
STATISTICS
OF THE
FISHERIES OF THE SOUTH ATLANTIC STATES.

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

C. H. TOWNSEND, ASSISTANT IN CHARGE.

INTRODUCTORY NOTE.

The accompanying statistical report on the fisheries of the South Atlantic States is based on investigations made by agents of the United States Fish Commission in 1898, the information relating to the year 1897. The general results of this work were made public in the report of the Division of Fisheries for 1898, and were also presented earlier and in more condensed form in Statistical Bulletin No. 9. Single sheet statistical bulletins are usually issued upon the completion of field work, and distributed in the fishery region to which they refer, in advance of the regular reports of the Commission. The information collected during this canvass is here presented in full, the results having been tabulated and the various features of the fisheries shown in detail.

The report has been prepared under the direction of Mr. C. H. Townsend, assistant in charge of the Division of Fisheries. The field inquiries were conducted by Messrs. W. A. Wilcox, T. M. Cogswell, and John N. Cobb, agents of the division, to whom should be credited the explanatory notes relating to the States in which they worked. The fisheries of North Carolina were canvassed by Messrs. Cogswell and Cobb; those of South Carolina and Georgia by Mr. Wilcox, and of eastern Florida by Mr. Cobb.

The assistant in charge has had the constant aid of Mr. S. Le R. Pritchard and other members of the office force of the division in the preparation of the tables.

GEO. M. BOWERS,
Commissioner.

STATISTICS OF THE FISHERIES OF THE SOUTH ATLANTIC STATES.

GENERAL NOTES AND STATISTICS.

The condition of the commercial fisheries of this region, as shown in the following report, has not changed to any marked degree since they were canvassed in 1890. Although there has been a general increase in respect to persons employed, capital invested, and value of products, the development of the fisheries is not yet proportionate to the important fishery resources of the States considered. The region, as a whole, with its numerous rivers and extensive sounds, is destined to maintain greater fishery industries.

The investigations were confined to the coastal waters and to the lower courses of the rivers as far inland as commercial fisheries are maintained.

The table on pp. 176-177 gives general comparisons with former canvasses made in 1880 and 1890. Comparisons in detail may be made by consulting previous statistical publications* of the United States Fish Commission on this subject.

The tables on pp. 174-175 show, by States, the condition of the fisheries of the South Atlantic States in 1897. The capital invested in the fisheries of this region amounted to \$1,828,832. Of this amount \$1,218,459 is credited to North Carolina, \$174,354 to South Carolina, \$284,864 to Georgia, and \$151,155 to eastern Florida.

The total number of persons employed was 17,185, of which number 14,449 were fishermen and 2,736 shoresmen. In the North Carolina fisheries alone 12,045 were employed; in South Carolina, 2,139; and in Georgia, 1,869. The fishermen of the eastern coast of Florida numbered 1,132.

The total number of vessels employed was 243, having a tonnage of 2,790.83, and valued, with their outfit, at \$200,280. The total number

* The Fishery Industries of the United States, section II, Geographical Review of the Fisheries for 1880.

The Fishery Industries of the United States, section V, History and Methods of the Fisheries.

Report on the Fisheries of the South Atlantic States, by Hugh M. Smith, M. D. Bull. U. S. Fish Com., 1891, pp. 267-356.

The Fish and Fisheries of the Coastal Waters of Florida. U. S. Fish Commission Report for 1896, pp. 263-342.

Report on the Fisheries of Indian River, Florida. U. S. Fish Commission Report for 1896, pp. 223-262.

Notes on the Extent and Condition of the Alewife Fisheries of the United States in 1896, by Hugh M. Smith. Report U. S. Fish Commission for 1898, pp. 31-43.

The Shad Fisheries of the Atlantic Coast of the United States, by Charles H. Stevenson. Report U. S. Fish Commission, 1898, pp. 101-269.

of boats in this region was 6,691, valued at \$276,866. The apparatus of capture had a value of \$492,596, and other accessory property \$531,290.

Gill nets have been the most important form of apparatus employed, and were valued at \$243,482, pound nets ranking next in importance, with a value of \$137,175. The value of seines is placed at \$95,340, all other forms of apparatus being of minor importance.

The products of the fisheries amount to 80,390,465 pounds, with a value of \$1,833,155. The products of the fisheries of North Carolina were valued at \$1,316,017; those of South Carolina, \$210,456; of Georgia, \$170,605; and of eastern Florida, \$136,077. The most important item with respect to product is shad, which is valued at \$478,784, oysters ranking next, with a value of \$384,934. Mullet is third and is valued at \$115,465. Alewives and squeteague follow with values of \$118,124 and \$112,578, respectively.

Shad and oysters are by far the most important products of the fisheries of North Carolina; oysters, whiting, shad, and sea bass of South Carolina and Georgia, while in eastern Florida the leading fishery products are shad, mullet, pompano, and squeteague.

Since the last canvass of this region, which was in 1890, there has been an increase in the fisheries of all these States except eastern Florida. Taking the region as a whole, there has been an increase in products of 13,205,847 pounds, having a value of \$259,451. There has been an increase in capital invested of \$140,546. North Carolina is the only State where the investment has decreased, the amount of this decrease being \$25,529. Since 1890 the value of the yield of the more important fishes, such as shad, mullet, and alewives, has been nearly stationary, while that of oysters has increased about one-third.

Table showing the number and value of vessels, boats, apparatus, and shore property employed in the fisheries of the South Atlantic States in 1897.

Items.	North Carolina.		South Carolina.		Georgia.		Florida.		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels	174	\$151,375	16	\$15,742	51	\$28,833	2	\$4,330	243	\$200,280
Tonnage	1,879.23		252.93		641.80		16.87		2,790.83	
Boats	4,428	202,709	1,056	34,080	080	20,277	527	19,800	6,091	276,866
Seinea	1,044	86,165	88	3,045	06	2,395	44	3,735	1,242	95,340
Gill nets	86,688	179,190	408	23,840	424	11,905	487	28,547	88,007	243,482
Pound nets	1,852	136,375			4	800			1,856	137,175
Fyke nets	23	341							23	341
Cast nets	(*)		123	616	82	385	30	165	235	1,165
Turtle nets							37	380	37	880
Pots	1,233	885							1,233	885
Lines		247		1,425		205		40		1,923
Wheels	70	1,050							70	1,050
Dredges	26	855			5	50			31	905
Tongs, rakes, and irons	1,491	3,383	240	1,602	547	2,133	51	337	2,335	7,545
Other apparatus		2,320		60		25				2,455
Shore and accessory property		315,164		45,053		106,350		64,715		531,290
Cash capital		138,400		48,800		111,500		29,100		327,800
Total		1,218,450		174,354		284,864		151,155		1,828,832

* Shown in other apparatus.

FISHERIES OF THE SOUTH ATLANTIC STATES.

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Number of persons employed in the fisheries of the South Atlantic States in 1897.

States.	Fishermen.	Shoresmen.	Total.
North Carolina.....	10,120	1,925	12,045
South Carolina.....	1,934	205	2,139
Georgia.....	1,404	465	1,869
Florida.....	991	141	1,132
Total.....	14,449	2,736	17,185

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

Species.	North Carolina.		South Carolina.		Georgia.		Florida.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh.....	5,604,201	\$48,750	2,000	\$40	25,000	\$500	33,913	\$404
Alewives, salted.....	10,096,236	78,299					5,000	125
Black bass.....	535,342	23,611	1,000	30	4,600	322	52,516	2,184
Blue-fish, fresh.....	1,482,375	41,608	40,000	1,600			46,421	1,121
Blue-fish, salted.....	213,800	5,144						
Bonito.....	2,350	35						
Butter-fish.....	94,750	1,758						
Cat-fish.....	192,211	4,646	28,500	535	157,600	2,784	124,000	3,720
Channel bass or red-fish, fresh.....	64,550	830	110,000	2,500	23,800	1,190	235,782	3,542
Channel bass or red-fish, salted.....	40,200	804						
Drum.....	51,400	1,073	215,000	1,875	14,300	592	17,000	175
Eels.....	96,700	4,051			5,000	100		
Flounders.....	173,975	3,199			6,500	290		
Groupers.....			33,000	1,170				
Hickory shad.....	230,975	7,583	36,800	1,516	7,775	262		
King-fish.....	358,070	7,628						
Menhaden.....	11,310,000	19,700						
Mullet, fresh.....	179,425	16,797	46,000	885	56,000	1,310	2,341,957	21,156
Mullet, salted.....	2,612,160	73,541	10,000	200			71,400	1,576
Perch.....	806,379	24,044	2,000	40	3,600	140		
Pig-fish.....	412,807	10,285						
Pike.....	100,420	2,655						
Pin-fish.....	61,600	1,064					166,344	13,093
Pompano.....	53,175	1,728	5,000	300				
Porgy.....	30,910	472						
Sailor's choice.....	39,000	975	6,800	440	600	30		
Scad or round robin.....	8,100	46					5,570	210
Sea bass.....	189,225	5,564	632,400	26,350			1,011,180	41,572
Shad.....	8,963,488	362,811	506,125	27,696	787,550	46,705		
Sharks.....			30,000	300				
Sheepshead.....	271,206	9,243	36,200	1,460	25,000	1,250	390,164	5,908
Snappers.....	34,400	860	54,000	1,600				
Spanish mackerel.....	330,840	18,017	10,000	1,000	18,100	655	3,450	100
Spots and croakers, fresh.....	1,963,756	28,384	40,000	730			23,133	772
Spots and croakers, salted.....	165,240	4,749						
Squeteague, fresh.....	3,006,758	92,993	80,000	2,030	54,650	2,512	516,370	12,817
Squeteague, salted.....	83,496	2,226						
Strawberry bass.....	21,725	860						
Striped bass.....	845,123	58,035	10,100	550	9,000	530		
Sturgeon.....	371,625	13,525	411,100	7,325	147,700	4,060		
Suckers.....	135,230	3,037						
Sun-fish.....	38,210	1,000			3,900	195	248,980	6,827
Sun-fish.....	14,125	283						
Tautog.....	6,950	348						
Warmouth bass.....	45,300	1,133	638,500	28,405	45,700	2,100	8,000	365
Whiting.....							103,340	3,356
Other fish.....							38,625	1,497
Shrimp.....	146,400	5,885	374,500	18,395	67,600	2,535		
Crabs, soft.....	986,720	3,992						
Crabs, hard.....	40,000	1,000	110,000	2,240	74,660	1,864	3,700	175
Craw-fish.....							4,000	80
Terrapins.....	17,179	2,815	40,916	9,635	34,785	11,254	10,350	1,425
Turtles.....	24,000	1,920				20	23,856	1,751
Frogs.....	1,800	450						
Oysters.....	6,011,720	241,099	1,504,300	45,360	3,406,440	86,709	362,802	11,766
Clams.....	937,808	53,703	185,400	8,052	2,640	165	4,800	300
Scallops.....	118,323	5,053						
Caviar.....	32,500	11,162	69,805	17,525	9,000	2,581		
Squeteague sounds.....	691	104						
Refuse.....	3,802,200	4,828						
Total.....	64,234,257	1,316,017	5,280,446	210,450	4,903,100	170,605	5,882,662	136,077

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

SUMMARY.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Alewives, fresh.....	5,755,114	\$49,700	Sheepshead.....	722,570	\$17,861
Alewives, salted.....	10,101,236	78,424	Snappers.....	88,400	2,520
Black bass.....	593,458	26,147	Spanish mackerel.....	362,390	19,832
Blue-fish, fresh.....	1,568,796	44,329	Spots and croakers, fresh	2,035,889	29,886
Blue-fish, salted.....	213,800	5,144	Spots and croakers, salted	165,246	4,749
Bonito.....	2,350	35	Squeteague, fresh.....	3,657,778	110,352
Butter-fish.....	94,750	1,758	Squeteague, salted.....	83,496	2,226
Catfish.....	502,311	11,635	Strawberry bass.....	21,725	866
Channel bass or red-fish, fresh	434,132	8,062	Striped bass.....	864,223	59,121
Channel bass or red-fish, salted	40,200	804	Sturgeon.....	930,425	24,010
Drum.....	297,700	3,715	Suckers.....	135,230	3,037
Eels.....	101,700	4,151	Sun-fish.....	291,099	8,022
Flounders.....	180,475	3,489	Tautog.....	14,125	283
Groupers.....	33,000	1,170	Warmouth bass.....	6,950	348
Hickory shad.....	275,550	9,361	Whiting.....	737,500	32,003
King-fish.....	358,070	7,028	Other fish.....	103,340	3,356
Menhaden.....	11,310,000	19,700	Shrimp.....	627,221	28,312
Mullet, fresh.....	3,241,382	40,148	Crabs, soft.....	986,720	3,992
Mullet, salted.....	2,693,560	75,317	Crabs, hard.....	228,860	5,279
Perch.....	811,979	24,224	Craw-fish.....	4,000	80
Pig-fish.....	412,807	10,285	Terrapins.....	103,230	25,129
Pike.....	100,420	2,655	Turtles.....	48,858	3,691
Pin-fish.....	61,000	1,064	Frogs.....	1,800	450
Pompano.....	254,519	15,121	Oysters.....	11,285,268	384,934
Porgy.....	39,910	472	Clams.....	1,130,648	62,820
Sailor's choice.....	48,400	1,445	Scallops.....	118,323	5,653
Scad or round robin.....	8,100	46	Caviar.....	111,905	31,268
Sea bass.....	827,195	32,130	Squeteague sounds.....	691	104
Shad.....	11,268,343	478,784	Refuse.....	3,862,200	4,828
Sharks.....	30,000	300	Total.....	80,390,465	1,833,155

Comparative table showing the extent of the fisheries of the South Atlantic States in 1880, 1890, and 1897.

PERSONS ENGAGED.

States.	1880.	1890.	1897.	Increase or decrease in 1897 compared with 1890.	Percentage of increase or decrease in 1897 compared with 1890.
North Carolina.....	5,274	10,274	12,045	+1,771	+17.23
South Carolina.....	1,005	2,701	2,139	-562	-20.81
Georgia.....	899	1,622	1,869	+247	+15.23
Florida.....	308	1,404	1,132	-272	-19.37
Total.....	7,546	16,001	17,185	+1,184	+7.40

CAPITAL INVESTED.

States.	1880.	1890.	1897.	Increase or decrease in 1897 compared with 1890.	Percentage of increase or decrease in 1897 compared with 1890.
North Carolina.....	\$506,561	\$1,213,988	\$1,218,459	+5,471	+0.45
South Carolina.....	66,275	127,762	174,354	+46,592	+36.47
Georgia.....	78,770	174,431	284,864	+110,433	+63.31
Florida.....	43,554	142,105	151,155	+9,050	+6.37
Total.....	695,160	1,688,286	1,828,832	+140,546	+8.32

Comparative table showing the extent of the fisheries of the South Atlantic States in 1880, 1890, and 1897—Continued.

PRODUCTS.

States.	Pounds.				Percentage of increase or decrease in 1897 compared with 1890.
	1880.	1890.	1897.	Increase or decrease in 1897 compared with 1890.	
North Carolina.....	32,249,488	51,790,142	64,234,257	+12,435,115	+24.01
South Carolina.....	6,143,250	4,932,703	5,280,446	+ 347,743	+ 7.05
Georgia.....	2,272,500	2,991,117	4,993,100	+ 2,001,983	+66.93
Florida.....	2,286,750	7,401,056	5,882,662	- 1,578,994	-21.16
Total.....	42,951,988	67,184,618	80,390,465	+13,205,847	+19.65

States.	Value.				Percentage of increase or decrease in 1897 compared with 1890.
	1880.	1890.	1897.	Increase or decrease in 1897 compared with 1890.	
North Carolina.....	\$845,005	\$1,027,069	\$1,310,017	+288,348	+28.06
South Carolina.....	212,482	202,602	210,456	+ 7,854	+ 3.88
Georgia.....	119,993	123,563	170,605	+ 47,042	+38.07
Florida.....	78,408	219,870	136,077	- 83,793	-38.11
Total.....	1,256,578	1,573,704	1,833,155	+259,451	+16.40

FISHERIES OF NORTH CAROLINA.

The fisheries of North Carolina have continued to increase in nearly all respects and are now of greater importance than ever before. In the number of persons employed and value of products they are more than twice as important as those of all the other South Atlantic States combined and nearly equal them in point of capital invested. The prominent position of the fishing industry in this State is due chiefly to the vast extent of its sounds and other coastal bodies of water, fresh and salt. Several rivers have fisheries on their lower courses, and the ocean banks are fished extensively. The industry as a whole is of greater value than any other branch of trade in the eastern part of the State.

The three tables on p. 178 show the extent of the fisheries in 1897.

The total number of persons employed was 12,045.

The capital invested amounted to \$1,218,459. The value of vessels and their outfits was \$151,375; of boats, steam flats, and pile-drivers, \$202,709; of apparatus of capture, \$410,811; of shore property and working capital, \$453,564.

The yield amounted to 64,234,257 pounds of fishery products with a value of \$1,316,017, an increase of over 12,000,000 pounds since 1890. Shad continues to be the most important species in the North Carolina fisheries, the value of which was \$362,811. The yield of this species shows an increase in weight of 3,195,075 pounds, and in value of \$56,796. The next species in importance, the oyster, had a value of \$241,099, an advance of \$65,532 since 1890. Alewives had a value of \$127,055, after

which the more important species were squeteague, worth \$95,219; mullet, worth \$90,338; striped bass, worth \$58,035; blue-fish, worth \$46,752, and clams, worth \$53,703, an increase of over \$40,000 since 1890.

Persons employed.

How engaged.	No.
On vessels fishing.....	455
On vessels transporting.....	188
In shore or boat fisheries.....	9,463
On boats transporting.....	14
Shoresmen.....	1,925
Total.....	12,045

Table of apparatus and capital.

Items.	No.	Value.	Items.	No.	Value.
Vessels fishing.....	98	\$69,450	Apparatus—shore fisheries:		
Tonnage.....	1,017.20		Seines.....	1,028	\$79,465
Outfit.....		21,327	Gill nets.....	86,639	177,820
Vessels transporting.....	76	53,175	Pound nets.....	1,852	136,375
Tonnage.....	862.03		Fyke nets.....	23	341
Outfit.....		7,423	Minor nets.....	775	1,897
Boats fishing.....	4,420	200,251	Lines.....		247
Boats transporting.....	8	2,458	Pots.....	1,233	885
Apparatus—vessel fisheries:			Wheels.....	70	1,050
Seines.....	18	6,700	Tongs and rakes.....	1,352	3,023
Gill nets.....	49	1,370	Miscellaneous.....		453
Dredges.....	26	855	Shore and accessory property.....		315,164
Tongs.....	139	360	Cash capital.....		138,400
			Total.....		1,218,459

Table of products.

Species.	Lbs.	Value.	Species	Lbs.	Value.
Alewives, fresh.....	5,094,201	\$48,756	Sheepshead.....	271,206	\$9,243
Alewives, salted.....	10,096,236	78,299	Snappers.....	34,400	800
Black bass.....	535,342	23,011	Spanish mackerel.....	330,840	18,017
Blue-fish, fresh.....	1,482,375	41,608	Spots, fresh.....	716,137	9,870
Blue-fish, salted.....	213,800	5,144	Spots, salted.....	133,846	4,327
Bonito.....	2,350	35	Squeteague, fresh.....	3,006,758	92,993
Butter-fish.....	94,750	1,758	Squeteague, salted.....	83,496	2,228
Cat-fish.....	192,211	4,646	Strawberry bass.....	21,725	856
Channel bass, fresh.....	64,550	830	Striped bass.....	845,123	58,035
Channel bass, salted.....	40,200	804	Sturgeon.....	871,625	13,525
Croakers, fresh.....	1,247,619	18,514	Suckers.....	135,230	3,037
Croakers, salted.....	31,400	422	Sun-fish.....	38,210	1,000
Drum.....	51,400	1,073	Tautog.....	14,125	283
Eels.....	96,700	4,051	Warmouth bass.....	6,950	948
Flounders.....	173,975	3,199	Whiting.....	45,300	1,133
Hickory shad.....	230,075	7,583	Shrimp.....	146,466	5,885
King-fish.....	358,070	7,628	Crabs, soft.....	1,960,720	3,992
Menhaden.....	11,310,000	10,700	Crabs, hard.....	240,000	1,000
Mullet, fresh.....	797,425	10,797	Terrapins.....	17,179	2,815
Mullet, salted.....	2,612,160	73,541	Turtles.....	24,000	1,920
Perch.....	806,379	24,044	Frogs.....	1,800	450
Pig-fish.....	412,897	10,285	Oysters.....	6,011,720	241,099
Pike.....	109,420	2,655	Clams.....	937,808	53,703
Pin-fish.....	61,500	1,084	Scallops.....	118,823	5,653
Pompano.....	53,175	1,728	Caviar.....	32,500	11,162
Porgy.....	38,910	472	Squeteague sounds.....	691	104
Sailor's choice.....	38,000	975	Refuse.....	8,862,200	4,828
Sea or round robin.....	8,100	46			
Sea bass.....	189,225	5,564			
Shad.....	8,963,488	362,811	Total.....	64,234,257	1,316,017

¹ Represents 2,960,160 in number.
² Represents 120,000 in number.
³ Represents 8,160 in number.
⁴ Represents 320 in number.

⁵ Represents 3,600 in number.
⁶ Represents 858,818 bushels.
⁷ Represents 117,226 bushels.
⁸ Represents 26,294 bushels.

THE FISHERIES BY COUNTIES.

Twenty-six counties are represented in the commercial fisheries of North Carolina. Of this number 17 have a frontage on the ocean or on the sounds tributary thereto, and many of them maintain important fisheries. Those bordering the sounds and the ocean are Currituck, Camden, Pasquotank, Perquimans, Chowan, Bertie, Washington, Tyrrell, Dare, Hyde, Pamlico, Craven, Carteret, Onslow, Pender, New Hanover, and Brunswick.

In the tables beginning on page 184 the fisheries of each of these counties are shown in detail.

In the number of persons employed and in the amount of capital invested Carteret takes precedence over all other counties in the State, occupying the position formerly held by Dare County, the latter taking second place in this regard, though still holding first place in value of products.

A large proportion of the fish caught in Carteret County are handled by wholesale dealers at Beaufort and Morehead City. These firms handled in 1897 1,756,868 pounds, having a gross value of \$70,274. In addition to fish the same firms handled shucked oysters, scallops, and clams.

A comparatively new industry in Carteret County since the former investigation is that of shipping soft-shell crabs to the Northern markets, the total number shipped in 1897 being 13,600 dozen. This business is growing steadily, and at Marshallberg one firm has an extensive plant where crabs are kept in floats preparatory to their shedding and becoming marketable.

Nearly all the oysters handled by the dealers in Carteret County are bought opened, the oystermen receiving an average of 35 cents per gallon for them. The scallops are all bought in this way, none being sold in the shell, the price for the same ranging from 40 to 45 cents per gallon.

In this county the seine fishery has undergone some changes in recent years, a law having been enacted prohibiting the hauling of any seine over 200 yards in length. Such seines are generally used in the mullet fishery. There are many "drag nets," so called, or small seines, with a length of about 350 feet each. These nets are fished in the sounds and also on the outside along the banks. The total number of nets of this class in use in Carteret County in 1897 was 329. In the fisheries of this county 5,250 stake gill nets were used; 25 large stake nets, with an average length of 200 yards each, were fished along the banks. The fishing of large stake nets of this character is of comparatively recent date. 225 small boats with 375 men engaged in tonging oysters in Carteret County, their catch in the aggregate amounting to 244,800 bushels, with a value to the fishermen of \$60,299.

In the catching of scallops and clams about 150 persons are engaged. The scallops are caught with scoops and drags. The scoops have a

long wooden handle with a hoop and net attached. The drags are thrown out from the stern of the boat and hauled aft as the boat proceeds. Two drags are usually carried by each boat. The fishermen open the scallops before selling them to the dealers. The amount opened was 13,147 gallons, worth \$5,653.

In clamming, rakes are used to some extent, the greater portion of the clams being picked by hand from the bars at low tide. Many women and children engage in this work. In the deeper water what is known as "treading for clams" is practiced to some extent. This consists of wading around and feeling for the clams with bare feet. When a clam is located the fisherman reaches down in the water and brings it to the surface.

Forty-seven vessels from Carteret County are engaged in tonging oysters, and 12 vessels in dredging oysters. The dredged oysters all come from Pamlico Sound, as dredging is prohibited in the waters of Carteret County. The catch of vessels tonging oysters amounted to 52,625 bushels, valued at \$13,054. The vessels dredging caught 63,900 bushels, valued at \$15,975. Eleven vessels were engaged in fishing for menhaden. The porpoise fishery formerly prosecuted in this county has been abandoned, owing to the diminished inducements offered to engage in the same.

The absence of shad in the species table for Carteret County is to be accounted for by the removal of pound nets owned by Carteret County fishermen into the waters of Craven County, their catch being credited to this county. This was formerly the principal apparatus for taking shad in the waters of Carteret.

In Onslow County a form of gill net known as a "drop net" is used extensively in the fisheries. They number 655, and the catch was 668,175 pounds, valued at \$21,833. This county is noted for its mullet fishery, and the trade name "New River mullet" is well known throughout the State. Ten seines were employed in the mullet fishery, being fished in the ocean and at the mouths of the inlets along the coastal line of the county. Though these nets are used primarily for mullet, a few other fish are taken incidentally. The catch of mullet aggregated 750,000 pounds, valued at \$22,168. The oyster fishery has increased, and in the value of the output takes second place in the oyster industry of North Carolina. The increase is chiefly owing to the better facilities for marketing the catch. New River oysters are much in favor, and find a ready market in the Northern cities and the interior towns and cities of the State. A fine grade of barrel stock is taken from the private beds, which sells readily in the larger cities at \$4.50 per barrel. The catch of oysters amounted to 120,000 bushels, valued at \$60,000, an average of 50 cents per bushel. The increase over 1890 was 71,500 bushels, with a value of \$42,400.

The fisheries of Pender County are prosecuted in Topsail and Middle sounds, Cape Fear River, and in Northeast River, a branch of the Cape Fear. In the sounds haul seines and drop gill nets are used, the catch

consisting of salt-water varieties. On the rivers mentioned skim nets, drift gill nets, and small seines are used, taking shad, alewives, and other species.

In Duplin County fishing is carried on in the Northeast River by means of gill nets and haul seines.

The fisheries of Sampson County give employment to 190 persons during the fishing season, who, as a rule, reside near the Black River and its tributaries. Skim nets, drift gill nets, and haul seines are the forms of apparatus in general use.

The only important stream in Bladen County is the Cape Fear River, whose fisheries gave employment to 156 persons during the fishing season. The apparatus in use consists of skim nets and drift gill nets used in the taking of shad.

In New Hanover County fishing is carried on in the inlets and the ocean. From Topsail Inlet to Hewletts Creek 21 small seines are fished in the sounds, the catch consisting of mullet and other varieties of salt-water fish. At Ocean View 4 seines, whose principal catch is mullet, are fished at the following-named points: One at Ocean View Beach in the ocean and three at Masonboro Inlet. Seines are also used at Queens and Rich Inlets and in the ocean, taking mullet and other species of fish. Near Masonboro Inlet 10 shrimp seines are operated, their catch amounting to 3,600 bushels of shrimp, valued at \$5,760. A fishery for sturgeon on the Cape Fear River employed 50 men using 25 drift nets. The catch of sturgeon numbered 625, with a weight of 93,750 pounds, and a value of \$2,812. From the roe of these sturgeon 89 kegs of caviar were manufactured, valued at \$4,539.

One hundred and one drift gill nets for shad were employed in the river above and below the city of Wilmington, the catch aggregating 236,781 pounds, with a value of \$13,706. In point of value the shad surpasses all other fishery products in New Hanover County with the exception of the oyster. In Myrtle Grove Sound and its tributary creeks oysters are taken in considerable quantities by hand-picking and tonging. They are sold opened, retailing at 50 cents per gallon. The catch consisted of 64,000 bushels, or 56,000 gallons opened, valued at \$28,000. In addition to the oysters 18,000 bushels of clams were taken.

Fishing with hook and line in the ocean is largely followed, the boats resorting to the vicinity of the submerged rocks that fringe the coast, and the fishery is locally known as "rock fishing." Large quantities of choice salt-water varieties are taken, finding a ready market. There is also a summer fishery with lines in Cape Fear River. The total line catch amounted to 529,040 pounds, with a value of \$17,209.

In Brunswick County 14 large seines are operated, principally in the ocean. Ten small seines, averaging about 250 feet, are fished in the inlets, taking mullet chiefly. Drop gill nets are employed at Southport and vicinity for croakers, spots, etc. A small number of terrapin and turtle seines are in use. The seines average 100 yards, with a depth of

18 to 20 feet. The catch of diamond-back terrapin numbered 1,800, valued at \$630, and 320 green turtles were taken valued at \$1,920.

The clam industry has grown considerably in Brunswick County in the past five or six years, and now employs a large number of persons. The men engaged camp on the beach during most of the week. The season for clamming is regulated by law and begins November 15 and closes April 15. The catch for 1897 amounted to 50,000 bushels, valued at \$22,500. The clamming grounds are along the inlets that border the county.

The fishing centers of Hyde County are in the vicinity of Mount Pleasant, Middletown, and Engelhard. As a whole, the fisheries of this county show a large increase in the amount of shad taken and also an increase of 140,000 bushels in the oyster output. The total quantity of oysters was 216,890 bushels, with a value of \$43,378. In addition to the market oysters tonged, 21,210 bushels of seed oysters, with a value of \$2,205, were sold. The greater portion of the oysters are sold to vessels that come from other States and anchor on the fishing-grounds, buying the tonged oysters from the small boats engaged in the business.

The shad fisheries of Hyde County show an increase of 183,820 pounds over the figures for 1890. The total for 1897 was 252,000 pounds, as against 68,180 pounds in 1890. Most of the shad credited to Hyde County are taken in the adjoining county of Dare, where the fishermen camp during the shad season.

In point of capital invested Beaufort County ranks fifth, and maintains important fisheries on the Pamlico and Pungo rivers. The wholesale trade is centered at Washington. The principal apparatus in use is seines, 49 being employed, their catch amounting to 563,103 pounds, valued at \$16,772, more than one-half of the catch of the county. Next to the seine in importance is the pound net, the catch from the latter amounting to 377,715 pounds, valued at \$8,315. At Belhaven two oyster establishments are located, both engaged in shucking oysters for shipment, the output aggregating about 10,500 gallons, marketed in the Northern cities.

Craven County occupies a prominent position in the fisheries. The bulk of the catch on Neuse River is handled at Newbern; the quantity is estimated at 1,565,000 pounds, with an aggregate value of \$60,600, and 50,754 gallons of oysters were shipped to Northern cities and as far west as Chicago. More than two-thirds of the output of Craven County was captured with seines. Formerly pound nets were fished to a great extent in Neuse River, many fishermen coming from other localities to engage in this fishery. As a result the nets increased in such numbers that a law, becoming operative in July, 1897, has been passed prohibiting their use in the river.

The fisheries of Pamlico County are not very extensive, though a decided improvement is shown. They are carried on mainly in the

Neuse River. At Bay River an oyster fishery has recently been established, which grows steadily in importance, the oysters being taken in the river and around Brant Island, in Pamlico Sound. Fifty small boats were engaged, the catch amounting to 36,000 bushels, with a value to the oystermen of \$9,000.

While Dare County is second in number of persons employed, it maintains first place in the value of products. This is due to the great value of the shad fisheries. In addition to the shore fisheries a vessel fishery is maintained, with 15 vessels. Three or four engage in taking striped bass; the remainder devote their time to the oyster fisheries. The remoteness of the fishing-grounds necessitates the employment of 24 vessels to carry the catch to market. The catch of blue-fish in this county was 780,890 pounds, valued at \$28,822.

Chowan County is third in importance of its fisheries, the output amounting to 12,292,720 pounds, with a value of \$112,787. The capital invested was \$136,048. Of this amount \$40,365 was employed in the pound-net fishery, representing 622 nets. This method of fishing has increased year by year and is the mainstay of the fisheries of this county. The pound-net catch amounted to 6,989,598 pounds, with a value of \$69,275, more than one-half of the entire catch of the county being taken in this form of apparatus. Alewives are the leading species taken, amounting to 6,147,384 pounds, valued at \$40,049; shad ranking second with 675,680 pounds, valued at \$21,538.

The fisheries of Currituck County show a large increase, amounting to 688,549 pounds over 1890, with an advance in value of nearly \$10,000. This increase is largely in the seine fisheries, over 1,000,000 pounds being taken with this apparatus. The most important species is the black bass, amounting to 490,280 pounds, and valued at \$21,699. The perch catch was over 325,000 pounds. In the catch of these species Currituck County leads all the other counties in the State.

In Tyrrell County over \$14,000 has been added to the capital invested, and \$12,323 to the value of products. The increase is mainly in the shad fishery, and amounts to 670,465 pounds, valued at \$24,276 more than in 1890. This improvement is largely due to an increase in apparatus, over 6,000 nets having been added to the equipment. The alewife fishery has fallen off in both quantity and value, owing to the steadily diminishing demand for the species and the consequent low price.

Washington County is principally noted for its pound-net fishery, which employs 62 more nets than in 1890. The catch by this form of apparatus amounted to 754,178 pounds, valued at \$14,652. In the matter of species caught in pound nets shad predominate, the value of this fish being more than half of the entire output of these nets.

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The following tables show by counties the number of persons employed, the capital invested, and the yield of the fisheries:

Table showing by counties the number of persons employed in the fisheries of North Carolina in 1897.

Counties.	On ves- sels fishing.	On ves- sels trans- porting.	In shoro or boat fisheries.	On boats trans- porting.	Shores- men.	Total.
Beaufort.....	10	4	415		92	521
Bertie.....			350		104	544
Bladen.....			150			150
Brunswick.....		8	804			812
Camden.....		2	40		13	55
Carteret.....	368	54	1,210	2	210	1,844
Chowan.....		13	438		642	1,093
Craven.....		28	332	2	184	546
Currituck.....	7	4	539			550
Dare.....	64	50	1,300	4	58	1,482
Duplin.....			42			42
Edgecombe.....			103			103
Hertford.....			80		70	150
Hyde.....			389		32	421
Lenoir.....			260			260
Martin.....			151		30	181
New Hanover.....		8	691		13	712
Onslow.....			825	2		827
Pamlico.....			140			140
Pasquotank.....	6	3	177	2	17	205
Pender.....			172			172
Perquimans.....			92		95	187
Pitt.....			166			166
Sampron.....			190			190
Tyrrell.....		8	201	2	123	334
Washington.....		6	188		152	346
Total.....	455	188	9,463	14	1,025	12,045

Table showing by counties the vessels, boats, and apparatus employed in the fisheries of North Carolina in 1897.

Items.	Beaufort.		Bertie.		Bladen.		Brunswick.		Camden.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing.....	2	\$800								
Tonnage.....	18.69									
Outfit.....		293								
Vessels transporting.....	1	3,000					4	\$2,250	1	\$700
Tonnage.....	8.99						38.03		12.00	
Outfit.....		725						312		155
Boats fishing.....	201	4,453	134	\$6,015	78	\$720	221	4,075	26	1,500
Apparatus—vessel fisheries:										
Dredges.....	4	125								
Apparatus—shore fisheries:										
Seines.....	40	7,710	7	10,525			32	2,240		
Gill nets.....	2,817	2,870			48	801	38	380	1,900	2,850
Pound nets.....	54	5,400	90	7,305					47	2,355
Fyke nets.....									1	14
Minor nets.....	20	60	160	443	30	75	61	171		
Lines.....								60		
Pots.....	600	300								
Wheels.....			20	300						
Tongs and rakes.....							80	258		
Shore and accessory property.....		21,835		18,780				200		420
Cash capital.....		18,000								
Total.....		65,541		48,368		1,650		9,940		8,084

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Vessels, boats, and apparatus employed in North Carolina fisheries in 1897—Continued.

Items.	Perquimans.		Pitt.		Sampson.		Tyrrell.		Washington.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels transporting							4	\$2,000	2	\$1,200
Tonnage							33.52		17.69	
Outfit								370		230
Boats fishing	43	\$2,760	70	\$347	125	\$1,250	100	6,050	78	3,890
Boats transporting							1	300		
Apparatus—shore fisheries:										
Seines	4	2,875	13	1,250	40	720			4	3,200
Gill nets	1,190	1,788			50	750	9,510	14,200	1,018	8,567
Pound nets	129	8,700					193	9,835	171	13,470
Minor nets			52	129	35	88				
Pots	52	20								
Shore and accessory property		4,035		2,225		75		3,204		25,890
Total		20,572		3,051		2,883		36,055		51,547

SUMMARY.

Items.	No.	Value.	Items.	No.	Value.
Vessels fishing	98	\$69,450	Apparatus—shore fisheries:		
Tonnage	1,017.20		Seines	1,026	\$79,465
Outfit		21,327	Gill nets	36,639	177,820
Vessels transporting	78	53,175	Pound nets	1,852	136,375
Tonnage	862.03		Fyke nets	23	341
Outfit		7,423	Minor nets	775	1,867
Boats fishing	4,420	200,251	Lines		247
Boats transporting	8	2,458	Pots	1,233	885
Apparatus—vessel fisheries:			Wheels	70	1,050
Seines	18	6,700	Tongs and rakes	1,352	3,023
Gill nets	49	1,370	Miscellaneous		453
Dredges	26	855	Shore and accessory property		315,164
Tongs	139	360	Cash capital		138,400
			Total		1,218,459

Table showing by counties and species the yield of the fisheries of North Carolina in 1897.

Species.	Beaufort.		Bertie.		Bladen.		Brunswick.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	115,867	\$3,252	1,223,834	\$9,004				
Alewives, salted	46,000	095	1,516,357	12,540				
Black bass	3,100	155						
Blue-fish, fresh	4,509	90					17,800	\$409
Butter-fish	5,725	85						
Cat fish	32,000	484	9,530	465				
Croakers, fresh	133,800	2,007					41,875	888
Drum							2,500	75
Eels	25,000	750						
Flounders	11,015	264					15,500	310
Hickory shad	18,464	462	18,900	764				
King-fish							19,125	478
Mullet, fresh	2,375	81					12,300	333
Mullet, salted							333,100	9,942
Perch	60,498	2,038	15,020	610				
Pig-fish							44,802	1,532
Pike	8,250	240						
Pin-fish							10,250	249
Pompano	3,200	112						
Sailor's choice							12,500	313
Sea bass							25,100	1,004
Shad	232,986	11,367	489,904	18,747	31,098	\$1,420	10,125	450
Sheepshead	8,350	202					6,550	197
Snappers							11,150	279
Spanish mackerel	4,250	149						
Spots, fresh	58,275	874					28,862	678
Squeteague, fresh	215,935	3,238					73,775	3,034
Strawberry bass	3,400	150						
Striped bass	27,253	2,181	22,457	1,657			1,800	65
Sturgeon	10,700	334						
Suckers	8,100	170	18,840	563				
Sun-fish	3,000	125						
Whiting							15,100	378
Shrimp							2,496	125
Terrapin							4,500	630
Turtles							24,000	1,020
Oysters	59,500	1,370						
Clams							400,000	22,500
Refuse			500,000	625				
Total	1,108,443	31,565	3,814,902	45,955	31,098	1,420	1,112,710	45,039

Table showing the yield of the North Carolina fisheries in 1897—Continued.

Species.	Camden.		Carteret.		Chowan.		Craven.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh.....	09,400	\$814	10,000	\$160	2,454,708	\$12,160	425,888	\$9,385
Alewives, salted.....	8,333	75			5,352,679	39,859	50,000	1,000
Black bass.....	700	29					100,000	2,000
Blue-fish, fresh.....			536,235	0,395				
Blue-fish, salted.....			60,000	1,560				
Bonito.....			2,350	35				
Butter-fish.....			36,225	723			35,000	625
Cat-fish.....	2,900	29			11,530	456		
Channel bass, fresh.....			18,900	286				
Croakers, fresh.....			267,575	2,156			215,000	1,075
Croakers, salted.....							25,000	250
Drum.....			30,600	612				
Eels.....					50	8	10,000	250
Flounders.....	3,000	90	35,125	703	1,095	42	29,700	297
Hickory shad.....	400	10			73,579	2,935	52,280	784
King-fish.....			192,365	3,848			45,275	904
Menhaden.....			11,310,000	19,700				
Mullet, fresh.....			179,675	2,734			39,850	389
Mullet, salted.....			774,100	22,922			50,000	1,000
Perch.....	12,700	307			67,950	2,018	117,700	3,532
Pig-fish.....			145,265	2,910			25,000	500
Pike.....	780	31			200	16	44,000	446
Pin-fish.....			13,050	218			15,700	157
Pompano.....			45,325	1,362				
Porgy.....			16,650	240			18,210	182
Sea bass.....			113,050	2,563				
Shad.....	204,000	7,650			1,180,164	40,419	584,982	25,985
Sheepshead.....			116,555	8,245			13,650	680
Spanish mackerel.....			157,145	8,800			63,975	1,599
Spots, fresh.....			194,260	2,884			100,300	1,003
Spots, salted.....			86,700	943				
Squeteague, fresh.....			695,808	16,318			360,175	6,918
Squeteague, salted.....			47,450	1,242				
Strawberry bass.....							10,000	300
Striped bass.....	20,400	1,428	4,500	225	63,530	4,448	99,800	5,200
Sturgeon.....					100,475	2,453	75,000	3,750
Suckers.....	900	23			14,200	427		
Tautog.....			14,125	283				
Crabs, soft.....			979,200	3,400				
Torrapin.....			0,428	1,000				
Oysters.....			2,557,275	89,328				
Clams.....			307,498	19,213				
Scallops.....			118,323	5,653				
Caviar.....					16,360	3,248	10,125	3,375
Refuse.....					2,962,200	3,793		
Total.....	323,518	10,546	19,022,667	224,641	12,292,720	112,787	2,624,168	68,861

Species.	Hertford.		Hyde.		Lenoir.		Martin.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh.....	509,086	\$8,085	2,000	\$30	1,130	\$10	21,838	\$353
Alewives, salted.....	107,998	810					145,672	1,241
Blue-fish, fresh.....			68,650	1,029				
Blue-fish, salted.....			35,000	700				
Cat-fish.....	1,900	59			2,625	43	22,500	800
Croakers, fresh.....			10,360	154				
Drum.....			16,300	326				
Eels.....					150	3	1,000	60
Flounders.....			6,600	85				
Hickory shad.....	375	14			1,700	43	6,900	284
King-fish.....			2,500	25				
Mullet, fresh.....			29,850	444				
Mullet, salted.....			50,000	1,250				
Perch.....	5,200	157			8,175	127	5,200	280
Pig-fish.....			53,700	1,033				
Shad.....	48,380	1,772	252,000	11,200	91,200	3,427	126,000	5,265
Spanish mackerel.....			10,000	400				
Spots, fresh.....			81,100	1,087				
Squeteague, fresh.....			145,850	2,999				
Striped bass.....	1,350	83	8,250	680	4,315	303	13,800	1,136
Sturgeon.....					8,100	40		
Suckers.....	6,460	142			1,450	14	2,800	84
Oysters.....			1,068,700	45,583				
Clams.....			48,000	2,400				
Refuse.....							40,000	50
Total.....	741,349	11,122	2,486,600	68,525	108,845	4,016	385,205	9,538

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Table showing the yield of the North Carolina fisheries in 1897—Continued.

Species.	Currituck.		Dare.		Duplin.		Edgecombe	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alowives, fresh	3,500	\$21	284,080	\$2,036	5,000	\$60		
Alowives, salted	113,500	687	1,336,334	10,484				
Black bass	490,280	21,699			1,000	50		
Blue-fish, fresh	36,250	1,462	682,699	25,938				
Blue-fish, salted			118,200	2,884				
Butter-fish	400	18	8,800	280				
Cat-fish	62,446	868	6,050	170	1,200	24		
Channel bass, fresh			27,500	331				
Channel bass, salted			40,200	804				
Croakers, fresh	22,800	592	349,044	8,383				
Croakers, salted	2,000	80	4,400	92				
Eels	27,450	1,533	10,900	344				
Flounders	1,000	30	12,725	288				
Hickory shad			5,834	258	500	25		
King-fish	20,600	444	26,180	931				
Mullet, fresh	50,800	1,050	60,400	1,827				
Mullet, salted	10,000	500	479,410	10,460				
Perch	335,036	6,779	21,590	648	6,250	313		
Pike	36,840	1,634						
Pompano			4,650	254				
Scad or round robin	8,100	46						
Shad	364,400	13,665	3,147,128	133,017	18,900	840	11,925	\$530
Sheepshead			81,826	3,416				
Spanish mackerel	2,300	166	79,470	6,501				
Spots, fresh	10,000	232	134,740	1,384				
Spots, salted	3,000	120	94,146	3,264				
Squeteague, fresh	51,200	2,210	885,895	35,310				
Squeteague, salted	8,000	400	28,046	684				
Striped bass	48,920	3,435	364,357	26,000	2,300	115		
Sturgeon			82,600	4,130				
Suckers	48,850	557			3,200	96		
Sun-fish	21,010	210						
Crabs, soft			2,400	144				
Terrapin			6,251	1,185				
Frogs	1,800	450						
Oysters			188,251	7,818				
Clams			25,600	890				
Squeteague sounds			691	104				
Total	1,780,482	58,892	8,560,398	290,225	38,350	1,523	11,925	530

Species.	New Hanover.		Onslow.		Pamlico.		Pasquotank.		Pender.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alowives, fresh			50,000	\$600	26,666	\$400	121,182	\$1,203	1,600	\$20
Alowives, salted							114,809	873		
Black bass	5,200	\$260					20,712	729	450	23
Blue-fish, fresh	5,000	150	10,300	309	40,800	806			650	20
Butter-fish					8,600	129				
Cat-fish	17,300	519					8,500	255	750	15
Channel bass, fresh	3,150	63	15,000	150						
Croakers, fresh	84,025	1,601	48,850	977	50,400	252			23,950	479
Drum	2,000	60								
Eels							10,000	500		
Flounders	28,140	563	11,200	224	8,450	84			9,925	199
Hickory shad	8,700	435			6,000	210	1,408	44	200	10
King fish	38,000	700			14,015	238				
Mullet, fresh	242,660	6,067	78,200	1,564	15,050	150			85,805	2,146
Mullet, salted	39,750	1,193	808,300	20,049					7,500	225
Perch	17,175	859	10,000	300	30,610	918	31,200	1,102	3,150	158
Pig-fish	90,440	3,270	33,550	671	3,600	52			10,550	817
Pike	4,750	238			5,000	50				
Pin-fish	20,300	406			2,300	34				
Porgy					5,050	50				
Sailor's choice	26,500	662								
Sea bass	50,175	2,067								
Shad	236,781	13,155			49,500	2,200	234,912	8,858	19,687	875
Sheepshead	25,275	757	6,000	180	4,200	210			8,800	264
Snappers	23,250	581								
Spaulish mackerel					13,700	342				
Spots, fresh	44,925	899	21,200	424	25,850	162			17,125	343
Squeteague, fresh	148,550	6,499	316,175	14,229	113,050	2,151	400	20	19,845	967
Strawberry bass	8,325	416								
Striped bass	8,000	400			18,800	853	19,401	1,570	875	44
Sturgeon	93,750	2,812								
Suckers							9,100	273	1,600	48
Sun-fish	13,300	605								
Warmouth bass	6,950	348								
Whiting	30,200	755								
Shrimp	144,000	5,760								
Crabs, soft	5,120	448								
Crabs, hard	40,000	1,000								
Oysters	448,000	28,000	840,000	60,000	252,000	9,000				
Clams	144,000	8,100	12,800	600						
Caviar	12,015	4,539								
Total	2,121,766	94,249	2,821,675	106,277	693,741	18,277	571,874	15,427	212,582	6,163

Table showing the yield of the North Carolina fisheries in 1897—Continued.

Species.	Perquimans.		Pitt.		Sampson.		Tyrrell.		Washington.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	136,579	\$1,040	7,596	\$227	13,830	\$160	55,315	\$550	95,000	\$906
Alewives, salted	79,806	598					581,409	4,014	642,909	4,823
Black bass	2,900	116			3,500	175				
Cat-fish	5,280	193	150	2	3,200	96	100	1	4,250	177
Eels	12,150	008								
Flounders									500	20
Hickory shad	7,450	224	2,600	66	2,000	50	3,375	135	20,250	830
Perch	10,350	654	325	12	12,250	613	10,051	329	24,050	1,050
Shad	262,824	9,850	56,632	2,517	68,400	3,040	785,440	29,464	455,780	17,092
Striped bass	11,010	764	75	6	4,650	233	50,830	3,508	48,950	3,037
Suckers	7,830	283			5,300	159			6,600	198
Refuso									360,000	450
Total	542,239	14,936	67,378	2,830	112,630	4,526	1,486,609	38,659	1,659,048	28,883

SUMMARY.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Alewives, fresh	5,604,201	\$48,756	Sheepshead	271,206	\$9,243
Alewives, salted	10,096,236	78,209	Snappers	34,400	860
Black bass	535,342	23,011	Spanish mackerel	330,840	18,017
Blue-fish, fresh	1,482,375	41,608	Spots, fresh	718,137	9,870
Blue fish, salted	213,800	5,144	Spots, salted	133,846	4,327
Bonito	2,350	35	Squeteague, fresh	3,000,758	92,993
Butter-fish	94,750	1,758	Squeteague, salted	83,496	2,226
Cat-fish	192,211	4,046	Strawberry bass	21,725	866
Channel bass, fresh	64,550	830	Striped bass	845,123	58,035
Channel bass, salted	40,200	804	Sturgeon	371,525	13,525
Croakers, fresh	1,247,619	18,514	Suckers	135,230	3,037
Croakers, salted	31,400	422	Sun-fish	88,210	1,000
Drum	51,400	1,073	Tautog	14,125	283
Eels	96,700	4,051	Warmouth bass	6,950	348
Flounders	173,675	3,169	Whiting	45,300	1,133
Hickory shad	230,975	7,583	Shrimp	146,496	5,885
King-fish	358,070	7,028	Crabs, soft	986,720	3,992
Menchaden	11,310,000	19,700	Crabs, hard	40,000	1,000
Mullet, fresh	797,425	16,797	Terrapins	17,179	2,815
Mullet, salted	2,612,100	73,541	Turtles	24,000	1,200
Perch	806,379	24,044	Frogs	1,800	450
Pig-fish	412,807	10,285	Oysters	6,011,726	241,099
Pike	100,420	2,655	Clams	937,808	53,703
Pin-fish	61,600	1,064	Scallops	118,323	5,653
Pompano	58,175	1,728	Caviar	32,500	11,162
Porgy	39,910	472	Squeteague sounds	691	104
Salor's choice	39,000	975	Refuso	3,862,200	4,828
Scad or round robin	8,100	48			
Sea bass	189,225	5,564	Total	64,234,257	1,316,017
Shad	8,963,488	362,811			

VESSEL FISHERIES.

At the time of the last general canvass of this State (1890) vessel fishing was only prosecuted from two counties, Craven and Carteret. At the present time Beaufort, Carteret, Currituck, Dare, and Pasquotank counties have vessel fisheries.

A change is noted in the vessel fisheries of Carteret County in the establishment of an offshore vessel fishery. At the time of the investigation of these fisheries 11 vessels were thus engaged, each having a crew of 5 men and carrying 3 to 8 nets, known as "sink nets," which are 300 to 390 feet long and 5 to 6 feet deep, and are operated from rowboats, called "pilot boats," the boats being part of the equipment of each vessel. The method employed in fishing with them is as follows: Upon reaching the fishing-grounds in the open ocean each net is sunk to the bottom, where it is buoyed up by means of corks and marked on the surface by floats. After the last net is sunk a

return is made to the first net, and each being lifted in its proper order the catch is carried to the vessel in waiting. The number of nets fished was 49, and the aggregate catch amounted to 416,258 pounds, with a value to the fishermen of \$10,845. The vessels remain out for a week at a trip, the fishery covering a period of 8 to 10 months.

The purse seine is used in four counties, Carteret, Currituck, Dare, and Pasquotank. The total catch was 9,981,900 pounds, worth \$21,886, and was composed of menhaden, striped bass, and squeteague. Menhaden comprise by far the greater portion, the catch being 9,930,000 pounds, valued at \$17,400. They are taken only in Carteret County. In the other three counties striped bass and squeteague only are taken. The latter fishery is carried on in Albemarle Sound during the autumn months, and is of comparatively recent date.

A vessel fishery for oysters is carried on in Beaufort, Carteret, and Dare counties. The catch was 978,026 pounds, valued at \$33,607, of which Carteret County furnished 843,675 pounds, valued at \$29,029. The fishery in Dare County is conducted from Ayon, and was inaugurated in 1892.

SHORE FISHERIES.

A glance at the tables shows that seines took by far the largest quantity of fish. They caught 16,248,447 pounds of fish, valued at \$318,169. The fish secured in largest quantities are alewives, amounting to 5,864,348 pounds, valued at \$55,153. The mullet and shad are each more valuable than the alewife, although the latter far exceeds them in quantity. 2,295,400 pounds of mullet, valued at \$62,574, and 1,507,242 pounds of shad, valued at \$60,235, were secured. The other prominent species of which more were secured in seines than in any of the other forms of apparatus were menhaden, black bass, perch, and spots.

The seine fisheries of Albemarle Sound section are the most important in the State. The seines, which are used for shad mainly, are among the largest employed in the United States. In Carteret County seines took 3,587,276 pounds, valued at \$54,860. Craven County is next in this respect, the seine yield being worth \$43,397, followed by Currituck, Bertie, Onslow, and Chowan counties, in the order named.

In Currituck Sound a peculiar form of seine is used. The net is knit like a small-meshed gill net and is about 150 yards long. At intervals of 3 or 4 yards oaken poles are run from the upper rope to the lower one and secured in this position. When in use a stake is driven into the muddy bottom and one end of the net secured to it. The boat is then rowed away from the stake, the net being paid out. When it is all out the boat is rowed about half of the arc of a circle around the stake and is then rowed in to the stake, when the net is hauled in. The net bags a little between the stakes and thus forms a pocket into which the fish go, and from which they are carefully lifted out of the water and dumped into the boat. The crosspieces of wood are used to prevent the

net being pushed up by the heavy grass and allowing the fish to escape. The principal species taken in this net are black bass and perch.

So far as quantity is concerned, pound nets are second in importance, taking 14,080,660 pounds of fish, valued at \$238,798. Alewives form the largest part of this catch, 9,554,989 pounds, worth \$68,513, having been taken. The most important species in point of value, and the second so far as quantity is concerned, is the shad, of which 2,328,585 pounds, valued at \$88,293, were taken. Other important species in point of value are striped bass, squeteague, and perch.

The increase in the number of pound nets in use in this State is remarkable. They were first introduced about 1874, and in 1880 only 117 were in use. In 1890 there were 950; in 1896, 1,700, and in 1897, 1,852. The Albemarle Sound region maintains the largest number of pound nets, followed by Pamlico and Croatan sounds. The great increase in the number of pound nets, owing to their efficiency, has had a marked effect on the use of other forms of apparatus.

Although gill nets occupy third place as regards the quantity of fish taken, they are first as regards value. This is explained by the large shad catch, which has a relatively high value. Somewhat more than half the shad catch of the State is taken in gill nets. The catch of shad was 4,916,952 pounds, valued at \$205,079. The squeteague fishery is quite important, its value being \$47,199, while the value of the mullet catch is \$24,030. Dare County has a great preponderance in number of gill nets used and in the quantity and value of the catch, its principal species being shad and blue-fish. Tyrrell, New Hanover, Carteret, and Onslow counties rank in the order named so far as value of catch is concerned, although in the matter of quantity taken Carteret would be second, followed by Tyrrell, Onslow, Currituck, and New Hanover.

Gill nets are damaged a great deal by crabs, being frequently torn in getting them out of the meshes.

During the spring of 1898 several persons from the Northern States started a gill-net fishery for sturgeon in the ocean at Nags Head. They met with very good success and soon had imitators at various points along the "banks," more particularly at Whales Head, Kittyhawk, Oregon and New Inlets, and Hatteras. As this investigation was for the year 1897 this fishery does not appear in the statistical tables.

The line fishery is only prosecuted in New Hanover, Brunswick, Dare, and Martin counties. The total catch was 820,967 pounds, valued at \$27,290. New Hanover secured almost twice as much as all the other counties. The principal species taken were squeteague and pig-fish.

Wheels are used only on the Roanoke River, where they secured 117,635 pounds, valued at \$3,608. Alewives and shad were the principal species taken.

Eel pots are in use in 7 counties, the principal catch being made in Currituck County. The total yield was 93,000 pounds, valued at \$3,913.

Fyke nets occupy a very insignificant position in the fisheries of the State. They are used in 6 counties, and the total catch was 26,207

pounds, valued at \$865. Cat-fish formed over half of the quantity and almost half of the value.

“Minor nets,” including skim nets, dip nets, cast nets, and shrimp nets, secured a total of 1,328,117 pounds, valued at \$13,688. Crabs occupy first place so far as quantity is concerned, while shad are first in value of catch. Carteret County is first in quantity and value, with 979,200 pounds of crabs, valued at \$3,400.

Dredges, tongs, rakes, etc., are used in 7 counties. Their total catch was 6,089,831 pounds, valued at \$266,848. Carteret County occupies first place, with 2,139,331 pounds, valued at \$85,165. The products were oysters, clams, and scallops. The oysters are the most important, and form more than four-fifths of the total catch.

The terrapin and frogs enumerated in this table were taken by hand. The heading “refuse” refers to the refuse left after the alewives have been prepared for salting, and is sold as fertilizer.

Table showing by counties and species the yield of the seine fisheries of North Carolina in 1897.

Species.	Beaufort.		Bertie.		Brunswick.		Carteret.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Menhaden							9,030,000	\$17,400
Shore fisheries:								
Alewives, fresh	95,287	\$2,859	1,012,502	\$7,377				
Alewives, salted	48,000	695	1,069,991	9,108				
Black bass	3,100	153						
Blue-fish, fresh					5,300	\$150	224,500	4,170
Blue-fish, salted							30,200	780
Butter-fish							26,175	523
Cat-fish	27,260	413	7,880	379				
Channel bass							9,350	140
Croakers, fresh	50,300	755			17,875	358	100,275	1,495
Drum					2,500	75	30,600	612
Flounders	5,275	178			5,900	118	24,725	495
Hickory shad	18,464	462	4,050	182				
King-fish							104,590	2,001
Menhaden							1,380,000	2,300
Mullet, fresh	1,075	61					119,400	1,833
Mullet, salted					297,600	8,77	630,250	18,606
Perch	50,298	2,128	11,740	470				
Pig-fish							86,345	1,727
Pike	8,250	240						
Pin-fish							8,850	155
Pompano							25,550	767
Porgy							10,450	178
Sea bass							61,225	1,897
Shad	105,411	4,097	340,304	12,980				
Sheepshead	6,250	250			3,450	104	82,455	2,221
Spanish mackerel							47,525	2,547
Spanish mackerel					10,312	207	103,000	1,526
Spots, fresh	45,000	675					23,400	585
Spots, salted								
Squeteague, fresh	63,100	946			18,725	832	335,358	8,280
Squeteague, salted							25,600	678
Strawberry bass	3,400	150						
Striped bass	22,653	1,813	11,600	867	1,300	65	1,500	75
Suckers	8,100	170	12,700	373				
Sunfish	3,900	125						
Tantog							8,925	179
Turtles					24,000	1,920		
Terrapins					4,500	630	6,428	1,000
Total	563,103	16,772	2,476,827	31,745	301,462	13,345	8,587,276	54,860
Total vessel and shore	563,103	16,772	2,476,827	31,745	301,462	13,345	13,517,276	72,260

Table showing the yield of the scine fisheries of North Carolina—Continued.

Species.	Chowan.		Craven.		Currituck.		Dare.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:								
Squeteague					900	\$45	3,700	\$185
Striped bass					4,300	387	32,600	2,940
Total					5,200	432	36,300	3,134
Shore fisheries:							10,000	30
Alowives, fresh	210,000	\$1,095	400,000	\$6,010			233,334	1,025
Alowives, salted	1,450,003	10,875	50,000	1,000				
Black bass			7,500	375	490,280	21,690		
Blue-fish, fresh			75,000	1,500	18,900	765	12,300	495
Butter-fish			30,000	450				
Cat-fish	4,000	160			50,416	508	3,300	99
Croakers, fresh			150,000	750	9,200	184	8,500	255
Croakers, salted			25,000	250				
Flounders	200	8	23,200	232			1,050	32
Hickory shad	23,700	940	47,280	700			1,000	25
King-fish			35,125	702	11,000	330	1,800	90
Mullet, fresh			39,850	380	48,800	976		
Mullet, salted			50,000	1,000				
Perch	10,500	325	97,700	2,032	326,236	6,576	1,800	54
Pig-fish			25,000	500				
Pike			44,000	440	36,810	1,634		
Pin-fish			15,700	157			100	8
Pompano								
Porgy			18,210	182				
Scad or round robin					8,100	40		
Shad	249,284	9,311	325,575	14,470			72,000	2,700
Sheepshead			10,000	500			2,300	118
Spanish mackerel			48,975	1,217	1,800	126		
Spots, fresh			69,200	692	2,800	56	5,200	104
Squeteague, fresh			254,600	4,058	22,000	880	46,420	1,901
Striped bass	8,800	616	10,000	300				
Suckers	2,000	60	80,900	4,066	20,000	1,324	6,200	430
Sun-fish					48,850	557		
Total	1,958,487	23,390	1,924,781	43,397	1,116,232	35,871	405,304	8,208
Total vessel and shore	1,958,487	23,390	1,924,781	43,397	1,121,432	36,303	441,604	11,400

Species.	Martin.		New Hanover.		Onslow.		Pamlico.		Pasquotank.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:										
Squeteague									400	\$20
Striped bass									10,000	900
Total									10,400	920
Shore fisheries:							16,066	\$250	97,666	959
Alowives, fresh	10,333	\$155							107,999	810
Alowives, salted	69,670	500							20,712	729
Black bass			5,000	\$150	10,300	\$309	22,000	440		
Blue-fish, fresh							7,600	114		
Butter-fish									4,800	144
Cat-fish	4,300	172								
Channel bass			3,150	63						
Croakers, fresh			46,375	848	10,650	213	40,200	201		
Drum			2,000	60						
Flounders			13,015	272	1,000	20	5,350	53		
Hickory shad	6,000	240					4,000	80	1,400	42
King-fish							8,300	124		
Mullet, fresh			168,410	4,210	33,200	664	15,650	156		
Mullet, salted			39,750	1,193	716,800	21,504			24,500	805
Perch	2,200	110					15,310	459		
Pig-fish			21,125	634	8,200	164	3,500	52		
Pike							5,000	50		
Pin-fish							2,300	34		
Porgy							5,050	50		
Shad	62,000	2,325					22,500	1,000	12,440	407
Sheepshead			19,075	573			3,000	150		
Spanish mackerel							5,450	136		
Spots, fresh			22,175	444			18,350	92		
Squeteague			41,060	2,099	20,450	920	55,125	926		
Striped bass	5,000	400	3,700	185			10,100	505	1,200	84
Suckers	2,000	60							2,800	84
Shrimp			144,000	5,760						
Total	158,503	3,062	530,335	16,491	800,000	23,794	265,451	4,852	273,517	4,214
Total vessel and shore	158,503	3,062	530,335	16,491	800,000	23,794	265,451	4,852	283,917	5,184

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Table showing the yield of the seine fisheries of North Carolina—Continued.

Species.	Duplin.		Hertford.		Hyde.		Lenoir.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Alewives, fresh	5,000	\$00	553,337	\$7,700			1,130	\$10
Alewives, salted			107,998	810				
Black bass	1,000	50						
Blue-fish, fresh					28,000	\$420		
Blue-fish, salted					35,000	700		
Cat-fish	1,200	24	1,400	42			2,100	32
Drum					16,000	326		
Hickory shad	500	25	300	10			1,700	43
Mullet, fresh					29,650	444		
Mullet, salted					50,000	1,250		
Perch	6,250	313	3,800	114			2,525	101
Pig-fish					15,100	302		
Shad	16,200	720	30,800	1,115			27,000	1,020
Spots, fresh					25,200	378		
Squeteague, fresh					56,250	843		
Striped bass	2,300	115	1,300	80			1,865	131
Suckers	3,200	96	4,300	93			1,150	11
Sturgeon							3,100	46
Total	35,650	1,403	703,235	9,964	255,500	4,663	40,570	1,394

Species.	Pender.		Perquimans.		Pitt.		Sampson.		Washington.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:										
Alewives, fresh	1,600	\$20	23,330	\$340	7,596	\$227	13,330	\$160	16,670	\$250
Alewives, salted			7,200	53					250,000	1,875
Black bass	450	23	2,900	116			3,600	175		
Blue-fish, fresh	650	20								
Cat-fish	750	15			150	2	3,200	96		
Croakers, fresh	17,700	354								
Flounders	8,300	166								
Hickory shad	200	10			2,600	66	2,000	50		
Mullet, fresh	47,465	1,186								
Mullet, salted	7,500	225								
Perch	3,150	158	3,100	124	325	12	12,250	613	5,000	250
Pig-fish	10,550	317								
Shad	8,100	360	36,408	1,365	29,160	1,296	36,000	1,600	128,000	4,800
Sheepshead	8,800	264								
Spots, fresh	12,275	246								
Squeteague, fresh	14,845	742								
Striped bass	875	44			75	6	4,650	223	20,000	1,600
Suckers	1,600	48					5,300	159	4,000	120
Total	144,870	4,198	72,938	1,998	39,906	1,609	80,230	3,086	423,670	8,895

SUMMARY.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Vessel fisheries:			Shore fisheries—Cont'd.		
Menhaden	9,930,000	\$17,400	Pike	94,690	\$2,370
Squeteague	5,000	250	Pin-fish	26,850	346
Striped bass	46,900	4,236	Pompano	25,650	775
Total	9,981,900	21,886	Porgy	33,710	410
Shore fisheries:			Soad, or round robin	8,100	46
Alewives, fresh	2,475,153	27,502	Sea bass	81,225	1,897
Alewives, salted	3,389,195	27,651	Shad	1,607,242	60,235
Black bass	529,442	23,322	Sheepshead	135,330	4,180
Blue-fish, fresh	401,950	8,428	Spanish mackerel	103,450	4,026
Blue-fish, salted	65,200	1,480	Spots, fresh	305,112	4,330
Butter-fish	63,775	1,087	Spots, salted	23,400	585
Cat-fish	110,756	2,086	Squeteague, fresh	928,833	23,027
Channel bass	12,500	203	Squeteague, salted	25,600	678
Croakers, fresh	511,075	5,413	Strawberry bass	13,400	450
Croakers, salted	25,000	250	Striped bass	204,018	12,639
Drum	51,400	1,073	Suckers	96,000	1,831
Flounders	88,615	1,574	Sun-fish	24,910	835
Hickory shad	113,194	2,864	Sturgeon	3,100	46
King-fish	100,815	3,337	Tautog	8,925	179
Menhaden	1,380,000	2,300	Sbrimp	144,000	5,760
Mullet, fresh	503,500	9,819	Turtles	24,000	1,920
Mullet, salted	1,791,900	52,655	Terrapins	10,928	1,630
Perch	576,684	15,634	Total	16,248,447	318,169
Pig-fish	169,820	3,696	Total vessel and shore	26,230,347	340,055

Table showing by counties and species the yield of the gill-net fisheries of North Carolina in 1897.

Species.	Beaufort.		Bladen.		Brunswick.		Camden.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Croakers, fresh					11,500	\$230		
Flounders					5,600	112		
Mullet, fresh					12,300	333		
Mullet, salted					20,500	615		
Pig-fish					7,200	216		
Shad	61,875	\$3,750	22,248	\$1,000			144,000	\$5,400
Spots, fresh					10,160	219		
Squeteague, fresh					8,550	342		
Striped bass	850	68					2,400	108
Sturgeon	15,000	300						
Total	77,725	4,118	22,248	1,000	76,600	2,067	146,400	5,588
Vessel fisheries:								
Blue-fish	53,650	\$1,073						
Channel bass	5,750	89						
Croakers	49,500	206						
King-fish	23,025	462						
Mullet, fresh	30,075	448						
Mullet, salted	93,850	2,816						
Pig-fish	6,550	135						
Pompano	6,050	183						
Sea bass	9,300	188						
Sheepshead	8,775	265						
Spanish mackerel	41,070	2,466						
Squeteague	78,663	2,424						
Total	406,258	10,845						
Shore fisheries:								
Alawives, fresh	10,000	150						
Alawives, salted							112,500	\$675
Blue-fish, fresh	258,085	4,152					17,300	695
Blue-fish, salted	30,400	780						
Bonito	2,350	35						
Butter-fish	10,050	200					400	16
Channel bass	3,800	57						
Croakers, fresh	57,800	365					13,600	408
Croakers, salted							2,000	80
Flounders	10,400	208						
King-fish	64,750	1,295					9,600	114
Mullet, fresh	30,200	453					2,000	80
Mullet, salted	50,000	1,500					10,000	500
Pig-fish	52,370	1,048						
Pin-fish	4,200	63						
Pompano	13,725	412						
Porpy	6,200	62						
Sea bass	23,425	408						
Shad			255,200	\$9,570	236,250	\$10,500	360,400	13,515
Sheepshead	25,325	759						
Spanish mackerel	98,550	3,787					500	40
Spots, fresh	90,660	1,358					4,200	86
Spots, salted	13,300	358					8,000	120
Squeteague, fresh	281,287	5,614					28,000	1,270
Squeteague, salted	21,850	564					8,000	400
Striped bass	3,000	150	16,400	1,148	5,700	342	13,900	974
Sturgeon			100,475	2,453	75,000	3,750		
Tautog	5,200	104						
Caviar			10,360	3,248	10,125	3,375		
Total	1,136,027	23,942	382,435	16,419	327,075	17,967	585,400	18,073
Total vessel and shore	1,543,185	34,787	382,435	16,419	327,075	17,967	585,400	18,073

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Table showing by counties and species the yield of the gill-net fisheries of North Carolina in 1897—Continued.

Species.	Dare.		Duplu.		Hertford.		Hyde.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:								
Blue-fish, fresh	577,390	\$22,039					30,000	\$450
Blue-fish, salted	118,200	2,884						
Butter-fish	3,800	130						
Channel bass	27,000	316						
Croakers, fresh	187,244	4,027						
Croakers, salted	4,400	92						
King-fish	20,500	614						
Mullet, fresh	60,400	1,827						
Mullet, salted	479,410	10,460						
Pig-fish							30,400	608
Pompano	1,600	84						
Shad	2,113,872	90,362	2,700	\$120	17,100	\$637	247,500	11,000
Sheepshead	65,925	2,656						
Spanish mackerel	13,470	1,281					10,000	400
Spots, fresh	111,500	899					40,300	502
Spots, salted	68,146	2,484						
Squeteague, fresh	619,800	23,645					43,500	566
Squeteague, salted	28,046	584						
Striped bass	32,510	2,154					4,750	400
Terrapins	6,100	1,152						
Squeteague sounds	691	104						
Total	4,540,004	168,394	2,700	120	17,100	637	406,450	13,920

Species.	Lenoir.		New Hanover.		Onslow.		Pamlico.		Pasquotank.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:										
Alewives, fresh					50,000	\$600			3,332	\$35
Channel bass					15,000	150				
Croakers, fresh			12,500	\$250	38,200	764				
Flounders			6,125	123	10,200	204				
Hickory shad			8,700	435						
Mullet, fresh			74,250	1,857	45,000	900				
Mullet, salted					151,500	4,545				
Perch					10,000	300				
Pig-fish					25,350	507				
Shad	25,000	\$937	236,781	13,155			18,000	\$800	213,880	8,039
Sheepshead					0,000	180				
Spots, fresh			7,500	150	21,200	424				
Squeteague, fresh			13,500	680	205,725	13,309				
Striped bass							500	20	5,065	428
Sturgeon			93,750	2,812						
Caviar			12,015	4,539						
Total	25,000	937	465,211	24,001	668,175	21,893	18,500	820	223,177	8,502

Species.	Pender.		Perquimans.		Sampson.		Tyrrell.		Washington.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:										
Croakers, fresh	6,250	\$125								
Flounders	1,625	33								
Mullet, fresh	38,400	960								
Shad	6,750	300	92,000	\$3,454	22,500	\$1,000	728,000	\$27,310	112,800	\$4,230
Spots, fresh	4,850	97								
Squeteague, fresh	5,000	225								
Striped bass			3,060	214			47,300	3,311	9,300	656
Total	62,875	1,740	95,156	3,668	22,500	1,000	775,300	30,621	122,100	4,886

Table showing by counties and species the yield of the gill-net fisheries of North Carolina in 1897—Continued.

SUMMARY.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Vessel fisheries:			Shore fisheries—Cont'd:		
Blue-fish	53,650	\$1,073	King-fish	04,850	\$2,023
Channel bass	5,750	89	Mullet, fresh	262,550	6,410
Croakers	49,500	290	Mullet, salted	711,410	17,020
King-fish	23,025	462	Perch	10,000	300
Mullet, fresh	30,075	448	Pig-fish	115,320	2,379
Mullet, salted	93,850	2,816	Pin-fish	4,200	63
Pig-fish	6,550	135	Pompano	15,325	496
Pompano	6,050	183	Porgy	6,200	62
Sea bass	9,300	188	Sea bass	23,425	468
Sheepshead	8,775	265	Shad	4,916,952	205,079
Spanish mackerel	41,070	2,460	Sheepshead	97,250	3,505
Squeteague	78,663	2,424	Spanish mackerel	92,620	5,508
Total	406,258	10,845	Spots, fresh	291,160	3,735
Shore fisheries:			Spots, salted	84,440	2,062
Alewives, fresh	63,332	785	Squeteague, fresh	1,295,452	45,651
Alewives, salted	112,500	675	Squeteague, salted	57,896	1,548
Blue-fish, fresh	882,775	27,336	Striped bass	145,635	10,033
Blue-fish, salted	148,600	3,664	Sturgeon	284,225	9,815
Bonito	2,350	35	Tautog	6,200	104
Butter-fish	14,250	346	Terrapins	6,100	1,152
Channel bass	45,800	523	Caviar	32,500	11,162
Croakers, fresh	327,094	6,799	Squeteague sounds	691	104
Croakers, salted	6,400	172	Total	10,199,058	371,189
Flounders	33,950	680	Total vessel and shore	10,605,316	382,034
Hickory shad	8,700	435			

Table showing by counties the yield of the pound-net fisheries of North Carolina in 1897.

Species.	Beaufort.		Bertie.		Camden.		Chowan.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh	20,600	\$393	204,332	\$2,512	69,400	\$814	2,244,708	\$11,005
Alewives, salted			348,366	2,550	8,333	75	3,002,676	28,964
Black bass					700	20		
Blue-fish	4,500	90						
Butter-fish	5,725	85						
Catfish	4,740	71	1,050	76	2,400	24	7,530	290
Channel bass, salted								
Croakers	83,500	1,252						
Eels							50	3
Flounders	5,740	80			3,000	90	895	34
Hickory shad			12,300	463	400	10	49,879	1,995
Mullet	1,300	20						
Perch	10,200	510	1,280	90	12,200	362	57,450	2,293
Pike					700	28	200	16
Pompano	3,200	112						
Shad	60,300	2,680	115,200	4,480	60,000	2,250	675,680	21,538
Sheepshead	2,100	42						
Spanish mackerel	4,250	149						
Squeteague	152,835	2,292						
Spots, fresh	13,275	199						
Striped bass	3,750	300	8,857	630	18,000	1,200	38,330	2,684
Sturgeon	1,700	34						
Suckers			1,140	40	800	21	12,200	367
Total	377,715	8,315	693,125	10,811	175,933	4,963	6,989,698	69,275

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Table showing by counties the yield of the pound-net fisheries of North Carolina in 1897--
Continued.

Species.	Craven.		Currituck.		Dare.		Hertford.		Hyde.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alowives, fresh	25,000	\$375	3,500	\$21	274,080	\$2,006	16,349	\$385	2,000	\$30
Alowives, salted			1,000	12	1,103,000	8,559				
Blue-fish	25,000	500	50	2	53,400	2,504			10,650	159
Butter-fish	5,000	75			5,000	150				
Cat-fish			1,030	30	2,350	59	300	11		
Channel bass, salted					40,200	804				
Croakers	65,000	325			140,000	3,282			10,300	154
Eels					1,500	32				
Flounders	6,500	65	1,000	30	11,675	256			6,600	85
Hickory shad	5,000	75			4,834	233	75	4		
King-fish	10,150	202			3,890	227			2,500	25
Perch	20,000	600	6,700	140	19,790	594	600	19		
Pig-fish									8,200	123
Pompano					2,950	102				
Shad	22,837	1,015	4,000	150	961,256	39,955	480	20	4,500	200
Sheepshead	3,650	180			9,400	470				
Spanish mackerel	15,300	382			66,000	5,280				
Squeteague	105,575	2,260	300	15	161,475	8,074			40,100	690
Spots, fresh	40,100	401			18,040	381			15,000	207
Spots, salted					26,000	780				
Striped bass	13,200	792	10,720	750	292,647	20,453	50	3	3,500	280
Sturgeon					82,600	4,130				
Suckers							2,000	40		
Total	362,312	7,247	28,300	1,150	3,286,087	98,391	10,854	488	109,950	1,953

Species.	Pamlico.		Pasquotank.		Perquimans.		Tyrrell.		Washington.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alowives, fresh	10,000	\$150	19,918	\$206	113,249	\$1,306	55,315	\$550	78,999	\$356
Alowives, salted			7,000	63	72,668	545	581,499	4,014	392,999	2,948
Blue-fish	18,300	366								
Butter-fish	1,000	15								
Cat-fish			3,500	105	5,280	193	100	1	4,250	177
Croakers	10,200	51								
Flounders	3,100	31							500	20
Hickory shad	2,000	150	68	2	7,450	224	3,375	135	20,250	830
King-fish	5,715	114								
Perch	15,300	459	5,200	162	13,250	530	10,050	329	19,950	800
Shad	9,000	400	8,592	352	134,320	5,037	57,440	2,154	214,980	8,062
Sheepshead	1,200	60								
Spanish mackerel	8,250	206								
Squeteague	58,525	1,225								
Spots, fresh	7,000	70								
Striped bass	8,200	328	2,230	158	7,950	550	3,530	255	19,650	1,381
Suckers			6,000	180	7,830	283			2,600	78
Total	157,790	3,625	52,514	1,228	361,995	8,662	711,309	8,038	754,178	14,652

SUMMARY.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Alowives, fresh	3,137,450	\$20,163	Pig-fish	8,200	\$123
Alowives, salted	6,417,530	48,350	Pike	900	44
Black bass	700	29	Pompano	6,150	274
Blue-fish	111,900	3,621	Shad	2,328,585	88,293
Butter-fish	16,725	325	Sheepshead	16,350	752
Cat-fish	33,130	1,043	Spanish mackerel	93,800	6,017
Channel bass, salted	40,200	804	Squeteague	524,810	14,556
Croakers	315,000	5,004	Spots, fresh	94,015	1,258
Eels	1,550	35	Spots, salted	26,000	780
Flounders	39,010	697	Striped bass	430,620	29,824
Hickory shad	105,631	4,121	Sturgeon	84,300	4,164
King-fish	22,255	668	Suckers	32,670	1,015
Mullet	1,300	20			
Perch	191,970	6,858	Total	14,080,060	238,798

Table showing by counties the yield of the line fisheries of North Carolina in 1897.

Species.	Brunswick.		Daro.		Martin.		New Hanover.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Shore fisheries:							5,200	\$260	5,200	\$260
Black bass.....									32,100	1,150
Blue-fish.....	12,500	\$250	10,600	\$900			17,300	519	24,300	799
Cat-fish.....			500	15					500	15
Channel bass.....							25,150	503	44,950	072
Croakers.....	12,500	250	7,300	219			8,400	168	12,400	248
Flounders.....	4,000	80					38,000	760	57,125	1,238
King-fish.....	10,125	478					17,175	850	17,175	859
Perch.....							75,315	2,636	112,917	3,952
Pig-fish.....	37,602	1,316					4,750	238	4,750	238
Pike.....							20,300	406	30,550	655
Pin-fish.....	10,250	249					26,500	662	30,000	975
Sailor's choice.....	12,500	313					50,175	2,007	75,275	3,011
Sea bass.....	25,100	1,004					6,200	186	13,300	439
Sheepshead.....	3,100	93	4,000	160			23,250	581	34,400	800
Snappers.....	11,150	279					15,250	305	22,850	457
Spots.....	7,600	152					93,000	3,720	172,000	6,985
Squeteague.....	46,500	1,860	32,500	1,405			8,325	416	8,325	416
Strawberry bass.....					4,000	400	4,300	215	8,300	615
Striped bass.....							13,300	665	13,300	665
Sun-fish.....							6,950	348	6,950	348
Warmouth bass.....							30,200	755	45,300	1,133
Whiting.....	15,100	378					40,000	1,000	40,000	1,000
Crabs, hard.....										
Total.....	217,027	6,702	63,900	2,690	11,000	680	529,040	17,209	820,967	27,290

Table showing by counties the catch by wheels operated in North Carolina in 1897.

Species.	Bertie.		Martin.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alowives, fresh.....			1,000	\$18	1,000	\$18
Alowives, salted.....	28,000	\$252	17,335	156	45,335	408
Cat-fish.....			10,000	300	10,000	300
Hickory shad.....	2,100	98			2,100	98
Perch.....	2,000	80	3,000	150	5,000	230
Shad.....	12,400	558	30,000	1,350	42,400	1,908
Striped bass.....	2,000	160	4,800	436	6,800	496
Suckers.....	5,000	150			5,000	150
Total.....	51,500	1,298	60,135	2,310	117,635	3,608

Table showing by counties the yield of the fyke-net fisheries of North Carolina in 1897.

Species.	Camden.		Currituck.		Daro.		Hertford.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Cat-fish.....	500	\$5	11,000	\$330	400	\$12	200	\$6
Eels.....							800	24
Perch.....	500	5	2,100	63				
Pike.....	80	3						
Sheepshead.....					201	12		
Spots.....			3,000	90				
Squeteague.....					2,000	100		
Striped bass.....					400	20		
Suckers.....	100	2					160	3
Total.....	1,180	15	16,100	483	3,001	144	1,160	33

Species.	Martin.		Pasquotank.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alowives.....			260	\$3	260	\$3
Cat-fish.....	1,200	\$48	200	6	13,500	407
Eels.....			2,000	100	2,000	100
Perch.....					3,400	92
Pike.....					80	3
Sheepshead.....					201	12
Spots.....					3,000	90
Squeteague.....					2,000	100
Striped bass.....					400	20
Suckers.....	800	24	800	9	1,360	38
Total.....	2,000	72	2,766	118	26,207	865

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Table showing by counties the catch of eels by pots in North Carolina in 1897.

Counties.	Lbs.	Value.
Beaufort.....	25,000	\$750
Craven.....	10,000	250
Currituck.....	27,450	1,533
Dare.....	9,400	312
Martin.....	1,000	60
Pasquotank.....	8,000	400
Perquimans.....	12,150	608
Total.....	93,000	3,913

Table showing by counties the catch by minor nets in North Carolina in 1897.

Species.	Beaufort.		Bertie.		Bladen.		Brunswick.		Carteret.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh.....			7,000	\$105						
Alewives, salted.....			70,000	630						
Hickory shad.....			450	21						
Mullet, salted.....							15,000	\$450		
Shad.....	5,400	\$240	10,000	720	9,450	\$420	10,125	450		
Shrimp.....							2,496	125		
Crabs, soft.....									979,200	\$3,400
Total.....	5,400	240	93,450	1,470	9,450	420	27,621	1,025	979,200	3,400

Species.	Dare.		Edgecombe.		Lenoir.		Martin.		New Hanover.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh.....							10,000	\$180		
Alewives, salted.....							61,667	585		
Cat-fish.....					525	\$11				
Eels.....					150	3				
Hickory shad.....							900	44		
Perch.....					650	26				
Shad.....			11,925	\$530	39,200	1,470	34,000	1,590		
Striped bass.....					2,450	172				
Suckers.....					300	3				
Crabs, soft.....	2,400	\$144							5,120	\$448
Total.....	2,400	144	11,925	530	43,275	1,685	106,567	2,399	5,120	448

Species.	Pasquotank.		Pender.		Pitt.		Sampson.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh.....									17,000	\$285
Alewives, salted.....									131,667	1,215
Cat-fish.....									625	11
Eels.....									150	3
Hickory shad.....									1,350	65
Mullet, salted.....									15,000	450
Perch.....	1,500	\$45							2,150	71
Shad.....			4,837	\$215	27,472	\$1,221	9,900	\$440	108,309	7,296
Striped bass.....									2,450	172
Suckers.....									300	3
Shrimps.....									2,496	125
Crabs, soft.....									986,720	3,902
Total.....	1,500	45	4,837	215	27,472	1,221	9,900	440	1,328,117	13,088

Table showing by counties the catch by dredges, tongs, rakes, etc., in North Carolina in 1897.

Species.	Beaufort.		Brunswick.		Carteret.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:						
Oysters.....	59,500	\$1,370			843,675	\$29,029
Shore fisheries:						
Oysters.....					1,713,600	60,299
Clams.....			400,000	\$22,500	307,408	19,213
Scallops.....					118,323	5,653
Total.....			400,000	22,500	2,139,331	85,165
Total vessel and shore.....	59,500	1,370	400,000	22,500	2,983,006	114,194

Species.	Dare.		Hyde.		New Hanover.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:						
Oysters.....	74,851	\$3,208				
Shore fisheries:						
Oysters.....	113,400	4,610	1,066,700	\$45,583	448,000	\$28,000
Clams.....	25,600	890	48,000	2,400	144,000	8,100
Total.....	139,000	5,600	1,714,700	47,983	592,000	36,100
Total vessel and shore.....	213,851	8,708	1,714,700	47,983	592,000	36,100

Species.	Onslow.		Pamlico.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Vessel fisheries:						
Oysters.....					978,026	\$33,607
Shore fisheries:						
Oysters.....	840,000	\$60,000	252,000	\$9,000	5,032,700	207,492
Clams.....	12,800	600			937,808	53,703
Scallops.....					118,323	5,653
Total.....	852,800	60,600	252,000	9,000	6,089,831	266,848
Total vessel and shore.....	852,800	60,600	252,000	9,000	7,067,857	300,455

Table showing by counties the catch by miscellaneous apparatus for North Carolina in 1897.

Species.	Bertie.		Chowan.		Currituck.		Dare.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Terrapin.....							151	\$33
Frogs.....					1,800	\$450		
Refuse.....	500,000	\$625	2,902,200	\$3,703				
Total.....	500,000	625	2,902,200	3,703	1,800	450	151	33

Species.	Martin.		Washington.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Terrapin.....					151	\$33
Frogs.....					1,800	450
Refuse.....	40,000	\$50	360,000	\$450	3,862,200	4,828
Total.....	40,000	50	360,000	450	3,864,151	5,311

The shad is the preeminent fish in North Carolina so far as value is concerned. The following table shows the number caught during the years 1889, 1890, 1896, and 1897. The continued preponderance of Dare County in this fishery is clearly brought out, the catch in 1897 being almost one-third that of the entire State.

Table showing the number of shad taken in each county in North Carolina in 1889, 1890, 1896, and 1897.

Counties.	1889.	1890.	1896.	1897.
	No.	No.	No.	No.
Beaufort	59,618	65,050	54,282	51,774
Bertie	161,050	106,800	148,950	122,491
Bladen			6,202	7,044
Brunswick	6,894	6,741	7,434	2,250
Camden	26,600	39,375	33,000	51,000
Cherokee	7,571	5,750	21,151	
Chowan	119,126	125,841	348,898	270,041
Columbus			1,220	
Cumberland			2,265	
Currituck	54,400	70,768	36,053	91,100
Dare	595,217	690,749	675,700	786,782
Duplin	4,035	3,210	3,534	4,200
Edgecombe	24,046	20,694	1,960	2,650
Gates	4,300	4,760	700	
Greene			4,193	
Hertford	6,354	8,150	12,870	12,095
Hyde	19,850	27,780	50,365	56,000
Johnston			850	
Lenoir	7,000	7,497	14,787	21,356
Martin	24,000	26,410	54,089	31,500
New Hanover	43,677	37,700	40,038	52,618
Onslow	7,194	5,543		
Pamlico and Craven	145,000	148,000	160,383	141,000
Pasquotank	34,479	37,830	59,398	58,728
Pender	31,783	26,160	8,492	4,375
Perquimans	30,390	27,750	51,324	65,706
Pitt	8,794	10,736	13,382	12,585
Sampson	6,714	5,350	6,130	15,200
Tyrrell	28,480	32,850	156,169	198,360
Washington	73,822	71,105	119,839	113,945
Wayne			3,146	
Total	1,530,394	1,612,594	2,096,804	2,170,800

INDUSTRIES.

The shore enterprises of North Carolina dependent on the fisheries are of considerable importance. The prominent features of each of these is shown in the tables that follow, which are presented in a condensed form.

The menhaden business of North Carolina is centered in the vicinity of Beaufort, and six factories were operated in 1897. The capital invested in buildings, vessels, apparatus, etc., was \$102,840, the number of persons employed was 200, the value of the fish handled was \$19,605, and the value of manufactured products \$35,527.

The wholesale trade and canning industry was carried on by 27 firms which included 1 establishment canning oysters and 1 canning clams. To avoid showing private business of these two canneries they have been combined with the firms dealing in fish, oysters, etc. The products sold had a value of \$411,941. More than half of this amount represented fresh and salted fish, while the oysters that were sold open brought \$100,181 for 149,181 gallons.

There was only one oyster-canning establishment in operation in 1897, and its output was small.

The oyster-packing industry shows a large decline, owing to the withdrawal of many firms formerly engaged in this business throughout the State. In Elizabeth City 13 firms thus engaged withdrew from the trade.

A new industry, that of canning clams, has been started at Ocracoke.

Table showing the extent of the menhaden industry of North Carolina in 1897.

Items.	No.	Value.	Items.	No.	Value.
Establishments	6	\$57,000	Steam vessels fishing	3	\$25,000
Cash capital		20,800	Tonnage	124.92	
Shore employees	73		Outfit and apparatus		4,200
Fishermen	127		Sail vessels fishing	8	6,350
Menhaden handled	19,250,000	19,605	Tonnage	113.92	
Tons of scrap prepared	1,930	24,450	Outfit and apparatus		5,340
Gallons of oil	61,550	11,077	Sail vessels transporting	4	4,400
			Tonnage	60.20	
			Outfit		550

Statement showing by localities the wholesale trade in fishery products for North Carolina in 1897.

Items.	Beaufort.		Elizabeth City.		Morehead City.		Newbern.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Establishments	4	\$5,600	2	\$2,695	6	\$10,800	4	\$25,400
Cash capital		14,200		5,500		23,900		25,900
Ice used	110 tons	550	220	1,100	970	4,840	800	4,000
Salt used	bush				700	210		
Employees	No.	61	7		19		184	
Products handled:								
Oysters sold open	galls				24,027	15,066	50,754	36,065
Oysters canned	cans	120,000	7,250					
Clams	bush	5,000	4,500		23,250	20,925		
Scallops sold open	galls				4,147	2,730		
Crabs, soft	No.				4,800	240		
Fish, fresh and salt	lbs	350,000	14,000	1,048,833	39,475	1,406,868	56,274	1,565,000

Items.	Washington.		Wilmington.		Marshallberg, Ocracoke, and Belhaven.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Establishments	3	\$0,000	4	\$20,200	4	\$8,650	27	\$82,345
Cash capital		16,000		21,000		12,000		117,600
Ice used	540 tons	2,700	410	2,050			3,050	15,240
Salt used	800 bush	240					1,500	450
Employees	No.	14	13		147		445	
Products handled:								
Oysters sold open	galls		18,000	13,500	55,500	35,550	140,181	100,181
Oysters canned	cans						120,000	7,250
Clams	bush						28,250	25,425
Clams canned	cans				56,300	9,850	56,300	9,850
Scallops sold open	galls						4,147	2,730
Crabs, soft	No.		37,200	2,015	120,000	6,500	162,000	8,755
Crabs, hard	No.		62,400	1,300			62,400	1,300
Shrimp	bush		2,800	8,960			2,800	9,880
Fish, fresh and salt	lbs	1,444,275	48,436	250,000	25,000		6,064,076	248,785
Caviar	lbs			7,425			7,425	2,805

FISHERIES OF SOUTH CAROLINA.

The commercial fisheries of the State are carried on chiefly in the bays and near the outlets of the rivers in Beaufort, Charleston, and Georgetown counties, the cities of Charleston and Georgetown being the principal fishery centers. The fisheries of the interior waters are to a considerable extent for local use, shad comprising the principal part of the catch.

In the Charleston fish markets, both wholesale and retail, sea bass, whiting, and shad are the leading species. One species, not often found in fish markets, was the shark, which is skinned and cut up into strips and sold in small bunches of from 1 to 2 pounds, at 10 cents a bunch. Some 30,000 pounds of sharks are sold during the year to the negro population. All fresh fish are sold by the piece or the bunch, the latter being made up of small-sized pan-fish. Terrapin are found in more or less abundance in the bays, creeks, and inlets of Beaufort and Charleston counties, the larger portion being taken at or near McClellanville. Terrapin are secured by nets, and by hand-picking as found buried in the sand or mud, and are reported as becoming scarce. The sturgeon fishery is one of the most valuable branches of the fish business of Georgetown County. Sturgeon are taken by gill nets of from 12 to 15 inch mesh, and an average of 900 feet in length, being 20 to 22 feet deep. The sturgeon are all of quite large size, ranging from 100 to 300 pounds, with an average of 125 pounds. Occasionally much larger fish are taken. The sturgeon catch of Georgetown County is made in and near the mouth of the Santee River, in Winyah Bay and Waccamaw River as far as Laurel, the largest part of the catch being made in the lower end of Winyah Bay.

The shad is the most important species in this region, both as to quantity and value. The shad catch of Georgetown County is all made by means of gill nets fished in Winyah Bay, Waccamaw, Peedee, Black, and Santee rivers, the greater part being from Winyah Bay and Waccamaw River. The catch from the three last-mentioned rivers is mostly used locally. The shad nets employed in the waters of Winyah Bay and Waccamaw River are 5½-inch mesh, 1,000 to 1,200 feet in length and 22 feet deep. The shad catch is reported as having much improved of late years, as a result of large plantings of shad fry. The season's catch of 1897 and 1898 averages 500 shad to each net, the average weight being 4 pounds, with many of 6 and 8 pounds. One caught in Winyah Bay in February, 1898, was reported to have weighed 10 pounds.

The fisheries of this section are of much value to the city and county of Georgetown, where several firms act as agents for or partners of the fishermen, furnishing them with nets and supplies, and receiving, packing, and forwarding the catch to northern markets.

Beaufort County fisheries are chiefly represented in products by oysters, that are mostly sold to the canneries located at Ladies Island,

near Beaufort, and canneries in Georgia, at Wilmington Island and Thunderbolt.

Small vessels from Savannah cruise along the waters of Beaufort County, buying a considerable amount of terrapin from the residents. Of the large variety of sea fishes to be found in this section very little attention is given to any except drum, which are plentiful, and weigh from 20 to 150 pounds. During the short run of drum, extending only through March and April, from 50 to 75 boats from Beaufort engage in the fishery, their aggregate catch for the season amounting to 150,000 to 200,000 pounds. Drum are sold by fishermen at from 25 to 50 cents apiece, or an average of about one-half cent a pound. They are mostly used locally, all surplus being shipped by steamer to Charleston.

The following series of tables contain condensed statistics of the fisheries of this State. There were employed in 1897, 2,139 persons, 59 of this number being engaged on vessels, 10 on vessels transporting, 1,865 in the shore and boat fisheries, and 205 were shoresmen. The investment in the fisheries of the State was \$174,354. There were 12 fishing vessels, valued at \$6,300; 1,056 boats were employed, worth \$34,080. Gill nets constituted the most important form of apparatus of capture, and were valued at \$23,840. Seines were valued at \$3,045; tongs and rakes at \$1,692. The shore property and the cash capital amounted to \$93,855.

The yield of the fisheries of the State was 5,280,446 pounds, having a value of \$210,456. The value of oysters taken was \$45,360, of whiting \$28,405, of shad \$27,696, and of sea bass \$26,356. The yield of shrimp was worth \$18,395, sturgeon \$7,325, caviar \$17,525, terrapins \$9,635.

Persons employed.

How engaged.	No.
On vessels fishing	59
On vessels transporting	10
In shore or boat fisheries	1,865
Shoresmen	205
Total	2,139

Table of apparatus and capital.

Items.	No.	Value.	Items.	No.	Value.
Vessels fishing.....	12	\$6,300	Apparatus of capture—shore fisheries:		
Tonnage	224.90		Seines.....	87	\$3,015
Outfit		3,157	Gill nets	408	23,840
Vessels transporting.....	4	5,700	Cast nets	123	615
Tonnage	28.03		Bow nets.....	20	60
Outfit		585	Lines		985
Boats	1,056	34,080	Tongs and rakes	244	1,678
Apparatus of capture—vessel fisheries:			Shore and accessory property		45,055
Seines.....	1	30	Cash capital		48,800
Lines.....		440			
Tongs.....	2	14	Total.....		174,354

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Table of products.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Alowives	2,000	\$40	Sheepshad	36,200	\$1,460
Black bass	1,000	30	Snappers	54,000	1,660
Blue fish	40,000	1,600	Spanish mackerel	10,000	1,000
Cat fish	28,500	535	Spots and croakers	49,000	730
Channel bass	110,000	2,500	Squeteague	80,000	2,030
Drum	215,000	1,875	Striped bass	10,100	556
Groupers	33,000	1,170	Sturgeon	411,100	7,325
Hickory shad	36,800	1,516	Whiting	638,500	28,405
Mullet, fresh	46,000	885	Crabs	¹ 110,000	2,240
Mullet, salted	10,000	200	Shrimp	374,500	18,395
Perch	2,000	40	Terrapins	40,916	9,635
Pompano	5,000	300	Oysters	² 1,504,300	45,360
Sailor's choice	8,800	440	Clams	³ 185,400	8,652
Sea bass	632,400	26,356	Caviar	69,805	17,525
Shad	506,125	27,696			
Sharks	30,000	300			
			Total	5,280,446	210,456

¹ 330,000 in number.

² 214,900 bushels.

³ 23,175 bushels.

The tables presenting the fisheries of this State by counties show the most important fisheries to have been carried on in Charleston County, where 989 persons were employed, \$104,747 invested, and the products valued at \$124,473. In Georgetown County the yield of the fisheries was valued at \$50,237, while in Beaufort County the value was \$34,546. In Colleton County the fisheries are of small importance, the catch being confined to oysters, which were valued at \$1,200.

Table showing the number of persons employed in the fisheries of South Carolina in 1897.

How engaged.	Beaufort County.	Charleston County.	Colleton County.	Georgetown County.	Total.
On vessels fishing		59			59
On vessels transporting		10			10
Boat or shore fishermen	477	873	25	490	1,865
Shoresmen	90	47		68	205
Total	567	989	25	558	2,130

Table showing by counties the vessels, boats, and apparatus employed in the fisheries of South Carolina in 1897.

Items.	Beaufort.		Charleston.		Colleton.*		Georgetown.		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing			12	\$6,300					12	\$6,300
Tonnage			224.90						224.90	
Outfit				3,157						3,157
Vessels transporting			4	5,700					4	5,700
Tonnage			28.03						28.03	
Outfit				585						585
Boats	281	\$5,740	405	17,195	25	\$200	345	\$10,945	1,056	34,080
Apparatus—vessel fisheries:										
Seines			1	30					1	30
Lines				440						440
Tongs			2	14					2	14
Apparatus—shore fisheries:										
Seines	18	650	43	1,865		26	500	87	3,015	
Gill nets			79	3,600		329	20,240	408	23,840	
Cast nets	25	125	98	490				123	615	
Bow nets						20	60	20	60	
Lines		100		870			15		985	
Tongs and rakes	100	700	93	651		51	327	244	1,678	
Shore and accessory property						25	8,500		45,055	
Cash capital		3,000		31,000			9,800		48,800	
Total		18,995		104,747		225	50,387		174,354	

* No apparatus shown for this county. The men employed picked oysters from reefs by hand.

Table showing by counties and species the yield of the fisheries of South Carolina in 1897.

Species.	Beaufort.		Charleston.		Colleton.		Georgetown.		Total.	
	Lbs.	Value	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives							2,000	\$40	2,000	\$40
Black bass							1,000	30	1,000	30
Blue-fish			40,000	\$1,600					40,000	1,600
Cat-fish			25,000	500			3,500	35	28,500	535
Chanuel bass	10,000	\$500	100,000	2,000					110,000	2,500
Drum	180,000	1,350	35,000	525					215,000	1,875
Groupers			33,000	1,170					33,000	1,170
Hickory shad			3,800	76			33,000	1,440	36,800	1,516
Mullet, fresh	13,000	390	30,000	450			3,000	45	46,000	885
Mullet, salted							10,000	200	10,000	200
Perch							2,000	40	2,000	40
Pompano			5,000	300					5,000	300
Sailor's choice	800	40	8,000	400					8,800	440
Sea bass	6,000	300	626,400	26,056					632,400	26,356
Shad			28,125	1,406			478,000	26,290	506,125	27,696
Sharks			30,000	300					30,000	300
Sheepshead	1,200	00	35,000	1,400					36,200	1,400
Snappers			54,000	1,660					54,000	1,660
Spanish mackerel			10,000	1,000					10,000	1,000
Spots and croakers	6,000	300	43,000	430					49,000	730
Squeteague	4,000	200	67,000	1,480			9,000	350	80,000	2,030
Striped bass			5,100	306			5,000	250	10,100	556
Sturgeon			151,100	3,325			200,000	4,000	411,100	7,325
Whiting	42,000	1,700	595,000	20,075			1,500	30	638,500	28,405
Crabs	3,000	100	97,000	1,940			10,000	200	110,000	2,240
Shrimp	16,500	495	358,000	17,900					374,500	18,395
Terrapins	10,023	2,075	20,888	6,900			4,000	600	40,911	9,635
Oysters	998,200	23,680	329,000	19,000	84,000	\$1,200	93,100	1,480	1,504,300	45,360
Clams	84,200	3,356	78,200	4,433			23,000	863	185,400	8,652
Caviar			12,430	3,181			57,375	14,344	69,805	17,525
Total	1,374,928	34,546	2,826,043	124,473	84,000	1,200	995,475	50,237	5,280,446	210,456

PRODUCTS IN RELATION TO APPARATUS.

The catch of the vessel fisheries amounted to 243,000 pounds, valued at \$11,166. The principal part of the catch by vessels was made by lines, the fishes taken being sea bass, groupers, red snappers, and squeteague, with a total value of \$8,816. The shore fisheries are of vastly greater importance. The catch by lines amounted to 1,766,200 pounds, with a value of \$61,055; the catch by gill nets 1,030,630 pounds, with a value of \$54,302. The yield of oysters and clams by tongs and by hand was worth \$52,662. The catch by seines amounted to 191,516 pounds, valued at \$12,681, while the yield by bow nets and cast nets was 379,000 pounds, worth \$18,590.

Table showing by apparatus and species the yield of the vessel fisheries of South Carolina in 1897.

Species.	Seines.		Lines.		Tongs.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Groupers			18,000	\$720			18,000	\$720
Red snappers			4,000	100			4,000	100
Sea bass			196,400	7,856			196,400	7,856
Squeteague			3,000	80			3,000	80
Terrapins	2,000	\$1,000					2,000	1,000
Oysters					14,000	\$1,000	14,000	1,000
Clams					5,600	350	5,600	350
Total	2,000	1,000	221,400	8,816	19,600	1,350	243,000	11,166

NOTE.—All the vessel fisheries of South Carolina are centered at Charleston.

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Table showing by counties, apparatus, and species the yield of the shore fisheries of South Carolina in 1897.

Apparatus and species.	Beaufort.		Charleston.		Colleton.		Georgetown.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Seines:										
Channel bass	8,000	\$400	50,000	\$1,000					58,000	\$1,400
Hickory shad			800	10					800	15
Mullet, fresh	10,000	300	30,000	450			3,000	\$45	43,000	795
Mullet, salted							7,000	140	7,000	140
Sailor's choice	800	40							800	40
Sea bass	4,000	200							4,000	200
Spots			3,000	30					3,000	30
Squeteague	3,000	150	4,000	200			5,000	150	12,000	500
Striped bass			2,500	150					2,500	150
Whiting	2,000	100							2,000	100
Crabs							7,000	140	7,000	140
Shrimp	4,500	135	8,000	400					12,500	535
Terrapins	10,028	2,075	24,888	5,980			4,000	600	38,916	8,635
Total	42,328	3,400	123,188	8,206			26,000	1,075	191,516	12,681
Gill nets:										
Black bass							1,000	30	1,000	30
Hickory shad			8,000	60			25,000	1,000	28,000	1,060
Mullet, salted							3,000	60	3,000	60
Shad			28,125	1,400			478,000	20,280	506,125	27,086
Squeteague							4,000	200	4,000	200
Striped bass			2,600	156			5,000	250	7,600	406
Sturgeon			151,100	3,325			200,000	4,000	411,100	7,325
Caviar			12,430	3,181			57,375	14,344	69,805	17,525
Total			197,255	8,128			833,375	40,174	1,030,630	54,302
Lines:										
Blue-fish			40,000	1,600					40,000	1,600
Cat-fish			25,000	500			2,500	25	27,500	525
Channel bass			50,000	1,000					50,000	1,000
Drum	180,000	1,350	35,000	525					215,000	1,875
Groupers			15,000	450					15,000	450
Perch							2,000	40	2,000	40
Pompano			5,000	300					5,000	300
Sailor's choice			8,000	400					8,000	400
Sea bass	2,000	100	430,000	18,200					432,000	18,300
Sharks			30,000	300					30,000	300
Sheepshead	1,200	60	35,000	1,400					36,200	1,460
Snappers			50,000	1,500					50,000	1,500
Spanish mackerel			10,000	1,000					10,000	1,000
Spots and croakers	6,000	300	40,000	400					46,000	700
Squeteague			60,000	1,200					60,000	1,200
Whiting	40,000	1,600	595,000	20,675			1,500	30	636,500	28,305
Crabs	3,000	100	97,000	1,940			3,000	60	103,000	2,100
Total	232,200	3,510	1,525,000	57,390			9,000	155	1,766,200	61,055
Bow nets:										
Alewives							2,000	40	2,000	40
Cat-fish							1,000	10	1,000	10
Hickory shad							8,000	440	8,000	440
Total							11,000	490	11,000	490
Cast nets:										
Channel bass	2,000	100							2,000	100
Mullet	3,000	90							3,000	90
Squeteague	1,000	50							1,000	50
Shrimp	12,000	360	350,000	17,500					362,000	17,860
Total	18,000	600	350,000	17,500					368,000	18,100
Tongs and hand-picked:										
Oysters	998,200	23,680	315,000	18,000	84,000	\$1,200	93,100	1,480	1,490,300	44,360
Clams	84,200	3,356	72,600	4,083			23,000	863	179,800	8,302
Total	1,082,400	27,036	387,600	22,083	84,000	1,200	116,100	2,343	1,670,100	52,662
Grand total	1,374,928	34,546	2,583,043	113,307	84,000	1,200	995,475	50,237	5,037,446	199,290

During 1897 the city of Charleston had \$62,750 invested in the wholesale fish business, the quantity amounting to 2,756,480 pounds, having a value of \$142,537. Of the quantity, 1,172,000 pounds were mullet, derived chiefly from Florida.

Table showing the extent of the wholesale fish trade of Charleston, S. C., in 1897.

Items.	Quantity, etc.	Value.	Items.	Quantity, etc.	Value.
	<i>Number.</i>		Products handled—cont'd.	<i>Pounds.</i>	
Establishments	6	\$32,750	Snappers	27,000	\$1,350
Cash capital		30,000	Spanish mackerel	1,500	150
Tons of ice consumed	1,000	5,000	Spots and croakers	37,000	1,110
Employees	44		Squeteague	28,700	921
Products handled:	<i>Pounds.</i>		Striped bass	5,000	500
Blue-fish	3,000	210	Sturgeon	07,000	2,830
Cat-fish	1,600	42	Sun-fish and perch	11,500	575
Channel bass	23,000	920	Whiting	308,000	15,400
Drum	27,500	1,100	Other fish	44,000	2,200
Groupers	32,000	1,280	Shrimp	13,600	680
Hickory shad	9,100	273	Crabs, hard	95,500	2,865
Mullet, fresh	1,172,000	46,760	Crabs, soft	1,600	200
Mullet, salted	3,000	150	Terrapins	18,700	8,770
Pompano	94,000	6,580	Oysters	*80,255	8,599
Shad	412,500	24,760	Clams	1100,800	9,434
Sea bass	72,000	3,600	Caviar	3,125	938
Sheepshead			Total	2,756,480	142,537

* 11,465 bushels.

†20,100 bushels.

Table showing the extent of the oyster-canning industry of South Carolina in 1897.

Number of establishments	3
Value	\$4,700
Cash capital	\$9,100
Employees	133
Raw products utilized:	
Oysters	bushels 62,840
Value	\$6,284
Clams	bushels 1,115
Value	\$250
Oysters, 1-pound cans	number 372,264
Value	\$10,524
Oysters, 2-pound cans	number 9,576
Value	\$957
Clams, 1-pound cans	number 13,200
Value	\$655

Two of these canneries are located in Georgetown County and one in Beaufort County; those in the former county are mostly engaged in packing vegetables. Only the property, cash capital, and employees engaged in the oyster business are shown for these canneries.

FISHERIES OF GEORGIA.

In 1897, 1,869 persons were engaged in the fisheries of Georgia—159 in the vessel fisheries, 1,245 boat fishermen, and 465 shoresmen.

The investment in the fisheries amounted to \$284,864. Fifty-one vessels were employed, worth, with their outfit, \$28,833, and 680 boats, valued at \$20,277. The apparatus of capture was valued at \$17,898, while the shore property and cash capital amounted to \$217,856.

The yield of the fisheries of this State was 4,993,100 pounds, worth \$170,605. The most important items in the fisheries of Georgia are oysters, the yield being valued at \$86,709, and shad, the value of which was \$46,705. The catch of terrapin was valued at \$11,254, and sturgeon at \$4,060. The value of products, when compared with that of 1890, shows an increase of \$47,042.

Persons engaged.

How engaged.	No.
In vessel fisheries.....	159
In shore or boat fisheries.....	1,245
Shoresmen.....	465
Total.....	1,869

Table of apparatus and capital.

Items.	No.	Value.	Items.	No.	Value.
Vessels fishing.....	51	\$21,425	Apparatus—shore fisheries:		
Tonnage.....	641.80		Pound nets.....	4	\$800
Outfit.....		7,408	Gill nets.....	424	11,905
Boats fishing.....	650	16,677	Seines.....	66	2,315
Boats transporting.....	30	3,600	Cast nets.....	82	385
Apparatus—vessel fisheries:			Minor nets.....	50	25
Dredges.....	5	50	Lines.....		205
Oyster tongs.....	37	266	Oyster tongs.....	203	1,469
Oyster grabs.....	173	230	Oyster grabs.....	134	142
			Shore and accessory property.....		100,356
			Cash capital.....		111,500
			Total.....		284,864

Table of products.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Aloewives.....	25,000	\$500	Squeteague.....	54,650	\$2,512
Black bass.....	4,600	322	Striped bass.....	9,000	530
Cat-fish.....	157,600	2,734	Sturgeon.....	147,700	4,060
Channel bass.....	23,800	1,190	Sun-fish.....	3,900	195
Croakers.....	18,100	655	Shrimps.....	45,700	2,100
Drum.....	14,300	582	Whiting.....	67,600	2,535
Eels.....	5,000	100	Crabs.....	a74,000	1,864
Flounders.....	6,500	290	Terrapins.....	34,785	11,254
Hickory shad.....	7,775	262	Turtles.....	1,000	20
Mullet.....	56,000	1,310	Oysters.....	b3,400,440	86,709
Perch.....	3,600	140	Clams.....	c2,640	165
Sailor's choice.....	600	30	Caviar.....	9,000	2,581
Shad.....	787,550	46,705			
Sheepshead.....	25,000	1,250	Total.....	4,993,100	170,605

a 223,980 in number.

b 486,634 bushels.

c 330 bushels.

THE FISHERIES BY COUNTIES.

The most important fisheries of this State in respect to persons employed, capital invested, and value of products are located in Chatham County. The vessel fisheries are located here chiefly, and it not only leads in the yield of the principal products, but in nearly all of the minor products. The yield of the fisheries in Chatham County in 1897 was 3,162,745 pounds, valued at \$127,621. The values of the products of the fisheries of the other counties are as follows: Glynn County, \$22,678; Camden County, \$7,000; McIntosh County, \$6,900; Bryan County, \$3,801; Wayne County, \$2,380; Liberty County, \$225.

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

Items.	Bryan.		Camden.		Chatham.		Glynn.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing					39	\$16,700	11	\$4,475
Tonnage					533.32		98.33	
Outfit						5,625		1,630
Boats fishing	24	\$184	58	\$1,210	405	13,253	88	1,138
Boats transporting					30	3,600		
Apparatus—vessel fisheries:								
Dredges					5	50		
Oyster tongs					35	252	2	14
Oyster grabs					140	185	30	46
Apparatus—shore fisheries:								
Pound nets					4	800		
Gill nets	20	600	37	800	252	7,640	25	570
Seines					37	1,375	11	360
Cast nets					37	185	25	100
Minor nets					50	25		
Lines		8				142		35
Oyster tongs			20	140	177	1,287	6	42
Oyster grabs			78	78	50	75		
Shore and accessory property		1,000				72,056		33,000
Cash capital						101,500		10,000
Total		1,792		2,288		224,750		51,410

Items.	Liberty.		McIntosh.		Wayne.		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing			1	\$250			51	\$21,425
Tonnage			10.15				641.80	
Outfit				153				7,408
Boats fishing	3	\$24	51	600	21	\$178	650	16,677
Boats transporting							30	3,600
Apparatus—vessel fisheries:								
Dredges							5	50
Oyster tongs							37	266
Oyster grabs			3	5			173	230
Apparatus—shore fisheries:								
Pound nets							4	800
Gill nets	5	75	61	1,560	20	600	424	11,105
Seines			18	660			66	2,305
Cast nets			20	100			82	385
Minor nets							50	25
Lines				20				205
Oyster tongs							203	1,469
Oyster grabs			6	9			134	162
Shore and accessory property				300				100,356
Cash capital								111,500
Total		99		3,747		778		284,864

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

Counties.	Vessel fishermen.	Boat fishermen.	Shores-men.	Total.
Bryan		40		40
Camden		116		116
Chatham	126	769	331	1,226
Glynn	30	170	131	331
Liberty		6		6
McIntosh	3	102	3	108
Wayne		42		42
Total	159	1,245	465	1,869

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

Species.	Bryan.		Camden.		Chatham.		Glynn.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives					25,000	\$500		
Black bass	1,400	\$98			3,200	224		
Cat-fish					154,500	2,685		
Channel bass					14,100	705	2,400	120
Croakers					11,900	395	5,300	215
Drum					8,300	412	1,600	45
Eels					5,000	100		
Flounders							4,300	180
Hickory shad	1,000	28			4,775	134	600	25
Mullet					32,000	510	10,500	260
Perch					3,600	140		
Sailor's choice							200	10
Shad	72,000	3,600	28,000	\$1,300	642,600	38,880	1,750	105
Sheepshead					25,000	1,250		
Squeteague					20,400	1,020	26,800	1,120
Striped bass					4,000	230	1,200	60
Sturgeon			8,700	230	75,000	2,550		
Sun-fish	1,500	75			2,400	120		
Whiting					24,500	1,225	18,800	785
Shrimp					25,600	900	42,000	1,575
Crabs					40,100	1,000	34,560	864
Terrapins					20,290	7,045	7,850	2,548
Turtles					1,000	20		
Oysters			311,500	5,350	2,011,690	65,803	1,027,250	14,780
Clams			600	120	2,640	165		
Caviar					5,150	1,498		
Total	75,900	3,801	348,800	7,000	3,102,745	127,621	1,185,210	22,078

Species.	Liberty.		McIntosh.		Wayne.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives							25,000	\$500
Black bass							4,600	322
Cat-fish			2,800	\$43			157,600	2,734
Channel bass			7,300	365			23,800	1,190
Croakers			900	45			18,100	655
Drum			4,500	135			14,300	592
Eels							5,000	100
Flounders			2,200	110			6,500	290
Hickory shad			1,500	75			7,775	262
Mullet			13,500	540			56,000	1,310
Perch							3,600	140
Sailor's choice			400	20			600	30
Shad	3,150	\$225	15,250	915	24,800	\$1,180	787,550	40,705
Sheepshead							25,000	1,250
Squeteague			7,450	372			54,650	2,512
Striped bass			3,800	190			8,000	530
Sturgeon			44,000	880	20,000	400	147,700	4,000
Sun-fish							3,900	195
Whiting			2,400	110			45,700	2,100
Shrimp							67,600	2,535
Crabs							74,660	1,864
Terrapins			6,645	1,661			34,785	11,294
Turtles							1,000	20
Oysters			56,000	776			3,406,440	86,709
Clams							2,640	165
Caviar			2,650	663	1,200	300	9,600	2,581
Total	3,150	225	171,295	6,900	46,000	2,380	4,993,100	170,805

THE FISHERIES WITH REFERENCE TO APPARATUS EMPLOYED.

The vessel fisheries of Georgia are devoted principally to the taking of oysters. Tongs are employed almost entirely, a limited number of dredges being used in Chatham County. Since 1890 the value of the yield of the vessel fisheries of the State has increased from \$13,476 to \$32,577. In the shore fisheries the yield by gill nets was valued at \$56,455, the yield by seines at \$13,399, by lines at \$8,724. The value of the oysters taken by tongs was \$54,132. The other forms of apparatus employed were pound nets and cast nets, the catch by which was not important.

Table showing by counties the yield of the vessel fisheries of Georgia in 1897.

Apparatus and species.	Chatham.		Glynn.		McIntosh.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Oyster tongs and grabs:								
Oysters.....	1,172,220	\$21,721	852,250	\$9,780	50,400	\$576	2,074,870	\$32,077
Oyster dredges:								
Oysters.....	7,000	500					7,000	500
Total.....	1,179,220	22,221	852,250	9,780	50,400	576	2,081,870	32,577

Table showing by counties, apparatus and species the yield of the shore fisheries of Georgia in 1897.

Apparatus and species.	Bryan.		Camden.		Chatham.		Glynn.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Pound nets:								
Alowives.....					25,000	\$500		
Cat-fish.....					20,000	300		
Porch.....					200	10		
Striped bass.....					4,000	280		
Sun-fish.....					200	10		
Turtles.....					1,000	20		
Total.....					50,400	1,120		
Gill nets:								
Cat-fish.....							300	\$0
Channel base.....							500	25
Croakers.....							300	15
Flounders.....							4,300	180
Hickory shad.....	1,000	\$28			4,775	134	500	25
Mullet.....							5,500	160
Sailor's choice.....							200	10
Shad.....	72,000	3,600	28,000	\$1,300	642,000	38,880	1,750	105
Squeteague.....							26,800	1,120
Striped bass.....							1,200	60
Sturgeon.....			8,700	230	75,000	2,650		
Whiting.....							5,500	220
Caviar.....			600	120	5,150	1,498		
Total.....	73,000	3,628	37,300	1,650	727,625	43,062	46,850	1,920
Seines:								
Cat-fish.....					2,500	75		
Channel base.....					900	45		
Croakers.....					700	35		
Mullet.....					500	15		
Whiting.....					3,000	150		
Shrimp.....					4,000	150	42,000	1,575
Crabs.....					2,000	100		
Terrapins.....					20,290	7,045	7,850	2,548
Total.....					34,490	7,015	49,850	4,123

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

Apparatus and species.	Bryan.		Camden.		Chatham.		Glynn.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Cast nets:								
Cat-fish								
Channel bass					3,000	\$150		
Mullet					31,500	495	5,000	\$100
Whiting					5,000	250		
Shrimp					21,600	810		
Total					61,100	1,705	5,000	100
Lines:								
Black bass	1,400	\$98			3,200	224		
Cat-fish					132,000	2,310		
Channel bass					10,200	510	1,900	95
Croakers					11,200	360	5,000	200
Drum					8,300	412	1,500	45
Eels					5,000	100		
Perch					3,400	130		
Sheepshead					25,000	1,250		
Squeteague					20,400	1,020		
Sun-fish	1,500	75			2,200	110		
Whiting					16,500	825	13,300	545
Total	2,900	173			237,400	7,251	21,700	885
Oyster tongs and grabs:								
Oysters			311,500	\$5,350	832,470	43,582	175,000	5,000
Minor apparatus:								
Clams					2,640	165		
Crabs					37,500	900	34,500	864
Total					40,140	1,065	34,500	864
Grand total	75,900	3,801	348,800	7,000	1,983,525	105,400	332,960	12,898

Apparatus and species.	Liberty.		McIntosh.		Wayne.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Pound nets:								
Alewives							25,000	\$500
Cat-fish							20,000	300
Perch							200	10
Striped bass							4,000	280
Sun-fish							200	10
Turtles							1,000	20
Total							50,400	1,120
Gill nets:								
Cat-fish			700	\$11			1,000	17
Channel bass			1,500	75			2,000	100
Croakers			900	45			1,200	60
Flounders			2,200	110			6,500	260
Hickory shad			1,500	75			7,775	202
Mullet			7,500	300			13,000	460
Sailor's choice			400	20			900	30
Shad	3,150	\$225	15,250	915	24,800	\$1,080	787,550	46,705
Squeteague			5,200	260			32,000	1,380
Striped bass			3,800	190			5,000	250
Sturgeon			44,000	880	20,000	400	147,700	4,000
Whiting			1,000	40			6,500	260
Caviar			2,650	663	1,200	300	9,600	2,581
Total	3,150	225	86,800	3,584	46,000	2,380	1,020,425	56,465
Selnes:								
Cat-fish							2,500	75
Channel bass							900	45
Croakers							700	35
Mullet							500	16
Whiting							3,000	150
Shrimp							46,000	1,725
Crabs							2,600	100
Terrapins			6,645	1,661			34,785	11,254
Total			6,645	1,661			90,985	13,399

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

Apparatus and species.	Liberty.		McIntosh.		Wayne.		Total.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Cast nets:								
Cat-fish			2,100	\$32			2,100	\$32
Channel bass			700	35			3,700	185
Mullet			6,000	240			42,500	835
Squeteague			2,250	112			2,250	112
Whiting			900	45			5,900	295
Shrimp							21,600	810
Total			11,950	464			78,050	2,260
Lines:								
Black bass							4,600	322
Cat-fish							132,000	2,310
Channel bass							17,200	860
Croakers			5,100	255			10,200	560
Drum							14,300	592
Eels			4,500	135			5,000	100
Perch							3,400	130
Sheepshead							25,000	1,250
Squeteague							20,400	1,020
Sun-fish							3,700	185
Whiting			500	25			30,300	1,395
Total			10,100	415			272,100	8,724
Oyster tongs and grabs:								
Oysters			5,000	200			1,324,570	54,132
Minor apparatus:								
Clams							2,640	185
Crabs							72,060	1,704
Total							74,700	1,929
Grand total	3,150	\$225	120,805	6,324	46,000	\$2,380	2,911,230	138,028

The wholesale trade in fresh fish, oysters, etc., is largely centered at Savannah. During the year 1897, 7 firms were in operation in the State; the value of property amounted to \$51,074; the cash capital required was \$61,000; the value of products sold was \$202,975. Of this amount \$71,320 represented the value of 1,783,000 pounds of mullet, which were obtained from Florida.

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

Items.	No.	Value.	Items.	No.	Value.
Establishments	7	\$47,774	Products handled—cont'd.		
Cash capital		61,000	Sea bass	47,000	\$3,200
Collecting boats	29	3,300	Shad	107,000	10,645
Tons of ice consumed	2,350	7,800	Sheepshead	66,000	4,620
Employees	57		Spanish mackerel	18,000	2,160
Products handled:	<i>Pounds.</i>		Squeteague	45,000	3,600
Alewives	13,000	300	Sturgeon	73,000	6,570
Cat-fish	6,000	120	Sun-fish and perch	55,000	3,850
Channel bass	36,500	2,555	Terrapins	36,433	18,658
Croakers	17,000	1,190	Shrimp	14,800	1,530
Groupers	119,000	3,555	Crabs	30,000	2,600
Hickory shad	30,900	2,468	Oysters	*439,250	41,015
Mullet	1,783,000	71,320	Clams	†1,600	100
Pompano	18,800	2,250	Caviar	4,375	1,303
Red snapper	295,000	11,800			
Striped bass	11,300	1,380	Total	3,364,158	202,975

* Represents 62,750 bushels.

† Represents 200 bushels.

NOTE.—Five of these firms are located in Savannah; the other two have but little property and capital and handle most of the terrapin shown in table.

In the wholesale fish and oyster trade and oyster-canning business of Savannah during the year 1897, the capital invested was \$169,526; persons employed, 296; fresh fish handled, 2,895,875 pounds; gallons of oysters, 71,500; oysters canned, 1,261,884 cans; the value of products was \$281,052:

Oyster-canning industry.

Items.	No.	Value.	Items.	No.	Value.
Establishments	3	\$34,000	Oysters utilized ..bush..	363,908	\$40,903
Private oyster grounds		20,000	Oysters as sold:		
Cash capital		50,000	One-pound cans ..no..	1,502,619	82,794
Ice consumed ..tons..	50	150	Two-pound cans ..no..	115,224	11,353
Salt	29,625	250	Shucked ..galls..	29,500	23,000
Employees	383		In shell ..bush..	1,400	1,400
			Shells ..do..	400,051	8,001

NOTE.—One cannery located in Brunswick, 1 at Thunderbolt, and 1 at Wilmington Island. The two latter canneries are operated by firms at Savannah.

Of the products from the waters of the State, shad are most important, and, with oysters and terrapin, constitute the principal part of the wholesale business. They are well distributed through the inland waters and furnish a fine food supply for local consumption. When there are transportation facilities the surplus is shipped to distant markets.

Of the numerous rivers that receive large runs of shad, the following are the most important: Savannah, Ogeechee, Altamaha, Ocmulgee, Oconee, Satilla, and St. Marys. The first arrivals from the ocean are looked for soon after the 1st of January, and by the middle of the month a good run may be expected, the season lasting about three months. The bulk of the catch is taken by gill nets used within a few miles of the mouths of the rivers. The quantity taken through the interior is not large at any one place, but is quite important in the aggregate.

More attention is being given to the sturgeon fishery than formerly. There is an increasing demand, and high prices are received for sturgeon and its roe. The catch is made mostly between March and June.

The oyster industry shows a large gain in the amount gathered, the greater part of which is steamed and canned. This branch of the fishing industry gives employment to several hundred employees at the factories. Oysters are gathered principally from natural beds, and are known as raccoon oysters. The beds are located at numerous places in the estuaries, lagoons, and bays bordering on or near the ocean, and are entirely exposed at low tide. The exact location being known, at high tide the small sailing vessels employed as transporters sail near the beds and anchor. Large skiffs, or rough boats, are then taken from the vessel and anchored over the oyster-grounds. At low tide the men from the vessel have only to land on the oyster beds and with naked hands or "hand-grabs" gather the oysters, throwing them into the boats, which, on the return tide, are unloaded on the vessel.

The "grabs" used are small hand irons made like ice tongs, but having numerous prongs to take up the oysters. The oysters are of small size, but good flavor.

The process of canning steamed or "cove" oysters is simple. The shell oysters are unloaded on the wharf at the cannery. Gangs of men are employed in filling long slatted iron trucks, which hold some 12 to 15 bushels each. As soon as filled they are run into long steam chests made of iron, or occasionally of wood; the door being closed, and steam turned on, only a few moments are required to steam the oysters enough to open all the shells. The cars are now run out and emptied on the floor and on long tables in the factory. The men, women, and children now begin their work of picking the oysters from the shells; they having been cooked enough to nearly free them from the same, it requires no skill and but little effort to pick the shells clean. As soon as the picker's dish is filled it is taken to the weigher, and a brass check is given which represents the amount due for picking, the price being about 1½ cents a pound. The oysters are now emptied into a trough, where they receive a thorough washing, which cleans them from all dirt that has become attached in opening and picking. They now go to the filling tables, where they are placed in the cans. The cans being then filled up with salt water and the tops sealed on, they are put into crates that are placed in iron retorts and receive 8 to 10 pounds of steam until thoroughly cooked. All that now remains to be done is the labeling and packing.

After the oyster season is closed many of the oystermen turn their attention to gathering terrapin. Within the past few years this business has increased and a scarcity of terrapin is now reported. Small vessels from Savannah and vicinity cruise along the coast between Fernandina, Fla., and Georgetown County, S. C., buying terrapin from the residents, who gather them along the bays and creeks that receive tide waters. When the vessel returns to the home station, the terrapin are put into small yards, usually near the water. When in captivity terrapin are fed chiefly on shrimp. They soon become quite tame and are on hand at feeding time. The catch to stock up a terrapin yard for its winter demand must be made during the summer or early fall. The demand is confined to a few winter months, mostly in December and January. During this time they do not require and will not take any food, yet do not appear to grow poor. The catch is made with nets and by hand-picking. Dogs are often employed in tracking the terrapin from the water to the marshes, where they are found buried a few inches in the sand or mud.

Some little attention has been given to the propagation of terrapin, but only in an experimental way, and it is demonstrated that they can be hatched out in confinement and have thrived. The main objection to propagation seems to be the slow rate of growth, requiring a number of years' delay to realize from the venture, and six months or more of each year they must be fed.

Most of the terrapin are sold in Northern cities, where many of the leading hotels and clubs have standing orders for regular shipments during the season. Terrapin are classed as counts, three-quarters, one-half, and bulls, prices varying from \$8 to \$12, as to size, except for the bulls, which are not desirable and bring but little money. The sizes and average weights are as follows:

Designation.	Average weight.	Average size.
Counts	2½ pounds each	6 to 8 inches, mostly 6½.
Three-fourths	1½ pounds each	5½ to 6 inches.
One-half	11 pounds per dozen	5 to 5½ inches.
Bulls	½ pound each	4 to 4½ inches.

FISHERIES OF EASTERN FLORIDA.

Next to North Carolina, eastern Florida has probably the most favorable geographical situation for prosecuting the fisheries of any of the South Atlantic States. The general coast line is about 450 miles in length, but the numerous rivers, bays, sounds, and lagoons give the State a much more extensive shore line. The most important of these are the St. Marys River, which forms the dividing line between Georgia and Florida, Nassau River and Sound, the St. Johns River, Matanzas River, Halifax River, Mosquito Lagoon or Hillsboro River, Indian River, St. Lucie Sound, Lake Worth, and Biscayne Bay. With the exception of the St. Marys and St. Johns rivers these waters are lagoons or arms of the sea, from which they are separated by low, sandy bars. There are openings at frequent intervals connecting the ocean and lagoons, and through these the marine fishes find their entrance. The Indian River is a typical specimen of this kind. It is about 135 miles in length, and runs parallel to the ocean, being separated from it by a narrow sandy strip of land which nowhere rises more than a few feet above the water. The river's width varies from only a few rods at Jupiter Narrows to 5 or 6 miles just below Titusville. The average depth is about 6 or 7 feet. These lagoons or rivers are favorite resorts for the marine fishes, some of which come in to spawn. The waters are generally salty, but during heavy rains they sometimes become fresh in all parts except near the inlets.

The principal fishing centers are Fernandina, at the extreme north-eastern end of the State; Mayport, Fulton, New Berlin, Jacksonville, Palatka, and Sanford, on the St. Johns River; St. Augustine, on Matanzas River; Ormond, Daytona, and New Smyrna, on Halifax River and Mosquito Lagoon; Titusville and Cocoa, on Indian River; Fort Pierce and Eden on St. Lucie Sound; West Palm Beach, on Lake Worth, and Miami, on Biscayne Bay.

In 1890 eastern Florida held second place among the South Atlantic States in quantity and value of fishery products. This is still true with regard to the quantity of products taken, but not as to value. In 1890, 7,463,531 pounds of fishery products were taken, valued at \$219,870, while the catch in 1897 was 5,882,662 pounds, worth \$136,077,

a loss of 1,580,869 pounds and \$83,793. This is mainly attributable to the falling off in the shad and oyster fisheries.

The most prominent fisheries are those for shad and mullet. Considerably over half of the total catch and almost half of the total value are represented in these two fisheries. The other leading fisheries are those for squeteague, sheepshead, channel bass, pompano, and oysters.

Gill nets, seines, and tongs are the principal apparatus of capture. Cast nets, lines, and other minor forms of apparatus are also in use. The absence of the pound net in this section is noticeable. During the latter part of 1897 a pound net was located in the ocean near Cape Canaveral, but was put in operation too late in the year to be included in the present canvass. Pound nets have been tried before in different sections of the State, but without success, the nets being destroyed by sharks and other predatory species.

The absence of a vessel fishery is also noticeable. There are numerous snapper banks a short distance off the Florida coast, which are resorted to by New England fishing smacks, which land their catch at Savannah. Such a fishery could be carried on more easily and economically by Florida fishermen, as they are closer to the banks. Several vessels from Punta Gorda, on the western coast of the State, have made trips to Biscayne Bay for the purpose of catching Spanish mackerel.

Very little ocean fishing is done by the fishermen of this region, a few seines only being hauled on the beaches. Although the waters adjacent to the coast teem with marine food-fishes, the fishermen have generally confined their attention to the rivers and lagoons.

From 1880 to 1890 there was an increase in the fisheries of eastern Florida, but since that time there has been a decline in the fisheries as a whole. The decline is especially noticeable in the sun-fish, shad, shrimp, oyster, and turtle fisheries. The sturgeon fishery, which was at one time quite important, is now extinct. The species in the catch of which noticeable increases are shown are alewives, blue-fish, channel bass, mullet, pompano, sheepshead, and squeteague. A part of the general decline is attributable to the laws governing certain of the rivers. No nets are now allowed in any of the fresh-water rivers or bayous, except for shad, and only cast nets and lines are allowed in Mosquito Lagoon or Hillsboro River and Halifax River. These latter formerly had quite extensive fisheries. Another law, put into force in the State in 1897, prohibited the use of nets (except cast nets) in all the waters of the State, from June 15 to August 16, and the catching of mullets between November 15 and December 31. These restrictions account for a considerable part of the decrease in the total catch.

In 1897 there were 1,132 persons employed in the fisheries, of which number 986 were engaged in the shore and boat fisheries. The capital invested amounted to \$151,155. The shore and accessory property was valued at \$64,715. The apparatus of capture was valued at \$32,210, and the boats employed at \$19,800. The item of cash capital is placed

at \$29,100. The total value of the products was \$136,077. The yield of shad alone was valued at \$41,572, while the next most important species was mullet, the value of the yield of which was \$22,732. The catch of pompano was valued at \$13,093, while squeteague and oysters, the species next in importance, were valued at \$12,817 and \$11,760, respectively.

As compared with the last general canvass of this region (1890) there has been a decrease in the number of persons employed and in the apparatus used, although there has been an increase in the shore property (caused by the putting up of more substantial buildings) and cash capital. The statistics for this State were collected for the fiscal year ending June 30, 1897.

The three following tables show the extent of the fishery interests of the eastern part of Florida in condensed form:

Persons employed.

How engaged.	No.
On vessels transporting.....	5
Shore or boat fisheries.....	980
Shoemen.....	141
Total.....	1,132

Table of apparatus and capital.

Items.	No.	Value.
Vessels transporting.....	2	\$2,400
Tonnage.....	16.87	
Outfit.....		1,930
Boats.....	627	19,800
Apparatus of capture:		
Seines.....	44	3,735
Gill nets.....	487	28,547
Cast nets.....	30	165
Turtle nets.....	37	380
Lines.....		46
Tongs.....	51	337
Shore and accessory property.....		64,715
Cash capital.....		29,100
Total.....		151,155

Table of products.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Alewives, fresh.....	33,913	\$404	Spots and croakers.....	23,133	\$772
Alewives, salted.....	5,000	125	Squeteague.....	516,370	12,817
Black bass.....	52,516	2,184	Sun-fish.....	248,989	0,827
Blue-fish.....	46,421	1,121	Whiting.....	8,000	365
Cat-fish.....	124,000	3,720	Other fish.....	103,340	3,356
Channel bass or red-fish.....	235,782	3,542	Oysters.....	*362,802	11,766
Drum.....	17,000	175	Clams.....	4,800	300
Mullet, fresh.....	2,341,957	21,156	Craw-fish.....	4,000	80
Mullet, salted.....	71,400	1,576	Crabs.....	3,700	175
Pompano.....	196,344	13,093	Shrimp.....	38,625	1,497
Sea bass.....	5,570	210	Turtles.....	23,856	1,751
Shad.....	1,011,180	41,572	Terrapins.....	10,350	1,425
Sheepshead.....	390,164	5,908			
Spanish mackerel.....	3,450	180	Total.....	5,882,662	136,077

* Represents 51,829 bushels.

THE FISHERIES CONSIDERED BY COUNTIES.

Commercial fishing in eastern Florida is carried on in eight counties. Duval County easily ranks first in the number of men employed, value of investment, and in value of catch, and is second in the quantity of products taken. This is accounted for by the fact that the lower reaches of the St. Johns River are wholly in Duval County, and these support large shad fisheries. The shad catch of this county is more than double that of all the other species combined. Brevard County is first in the quantity of fishery products taken and second in men employed and value of investment. The Indian River is wholly within this county. Orange and Putnam are inland counties, and their fisheries are wholly on the St. Johns River.

The following tables show the number of persons employed, the apparatus, the capital, and the yield of the different species:

Table showing the number of persons employed in the fisheries of eastern Florida.

Counties.	On vessels transporting.	Shore or boat fisheries.	Shores-men.	Total.
Nassau		90	40	139
Duval	3	339	35	377
Putnam		60	3	63
Orange		180	11	141
St. Johns		74	13	87
Volusia		80	4	34
Brevard	2	222	30	254
Dade		32	5	37
Total	5	986	141	1,132

Table showing by counties the apparatus and capital employed in the fisheries of the eastern coast of Florida.

Designation.	Nassau.		Duval.		Putnam.		Orange.		St. John.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels transporting			1	\$2,000						
Tonnage			8.78							
Outfit				1,850						
Boats	86	\$710	103	7,080	28	\$565	66	\$990	30	\$480
Apparatus of capture—shore fisheries:										
Seines			4	800	2	200	30	2,100	4	180
Gill nets	33	620	192	17,200	24	1,350	4	72	8	160
Cast nets									15	90
Lines		5		25		10				2
Tongs			20	120					12	84
Shore and accessory property		15,500		18,050		1,650		7,000		4,000
Cash capital		5,000		8,500		800		2,400		900
Total		21,835		56,800		4,505		12,562		5,896

Designation.	Volusia.		Brevard.		Dade.		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels transporting			1	\$400			2	\$2,400
Tonnage			8.09				16.87	
Outfit				80				1,930
Boats	10	\$250	126	6,935	18	\$2,190	527	19,800
Apparatus of capture—shore fisheries:								
Seines	2	190	1	100	1	165	44	3,735
Gill nets			203	8,220	23	925	487	28,547
Cast nets	15	75					30	165
Turtle nets	2	30	31	290	4	60	37	380
Lines			3			1		46
Tongs			19	133			51	337
Shore and accessory property		700		16,115		1,100		64,715
Cash capital		400		10,100		1,000		29,100
Total		1,048		42,373		5,441		151,155

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Table showing by counties and species the yield of the fisheries of the eastern coast of Florida.

Species.	Nassau.		Duval.		Putnam.		Orange.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Alewives, fresh.....			14,500	\$210			10,413	\$104
Alewives, salted.....			5,000	125				
Black bass.....			8,000	320			34,116	1,564
Cat-fish.....			104,000	3,120	20,000	\$600		
Channel bass or red-fish.....	4,106	\$82	44,570	891				
Drum.....	12,000	125						
Mullet, fresh.....			288,000	2,280				
Mullet, salted.....			22,400	596				
Shad.....	12,000	450	731,480	30,747	101,600	3,200	153,600	6,575
Spots and croakers.....	5,113	250	5,020	160			10,000	250
Squeteague.....	12,000	360			100,000	3,390		
Sun-fish.....			15,760	472	5,000	250	205,116	5,505
Whiting.....	5,000	250						
Other fish.....	6,478	300	38,590	1,158			10,000	250
Oysters.....	318,500	4,137	63,000	3,600				
Crabs.....	1,200	80	1,200	30				
Shrimp.....	20,000	750	16,600	662				
Terrapins.....	9,000	1,200	1,350	225				
Total.....	405,497	7,984	1,359,470	44,586	226,600	7,440	431,245	14,338

Species.	St. John.		Volusia.		Brevard.		Dade.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Black bass.....					10,400	\$300		
Blue-fish.....	2,000	\$60	2,300	\$58	36,307	787	5,814	\$216
Channel bass or red-fish.....	36,943	503	6,300	126	134,063	1,712	9,800	108
Drum.....	5,000	50						
Mullet, fresh.....	134,500	1,345	123,100	4,013	1,791,157	13,479	6,200	39
Mullet, salted.....			49,000	980				
Pompano.....	20,000	800	14,360	1,005	138,284	9,860	23,700	1,422
Sea bass.....	5,570	210						
Shad.....			13,500	600				
Sheepshead.....	14,137	213	6,700	134	300,727	4,511	68,000	1,050
Spanish mackerel.....	2,000	80			450	28	1,000	52
Spots and croakers.....	8,000	122						
Squeteague.....	36,000	1,260	36,000	1,160	324,370	6,487	8,000	160
Sun-fish.....					23,113	600		
Whiting.....	3,000	115						
Other fish.....	24,510	945	13,240	367	5,022	151	6,500	185
Oysters.....	35,000	2,500			42,505	1,529		
Clams.....	4,800	300						
Craw-fish.....	4,000	80						
Crabs.....	1,200	65						
Shrimp.....	2,025	85						
Turtles.....			1,600	128	19,256	1,443	3,000	180
Total.....	333,685	8,793	266,100	8,571	2,825,054	40,893	130,614	3,472

SUMMARY.

Species.	Lbs.	Value.	Species.	Lbs.	Value.
Alewives, fresh.....	33,913	\$404	Spots and croakers.....	23,133	\$772
Alewives, salted.....	5,000	125	Squeteague.....	516,370	12,817
Black bass.....	52,516	2,184	Sun-fish.....	248,989	6,827
Blue-fish.....	46,421	1,121	Whiting.....	8,000	365
Cat-fish.....	124,000	3,720	Other fish.....	103,340	3,350
Channel bass or red-fish.....	235,782	3,542	Oysters.....	362,802	11,700
Drum.....	17,000	175	Clams.....	4,800	300
Mullet, fresh.....	2,341,957	21,166	Craw-fish.....	4,000	80
Mullet, salted.....	71,400	1,576	Crabs.....	3,700	175
Pompano.....	196,344	13,093	Shrimp.....	36,625	1,497
Sea bass.....	5,570	210	Turtles.....	23,856	1,751
Shad.....	1,011,180	41,572	Terrapins.....	10,350	1,425
Sheepshead.....	390,164	5,908			
Spanish mackerel.....	3,450	180	Total.....	5,882,662	136,077

THE YIELD BY DIFFERENT FORMS OF APPARATUS.

The gill net is the most efficient form of apparatus in use in eastern Florida, over two-thirds of the total catch being taken by it. Mullet, shad, squeteague, and sheepshead are taken in larger quantities in gill nets than in any of the other forms of apparatus. Seines rank next to gill nets in the amount and value of products. Shad and sun-fish are the principal species taken in seines. Cast nets, which are only used in two counties—St. John and Volusia—give good results. The greater part of their catch is made up of mullets. These nets are in use mainly in waters where other netting is not allowed. Cat-fish is the principal species taken on lines. The other forms of apparatus are turtle nets (these are practically large-meshed gill nets), tongs for oysters, nets for shrimp and terrapin, trot lines for crabs, spears for craw-fish, while clams are generally taken by hand.

Table showing by counties and apparatus the yield of the shore fisheries of the eastern coast of Florida.

Apparatus and species.	Nassau.		Duval.		Putnam.		Orange.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Seines:								
Alewives, fresh			14,500	\$210			19,413	\$194
Alewives, salted			5,000	125				
Black bass			8,000	320			34,116	1,504
Shad			96,750	4,300	4,500	\$200	145,000	6,309
Spots and croakers			5,020	150			10,000	250
Sun-fish			15,760	472	5,000	250	205,112	5,505
Other fish			15,000	450			10,000	250
Total			169,030	6,027	9,500	450	424,245	14,072
Gill nets:								
Channel bass or red-fish			44,570	891				
Mullet, fresh			288,000	2,280				
Mullet, salted			22,400	596				
Shad	12,000	\$450	634,730	26,447	97,100	3,000	7,000	206
Squeteague	3,100	93			100,000	3,390		
Other fish	3,478	150	23,500	708				
Total	18,578	693	1,013,200	30,922	197,100	6,390	7,000	206
Lines:								
Catfish			104,000	3,120	20,000	600		
Channel bass or red-fish	4,100	82						
Drum	12,000	125						
Spots and croakers	5,113	250						
Squeteague	8,900	267						
Whiting	5,000	250						
Other fish	3,000	150						
Total	38,119	1,124	104,000	3,120	20,000	600		
Miscellaneous:								
Oysters	318,500	4,137	63,000	3,600				
Crabs	1,300	80	1,200	30				
Shrimp	20,000	750	16,600	682				
Terrapins	9,000	1,200	1,350	225				
Total	252,507	6,167	82,150	4,517				
Grand total	405,497	7,984	1,359,470	44,586	226,600	7,440	431,245	14,338

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Table showing by counties and apparatus the yield of the shore fisheries of the eastern coast of Florida—Continued.

Apparatus and species.	St. John.		Volusia.		Brevard.		Dade.	
	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.	Lbs.	Value.
Seines:								
Black bass					10,400	\$300		
Blue-fish			2,100	\$42	710	14		
Channel bass or red-fish	8,500	\$128			3,300	50	5,000	\$75
Mullet	8,500	85					2,000	15
Pompano	23,000	800	14,380	1,005	3,100	217	7,100	428
Shad			13,500	600				
Sheepshead					12,000	180	21,000	315
Spanish mackerel	2,000	80						
Squeteague	23,000	805			1,300	28	1,500	30
Sun-fish					23,113	600		
Other fish	7,080	240	4,120	110	5,022	151	5,500	185
Total	60,080	2,138	34,080	1,757	58,045	1,538	42,100	1,040
Gill nets:								
Blue-fish	2,000	60			35,597	773	5,814	216
Channel bass or red-fish	13,000	195			130,763	1,662	3,400	51
Mullet, fresh	31,500	315			1,791,157	13,479	3,200	24
Pompano					135,184	9,049	16,600	990
Sheepshead	5,900	89			288,727	4,331	43,400	651
Spanish mackerel					450	28	200	12
Squeteague	13,000	455			323,070	6,461	6,500	130
Other fish	7,000	275						
Total	72,400	1,389			2,704,948	36,383	79,114	2,080
Cast nets:								
Blue-fish			200	16				
Channel bass or red-fish	11,110	107	2,600	52				
Mullet, fresh	94,500	945	123,100	4,013				
Mullet, salted			49,000	980				
Sheepshead	2,100	32	1,000	20				
Squeteague			36,000	1,160				
Other fish	2,000	80	6,120	185				
Total	100,710	1,224	218,020	6,426				
Turtle nets:								
Turtles			1,600	128	19,256	1,443	3,000	180
Lines:								
Channel bass or red-fish	4,333	73	3,700	74			1,400	42
Drum	5,000	50						
Sea bass	5,570	210					4,200	84
Sheepshead	6,137	92	5,700	114			800	40
Spanish mackerel								
Spots and croakers	3,000	122						
Whiting	3,000	115						
Other fish	8,430	350	3,000	72				
Total	35,470	1,012	12,400	260			6,400	166
Miscellaneous:								
Oysters	35,000	2,500			42,505	1,520		
Clams	4,800	300						
Craw-fish	4,000	80						
Crabs	1,200	65						
Shrimp	2,025	85						
Total	47,025	3,030			42,505	1,529		
Grand total	333,685	8,793	266,100	8,571	2,825,654	40,893	130,614	3,472

Table showing by counties and apparatus the yield of the shore fisheries of the eastern coast of Florida—Continued.

SUMMARY.

Apparatus and species.	Lbs.	Value.	Apparatus and species.	Lbs.	Value.
Seines:			Cast nets—Continued.		
Alowives, fresh	33, 013	\$404	Mullet, salted	49, 000	\$980
Alowives, salted	5, 000	125	Sheepshead	3, 100	62
Black bass	52, 510	2, 184	Squeteague	39, 000	1, 160
Blue-fish	2, 810	56	Other fish	8, 120	205
Channel bass or red-fish ..	16, 800	253	Total	327, 730	7, 650
Mullet	10, 500	100			
Pompano	44, 500	2, 448	Turtle nets:		
Shad	200, 350	11, 409	Turtles	23, 856	1, 751
Sheepshead	33, 000	495			
Spanish mackerel	2, 000	80	Lines:		
Spots and croakers	15, 020	400	Cat-fish	124, 000	3, 720
Squeteague	25, 800	861	Channel bass	13, 530	271
Sun-fish	248, 989	6, 827	Drum	17, 000	175
Other fish	40, 722	1, 388	Sea bass	5, 570	210
Total	797, 980	27, 028	Sheepshead	16, 037	290
			Spanish mackerel	800	40
Gill nets:			Spots and croakers	8, 113	372
Blue-fish	43, 411	1, 049	Squeteague	8, 900	207
Channel bass or red-fish ..	191, 733	2, 709	Whiting	8, 000	365
Mullet, fresh	2, 113, 857	16, 098	Other fish	14, 430	572
Mullet, salted	22, 400	596	Total	216, 389	6, 282
Pompano	151, 784	10, 645			
Shad	750, 830	30, 163	Miscellaneous:		
Sheepshead	338, 027	5, 071	Oysters	362, 802	11, 768
Spanish mackerel	650	40	Clams	4, 800	309
Squeteague	445, 670	10, 529	Craw-fish	4, 000	80
Other fish	34, 068	1, 133	Crabs	3, 706	175
Total	4, 092, 430	78, 123	Shrimp	38, 625	1, 497
			Terrapins	10, 350	1, 425
Cast nets:			Total	424, 277	15, 243
Blue-fish	200	16			
Channel bass or red-fish ..	13, 710	219	Grand total	5, 882, 662	136, 077
Mullet, fresh	217, 600	4, 958			

NOTES ON THE SHAD FISHERY.

The shad fishery has always been of great interest to the fishermen of this section of Florida, and is particularly so now in view of the decline which has taken place since 1890.

With the exception of a small fishery on the St. Marys River the shad fisheries of the State are confined to the St. Johns River.

Shad make their appearance in the St. Johns River in November, and can be found there from that time until the early part of May. The legal season for the fishery is from December 1 to March 31, although the nets in the lower river are usually taken out about the middle of March, as after that time low prices prevail in the Northern markets. The abundance of shad in each month of the season is indicated by the statement of one buyer below Jacksonville, who purchased all the fish caught in 22 gill nets, which yielded fish as follows:

December	1, 073
January	7, 557
February	13, 633
March (first two weeks)	6, 122

The only forms of apparatus in use on the river in this fishery are seines and gill nets. On the lower river the gill nets average about 575 yards in length, $4\frac{1}{2}$ to 5 inch mesh, and from 40 to 50 meshes in depth. On the upper river these nets average about 300 yards in length, with 5-inch mesh.

The seines used on the river vary greatly, ranging from 200 to 750 yards, with 3-inch or 4-inch mesh.

The principal gill-net grounds are from Mayport, at the mouth, to Jacksonville, a distance of about 20 miles, where the nets are drifted with the tide; and from Bridgeport to Welaka, where the nets are drifted in the narrow reaches where there is some current. A few nets are also operated in other parts of the river.

Up to last season the principal seining grounds were in Lake Harney, but it is said that it does not now pay to operate there, and last season most of the fishermen worked between Sanford and the mouth of the Wikiva River. An important seining-ground is in the river just above Volusia bar. Seining is not permitted in the wide reaches of the river, which are called lakes.

The following table shows the fluctuations in the apparatus and catch of shad for nine years. The only years for which close accuracy can be claimed are the last four, previous data being largely estimated.

Year.	Number of nets.				Number of shad caught.			
	Gill nets.	Seines.	Pound nets.	Total.	Gill nets.	Seines.	Pound nets.	Total.
1873.....	80			80	250,000			250,000
1876.....	64			64	160,000			160,000
1877.....	112			112	280,000			280,000
1878.....	80			80	200,000			200,000
1889.....	184	1		185				83,900
1889.....	166	10		176	493,161	223,000		716,161
1890.....	191	10	1	202	581,764	289,570	1,500	872,934
1896.....	171	24		195	331,033	125,248		456,281
1897.....	168	37		205	227,027	115,711		342,738

The fishery reached its greatest height in 1890, since which time there has been a steady decline. In 1873 the average catch to the gill net was 3,125 shad; in 1876, 1877, and 1878 the average was 2,500; in 1889, 2,971; in 1890, 3,046; in 1896, 1,936, and in 1897, 1,351. While the number of seines increased very rapidly in 1896 and 1897, the catch steadily decreased from that of 1890. During the season of 1896 there were in use on the St. Johns River 171 gill nets and 24 seines, operated by 447 fishermen. The seine catch amounted to 125,248 shad, weighing 255,555 pounds, and was valued at \$8,627. The gill-net catch was 331,033 shad, weighing 1,029,001 pounds, valued at \$53,297.

During the season of 1897, 168 gill nets and 37 seines were operated by 536 fishermen. The seines took 115,711 shad, weighing 260,347 pounds, valued at \$11,409, while the gill nets took 227,027 shad, weighing 746,980 pounds, and valued at \$29,713.

A comparison of these two seasons shows that in 1897 there were 3 less gill nets and 13 more seines in use, while the number of fishermen increased 89. The seine catch for this season shows a decrease of 9,537 shad from the previous season, but a gain of 4,792 pounds in weight and \$2,782 in value. The gain in weight and most of the gain in value are explained by the fact that fewer small shad, or "skips,"

were caught last season and more large shad taken. In the gill-net fishery last season there was a falling off of 104,006 shad, 282,021 pounds, and \$23,584, making a total falling off on the river from 1896 of 113,543 shad, 277,229 pounds, and \$20,802.

On the upper river large numbers of young shad, or "skips," are taken in the seines. These do not average more than 1 pound in weight and are not of much value to the fishermen. In 1896, out of 125,248 shad taken in seines, 53,807 were "skips." The fisheries should not be subjected to this drain on the young fish.

The water hyacinth, a South American floating plant, introduced into the St. Johns River about 1890, and now so abundant as to be a serious impediment to navigation, has already begun to affect the fisheries. There are not many places along the upper St. Johns suitable for the hauling of seines, and when the wind blows toward one of these beaches the fishermen have to suspend operations until the wind changes, as the plants pile up against the bank in such quantities that the shore can not be reached. Gill nets are sometimes caught in the floating masses and extricated with great difficulty. The fisheries below Jacksonville do not suffer on account of this plant, as it is killed by the salt water.

The United States Fish Commission in 1896 planted 4,224,000 shad fry in the river, and in 1897, 2,017,500 fry.

NOTES ON THE OYSTER FISHERY.

Natural oyster-beds are common in eastern Florida. The most important of these are in Cumberland and Nassau sounds and tributaries in Nassau County, the lower St. John's River, Matanzas River, and in the Indian River. There are small beds in Biscayne Bay and in other places, which have not yet been worked commercially.

Since the last general canvass, in 1890, there has been a decrease in the quantity of oysters taken. In 1890, 97,350 bushels, valued at \$14,850, were taken, while in 1897, 51,829 bushels, valued at \$11,766, were secured, showing a decrease of 45,521 bushels and \$3,084 in value.

The greatest decrease since 1890 is shown in Nassau County. In that year 79,500 bushels, valued at \$8,175, were taken, while in 1897 the catch was 45,500 bushels, worth \$4,137. In 1890 there were two canneries in operation in this county. In 1894 there were four in operation, but there has since been a decline in the supply of oysters, and at present one cannery is in operation, a part of its supply being derived from Georgia waters.

In Duval and Brevard counties the oyster industry has increased since 1890. Brevard County is the most favorably situated as regards the future development of the oyster industry, the Indian River, which is entirely within its limits, having a number of natural oyster beds which have been but slightly drawn upon as yet. If these are properly conserved, a considerable industry could be developed. The allotment of land for private oyster cultivation would most conduce to this end.