakers	450	18			1,800	90	19,750	655
Eels	1,300	52			300	10	22,985	733
Flounders					600	30	1,100	54
Menhaden					73,500	138	73,500	138
Mullet					1,500	60	1,500	60
Perch, white	11,950	759	2,600	148	111,640	6,123	253,418	12,925
Perch, yellow	1,350	54	300	12	1,600	63	98,450	3,133
Pike					15,870	488	36,045	2,283
Shad, fresh	3,300	144	7,600	375	11,138	432	669,488	19,713
Shad, salted							20,000	500
Spots							600	48
Squeteague	400	12			22,100	864	99,300	3,102
Striped bass	13,410	846	1,300	130	32,160	4,730	351,878	26,154
Suckers	800	24					17,730	899
Sun-fish							2,800	104
Crabs, soft	76,080	5,166					202,272	12,931
Terrapin							220	200
Total	131,340	7,694	28,100	846	684,608	16,887	10,647,914	155,380

Table showing, by counties, the seine catch of Maryland in 1897—Continued.

Species.	Kent.		Wicomico.		Worcester.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Blue-fish.....	700	\$23					700	\$23
Cat-fish.....	500	30					500	30
Eels.....	100	4					100	4
Perch, white.....	2,064	182					2,064	182
Pike.....	100	8					100	8
Squeteague.....	840	21					840	21
Striped bass.....	37,500	2,370					37,500	2,370
Suckers.....	200	4					200	4
Total.....	42,004	2,642					42,004	2,642
Total shore and vessel...	173,344	10,336	28,100	\$346	684,608	\$16,887	10,689,918	158,022

Table showing, by counties, the gill-net catch in the shore fisheries of Maryland in 1897.

Species.	Anne Arundel.		Baltimore.		Calvert.		Caroline.		Cecil.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	41,000	\$328			400	\$6	13,920	\$202		
Blue-fish.....	11,100	555								
Perch, white.....	500	40			300	6	200	14		
Shad.....	12,000	300	6,000	\$150	16,120	403	447,233	11,076	508,283	\$13,631
Striped bass.....	2,300	180	9,800	616	800	39	6,042	472	17,220	1,231
Sturgeon.....					350	15				
Caviar.....					40	14				
Total.....	66,900	1,403	15,800	766	18,010	483	467,395	11,764	525,503	14,862

Species.	Charles.		Dorchester.		Harford.		Kent.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	118,000	\$662	29,800	\$209	24,000	\$254	88,800	\$1,286
Blue-fish.....			1,300	46				
Perch, white.....	1,250	75			14,140	918	108,800	6,993
Perch, yellow.....							11,000	550
Pike.....					1,480	122		
Shad.....	560,996	10,710	189,069	6,819	331,868	8,283	467,910	11,481
Squeteague.....			700	17				
Striped bass.....	6,850	414	300	36	54,740	4,432	181,430	8,545
Sturgeon.....	12,984	628	41,040	1,619				
Caviar.....	954	420						
Total.....	701,034	12,909	262,209	8,746	426,178	14,009	807,940	28,855

Species.	Prince George.		Queen Anne.		St. Mary.		Somerset.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....			47,600	\$486				
Blue-fish.....					14,000	\$560	17,090	\$388
Perch, white.....	1,000	\$40						
Shad.....	102,170	1,948	84,884	1,297			10,715	467
Spanish mackerel.....					5,187	415		
Squeteague.....					1,425	50	650	10
Striped bass.....	1,205	72						
Total.....	104,375	2,060	82,484	1,783	20,612	1,025	28,455	865

Species.	Talbot.		Wicomico.		Worcester.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	40,040	\$436	63,332	\$556	184,200	\$847	651,092	\$5,272
Blue-fish.....	60,120	2,387					109,610	3,936
Cat-fish.....			1,400	70			1,400	70
Perch, white.....			3,000	177	90,125	5,790	219,315	14,053
Perch, yellow.....			250	6			11,250	556
Pike.....			400	40	2,000	65	3,830	227
Shad.....	242,757	6,177	290,303	12,166	6,675	244	3,226,983	85,152
Spanish mackerel.....	2,400	212					7,587	627
Squeteague.....	7,450	294			1,200	48	11,425	419
Striped bass.....	5,980	467			44,780	6,235	281,847	22,784
Sturgeon.....			450	45			182,859	4,613
Suckers.....			2,000	40			2,000	40
Caviar.....							994	484
Total.....	358,697	9,973	439,620	15,351	328,980	13,220	4,654,192	138,083

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Table showing, by counties, the pound net, trap net, and weir catch in the shore fisheries of Maryland in 1897.

Species.	Anne Arundel.		Baltimore.		Calvert.		Caroline.		Cecil.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	844,000	\$3,818	51,667	\$197	563,500	\$3,261	60,460	\$555	1,286,400	\$4,767
Alewives, salted	3,000	72							644,960	7,100
Blue-fish	715	31	100	4	4,175	170				
Carp	410	16	1,700	51	2,450	73	500	15	2,500	61
Cat-fish	720	36	8,090	188	1,200	41	4,850	188	28,645	978
Croakers					19,700	296				
Eels	5,750	238	3,613	107	400	13	400	16	7,050	257
Flounders					6,650	269				
Menhaden	25,200	42								
Perch, white	2,200	135	4,110	206	4,350	174	3,100	185	48,007	2,482
Perch, yellow			18,735	443	630	19	3,410	180	84,110	2,544
Pike	120	5	6,776	659			830	59	6,912	554
Shad	148,175	4,297	13,200	330	122,800	2,683	18,224	507	58,208	1,783
Squeteague	1,450	58	1,500	45	15,200	456				
Striped bass	6,250	420	12,680	888	35,300	2,420	1,560	104	10,070	954
Suckers			1,300	26			2,300	65	6,800	139
Total	1,037,020	9,168	123,471	3,144	776,365	9,775	95,634	1,874	2,178,662	21,609

Species.	Charles.		Dorchester.		Harford.		Kent.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	585,000	\$3,049	1,015,284	\$6,987	109,920	\$790	614,160	\$3,385
Alewives, salted	8,000	80					92,800	1,160
Blue-fish	1,000	36					1,500	60
Cat-fish	26,380	712	32,850	916	12,017	376	16,400	641
Croakers	1,000	20	7,250	170				
Drum			400	4				
Eels	250	7	6,160	244	1,430	48	4,280	160
Flounders	300	6	1,625	63				
Menhaden			5,000	5				
Perch, white	23,583	1,282	23,500	1,353	9,180	466	41,900	2,192
Perch, yellow	11,150	279	7,875	235	11,600	289	7,100	287
Pike			1,733	138	813	25	2,150	168
Shad	87,836	1,690	250,421	8,438	3,328	144	61,883	1,783
Squeteague	875	35	1,450	50			1,500	60
Striped bass	32,269	1,694	22,262	1,606	890	85	17,259	1,267
Sturgeon			1,175	41				
Suckers			2,470	68	1,000	23	550	17
Total	777,143	8,890	1,379,455	20,318	149,678	2,216	860,882	11,180

Species.	Prince George.		Queen Anne.		St. Mary.		Somerset.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	108,200	\$554	324,800	\$2,069	605,468	\$10,249	134,200	\$605
Blue-fish			7,400	222	6,628	262	7,200	235
Butter-fish							400	3
Carp	200	10	600	21	5,290	139	3,300	90
Cat-fish	4,450	142	3,000	103	5,925	122	163,000	1,085
Croakers					9,415	178	82,000	274
Drum							1,066	52
Eels			16,600	693	200	6	1,500	30
Flounders					10,132	428		
Hickory shad					3,752	53		
Menhaden					180,000	90	69,400	90
Perch, white	4,025	236	10,050	562	10,324	396	4,400	22
Perch, yellow	2,400	66	2,200	92	3,850	77		
Pike	300	30	50	4				
Pompano							110	11
Shad	17,537	340	68,375	2,372	254,085	5,308	88,700	1,112
Spanish mackerel					775	62	600	48
Spots					1,128	39		
Squeteague			6,100	183	19,334	678	72,800	674
Striped bass	3,675	221	23,917	1,903	22,429	1,345	8,895	202
Sturgeon					3,800	135	785	27
Suckers	600	12						
Caviar					600	210		
Total	141,387	1,611	463,092	8,224	1,143,185	19,777	533,306	4,560

Table showing, by counties, the pound net, trap net, and weir catch in the shore fisheries of Maryland in 1897—Continued.

Species.	Talbot.		Wicomico.		Worcester.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	393,440	\$2,536	276,300	\$1,953			6,972,799	\$44,175
Alewives, salted							748,760	8,412
Blue-fish	3,200	128			2,000	\$80	33,948	1,228
Bonito					1,000	50	1,000	50
Butter-fish					86,000	2,320	86,400	2,823
Carp							13,650	376
Cat-fish	18,250	608	4,160	166			170,227	5,207
Cero					1,000	50	1,000	50
Croakers	880	27			2,400	72	203,645	1,848
Drum					10,500	105	42,900	383
Eels	4,900	165	400	22			52,499	2,018
Flounders	900	36	550	24	1,200	42	22,857	898
Hickory shad							3,752	53
King-fish					1,000	35	1,000	35
Menhaden							279,600	227
Perch, white	26,780	1,155	2,400	205			217,309	11,051
Perch, yellow	7,400	334	1,200	52			161,660	4,897
Pike	2,130	148	324	32			21,638	1,822
Pompano					200	24	810	35
Shad	459,188	14,175	140,910	4,441	750	28	1,738,120	49,331
Spanish mackerel					800	96	2,175	206
Spots					1,200	52	2,828	91
Squeteague	1,800	72	100	3	272,000	5,440	394,109	7,754
Striped bass	11,920	302	2,950	246			206,326	14,157
Sturgeon			2,500	72	4,600	220	12,710	495
Suckers	1,200	26	1,000	20			17,220	396
Caviar							600	210
Total	931,988	20,102	432,784	6,636	384,650	8,614	11,408,542	157,728

Table showing, by counties, the fyke-net catch in the shore fisheries of Maryland in 1897.

Species.	Anne Arundel.		Baltimore.		Caroline.		Cecll.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives	2,000	\$12	14,800	\$38	2,552	\$23	14,440	\$95
Black bass							1,260	126
Carp			290	9	130	4	1,000	30
Cat-fish	5,360	257	15,110	302	1,800	71	44,000	1,632
Eels			3,790	77	750	29	10,250	352
Perch, white	2,200	143	13,904	696	4,670	212	124,180	5,159
Perch, yellow			51,165	1,023	3,410	181	36,550	1,160
Pike	1,350	70	24,722	2,327	700	34	6,880	468
Shad					1,200	34	2,922	84
Striped bass			390	27	760	60	2,670	222
Suckers			4,300	86	1,130	34	14,000	296
Turtles							1,400	49
Total	10,900	487	123,471	4,585	17,102	702	258,552	9,673

Species.	Dorchester.		Harford.		Kent.		Queen Anne.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives	2,400	\$93			70,400	\$768	9,600	\$117
Black bass			275	\$22				
Carp							15,800	410
Cat-fish	11,200	491	34,560	1,307	20,500	676	38,550	883
Croakers					400	18		
Eels			5,000	182	925	32		
Perch, white	1,750	151	21,960	1,116	14,850	913	4,400	286
Perch, yellow	600	5	5,000	150	9,750	486	6,800	330
Pike	800	64	2,335	224	9,360	705	300	25
Shad	500	14			11,615	325	1,307	56
Striped bass	1,050	84	1,280	64	2,310	177	1,550	127
Suckers	850	25	6,400	108	860	25	2,700	70
Terrapins	2,898	1,545						
Turtles	1,300	65						
Total	23,248	2,537	77,810	3,173	140,960	4,125	81,007	2,254

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Table showing, by counties, the fyke-net catch in the shore fisheries of Maryland in 1897—
Continued.

Species.	Somerset.		Talbot.		Wicomico.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	5,400	\$60	5,920	\$78	72,808	\$480	200,320	\$1,764
Black bass.....							1,535	148
Blue-fish.....					100	6	100	6
Butter-fish.....					640	25	640	25
Carp.....							17,220	463
Cat-fish.....	5,835	220	3,400	118	35,104	1,411	215,409	7,868
Croakers.....							400	18
Eels.....			1,600	62	2,050	125	24,365	859
Flounders.....	200	10			2,900	129	3,100	139
Perch, white.....	7,485	310	1,600	93	19,130	1,407	216,129	10,441
Perch, yellow.....			700	35	7,950	245	121,825	3,615
Pike.....			280	19	4,660	461	50,877	4,417
Shad.....	8,420	334	1,350	38	18,339	598	45,653	1,483
Squeteague.....					605	40	605	40
Striped bass.....	1,830	146	1,300	94	13,326	1,096	26,466	2,097
Suckers.....			200	6	5,960	122	36,380	772
Terrapins.....					939	148	3,837	1,693
Turtles.....					740	44	3,440	158
Total.....	29,170	1,080	16,350	548	185,231	6,337	968,301	35,496

Table showing, by counties, the catch of minor nets in the shore fisheries of Maryland in 1897.

Species.	Anne Arundel.		Baltimore.		Cecil.		Charles.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shad.....					3,907	\$156		
Crabs, soft.....	150,461	\$8,148						
Shrimp.....			1,020	\$510				
Crawfish.....							833	\$75
Terrapin.....	20	23						
Total.....	150,481	8,171	1,020	510	3,907	156	833	75

Species.	Dorchester.		Prince George.		St. Mary.		Somerset.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shad.....							41,475	\$1,1*8
Crabs, soft.....	86,000	\$1,620			18,000	\$675	126,051	4,881
Crabs, hard.....							833	2
Crawfish.....			2,075	\$187				
Terrapin.....	754	360					1,143	850
Total.....	86,754	1,980	2,075	187	18,000	675	169,002	6,891

Species.	Talbot.		Wicomico.		Worcester.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Cat-fish.....			700	\$31			700	\$31
Perch, white.....			2,200	220			2,200	220
Perch, yellow.....			500	15			500	15
Shad.....					53,937	\$1,872	99,819	3,186
Striped bass.....			500	50			500	50
Suckers.....			300	6			300	6
Crabs, soft.....	67,333	\$4,040					397,845	19,364
Crabs, hard.....							833	2
Shrimp.....							1,020	510
Crawfish.....							2,908	202
Terrapin.....			1,292	100			3,209	1,333
Total.....	67,333	4,040	5,492	422	53,937	1,872	508,834	24,979

Table showing, by counties, the trammel-net catch in the shore fisheries of Maryland in 1897.

Species.	Anne Arundel.		Cecil.		Dorchester.		Hartford.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Black bass							300	\$24	300	\$24
Carp	250	\$10					740	22	990	82
Cat-fish	500	25	1,000	\$40	800	\$12	1,600	64	3,900	141
Perch, white	7,000	560	1,500	75	500	35	2,150	86	11,150	756
Perch, yellow	550	22	1,000	40	500	5			2,050	67
Pike	600	24	900	81	500	40	220	17	2,220	162
Striped bass			400	32			26,180	2,093	26,580	2,125
Suckers							9,200	184	9,200	184
Sun-fish	1,200	48							1,200	48
Total	10,100	689	4,800	268	2,300	92	40,390	2,490	57,590	3,539

Table showing, by counties, the line catch of Maryland in 1897.

Species.	Anne Arundel.		Baltimore.		Charles.		Dorchester.		Harford.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:										
Blue-fish			4,000	\$140						
Sea bass			8,000	280						
Total			12,000	420						
Shore fisheries:										
Blue-fish							500	\$20		
Cat-fish							9,100	\$67	5,250	\$212
Perch, white									3,960	335
Sheepshead							200	12		
Squeteague							1,000	20		
Striped bass									350	35
Crabs, hard	220,200	\$1,685			5,600	\$36	1,356,250	10,635		
Total	220,200	1,685			5,600	36	1,367,050	11,054	9,560	582

Species.	Kent.		Queen Anne.		St. Mary.		Somerset.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Blue-fish							900	\$28
Cat-fish	18,500	\$740					100	4
Croakers							700	14
Drum							100	3
Flounders							300	6
Squeteague							14,500	574
Striped bass			3,900	\$273				
Crabs, hard	282,533	3,232	528,440	3,906	75,833	\$600	415,767	3,444
Total	301,033	3,972	532,340	4,179	75,833	600	432,367	4,073

Species.	Talbot.		Wicomico.		Worcester.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Blue-fish							4,000	\$140
Sea bass							8,000	280
Total							12,000	420
Shore fisheries:								
Blue-fish					12,840	\$616	14,240	664
Cat-fish			38,650	\$1,620			68,600	2,943
Croakers					11,800	354	12,500	368
Drum							100	3
Eels			500	30			500	80
Flounders							300	6
Perch, white							3,960	335
Sheepshead							200	12
Sea bass					8,200	410	8,200	410
Squeteague					95,400	2,862	110,900	3,456
Striped bass							4,250	308
Crabs, soft	82,709	\$1,518					82,709	1,518
Crabs, hard	2,231,798	14,511					5,116,416	33,049
Turtle			2,025	131			2,025	131
Total	2,314,507	16,029	39,175	1,781	123,240	4,242	5,425,900	48,233

Table showing the catch of eels by pots and spears in Maryland in 1897.

Counties.	Lbs.	Value.	Counties.	Lbs.	Value.
Shore fisheries:			Shore fisheries:		
Anne Arundel.....	19,200	\$730	Somerset.....	34,210	\$1,081
Baltimore.....	13,225	265	Talbot.....	11,600	376
Calvert.....	940	28	Wicomico.....	6,400	264
Cecil.....	53,850	1,600	Worcester.....	11,200	482
Charles.....	3,700	180	Total.....	245,295	8,600
Dorchester.....	22,750	910	Vessel fisheries:		
Harford.....	44,930	1,733	Dorchester.....	61,000	2,440
Kent.....	4,100	116			
Queen Anne.....	14,990	635			
St. Mary.....	4,200	210			

NOTE.—All taken with pots except 30,000 pounds, \$900, speared in Somerset County.

Table showing the catch by dredges in Maryland in 1897.

Counties.	Oysters.		Crabs, soft.		Crabs, hard.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:						
Anne Arundel.....	205,450	\$12,149				
Baltimore.....	3,292,310	237,207				
Calvert.....	253,680	18,063				
Charles.....	24,500	1,225				
Dorchester.....	5,403,650	269,806	16,900	\$760		
St. Mary.....	127,085	7,262				
Somerset.....	4,864,846	269,587	102,717	4,652	15,867	\$142
Talbot.....	2,631,811	121,177				
Wicomico.....	111,790	6,575				
Total.....	16,915,122	943,051	119,617	5,312	15,867	142
Shore fisheries:						
Anne Arundel.....	124,600	8,053				
Baltimore.....	7,700	440				
Calvert.....	191,450	13,675				
Charles.....	47,250	2,363				
Dorchester.....	2,059,610	101,291	146,867	6,596		
St. Mary.....	342,090	19,870				
Somerset.....	1,827,406	106,775	3,166,569	131,916	200,700	1,756
Talbot.....	188,510	8,042				
Wicomico.....	28,735	1,634				
Total.....	4,817,351	261,143	3,313,436	138,512	200,700	1,756
Grand total.....	21,732,473	1,204,194	3,433,053	143,824	216,567	1,898

Table showing the catch by tongs in Maryland in 1897.

Counties.	Oysters.		Clams.	
	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:				
Anne Arundel.....	167,734	\$10,457		
Calvert.....	16,400	1,215		
Dorchester.....	23,912	900		
Somerset.....	11,900	636		
Wicomico.....	2,100	150		
Total.....	221,046	13,357		
Shore fisheries:				
Anne Arundel.....	3,595,585	202,022		
Calvert.....	1,442,525	105,215		
Charles.....	462,480	25,659		
Dorchester.....	5,724,887	255,578		
Kent.....	2,325,834	140,625		
Queen Anne.....	2,725,821	122,953		
St. Mary.....	2,262,596	132,571		
Somerset.....	2,240,406	134,672	49,368	\$3,780
Talbot.....	4,235,553	203,217		
Wicomico.....	1,574,825	88,597		
Worcester.....	* 2,250,507	256,642	72,920	5,062
Total.....	28,831,019	1,667,651	122,288	8,842
Grand total.....	29,052,065	1,681,008	122,288	8,842

* Includes 41,500 pounds of seed oysters.

THE WHOLESALE FISHERY TRADE.

The wholesale fishery trade of Maryland, as here presented, embraces not only the handling of products of the local fisheries in a raw or unprepared condition, but also includes the oyster-canning industry, the opening of oysters and the shipment and sale of the edible part, the preparation of crab meat, the salting of alewives or other species, and the handling of fish, fresh or salted, or any other fishery products, at wholesale or on commission, regardless of the source from which they are derived. The persons and capital employed have also been included in the general fishery tables.

This trade is carried on to a greater or less extent in 25 localities on both sides of the Chesapeake and in 8 different counties. The number of firms engaged in the various branches of the trade was 235, the value of the shore property used was \$1,759,391, the cash or working capital amounted to \$1,615,285, and the number of persons employed, including proprietors, clerks, operatives, and laborers, was 15,788.

The products consisted of canned oysters valued at \$1,540,690, opened oysters valued at \$3,552,561, oysters sold in the shell valued at \$159,471, oyster shells and lime made from oyster shells valued at \$35,022, clams valued at \$8,576, crabs, hard and soft, and crab meat worth \$288,956, shrimp valued at \$328, terrapin and turtles of various species valued at \$43,444, fresh fish valued at \$742,557, and salted fish, which, with the exception of alewives, are chiefly the product of the New England fisheries, valued at \$292,682; the total value of the trade aggregating \$6,664,297. The great relative importance of the oyster trade is apparent when it is considered that \$5,287,744 of the above amount was received for oyster products.

The principal market is Baltimore, its trade being more than ten times as great as that of any other locality. This is due principally to the existence of a large oyster-canning industry and opened-oyster business. There is also an important commission trade in oysters. In addition to these branches large quantities of fresh fish and other fishery products from all sections of the State are handled, the aggregate value of the trade being \$5,189,832.

Crisfield and Cambridge rank next to Baltimore in importance. Cambridge surpasses Crisfield in the extent of its oyster business, but Crisfield is the most extensive market and shipping-point for soft crabs in the United States. The trade of Crisfield, including all products handled, aggregated \$427,285, and that of Cambridge \$376,804.

The following table shows by localities the extent of the wholesale trade in fishery products of Maryland in 1897.

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Table showing the extent of the wholesale trade in fishery products of Maryland in 1897.

Items.	Annapolis.		Baltimore.		Lapidum.		Havre de Grace and Ferryville.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Establishments	8	\$19,675	105	\$1,532,700	3	\$3,130	3	\$4,150
Cash capital		15,400		1,363,460		2,800		3,700
Persons engaged	349		11,686		53		23	
Products handled:								
Oysters—								
Canned.....1-lb. cans.....			11,399,867	710,695				
Canned.....2-lb. cans.....			6,906,370	829,995				
Opened.....gallons.....	71,992	46,460	2,882,475	2,434,201				
In shell.....bushels.....			85,500	127,900				
Shells.....do.....	29,168	364	2,486,000	6,577				
Lime (made from shells), bushels.....			440,250	17,079				
Clams.....number.....			416,000	1,332				
Crabs—								
Hard.....do.....	175,000	526	1,025,000	4,125				
Soft.....do.....	233,884	4,927	1,671,933	35,775				
Crab meat.....pounds.....	29,400	3,519	28,416	3,789				
Shrimp.....do.....			2,625	328				
Terrapin—								
Diamond-back, number.....			3,988	14,487				
Western.....do.....			6,744	1,400				
Sliders.....do.....			61,550	1,210				
Snapping turtles.....do.....			38,610	1,610				
Fish—								
Fresh.....pounds.....			17,976,875	715,058			549,296	17,314
Salted.....do.....			5,685,420	284,271	533,920	6,915	163,200	1,496
Value of products.....		55,796		5,189,832		6,915		18,810

Items.	St. Michaels.		Clubborne.		Oxford and Bellevue.		Tilghman Island.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Establishments	3	\$12,700	2	\$2,250	12	\$24,345	2	\$2,850
Cash capital		7,500		1,400		12,575		1,600
Persons engaged	112		43		650		37	
Products handled:								
Oysters, opened, gallons.....	84,675	66,878	19,666	14,724	242,953	172,110	23,590	16,693
Crab meat.....pounds.....					63,756	6,301		
Value of products.....		66,876		14,724		178,411		16,693

Items.	Deal Island.		Oriole, Chance, and Mount Vernon.		Cambridge.		White Haven and Nanticoke.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Establishments	7	\$3,835	5	\$1,948	22	\$61,515	2	\$2,835
Cash capital		3,800		3,000		67,300		2,000
Persons engaged	100		19		1,030		112	
Products handled:								
Oysters, opened, gallons.....	41,500	34,975			482,193	354,252	27,412	19,179
Oysters in shell, bushels.....			9,000	3,600				
Shells.....do.....					769,837	9,652		
Crabs, hard.....number.....			159,000	1,480	1,370,045	10,485		
Crabs, soft.....do.....	652,800	16,505	570,000	11,873	75,000	1,565		
Crab meat.....pounds.....					9,000	900		
Terrapin, diamond-back, number.....			448	292				
Value of products.....		50,480		17,195		376,804		19,179

Table showing the extent of the wholesale trade in fishery products of Maryland in 1897—
Continued.

Items.	Fairmount and vicinity.		Westover and Edwin.		Coulbourn Creek.	
	No.	Value.	No.	Value.	No.	Value.
Establishments	7	\$11,525	5	\$425	4	\$11,845
Cash capital		14,700		3,500		6,500
Persons engaged.....	218		15		156	
Products handled:						
Oysters opened.....gallons..	74,400	60,500			57,500	46,000
Oysters in shell.....bushels..			10,775	5,681		
Crabs, hard.....number..	25,000	125			9,500	62
Crabs, soft.....do.....	150,528	5,645			195,000	5,600
Value of products.....		66,270		5,681		51,662

Items.	Tulls Corner and East Creek.		Crisfield.		Lawsonia.		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Establishments	6	\$6,275	31	\$52,125	9	\$5,763	235	\$1,759,391
Cash capital		6,200		92,300		7,550		1,615,285
Persons engaged.....	138		985		162		15,788	
Products handled:								
Oysters—								
Canned.....1-lb. cans.....							11,399,867	710,695
Canned.....2-lb. cans.....							6,906,370	829,995
Opened.....gallons.....	53,848	42,752	249,519	201,961	53,666	41,878	4,365,384	3,552,561
In shell.....bushels.....			18,480	19,790	3,500	2,500	127,255	169,471
Shells.....do.....			100,000	1,350			3,385,005	17,943
Lime (made from shells), bushels.....							440,250	17,079
Clams.....number.....			2,100,000	4,050	1,200,000	3,194	3,716,000	8,576
Crabs—								
Hard.....do.....			192,200	1,297			2,955,745	18,000
Soft.....do.....			5,432,868	162,599	540,600	11,360	9,522,613	254,849
Crab meat.....pounds.....			12,900	1,598			143,472	16,107
Shrimp.....do.....							2,625	828
Terrapin—								
Diamond-back, num- ber.....			12,560	24,455			16,996	89,234
Western.....number.....							6,744	1,400
Sliders.....do.....							61,550	1,210
Snapping turtles.....do.....							38,610	1,610
Fish—								
Fresh.....pounds.....			282,246	10,185			18,808,417	742,557
Salted.....do.....							6,382,540	292,682
Value of products.....		42,752		427,285		68,932		6,664,297

FISHERIES OF VIRGINIA.

The fisheries of Virginia are prosecuted mainly in the waters of Chesapeake Bay and the estuaries and rivers tributary thereto, the exception being the oyster and other fisheries along the ocean coast of Accomac, Northampton, and Princess Anne counties.

The persons employed in the fisheries in 1897 numbered 28,277, of whom 5,102 were on vessels, either fishing or transporting, and 19,150 were engaged in the shore fisheries, while the remaining 4,025 persons were employed in menhaden and oyster factories and in the wholesale trade. This is a considerable increase over 1891, when 4,308 persons were employed on vessels, 16,027 in the shore fisheries, and 3,260 in the factories and the wholesale trade, a total of 23,595.

The investment in the fisheries included 1,055 vessels, valued with their outfit at \$914,824; 10,302 boats, worth \$493,276; 1,250 pound nets, worth \$264,600; 145 seines, worth \$54,012; 9,307 gill nets, worth \$46,235; oyster dredges and tongs, worth \$73,755, and various minor apparatus, worth \$12,402. Besides the foregoing there was \$607,682 worth of shore and accessory property employed and cash capital to the amount of \$424,750, making a total investment of \$2,891,536.

This was a slight decrease from the figures for 1891, when the value of the investment was \$2,948,659. The principal decrease was in value of shore and accessory property and cash capital, which in 1891 was reported at \$717,787 and \$467,500, respectively. The vessels with their outfit in 1891 were valued at \$939,136 and the boats at \$463,722. As a partial offset for this decrease a large increase occurred in the value of the pound nets, their value being \$165,990 in 1891 and \$264,600 in 1897, the number in the meantime increasing from 891 to 1,250.

The value of products in 1897 was \$3,179,498, being \$468,347 less than in 1891 when the yield was worth \$3,647,845 to the fishermen. This decrease is due to the reduced value of the oyster product, which in 1891 was worth \$2,524,348, whereas in 1897 it was but \$2,041,683. The yield of shad, the second item in value among the fishery products, shows a gratifying increase from \$207,394 in 1891 to \$304,448 in 1897. During the same years the menhaden product shows an increase from \$197,523 to \$255,241; the value of the clams increased from \$36,030 to \$66,097, and the crab yield arose from \$62,062 to \$68,245. Most of the other species show a decrease in the yield—squeteague from \$124,645 to \$89,967; alewives or river herring from \$93,905 to \$70,841; blue-fish from \$67,545 to \$34,802, and cat-fish from \$28,487 to \$12,292.

The decrease in value of the fisheries is not due to a reduction in quantity of products obtained, but to a smaller selling price. For instance, while the oyster yield decreased in value from \$2,524,348 to \$2,041,683, the quantity obtained in the former year was 6,162,086 bushels and in 1897 it was 7,023,848 bushels. The value of squeteague decreased from \$124,645 in 1891 to \$89,967 in 1897, although the

quantity increased from 3,929,899 pounds in the former year to 6,525,806 pounds in the latter. The yield of croakers increased in weight from 1,075,690 pounds in 1891 to 4,161,529 pounds in 1897, but the value decreased from \$36,847 to \$28,144.

The condensed statistics of the fisheries of this State are shown in the following three tables, relating respectively to the persons employed, the capital invested, and the products:

Table of persons employed.

How engaged.	No.
In vessel fisheries	4,282
On vessels transporting	820
In shore or boat fisheries	19,150
Shoreshmen	4,025
Total	28,277

Table of apparatus and capital.

Items.	No.	Value.	Items.	No.	Value.
Vessels fishing.....	791	\$464,487	Apparatus—shore fisheries—		
Tonnage.....	9,796		Continued.		
Outfit.....	264	199,675	Fyke nets.....	361	\$4,687
Vessels transporting.....	264	211,375	Minor nets.....	450	205
Tonnage.....	5,422		Lines.....		1,682
Outfit.....		39,287	Fel pots.....	270	404
Boats.....	10,302	498,276	Slat traps.....	68	1,345
Apparatus—vessel fisheries:			Spears.....	14	17
Selnes (total length,31,668feet)	38	25,550	Oyster dredges or scrapes....	458	6,110
Oyster dredges.....	532	14,594	Oyster tongs.....	10,590	46,157
Oyster tongs and forks.....	1,791	6,884	Clam tongs, rakes, hoes, and		
Clam tongs, rakes, etc.....	159	89	forks.....	1,012	1,960
Apparatus—shore fisheries:			Crab dredges or scrapes.....	825	2,068
Selnes (total length, 121,377			Shore and accessory property		607,682
feet).....	107	28,162	Cash capital.....		424,750
Pound nets.....	1,250	264,600			
Gill nets (total length, 1,113-			Total		2,891,536
324 feet).....	9,307	\$46,235			

Table of products.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Alewives, fresh.....	13,217,510	\$66,174	Pike.....	34,963	\$2,680
Alewives, salted.....	472,000	4,667	Pompano.....	70,185	5,515
Black bass.....	14,075	654	Scup.....	4,000	120
Blue-fish.....	1,505,228	34,802	Sea bass.....	1,765	40
Bonito.....	25,350	798	Shad.....	11,529,474	804,448
Butter-fish.....	406,828	10,624	Sheepshead.....	28,968	1,905
Carp.....	6,119	167	Spanish mackerel.....	508,106	39,911
Cat-fish.....	457,417	12,292	Spots.....	1,081,292	26,539
Cero.....	1,200	78	Squeteague.....	6,525,806	89,987
Cod.....	800	40	Striped bass.....	576,252	35,079
Crevalle.....	123,800	2,523	Sturgeon.....	631,619	16,568
Croakers.....	4,161,529	28,144	Suckers.....	76,606	2,250
Drum.....	114,420	1,094	Sun-fish.....	2,350	265
Eels.....	84,560	2,790	Whiting.....	14,100	85
Flounders.....	265,280	7,930	Oysters.....	149,165,936	2,041,688
Hickory shad.....	196,916	8,409	Clams.....	841,568	66,097
Hog-fish.....	15,390	940	Crabs, soft.....	81,068,116	39,914
King-fish.....	120,075	4,970	Crabs, hard.....	5,331,398	28,331
Mackerel.....	300	18	Terrapins.....	11,822	2,104
Menhaden.....	178,656,362	265,241	Turtles.....	56,825	1,077
Moon-fish.....	28,494	727	Frogs.....	1,025	108
Mullet.....	54,521	1,196	Caviar.....	63,960	19,023
Perch, white.....	278,294	13,527			
Perch, yellow.....	113,885	2,988	Total.....	277,993,949	3,179,498

¹ 7,023,848 bushels.

² 105,196 bushels.

³ 8,204,348 in number.

⁴ 15,994,194 in number.

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The crustacean and molluscan products above shown in pounds are given by number and bushels in the following table:

Products.	No.	Value.
Crabs, hard.....	15,994,194	\$28,831
Crabs, soft.....	3,204,348	39,914
Clams.....bushels..	105,196	66,097
Oysters.....do.....	7,023,848	2,041,683

STATISTICS BY COUNTIES.

There are in Virginia 34 counties bordering on the tidal waters, in all of which the commercial fisheries are more or less extensive. The most important of these, from a fishery point of view, are Accomac, Lancaster, Northumberland, Middlesex, Elizabeth City, Norfolk, Mathews, Northampton, York, and Gloucester. The fisheries in some of the remaining 24 counties are of comparatively small extent. The following series of tables present detailed statistics for each county for 1897:

Table showing the number of persons employed in the fisheries of Virginia in 1897.

Counties.	In vessel fisheries.	On vessels trans- porting.	In shore or boat fisheries.	Shores- men.	Total.
Accomac.....	1,023	107	2,470	490	4,090
Alexandria.....	8	10	180		198
Caroline.....			28		28
Charles City.....			201		201
Chesterfield.....			26		26
Dinwiddie.....			18		18
Elizabeth City.....	179	85	614	489	1,317
Essex.....		19	571		590
Fairfax.....			176	9	185
Gloucester.....	364	58	837		1,249
Hanover.....			34		34
Henrico.....			177		177
Isle of Wight.....	109	2	230		341
James City.....	11		122		133
King and Queen.....	7		44		51
King George.....	17		294		311
King William.....	94	16	200	197	507
Lancaster.....	237	62	2,188	363	2,850
Mathews.....	42	126	1,650		1,818
Middlesex.....	12	49	2,682	17	2,760
Nansemond.....	306	25	878	79	788
New Kent.....			260		260
Norfolk.....	620	133	1,005	1,805	8,568
Northampton.....	140	62	592	118	907
Northumberland.....	573	25	1,080	266	1,944
Princess Anne.....			288	103	391
Prince George.....			164		164
Prince William.....		2	127	5	134
Richmond.....	88	82	681		761
Stafford.....			134	18	147
Surry.....			72		72
Warwick.....	124	17	168		309
Westmoreland.....	160	11	595		767
York.....	228	29	863	76	1,196
Total.....	4,282	820	19,160	4,025	28,277

Table showing, by counties, the vessels, boats, apparatus, and shore property employed in the fisheries of Virginia in 1897.

Items.	Accomac.		Alexandria.		Caroline.		Charles City.		Chesterfield.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	181	\$89,957	1	\$650						
Tonnage	1,936		17							
Outfit		31,916		165						
Vessels transporting	31	41,750	4	2,200						
Tonnage	847		44							
Outfit		5,332		260						
Boats	1,844	106,248	94	2,570	13	\$160	103	\$1,728	8	\$150
Apparatus—vessel fisheries:										
Seines	5	3,000	1	150						
Oyster dredges	296	7,081								
Oyster tongs and forks	304	975								
Clam tongs, rakes, etc.	139	71								
Apparatus—shore fisheries:										
Seines	37	662	1	100	1	300	1	200	5	250
Pound nets	77	16,275			15	1,500				
Gill nets	5	36	87	4,955	6	123	137	5,062	3	45
Fyke nets	10	430								
Minor nets	89	30					2	5	2	6
Lines		165						2		
Eel pots	32	18								
Spears	14	17								
Oyster dredges or scrapes	213	3,632								
Oyster tongs	1,690	8,146								
Clam tongs, rakes, hoes, and forks	779	1,680								
Crab dredges or scrapes	826	2,063								
Shore and accessory property		52,165		300		200		1,100		
Cash capital		61,750								
Total		432,802		11,360		2,283		8,097		451

Items.	Dinwiddie.		Elizabeth City.		Essex.		Fairfax.		Gloucester.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing			26	\$38,035					88	\$44,325
Tonnage			446						1,269	
Outfit				14,149						20,253
Vessels transporting			9	9,760	6	\$3,800			22	16,250
Tonnage			283		151				400	
Outfit				1,925		868				2,788
Boats	9	\$90	323	18,385	264	6,740	67	\$3,968	448	27,845
Apparatus—vessel fisheries:										
Seines			5	3,000						
Oyster dredges			32	1,565						
Oyster tongs and forks			70	243					277	1,055
Clam tongs, rakes, etc.			2	4						
Apparatus—shore fisheries:										
Seines					3	550	2	8,150		
Pound nets			75	22,850	26	2,825	40	2,445	110	30,250
Gill nets	7	105			639	682	19	900		
Fyke nets					18	225	50	733		
Minor nets	2	6								
Lines				240						36
Eel pots					12	30				
Oyster tongs			402	1,447	297	891			938	8,109
Shore and accessory property		75		97,790		725		4,200		2,100
Cash capital				57,000						
Total		276		266,383		17,336		20,896		147,506

Items.	Princess Anne.		Prince George.		Prince William.		Richmond.		Stafford.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels transporting					1	\$300				
Tonnage					8					
Outfit						55				
Boats	159	\$3,390	98	\$1,090	47	1,735	319	\$10,900	33	\$1,945
Apparatus—shore fisheries:										
Seines	4	2,100	1	100	3	3,115			3	4,700
Pound nets	16	17,700			12	810	89	12,625	42	1,910
Gill nets	211	1,398	108	4,176	20	1,250	1,784	1,784	6	625
Fyke nets					24	420				
Minor nets			6	15						
Lines		212		3						
Eel pots							100	200		
Oyster tongs	100	150					401	1,387		
Shore and accessory property		8,475		800		1,280		3,475		4,225
Cash capital		1,000								
Total		31,425		6,184		8,965		30,371		13,405

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Vessels, boats, apparatus, etc., employed in the fisheries in Virginia in 1897—Continued.

Items.	Hanover.		Henrico.		Isle of Wight.		James City.		King and Queen.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing					27	\$5,250	2	\$1,200	3	\$350
Tonnage					249		79		23	
Outfit						3,541		535		180
Vessels transporting					1	150				
Tonnage					5					
Outfit						104				
Boats	17	\$136	100	\$1,192	120	2,511	63	1,219	22	154
Apparatus—vessel fisheries:										
Oyster tongs and forks					80	280	10	38	6	21
Apparatus—shore fisheries:										
Seines			1	250	2	110	3	290		
Gill nets	28	240	117	2,136	2,057	5,355	438	2,352	44	484
Fyke nets					18	270				
Lines						60				
Eel pots					30	30				
Slat traps			65	1,300						
Oyster tongs							34	148		
Shore and accessory property				600		5,100		631		250
Total		376		5,478		22,761		6,413		1,439

Items.	King George.		King William.		Lancaster.		Mathews.		Middlesex.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	4	\$875	15	\$8,775	18	\$64,850	10	\$3,100	2	\$550
Tonnage	21		235		635		110		27	
Outfit		600		5,225		16,333		2,070		475
Vessels transporting			6	5,250	16	12,100	43	32,350	14	10,550
Tonnage			107		355		954		451	
Outfit				738		2,790		6,790		2,557
Boats	143	5,361	99	838	1,096	65,660	828	40,745	964	55,700
Apparatus—vessel fisheries:										
Seines					9	6,900				
Oyster dredges	8	105			6	300				
Oyster tongs and forks			78	311	18	137	24	174	8	28
Apparatus—shore fisheries:										
Seines	3	750	3	700	7	1,650				
Pound nets	112	9,660			136	26,900	106	24,425	8	1,200
Gill nets	219	2,210	351	3,055			10	100		
Fyke nets	9	135	181	1,810						
Minor nets					114	30				
Lines								150		
Oyster dredges or scrapes	12	72								
Oyster tongs	60	240	4	16	1,186	6,180	1,076	5,398	1,322	7,488
Clam tongs, rakes, etc.							100	150		
Shore and accessory property		1,445		17,050		85,050		2,765		4,325
Cash capital				29,000		37,000				
Total		21,363		72,813		325,880		118,217		82,873

Items.	Nansemond.		New Kent.		Norfolk.		Northampton.		Northumberland.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	63	\$23,875			126	\$45,890	32	\$22,175	71	\$71,880
Tonnage	657				1,278		370		1,171	
Outfit		18,129				34,656		8,786		22,953
Vessels transporting	10	5,650			47	34,525	27	16,100	7	7,350
Tonnage	109				776		331		246	
Outfit		1,800				7,085		3,012		950
Boats	204	2,629	144	\$754	456	31,155	537	13,937	831	37,025
Apparatus—vessel fisheries:										
Seines							4	3,200	14	9,300
Oyster dredges					2	100	4	100	130	4,050
Oyster tongs and forks	208	832			423	1,741	22	106		
Clam tongs, rakes, etc.							18	14		
Apparatus—shore fisheries:										
Seines	2	575	4	300	4	2,000	4	550		
Pound nets	7	3,155			4	3,800	21	14,500	259	56,200
Gill nets	410	1,080	1,082	3,628	515	1,030				
Fyke nets	9	180					1			
Minor nets	20	60					55	100		
Lines		15						262		41
Eel pots									60	70
Slat traps	3	45								90
Oyster dredges or scrapes									166	1,937
Oyster tongs	177	708			544	2,192	305	1,730	686	2,222
Clam tongs, rakes, etc.							133	130		
Shore and accessory property		5,650		1,030		228,000		21,665		49,925
Cash capital		4,000				159,000		13,500		62,000
Total		67,883		5,612		551,216		119,879		325,993

Vessels, boats, apparatus, etc., employed in the fisheries of Virginia in 1897—Continued.

Items.	Surry.		Warwick.		Westmoreland.		York.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing			25	\$5,250	27	\$9,875	70	\$27,625
Tonnage			301		288	4,600	684	13,688
Outfit				2,121		700		9,850
Vessels transporting			6	2,750	3		11	
Tonnage			64		28		260	
Outfit				467		325		1,946
Boats	39	\$1,205	71	3,200	308	15,371	431	28,040
Apparatus—vessel fisheries:								
Oyster dredges					54	1,290		
Oyster tongs and forks			88	300			175	653
Apparatus—shore fisheries:								
Seines	1	100	6	330	6	600		
Pound nets			1	200	76	8,870	18	6,600
Gill nets	874	2,971	100	200	23	123	7	230
Fyke nets							32	384
Lines		12		20		24		264
Eel pots	36	36						
Oyster dredges or scrapes					67	469		
Oyster tongs			95	370	3,24	1,806	954	3,029
Shore and accessory property		700		550		1,530		4,506
Cash capital								500
Total		6,024		15,788		46,083		97,215

Table showing, by counties, the products of the fisheries of Virginia in 1897.

Species.	Accomac.		Alexandria.		Caroline.		Charles City.		Chesterfield.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	173,450	\$625	70,000	\$350	171,000	\$2,040	22,400	\$168	22,600	\$338
Black bass			200	10			3,400	144		
Blue-fish	123,614	3,791								
Bonito	6,150	184								
Butter-fish	9,000	220								
Carp			500	15						
Cat-fish	3,830	216	2,800	86	6,000	180				
Cero	1,100	70								
Cod	800	40								
Croakers	321,775	4,613					800	24		
Drum	35,140	449								
Eels	7,165	217								
Flounders	23,075	378								
Hickory shad					18,000	90	18,750	375		
King-fish	11,925	398								
Mackerel	100	12								
Menhaden	19,378,100	24,952								
Mullet	14,876	304								
Perch, white	16,760	652	2,933	176	2,500	75	1,500	65		
Perch, yellow			1,160	35			2,800	84		
Pompano	11,835	858								
Sea bass	1,165	22								
Shad	265,850	6,935	389,700	7,794	76,875	1,780	100,750	11,550	26,317	723
Sheepshead	4,618	376								
Spanish mackerel	102,080	7,021								
Spots	35,116	382								
Squetceng	603,695	15,370	650	26			700	21		
Striped bass	6,800	614	3,700	222	9,000	450	6,000	440		
Sturgeon	22,025	1,311	1,250	75			63,625	1,188		
Whiting	1,500	45								
Oysters	7,077,175	383,483								
Clams	472,576	35,196								
Crabs, soft	883,583	31,362								
Crabs, hard	25,000	125								
Terrapin	2,572	1,434					150	30	1,500	90
Turtles	700	33					790	16		
Frogs							290	23		
Cavlar	100	40					5,320	1,696		
Total	20,647,250	521,528	472,893	8,789	283,375	4,615	527,275	15,724	49,417	1,151

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Table showing the products of the fisheries of Virginia in 1897—Continued.

Species.	Dinwiddie.		Elizabeth City.		Essex.		Fairfax.		Gloucester.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Alewives, fresh			264,482	\$2,857	142,922	\$1,659	940,742	\$4,933	119,000	\$1,190
Black bass							875	44		
Blue-fish			234,115	7,023					25,200	756
Bonito			6,000	240						
Butter-fish			52,628	1,576						
Carp							2,282	65		
Cat-fish					43,800	1,314	41,810	1,255		
Croakers			1,384,164	6,921					330,000	1,650
Drum			4,400	44					27,500	275
Eels					7,000	280	3,385	102		
Flounders			51,485	1,554	540	22				
Hickory shad			2,740	55						
King-fish			7,600	64						
Menhaden			12,005,500	28,369	52,000	35			220,000	550
Perch, white			3,400	170	7,800	480	37,314	2,162		
Perch, yellow					1,100	33	21,800	545		
Pike							3,388	214		
Pompano			16,055	1,151						
Shad	19,600	\$560	340,816	10,227	165,328	4,462	350,803	6,877	550,000	16,500
Sheepshead			2,000	160						
Spanish mackerel			39,525	2,193					11,000	660
Spots			149,149	2,983						
Squeteague			1,446,874	21,703					165,000	2,475
Striped bass			3,000	120	13,600	1,230	36,497	2,168		
Sturgeon			24,757	496	600	12	100	4	24,750	495
Suckers					775	16	13,350	282		
Sun-fish							1,050	32		
Whiting			5,000	100						
Oysters			3,293,500	118,494	580,650	40,775			3,234,875	92,801
Clams			32,400	2,450					57,040	4,414
Crabs, hard			727,032	2,423					88,000	660
Terrapins	500	30							1,100	400
Turtles			5,750	115					9,000	180
Caviar			3,570	1,071	140	40			3,500	1,050
Total	20,100	590	20,099,942	212,559	1,016,155	50,258	1,453,396	18,703	4,865,965	124,056

Species.	Princess Anne.		Prince George.		Prince William.		Richmond.		Stafford.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	16,000	\$160			568,000	\$2,970	257,500	\$3,050	728,280	\$4,485
Alewives, salted									406,000	4,060
Black bass			3,000	\$60						
Blue-fish	234,269	3,686								
Bonito	6,500	195								
Butter-fish	240,150	5,313								
Carp					725	22			812	49
Cat-fish			5,000	100	15,200	465	49,000	1,290	19,787	601
Crevalle	117,000	2,370								
Croakers	1,012,435	5,284								
Drum	14,680	150								
Eels					2,200	66	20,000	800	2,175	93
Flounders	1,000	16								
Hog-fish	10,340	675								
King-fish	77,500	3,100								
Menhaden	100,000	100					235,000	193		
Moon-fish	11,646	319								
Mullet	23,245	318					600	12		
Perch, white	2,000	60	800	16	22,675	1,219	12,000	600	19,850	1,184
Perch, yellow			600	12	10,900	288	2,000	60	60,325	1,509
Pike					2,200	132			28,875	2,310
Pompano	27,000	2,160								
Scup	4,000	120								
Shad	92,937	3,717	298,060	9,014	208,546	3,927	320,175	8,940	72,674	1,423
Sheepshead	21,500	1,290								
Spanish mackerel	239,300	19,054								
Spots	541,500	13,538								
Squeteague	2,402,487	24,094					7,000	210		
Striped bass	37,950	1,227			36,265	1,798	39,000	3,355	45,019	2,023
Sturgeon	68,400	2,776	65,850	1,238						
Suckers					6,400	128				
Sun-fish			500	10	600	18				
Whiting	7,600	140								
Oysters	8,760	938					1,054,200	66,055		
Crabs, hard	705,000	4,500								
Terrapins			6,000	120						
Turtles			1,200	24						
Caviar	8,620	2,572	5,810	1,743						
Total	6,031,809	97,872	386,820	12,337	873,711	11,033	1,996,475	84,565	1,383,797	17,717

Table showing the products of the fisheries of Virginia in 1897—Continued.

Species.	King George.		King William.		Lancaster.		Mathews.		Middlesex.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	1,322,400	\$8,188	28,625	\$450	225,500	\$1,390	413,400	\$2,067	32,000	\$320
Alewives, salted	6,000	60								
Blue-fish					14,100	583	13,500	675		
Butter-fish					60,000	900				
Cat-fish	97,715	2,517	96,050	1,921						
Croakers	6,400	202			60,000	800	20,000	200		
Eels	1,250	43	1,810	54						
Flounders	660	20	9,050	452	50,000	500	13,000	260		
Hickory shad							38,180	763		
Menhaden					61,581,200	88,118	390,000	585	16,000	40
Mullet							4,000	80		
Perch, white	52,909	2,697	17,150	862			400	20		
Perch, yellow	4,850	141	1,400	42						
Pike	300	18								
Pompano					600	72				
Shad	401,866	8,551	145,211	2,879	858,110	26,532	1,297,000	32,425	21,700	620
Spanish mackerel					10,400	1,031				
Spots					2,000	60	2,000	80		
Squeteague	825	33	11,160	223	130,200	3,156	70,380	704		
Striped bass	107,104	5,852	21,900	2,188	3,000	180				
Sturgeon	19,759	1,085	6,225	125	31,000	620	55,600	1,240		
Suckers			17,881	358						
Oysters	167,650	8,883	477,750	11,150	4,419,800	209,410	3,864,000	137,250	6,157,340	297,198
Clams							47,600	3,400		
Crabs, soft					118,800	6,192				
Crabs, hard	23,833	286	78,500	393	12,000	88	435,000	2,900		
Turtles							25,000	500		
Caviar	1,240	460	1,660	498	4,340	1,302	3,640	1,040		
Total	2,213,751	38,536	914,372	21,595	67,581,050	340,429	6,692,700	184,189	6,227,040	298,178

Species.	Nansemond.		New Kent.		Norfolk.		Northampton.		Northumberland.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	5,100	\$51	146,645	\$1,051	45,000	\$475	773,450	\$1,683	5,128,914	\$17,774
Alewives, salted									38,000	332
Black bass			6,600	396						
Blue-fish	5,000	151			1,300	65	830,090	17,328	6,485	211
Bonito							6,700	179		
Butter-fish	65,000	1,300			24,000	960	12,100	268	2,760	83
Cat-fish	200	6	1,000	20					875	27
Cero							100	3		
Crevalle							6,300	153		
Croakers	180,500	1,020			283,000	1,790	140,725	2,072	10,700	180
Drum					1,000	10	31,700	166		
Eels									6,900	207
Flounders	2,500	75			2,000	20	4,050	137	73,610	3,238
Hickory shad			14,500	185					83,746	1,611
Hog-fish					8,750	225	300	20	1,000	20
King-fish					25,000	1,000	4,050	408		
Mackerel							200	6		
Menhaden	500,000	1,250					14,724,232	20,149	69,444,330	90,880
Moon-fish							16,848	408		
Mullet					11,800	482				
Perch, white	2,050	83	2,000	100	1,200	26			1,225	38
Perch, yellow			4,700	151						
Pompano					4,000	280	7,620	843	3,025	151
Sea bass									600	18
Shad	111,900	3,886	333,526	8,840	129,500	4,796	14,400	371	3,700,429	92,408
Sheepshead							850	79		
Spanish mackerel					1,700	85	95,125	9,613	8,576	322
Spots	3,752	188			248,500	7,330	68,300	930	5,150	159
Squeteague	209,050	2,297			179,000	2,790	931,583	10,146	28,150	703
Striped bass	3,150	252	6,000	420	18,000	540	3,600	348	65,917	5,779
Sturgeon	1,000	20	20,000	400	2,400	120	2,880	89	117,273	3,172
Oysters	2,970,030	68,073			5,033,246	186,882	1,415,666	83,984	2,046,206	112,691
Clams					8,000	300	84,960	8,790		
Crabs, soft							4,833	390	56,400	1,970
Crabs, hard	8,000	200			400,000	2,500	1,750,000	8,100	132,000	990
Turtles			510	10					13,875	189
Frogs			435	35					300	50
Caviar			3,750	1,125	200	50			7,000	2,000
Total	4,017,232	79,752	539,066	12,733	6,422,506	210,726	20,938,162	171,463	80,976,485	335,218

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Table showing the products of the fisheries of Virginia in 1897—Continued.

Species.	Hanover.		Henrico.		Isle of Wight.		James City.		King and Queen.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	10,900	\$216	282,200	\$1,720			42,000	\$309		
Cat-fish			24,000	1,047	8,000	\$400	1,500	45		
Croakers					30,500	420				
Eels			22,500	625	6,000	180				
Hickory shad			15,000	150	6,000	180				
Perch, white			17,500	1,040	17,800	697	11,200	436		
Perch, yellow			500	25						
Shad	20,387	466	152,875	4,625	241,025	9,070	82,742	2,364	88,133	\$686
Squeteague					75,000	1,340				
Striped bass			7,000	490	27,500	1,865	9,100	637		
Sturgeon			5,000	100	23,100	462	29,725	577		
Suckers			36,000	1,440	1,000	20				
Oysters					1,094,800	23,775	219,100	5,275	12,250	275
Caviar			1,040	312	3,640	1,092	5,600	1,600		
Total	31,287	682	513,615	11,569	1,534,366	39,501	400,967	11,243	50,383	961

Species.	Surry.		Warwick.		Westmoreland.		York.	
	Lbs.	Val.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh					1,282,000	\$6,675	33,000	\$180
Alewives, salted					22,000	215		
Blue-fish					3,455	130	12,100	363
Butter-fish					200	4		
Carp					800	16		
Cat-fish	1,500	\$45			39,850	762		
Croakers	5,000	150	19,500	160	2,330	69	403,700	3,089
Eels	4,000	120			175	3		
Flounders			4,500	100	2,820	78	27,000	1,080
Menhaden							10,000	25
Perch, white	5,100	123			16,028	638	200	8
Perch, yellow					2,250	68		
Pike					200	6		
Shad	114,480	4,243	17,500	700	190,608	3,902	81,150	2,655
Spanish mackerel							400	32
Spots	300	9	11,000	315	425	11	19,100	654
Squeteague	6,000	180	21,000	220	8,552	334	227,500	3,942
Striped bass	7,642	351	1,000	50	56,118	2,405	2,500	175
Sturgeon	43,150	864					3,150	94
Suckers					200	6		
Sun-fish					200	6		
Oysters			1,087,100	17,615	990,500	56,900	3,962,350	114,376
Clams							128,992	11,547
Crabs, hard					48,533	306	898,500	4,860
Caviar	4,340	1,302					450	180
Total	191,512	7,387	1,163,600	19,200	2,666,744	71,584	5,810,092	143,110

The number and value of shad taken in the waters of Virginia in 1897 are exhibited by counties in the following table:

Counties.	No.	Value.	Counties.	No.	Value.
Accomac	75,957	\$6,935	Mathews	370,571	\$32,425
Alexandria	111,343	7,794	Middlesex	6,200	620
Caroline	21,964	1,780	Nansemond	31,972	3,886
Charles City	114,500	11,550	New Kent	95,293	8,840
Chesterfield	7,233	723	Norfolk	87,000	4,796
Dinwiddie	5,600	560	Northampton	4,114	371
Elizabeth City	97,376	10,227	Northumberland	1,057,265	92,408
Essex	47,236	4,462	Princess Anne	26,553	3,717
Fairfax	100,229	6,877	Prince George	85,160	9,014
Gloucester	157,143	16,500	Prince William	59,570	3,927
Hanover	5,825	466	Richmond	91,479	8,940
Henrico	48,679	4,625	Stafford	20,764	1,423
Isle of Wight	68,865	9,070	Surry	82,709	4,243
James City	23,641	2,364	Warwick	5,000	700
King and Queen	10,895	686	Westmoreland	54,469	3,902
King George	114,676	8,551	York	23,185	2,655
King William	41,488	2,879			
Lancaster	245,174	26,532	Total	13,294,118	304,448

11,529,474 pounds.

NOTES ON THE PRINCIPAL FISHERIES.

The principal fisheries are the oyster, the pound-net, the menhaden purse-seine, and the shad gill-net fisheries. The oyster yield in 1897 was valued at \$2,041,683; the product of the pound nets, \$513,589; the menhaden purse-seine fishery, \$242,300, and the shad gill-net fisheries in the rivers, \$81,171. Of minor consequence was the haul seine fishery, with a value of \$68,260, the crab fisheries, yielding products to the value of \$68,245, and the clam fisheries, with products worth \$66,097. The value of the yield of the minor fisheries in the same year was \$98,153, making the total yield of the fishery products in Virginia during 1897 worth \$3,179,498.

The oyster industry is the principal fishery in Virginia and shows a gratifying increase so far as concerns the quantity over any previous year for which records are available. In 1880 the product was 6,837,240 bushels, for which the fishermen received \$2,218,376; in 1888 it was 3,664,433 bushels, worth \$1,336,012; in 1891, 6,074,025 bushels, worth \$2,524,348, and in 1897 7,023,848 bushels, valued at \$2,041,683. During the last year this industry gave employment to 18,189 fishermen, or 75 per cent of the total number in the State, using 1,022 vessels, valued, with their outfits, at \$662,242; 7,682 boats, worth \$416,018, and dredges, tongs, etc., worth \$73,755. This shows some increase over 1891, when the fishermen and transporters numbered 16,343; 919 vessels, worth \$786,626; 6,974 boats, worth \$412,030, and dredges, tongs, etc., worth \$57,872.

The general condition of the oyster industry of Virginia has changed considerably during the past ten years. The public reefs are growing less productive year after year and the extent of the planting business is constantly increasing. The State laws afford fairly good protection to private oyster-culture, and the prospects are exceedingly favorable for a large development in that line in the near future.

The pound-net fishery of Virginia is the most extensive and concentrated in America. The increase in this fishery during the past twenty years has been phenomenal. Within an area 70 miles long and 10 miles wide, covering the western side of Chesapeake Bay and the mouths of the tributaries thereof, there are set each spring over 850 pound nets, worth about \$200,000. In addition, there are about 100 on the eastern shore of Virginia and about 300 in the various rivers at a greater distance than 10 miles from the Chesapeake. In 1897 the number of pound nets in the State aggregated 1,250, worth \$264,600, against 891 in 1891, valued at \$165,990. In 1880 the number of pound nets was but 152, worth \$89,240, and in 1887 it was reported at 608, worth \$164,355. The catch by the pound nets in 1891 amounted to 23,796,835 pounds, which sold for \$471,560, whereas in 1897 it was 37,467,620 pounds, worth \$513,589. The principal increase occurred in the yield of shad, from 3,645,467 pounds in 1891 to 8,035,114 pounds

in 1897; squeteague, from 1,759,464 to 5,184,428 pounds; croakers, from 247,980 pounds in 1891 to 2,742,049 pounds in 1897. Blue-fish fell off from 1,292,398 pounds to 662,993 pounds; Spanish mackerel, from 725,910 to 503,106 pounds, and sturgeon, from 575,320 to 335,590 pounds, including caviar. The value per pound of nearly all of these species shows a decrease from 1891 to 1897. Had the pound-net catch sold in the latter year for as much per pound as in the former the aggregate value would have been about \$738,098, instead of \$513,589.

The gill-net fisheries of Virginia are principally for the capture of shad, but many other species are also secured. There were 9,307 nets used in 1897, worth \$46,235, and the product amounted to 4,053,779 pounds, for which the fishermen received \$110,206. Of this product 2,972,548 pounds represented shad, the value being \$81,171. Ranking next in value were sturgeon, including caviar, with a yield of 356,829 pounds, worth \$19,269; alewives, or river herring, 575,800 pounds, worth \$3,542, and striped bass, 43,567 pounds, worth \$2,862. In 1891 the value of the gill nets was approximately the same, but the yield was somewhat greater, amounting to 4,857,214 pounds, worth \$124,617.

The haul-seine fishery of Virginia, which is quite different from the menhaden purse-seine fishery, is of little value compared with former times. In the early part of the present century this was practically the only form of apparatus used for taking fish. Forty years ago nearly every large plantation bordering the rivers had a seine shore, and some of them were quite valuable. But the greater cheapness and efficiency of gill nets, pound nets, etc., has resulted in a great decrease in the number of seines employed. In 1891 there were 178 haul seines used, worth \$32,470, and yielding 4,176,362 pounds of fish, valued at \$98,074. In 1897 the number of seines was 107, valued at \$28,462, and the catch of fish aggregated 5,282,251 pounds, worth \$68,260. Among the principal species were spots, 482,965 pounds, worth \$13,279; shad, 459,057 pounds, worth \$10,258; squeteague, 439,218 pounds, worth \$9,964; alewives, or river herring, 1,937,855 pounds, worth \$13,357, and striped bass, 136,087 pounds, worth \$7,483.

The crab fisheries yielded a product in 1897 valued at \$68,245, of which \$28,331 represented hard crabs and \$39,914 soft crabs, the total weight of the former being 5,331,398 pounds and of the latter 1,068,116 pounds. The soft-crab fishery is prosecuted in Accomac, Lancaster, Northumberland, and Northampton counties, but principally in the first-named. The hard crabs are obtained in the waters of a dozen or more counties, but principally in Northampton, York, and Princess Anne. The soft crabs are caught by scrapes and dip nets, while the hard crabs are obtained by means of lines almost exclusively.

The following series of tables show in detail the extent of the fisheries by each form of apparatus in 1897.

Table showing, by counties, the yield of the seine fisheries of Virginia in 1897.

Species.	Accomac.		Alexandria.		Caroline.		Charles City.		Chesterfield.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:										
Blue-fish	3,000	\$75								
Cat-fish			1,200	\$36						
Menhaden	19,081,000	24,612								
Perch, white			1,850	111						
Squeteague			650	26						
Striped bass			3,200	192						
Total	19,084,000	24,687	6,900	365						
Shore fisheries:										
Alewives, fresh					6,000	\$60			22,600	\$338
Black bass			200	10						
Blue-fish	325	10								
Carp			500	15						
Cat-fish			1,600	50	6,000	180				
Croakers	25,325	761					800	\$24		
Drum	440	11								
Flounders	10,175	143								
Hickory shad					18,000	90	18,750	375		
King-fish	715	26								
Menhaden	8,000	15								
Mullet	14,166	277								
Perch, white	460	11	1,083	65	2,500	75	500	15		
Perch, yellow			1,160	35						
Sea bass	500	12								
Shad					6,000	160			16,917	493
Spots	8,225	157								
Squeteague	214,855	5,763					700	21		
Striped bass					9,000	450	2,000	160		
Sturgeon			1,250	75						
Total	278,186	7,181	5,793	260	47,500	1,015	22,750	595	39,517	821
Grand total	19,362,186	31,868	12,693	615	47,500	1,015	22,750	695	39,517	821

Species.	New Kent.		Norfolk.		Northampton.		Northumberland.		Princess Anne.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Vessel fisheries:										
Blue-fish					15,750	\$450				
Croakers					5,000	125				
Menhaden					14,569,632	19,868	67,379,410	\$88,240		
Squeteague					1,000	25				
Crabs, hard					20,000	100				
Total					14,611,382	20,568	67,379,410	88,240		
Shore fisheries:										
Alewives, fresh	113,045	\$709							8,360	\$240
Blue-fish									5,000	250
Butter-fish										
Cat-fish	1,000	20								
Croakers			248,000	\$1,440					106,000	610
Drum									680	10
Flounders			1,000	10					1,000	16
Hickory shad	14,500	185								
Hog-fish			8,750	225					4,340	195
King-fish					500	50			1,700	68
Menhaden									100,000	100
Mullet			11,800	482					8,920	165
Perch, white			1,000	20					1,500	45
Perch, yellow	500	25								
Shad	49,000	1,400								
Spots			223,500	6,580	12,000	360			228,000	5,790
Squeteague			88,000	1,775	7,208	223			67,000	1,310
Total	178,045	2,429	577,050	10,532	19,708	633			532,500	8,739
Grand total	178,045	2,429	577,050	10,532	14,631,090	21,201	67,379,410	88,240	532,500	8,739

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Table showing the yield of the seine fisheries of Virginia in 1897—Continued.

Species.	Elizabeth City.		Essex.		Fairfax.		Henrico.		Isle of Wight.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:										
Menhaden	10,164,000	\$23,760								
Shore fisheries:										
Alewives, fresh			5,000	\$50	643,410	\$3,217				
Carp					482	10				
Cat-fish			17,600	525	2,885	87	1,500	\$30		
Croakers									500	\$10
Hickory shad							15,000	150	6,000	180
Perch, white			5,300	355	4,539	272	1,000	50	500	20
Perch, yellow					500	13	500	25		
Shad			45,000	1,350	175,686	3,543	6,300	180		
Striped bass			6,500	605	9,447	559	7,000	490	3,000	210
Sturgeon					100	4				
Suckers					1,500	45			1,000	20
Total			79,300	2,885	838,549	7,750	31,300	925	11,000	440
Grand total	10,164,000	23,760	79,300	2,885	838,549	7,750	31,300	925	11,000	440

Species.	James City.		King George.		King William.		Lancaster.		Nansemond.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:										
Menhaden							60,074,000	\$85,820		
Shore fisheries:										
Alewives, fresh	42,000	\$309	3,800	\$29	16,000	\$260				
Blue-fish									1,250	\$38
Butter-fish									16,250	325
Cat-fish	1,500	45	5,050	152	14,750	295				
Croakers			200	6					29,500	170
Eels			1,250	43						
Flounders										19
Menhaden							926,000	1,324	50,000	125
Perch, white	1,200	36	4,974	283	7,600	480			150	3
Perch, yellow			2,600	65	1,000	30				
Shad	1,400	40	849	18	1,800	38			4,000	125
Spots									2,815	141
Squeteague					300	6	5,000	150	50,756	510
Striped bass	3,000	210	10,360	621	2,700	270			650	52
Sturgeon	1,810	90								
Suckers					7,260	145				
Total	50,910	730	29,083	1,217	51,400	1,524	931,000	1,474	155,990	1,508
Grand total	50,910	730	29,083	1,217	51,400	1,524	61,005,000	87,294	155,990	1,508

Species.	Prince George.		Prince William.		Stafford.		Surry.		Warwick.		Westmoreland.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Shore fisheries:												
Alewives, fresh			232,000	\$1,290	450,000	\$3,025					24,000	\$180
Alewives, salted					380,000	3,800						
Black bass	3,000	\$60										
Blue-fish									2,000	\$40	2,550	96
Butter-fish											200	4
Cat-fish	5,000	100	5,100	161	3,650	112	1,500	\$45	7,000	35	6,500	158
Croakers											130	3
Eels											175	3
Flounders									2,000	40	350	9
Perch, white			7,450	447	8,350	386	3,000	60			5,000	169
Perch, yellow			2,950	74	300	8					1,500	45
Pike											200	6
Shad	210	6	90,270	1,700	61,625	1,215						
Spots									8,000	240	425	11
Squeteague											5,405	216
Striped bass			28,765	1,407	43,165	1,909	1,500	105			9,000	435
Suckers											200	6
Sun-fish											200	6
Total	8,210	166	366,535	5,079	947,090	10,455	6,000	210	19,000	365	55,835	1,347

Table showing the yield of the seine fisheries of Virginia in 1897—Continued.

SUMMARY.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Vessel fisheries:			Shore fisheries—Cont'd.		
Blue-fish	18,750	\$525	Flounders	15,150	\$242
Cat-fish	1,200	36	Hickory shad	72,250	980
Croakers	5,000	125	Hog-fish	8,090	420
Menhaden	171,208,042	242,300	King-fish	2,915	144
Perch, white	1,850	111	Menhaden	1,079,000	1,564
Squeteague	1,650	51	Mullet	84,888	864
Striped bass	3,200	192	Perch, white	56,106	2,792
Crabs, hard	20,000	100	Perch, yellow	11,010	326
			Pike	200	6
Total	171,319,692	243,440	Sea bass	500	12
			Shad	459,057	10,258
Shore fisheries:			Spots	482,965	13,279
Alewives fresh	1,557,855	9,557	Squeteague	439,218	9,964
Alewives, salted	380,000	3,800	Striped bass	136,087	7,483
Black bass	3,200	70	Sturgeon	3,160	169
Blue-fish	14,485	424	Suckers	9,950	216
Butter-fish	21,450	579	Sun-fish	200	6
Carp	982	25			
Cat-fish	78,535	1,960	Total	5,282,251	68,260
Croakers	417,455	3,059			
Drum	1,120	21	Grand total	176,601,943	311,700
Eels	1,425	46			

Table showing, by counties and species, the catch by gill nets used in the shore fisheries of Virginia in 1897.

Counties.	Alewives.		Black bass.		Blue-fish.		Cat-fish.		Croakers.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alexandria	70,000	\$350								
Charles City	22,400	168	3,400	\$144						
Essex	11,000	125								
Hanover	10,900	216								
Henrico	112,200	820								
King George	43,200	216								
King William	2,500	40					2,000	\$40		
Mathews					500	\$25				
New Kent	33,600	252	6,000	396						
Prince William	168,000	840								
Stafford	100,000	500								
Westmoreland	2,000	15								
York					9,600	288			500	\$10
Total	575,800	3,542	10,000	540	10,100	318	2,000	40	500	10

Counties.	Hickory shad.		King-fish.		Mullet.		Perch, white.		Perch, yellow.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Accomac										
Charles City			400	\$10	510	\$25	1,000	\$50	2,800	\$84
Isle of Wight							15,000	600		
James City							10,000	400		
King William							600	20	400	12
Mathews	400	\$8			4,000	80	400	20		
New Kent							2,000	100	4,200	126
Prince George							800	16	600	12
Surry							2,000	60		
York							200	8		
Total	400	8	400	10	4,510	105	31,900	1,274	8,000	234

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Table showing, by counties and species, the catch by gill nets used in the shore fisheries of Virginia in 1897—Continued.

Counties.	Spots.		Squeteague.		Striped bass.		Sturgeon.				
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Flesh.		Caviar.		
							Lbs.	Value.	Lbs.	Value.	
Accomac.....	100	\$6.	2,125	\$85							
Alexandria.....					500	\$30					
Charles City.....					4,000	280	63,625	\$1,188	5,320	\$1,586	
Essex.....							600	12	140	40	
Fairfax.....					375	23					
Henrico.....							5,000	100	1,040	312	
Isle of Wight.....			30,000	600	20,000	1,400	23,100	462	3,640	1,092	
James City.....					6,100	427	27,915	487	5,600	1,600	
King George.....					225	14	19,759	1,085	1,240	460	
King William.....					100	8	6,225	125	1,660	498	
Mathews.....	2,000	80	600	6							
New Kent.....					6,000	420	20,000	400	3,750	1,125	
Princess Anne.....							43,000	1,720	6,065	1,820	
Prince George.....							65,850	1,238	5,810	1,743	
Prince William.....					225	14					
Stafford.....					100	8					
Surry.....					5,942	238	43,150	864	4,340	1,302	
York.....	100	5	300	6							
Total.....	2,200	91	33,025	697	43,567	2,862	318,224	7,681	38,605	11,588	

Counties.	Shad.		Suckers.		Sun-fish.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Accomac.....								\$126
Alexandria.....	389,700	\$7,794					3,185	8,174
Caroline.....	13,125	300					18,125	300
Charles City.....	400,750	11,550					503,295	15,060
Chesterfield.....	8,400	240					8,400	240
Dinwiddie.....	19,600	560					19,600	560
Essex.....	62,548	1,609					74,288	1,786
Fairfax.....	117,318	2,246					117,698	2,269
Hanover.....	20,387	466					31,287	682
Henrico.....	124,700	3,820					242,940	5,052
Isle of Wight.....	241,026	9,070					332,766	13,224
James City.....	81,342	2,324					130,957	5,238
King George.....	168,630	3,590					233,054	5,365
King and Queen.....	38,133	686					38,133	686
King William.....	137,981	2,660	1,500	\$30			152,866	3,433
Mathews.....							7,900	219
Nansemond.....	53,500	1,948					53,500	1,948
New Kent.....	284,526	7,440					360,676	10,259
Norfolk.....	84,000	3,081					84,000	3,081
Princess Anne.....	52,500	2,100					101,565	5,640
Prince George.....	297,850	9,008			500	\$10	371,410	12,027
Prince William.....	89,716	1,689					257,941	2,543
Richmond.....	147,500	4,093					147,500	4,093
Stafford.....	8,712	164					108,812	672
Surry.....	114,480	4,243					169,912	6,707
Warwick.....	7,000	280					7,000	280
Westmoreland.....	9,124	210					11,124	225
York.....							10,700	317
Total.....	2,972,548	81,171	1,500	30	500	10	4,063,779	110,206

Table showing by counties the catch by pound nets in the shore fisheries of Virginia in 1897.

Species.	Accomac.		Caroline.		Elizabeth City.		Essex.		Fairfax.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	178,450	\$625	165,000	\$1,980	264,482	\$2,857	123,322	\$1,348	297,832	\$1,736
Black bass									400	20
Blue-fish	120,089	3,696			180,115	5,403				
Bonito	6,150	184								
Butter-fish	9,000	220			52,628	1,576				
Carp									600	18
Cat-fish	3,830	216					23,600	708	31,600	948
Cero	1,100	70								
Croakers	155,950	1,547			899,164	4,496				
Drum	21,250	166			2,400	24				
Eels							4,000	160		
Flounders	8,550	161			51,485	1,554				
Hickory shad					2,740	55				
King-fish	800	30			1,600	64				
Mackerel	100	12								
Menhaden	294,100	325			1,841,500	4,609	52,000	35		
Mullet	200	2								
Perch, white	9,600	384			3,400	170	2,050	103	25,025	1,502
Perch, yellow							200	6	11,660	291
Pike								6	450	36
Pompano	11,835	858			12,055	951				
Shad	265,550	6,923	57,750	1,320	840,816	10,227	55,080	1,418	57,799	1,088
Sheephead	1,135	91								
Spanish mackerel	102,080	7,021			39,525	2,193				
Spots	26,091	173			29,149	583				
Squeteague	118,765	1,895			1,090,874	16,363				
Striped bass	5,200	416					5,200	499	25,175	1,511
Sturgeon	22,028	1,311			24,757	496				
Suckers							300	6	3,500	70
Whiting					5,000	100				
Turtles					5,750	115				
Caviar	100	40			3,570	1,071				
Total	1,366,460	26,366	222,750	3,800	4,851,010	52,907	265,752	4,278	463,531	7,220

Species.	Nansemond.		Northampton.		Northumberland.		Norfolk.		Princess Anne.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	800	\$8	778,250	\$1,581	5,128,914	\$17,774	45,000	\$475	16,000	\$160
Alewives, salted					38,000	332				
Blue-fish	3,750	118	71,740	2,025	4,885	147	1,300	65	225,409	3,431
Bonito			6,700	179					6,500	195
Butter-fish	48,750	975	12,100	268	2,750	83	24,000	960	235,150	5,063
Cat-fish	100	3			875	27				
Cero			100	3						
Crevalle			6,300	153					117,000	2,370
Croakers	93,000	530	78,200	802	7,400	148	35,000	350	888,935	4,499
Drum			31,500	161			1,000	10	14,000	140
Eels					100	3				
Flounders	1,875	56	3,900	132	72,310	3,196	1,000	10		
Hickory shad					83,746	1,611				
Hog-fish			200	10					6,000	480
King-fish			3,550	858			25,000	1,000	75,800	3,032
Mackerel			200	6						
Menhaden	450,000	1,125	154,600	281	2,064,920	2,640				
Moon-fish			16,848	408					11,646	819
Mullet									14,325	213
Perch, white	1,300	50			1,225	38	200	6	500	15
Pompano			7,620	843	3,025	151	4,000	280	27,000	2,160
Scup									4,000	120
Shad	23,800	823	14,200	361	3,700,429	92,408	45,500	1,715	40,437	1,617
Sheephead			700	68					21,500	1,290
Spanish mackerel			95,125	9,518	8,576	322	1,700	85	239,300	19,054
Spots	937	47	51,300	570	1,950	79	25,000	750	301,600	7,148
Squeteague	151,600	1,515	919,000	9,750	20,850	491	91,000	1,015	2,325,487	22,684
Striped bass	2,500	200	3,300	330	65,917	5,779	18,000	540	37,950	1,227
Sturgeon	1,000	20	2,880	89	117,273	3,172	2,400	120	25,400	1,056
Whiting									7,600	140
Turtles					18,875	199				
Caviar					7,000	2,000	200	50	2,555	752
Total	779,312	5,465	2,253,313	27,891	11,339,020	130,600	\$20,300	7,431	4,643,994	77,165

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Table showing the catch by pound nets in the shore fisheries of Virginia in 1897—Continued.

Species.	Gloucester.		King George.		Lancaster.		Mathews.		Middlesex.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Alewives, fresh	119,000	\$1,190	1,275,400	\$7,943	225,500	\$1,390	413,400	\$2,067	32,000	\$320
Alewives, salted			6,000	60						
Blue-fish	25,200	756			14,100	582	13,000	650		
Butter-fish					60,000	900				
Cat-fish			91,215	2,314						
Croakers	330,000	1,650	6,200	196	60,000	300	20,000	200		
Drum	27,500	275								
Flounders			650	20	50,000	500	13,000	260		
Hickory shad							37,780	755		
Menhaden	220,000	550			581,200	965	390,000	585	16,000	40
Perch, white			47,060	2,361						
Perch, yellow			500	13						
Pike			100	8						
Pompano					600	72				
Shad	550,000	16,500	231,887	4,943	858,110	26,532	1,297,000	32,425	21,700	620
Spanish mackerel	11,000	660			10,400	1,031				
Spots					2,000	60				
Squeteague	165,000	2,475	825	33	125,200	3,006	69,780	698		
Striped bass			95,794	5,174	3,000	180				
Sturgeon	24,750	495			31,000	620	55,600	1,240		
Turtles	9,000	180					25,000	500		
Caviar	3,500	1,050			4,340	1,302	3,640	1,040		
Total	1,484,950	25,781	1,755,631	23,065	2,025,450	37,445	2,338,200	40,420	69,700	980

Species.	Prince William.		Richmond.		Stafford.		Warwick.		Westmoreland.		York.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Alewives, fresh	168,000	\$840	257,500	\$3,050	178,280	\$940			1,256,000	\$5,480	33,000	\$180
Alewives, salted					20,000	260			22,000	215		
Blue-fish									905	34	2,500	75
Carp					812	49			800	16		
Cat-fish	850	26	49,000	1,290	16,137	489			32,850	604		
Croakers									2,200	66	166,000	1,615
Eels			15,000	600	2,175	93						
Flounders							500	\$10				
Menhaden			235,000	193					2,470	69	6,000	240
Mullet			600	12							10,000	25
Perch, white	8,550	438	12,000	600	11,500	798			11,028	469		
Perch, yellow	3,000	90	2,000	60	60,025	1,601			750	23		
Pike					28,875	2,310						
Shad	28,560	538	172,675	4,847	2,337	44	10,500	420	181,484	3,692	79,500	2,600
Spanish mackerel											400	32
Spots											6,600	252
Squeteague			7,000	210			1,000	20	3,147	118	95,000	1,760
Striped bass	6,275	327	39,000	3,355	1,764	106			47,118	1,970		
Sturgeon											3,150	94
Caviar											450	130
Total	216,235	2,259	789,775	14,217	327,895	6,590	12,000	450	1,560,752	12,766	402,600	7,003

SUMMARY.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Alewives, fresh	10,945,630	\$51,944	Mullet	15,125	\$227
Alewives, salted	92,000	867	Perch, white	133,438	6,934
Black bass	400	20	Perch, yellow	78,125	1,984
Blue-fish	662,993	16,978	Pike	29,425	2,354
Bonito	19,350	558	Pompano	66,135	5,315
Butter-fish	444,378	10,445	Scup	4,000	120
Carp	2,212	83	Shad	8,036,114	211,056
Cat-fish	250,057	6,625	Sheepshead	23,335	1,449
Cero	1,200	73	Spanish mackerel	503,106	39,911
Crevalle	123,300	2,523	Spots	444,527	9,662
Croakers	2,742,049	16,399	Squeteague	5,184,428	62,033
Drum	97,650	776	Striped bass	356,183	21,614
Eels	21,275	856	Sturgeon	310,235	8,713
Flounders	211,740	6,208	Suckers	3,800	76
Hickory shad	124,268	2,421	Whiting	12,600	240
Hog-fish	6,200	490	Turtles	53,625	994
King-fish	106,250	4,484	Caviar	25,355	7,485
Mackerel	300	18			
Menhaden	6,309,320	11,377	Total	37,467,620	518,589
Moon-fish	28,494	727			

Table showing, by counties, the yield of the fyke-net fisheries of Virginia in 1897.

Species.	Accomac.		Essex.		Fairfax.		Isle of Wight.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....			3,600	\$36				
Black bass.....					475	\$24		
Carp.....					1,200	87		
Cat-fish.....			2,700	81	7,325	220	1,000	\$50
Croakers.....	9,000	\$180					6,000	90
Drum.....	200	2						
Eels.....	600	39			8,385	102		
Flounders.....	4,100	59	540	22				
Perch, white.....	5,700	157	450	22	7,750	388	2,300	77
Perch, yellow.....			900	27	9,650	241		
Pike.....					2,938	178		
Shad.....	800	12	2,700	90				
Squeteague.....	1,200	27					3,000	50
Striped bass.....	1,600	98	1,800	126	1,500	75	4,500	255
Suckers.....			475	10	8,350	167		
Sun-fish.....					1,050	32		
Total.....	22,700	524	13,165	414	43,623	1,464	16,800	522

Species.	King George.		King William.		Nansemond.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....					10,125	\$150
Cat-fish.....	1,450	\$51			54,300	1,086
Croakers.....						8,000
Eels.....					1,810	54
Flounders.....					9,050	452
Perch, white.....			875	53	9,050	362
Perch, yellow.....	1,250	68				
Pike.....	200	10				
Shad.....					5,430	181
Squeteague.....					10,860	217
Striped bass.....			725	48	18,100	1,810
Suckers.....					9,131	183
Total.....	4,500	220	127,856	4,495	16,000	582

Species.	Northampton.		Prince William.		York.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives.....	200	\$2					13,925	\$188
Black bass.....							475	24
Blue-fish.....	100	3					100	8
Carp.....			725	\$22			1,925	59
Cat-fish.....			9,250	278			76,025	1,766
Croakers.....	600	6			26,000	\$390	49,600	936
Drum.....	200	5					400	7
Eels.....			2,200	66			7,995	261
Flounders.....	150	5			21,000	840	34,840	1,878
Hog-fish.....	100	10					100	10
Perch, white.....			6,675	334			32,800	1,898
Perch, yellow.....			4,950	124			16,750	455
Pike.....			2,200	132			5,338	820
Shad.....	200	10			1,650	55	15,480	498
Sheepshead.....	150	11					150	11
Spots.....					1,800	72	1,800	72
Squeteague.....	4,000	80			29,000	580	50,860	1,066
Striped bass.....	300	18	1,000	50	2,500	175	32,025	2,650
Suckers.....			6,400	128			24,356	488
Sun-fish.....			600	18			1,650	50
Total.....	6,000	150	84,000	1,152	81,950	2,112	366,594	11,635

Table showing, by counties, the catch by lines in the shore fisheries of Virginia in 1897.

Species.	Accomac.		Elizabeth City.		Gloucester.		Isle of Wight.		King George.		King William.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Blue-fish	200	\$10	54,000	\$1,020								
Bonito			6,000	240								
Cat-fish							7,000	\$350			25,000	\$500
Cod	800	40										
Croakers	131,500	2,175	485,000	2,425			24,000	320				
Drum	13,250	270	2,000	20								
Flounders	250	10										
King-fish	10,510	332										
Pompano			4,000	200								
Sea bass	665	10										
Sheepshead	3,483	285	2,000	160								
Spots	700	46	120,000	2,400								
Squeteague	266,750	7,610	356,000	5,340			42,000	690				
Striped bass			8,000	120							1,000	100
Whiting	1,500	45										
Crabs, hard	25,000	125	727,032	2,423	88,000	\$660			23,833	\$286	78,500	893
Total	454,608	10,958	1,759,032	14,948	88,000	660	73,000	1,360	23,833	286	104,500	993

Species.	Lancaster.		Mathews.		Nansemond.		Norfolk.		Northampton.		Northumberland.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Blue-fish									742,500	\$14,850	1,600	\$64
Croakers									56,925	1,139	3,300	32
Flounders											1,300	42
Hog-fish											1,000	20
Sea bass											600	18
Spots											8,200	80
Squeteague					4,000	\$160			3,375	68	5,300	212
Crabs, hard	12,000	\$88	435,000	\$2,900	8,000	200	400,000	\$2,500	1,730,000	8,000	132,000	990
Total	12,000	88	435,000	2,900	12,000	360	400,000	2,500	2,532,800	24,057	148,300	1,458

Species.	Princess Anne.		Surry.		Warwick.		Westmoreland.		York.		Total.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Blue-fish	500	\$15									798,800	\$16,559
Bonito											6,000	240
Cat-fish											32,000	850
Cod											800	40
Croakers	17,500	175	5,000	\$150	12,500	\$125			211,200	\$1,074	946,925	7,615
Drum											15,250	290
Flounders					2,000	50					3,550	102
Hog-fish											1,000	20
King-fish											10,510	332
Perch, white			100	3							100	3
Pompano											4,000	200
Sea bass											1,265	28
Sheepshead											5,483	445
Spots	12,000	600	300	9	8,000	75			10,600	225	149,800	3,435
Squeteague	10,000	100	6,000	180	20,000	200			103,200	1,596	816,625	16,156
Striped bass			200	8	1,000	50					5,200	278
Whiting											1,500	45
Crabs, hard	705,000	4,500					48,533	\$306	898,500	4,860	5,311,398	28,281
Total	745,000	5,390	11,600	850	38,500	500	48,533	306	1,223,500	7,755	8,110,206	74,869

Table showing, by counties, the catch by dredges, toongs, and scrapes in Virginia for 1897.

Counties.	Oyster dredges.				Oyster toongs.				Total.	
	Oysters, market.		Oysters, seed.		Oysters, market.		Oysters, seed.		Lbs.	Val.
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.		
Vessel fisheries:										
Accomac.....	1,368,437	\$75,386			764,610	\$13,163			2,133,047	\$88,640
Elizabeth City.....	588,000	30,240	315,000	\$4,500	22,400	27,770	110,600	\$1,814	1,036,000	37,324
Gloucester.....					662,900	27,990	1,236,550	18,015	1,899,450	46,005
Isle of Wight.....					280,700	9,530	343,000	4,900	623,700	14,430
James City.....							70,000	1,000	70,000	1,000
King George.....					27,650	1,383			27,650	1,383
King William.....					82,250	4,400	381,500	5,450	468,750	9,850
King and Queen.....					3,500	150	8,750	125	12,250	275
Lancaster.....	40,600	1,990			55,300	2,690			95,900	4,680
Mathews.....					77,000	2,750	35,000	500	112,000	3,250
Middlesex.....					11,840	648			11,340	648
Nansemond.....					1,047,830	29,963	1,131,200	16,160	2,179,030	46,123
Norfolk.....	84,000	3,600			2,769,445	109,662	135,800	2,380	2,989,245	115,642
Northampton.....	32,200	1,690			277,200	9,816			309,400	11,006
Northumberland.....	623,455	36,743							623,455	36,743
Warwick.....					422,100	12,065	35,000	500	467,100	12,565
Westmoreland.....	221,550	12,980							221,550	12,980
Richmond.....	11,900	680			12,600	825	66,500	950	91,000	2,455
York.....					507,850	18,138	353,500	5,163	861,350	23,301
Total.....	2,970,142	163,309	315,000	4,500	7,024,675	243,443	3,907,400	66,957	14,217,217	468,209
Shore fisheries:										
Accomac.....	550,900	25,765			4,203,528	261,209	189,700	7,960	4,944,128	294,934
Elizabeth City.....					1,382,500	68,670	875,000	12,500	2,267,500	81,170
Essex.....					580,650	40,775			580,650	40,775
Gloucester.....					763,175	38,621	672,250	8,175	1,335,425	46,796
Isle of Wight.....					471,100	9,345			471,100	9,345
James City.....					65,100	3,075	84,000	1,200	149,100	4,275
King George.....	42,000	2,100			98,000	4,900			140,000	7,000
King William.....					14,000	1,300			14,000	1,800
Lancaster.....					4,323,900	204,730			4,323,900	204,730
Mathews.....					8,762,000	134,000			3,762,000	134,000
Middlesex.....					6,146,000	296,550			6,146,000	296,550
Nansemond.....					791,000	22,850			791,000	22,850
Norfolk.....					2,044,000	71,240			2,044,000	71,240
Northampton.....					1,106,266	77,978			1,106,266	77,978
Northumberland.....	556,850	29,723			865,900	46,225			1,422,750	76,948
Princess Anne.....					8,760	938			8,760	938
Richmond.....					963,200	63,600			963,200	63,600
Warwick.....					630,000	5,050			630,000	5,050
Westmoreland.....	295,750	16,900			473,200	27,020			768,950	43,920
York.....					1,911,000	74,075	1,190,000	17,000	3,101,000	91,075
Total.....	1,445,500	74,488			30,593,263	1,452,151	2,910,950	46,835	34,949,719	1,578,474
Grand total.....	4,415,642	237,797	315,000	4,500	37,617,944	1,695,594	6,818,350	103,792	49,166,936	2,041,683

Counties.	Clam toongs and hoes.		Crab scrapes.	
	Clams.		Crabs, soft.	
	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:				
Accomac.....	112,048	\$7,758		
Elizabeth City.....	400	50		
Norfolk.....	8,000	300		
Northampton.....	18,560	1,440		
Total.....	139,008	9,548		
Shore fisheries:				
Accomac.....	360,528	27,438	798,021	\$28,646
Elizabeth City.....	32,000	2,400		
Gloucester.....	57,040	4,414		
Mathews.....	47,600	3,400		
Northampton.....	76,400	7,350		
York.....	128,992	11,547		
Total.....	702,560	58,549	798,021	28,646
Grand total.....	841,568	66,097	798,021	28,646

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Table showing, by counties and species, the yield by slat traps, pots, and spears, and other minor apparatus in the shore fisheries of Virginia in 1897.

Apparatus and counties.	Alewives.		Cat-fish.		Eels.		Perch, white.		Shad.		Suckers.	
	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.	Lbs.	Val.
Slat traps:												
Henrico.....	120,000	\$900	22,500	\$1,012	22,500	\$625	16,500	\$990	21,875	\$625	36,000	\$1,440
Nansemond....	300	3	100	3	.....	.....	600	30	1,400	40	.....	.....
Total.....	120,300	903	22,600	1,015	22,500	625	17,100	1,020	23,275	665	36,000	1,440
Pots and spears:												
Accomac.....					6,565	178						
Essex.....					3,000	120						
Isle of Wight..					6,000	180						
Northumberland					6,800	204						
Richmond.....					5,000	200						
Surry.....					4,000	120						
Total.....					31,365	1,002						
Other minor apparatus:												
Nansemond....	4,000	40							24,000	800		
Grandtotal.	124,300	943	22,600	1,015	53,865	1,627	17,100	1,020	47,275	1,465	36,000	1,440

Apparatus and counties.	Crabs, soft.		Terrapins.		Turtles.		Frogs.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Other minor apparatus:								
Accomac.....	90,562	\$2,716	2,572	\$1,424	700	\$33		
Charles City.....			150	30	790	16	290	\$23
Chesterfield.....			1,500	90				
Dinwiddie.....			500	30				
Gloucester.....			1,100	400				
Lancaster.....	118,800	6,192						
New Kent.....					510	10	435	35
Northampton.....	4,333	390						
Northumberland	56,400	1,970					300	50
Prince George.....			6,000	120	1,200	24		
Total.....	270,065	11,268	11,822	2,104	3,200	83	1,025	108

SUMMARY.

Apparatus and counties.	Lbs.	Value.	Apparatus and counties.	Lbs.	Value.
Slat traps:			Other minor apparatus:		
Henrico.....	239,375	\$5,592	Accomac.....	93,834	\$4,183
Nansemond.....	2,400	76	Charles City.....	1,230	69
Total.....	241,775	5,668	Chesterfield.....	1,500	90
Pots and spears:			Dinwiddie.....	500	30
Accomac.....	6,565	178	Gloucester.....	1,100	400
Essex.....	3,000	120	Lancaster.....	118,800	6,192
Isle of Wight..	6,000	180	Nansemond.....	28,000	840
Northumberland	6,800	204	New Kent.....	945	45
Richmond.....	5,000	200	Northampton.....	4,333	390
Surry.....	4,000	120	Northumberland	56,700	2,020
Total.....	81,365	1,002	Prince George.....	7,200	144
			Total.....	314,142	14,403
			Grand total.....	587,282	21,078

THE MENHADEN INDUSTRY.

The menhaden industry of Virginia is in a prosperous condition, although there are not so many factories in operation now as formerly, there being 21 running in 1891, whereas in 1897 there were but 16. The value of the investment in the former year was \$665,790, against \$548,400 in the latter, while the number of men employed decreased from 1,229 to 1,170. The greatest decrease was in the number of seines

used, there being 60 in 1891 and only 37 in 1897. This is due principally to the gradual substitution of steamers for sail vessels, there being 63 sail vessels fishing and transporting in 1891 against 28 in 1897. Menhaden were fairly abundant, the catch numbering 263,203,000, but the fish were exceedingly dry, yielding only 177,043 gallons of oil; whereas the 191,365,500 fish caught in 1891 yielded 396,575 gallons. The quantity of scrap produced was 21,434 tons, worth \$331,227, in 1897, against 17,054 tons, worth \$230,647, in 1891. The following table shows in detail the extent of this industry in 1897:

Table showing the extent of the menhaden industry of Virginia in 1897.

Items.	No.	Value.	Items.	No.	Value.
Factories	16	\$181,700	Steam vessels fishing ...	14	\$148,000
Cash capital		115,500	Tonnage	1,061	34,227
Wages paid factory employees		52,594	Outfit		17,200
Persons in factories	562		Sail vessels fishing	16	17,200
Persons on vessels	618		Tonnage	429	10,322
Menhaden utilized	263,203,000	243,497	Outfit		13,400
Tons of dry scrap	13,488	255,543	Sail vessels transporting	18	13,400
Tons of crude and acidulated scrap	7,946	75,684	Tonnage	372	2,651
Gallons of oil made	177,043	30,805	Outfit		2,651
			Seines (total length, 30,622 feet)	37	25,400

THE WHOLESALE FISHERY TRADE.

In connection with the fisheries of Virginia there is a considerable wholesale trade in fishery products. In 1897 there were 56 establishments or firms in 21 different localities of the State in this branch of industry. The investment in shore property and cash capital utilized in the business was \$640,560, and the number of persons engaged was 3,079. The total value of the products handled was \$1,663,956.

Table showing, by localities, the extent of the wholesale trade in fishery products of Virginia in 1897.

Items.	Lewisetta, Whealton, Sandy Bottom, and Earnest.		West Point.		Hampton.		Suffolk.		Portsmouth.	
	No.	Val.	No.	Val.	No.	Val.	No.	Val.	No.	Val.
Establishments	4	\$25,950	4	\$16,000	5	\$85,460	2	\$5,000	2	\$28,000
Cash capital		21,500		29,000		37,000		4,000		12,000
Persons engaged	300		197		416		79		234	
<i>Products handled.</i>										
Oysters:										
Opened	56,000	47,600	170,500	161,725	96,635	82,139	31,000	34,800	126,550	101,240
In shell			400	200	17,000	8,100	425	215		
Canned, 1-lb. cans	480,000	30,000								
Canned, 2-lb. cans	60,000	6,500								
Oyster shells			2,000	25			44,000	1,100	190,000	3,800
Clams					3,975	3,506				
Crabs:										
Canned, 1-lb. cans					94,512	14,177				
Canned, 2-lb. cans					94,560	22,064				
Crab meat	1,280	896							10,000	7,200
Crab refuse	11	121			105	1,155				
Fish, fresh					66,000	1,970				
Value of products		85,117		161,950		188,111		36,115		112,240

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Table showing, by localities, the extent of the wholesale trade in fishery products of Virginia in 1897—Continued.

Items.	Norfolk.		Cape Charles and Brighton.		Willis Wharf.		Chesconessex, Leemont, Hopkins, Mapps-ville, and Dreka.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Establishments	16	\$195,000	3	\$8,000	2	\$3,000	5	\$5,500
Cash capital		147,000		12,000		3,000		18,700
Persons engaged	1,552		50		52		55	
<i>Products handled.</i>								
Oysters:								
Opened.....gallons..	961,000	768,800			20,000	12,995	15,475	11,666
In shell.....bushels..	51,600	20,640	2,500	2,625			15,000	12,600
Canned, 1-lb. cans. number.....	115,200	6,720						
Canned, 2-lb. cans. do.....	21,600	2,304						
Oyster shells.....bushels..	1,017,000	13,720						
Clams.....do.....	5,700	2,850	5,000	6,275	2,000	1,600	3,500	3,250
Clams:								
Canned, 1-lb. cans. number.....			72,000	6,000				
Canned, 2-lb. cans. do.....			6,000	900				
Clam juice, 2-lb. cans. do.....			4,800	300				
Crabs:								
Hard.....do.....	225,000	900	2,952,000	7,995			33,200	249
Soft.....do.....			13,000	390			932,510	27,198
Crab meat.....gallons..	36,500	26,550	5,400	3,200				
Terrapin.....pounds..	3,000	60			525	250	1,260	1,040
Turtles.....do.....	5,000	500						
Fish, fresh.....do.....	2,720,700	96,765	735,170	7,528			66,000	2,380
Caviar.....do.....	8,400	2,400					300	120
Value of products.....		942,209		35,213		14,845		68,503

Items.	Watchapreague and Wisharts Point.		Franklin City.		Chincoteague.		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Establishments	2	\$1,050	5	\$2,700	6	\$5,900	56	\$331,560
Cash capital		4,500		10,500		9,800		309,000
Persons engaged	40		41		63		3,079	
<i>Products handled.</i>								
Oysters:								
Opened.....gallons..	16,500	11,200	13,575	9,355	6,700	4,566	1,513,935	1,246,086
In shell.....bushels..	625	550	20,210	16,918	19,825	16,652	127,585	78,500
Canned, 1-lb. cans. number.....							595,200	36,720
Canned, 2-lb. cans. do.....							81,600	8,804
Oyster shells.....bushels..							1,253,000	18,045
Clams.....do.....	750	750	13,925	11,790	15,211	12,372	50,061	42,393
Clams:								
Canned, 1-lb. cans. number.....							72,000	6,000
Canned, 2-lb. cans. do.....							6,000	900
Clam juice, 2-lb. cans. do.....							4,800	300
Crabs:								
Hard.....do.....							3,210,200	9,144
Soft.....do.....							945,510	27,588
Canned, 1-lb. cans. do.....							94,512	14,177
Canned, 2-lb. cans. do.....							94,560	22,064
Crab meat.....gallons..							58,180	37,846
Crab refuse.....tons..							116	1,276
Terrapin.....pounds..							4,785	1,350
Turtles.....do.....							5,000	500
Fish, fresh.....do.....					25,000	500	3,612,870	109,143
Caviar.....do.....							8,700	2,520
Value of products.....		12,500		38,063		34,090		1,663,956