

3.—REPORT ON THE FISHERIES OF THE GULF STATES.

INTRODUCTORY.

The following report upon the fisheries of the Gulf States, prepared in the Division of Fisheries of the U. S. Fish Commission, will, it is believed, prove acceptable and instructive to all directly or indirectly interested in the fishery resources of the Gulf of Mexico.

The value of the fishery products of this region is at present small when compared with the great fisheries of the New England States, where experience and enterprise, combined with intelligent and systematic methods, have greatly developed the resources of the waters. This report discloses, however, great possibilities of future production in the waters of our southern borders, and shows that large additions can be made to the wealth of this region by industry and enterprise, so that we may well hope the time is not far remote when these fisheries will command the attention they deserve. The inquiry prosecuted has been addressed to every phase of the commercial fisheries of the Gulf States, covering their methods and relations as well as the statistics of their production and value. As this report is general in character and covers the entire Gulf region, the information conveyed has in some particulars necessarily been restricted. It is the intention of the Commission, however, to publish, from time to time, papers dealing with the fisheries of each of the States, which will give more in detail their condition and extent, the possibilities for their improvement, and the advantages they offer to capitalists by their systematic prosecution.

The preparation and form of presentation of this report have been under the general direction of Mr. J. W. Collins, assistant in charge of the Division of Fisheries, aided by Dr. Hugh M. Smith, principal assistant, by whom the explanations and discussions of the tables have been mainly made. The data on which the report is based were chiefly collected by Messrs. W. H. Abbott, Ansley Hall, Edward E. Race, and C. H. Stevenson, field agents of the division.

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Commissioner.

A STATISTICAL REPORT ON THE FISHERIES OF THE GULF STATES.

BY J. W. COLLINS AND HUGH M. SMITH.

I.—GENERAL NOTES AND STATISTICS.

The geographical and natural advantages of the Gulf coast.—The Gulf region has a coast line very much longer than that of any other geographical division of the coast States. Taking into consideration the principal indentations, its approximate length is 6,875 miles, while the Middle Atlantic States, which rank next in this respect, have only 5,400 miles of coast, including the rivers to the limits of commercial fishing. The shores of this entire section are low, and for the most part sandy and swampy, sterile sandy beaches and shallow bayous being characteristic features of the coast.

The Gulf States occupy a favorable location for supplying a large part of the country with marine products. A dozen or more States in the lower Mississippi Valley have their nearest coastal connections through these States, and it will probably be in response to this section's demand for marine food-products that the Gulf fisheries will reach their highest development.

This region is favored with many highly esteemed food-fishes, which occur here in greater abundance than elsewhere on the coasts of the United States; among these the sheepshead, pompano, red snappers, and groupers may be mentioned, while certain important products may be said to be peculiar to the region. • The undeveloped resources of the Gulf States invite outside attention and afford a promising outlook for future increase. The possibilities of the region in the matter of oyster production and cultivation are believed to be great, though there are in some localities certain difficulties to be encountered and natural limitations which may somewhat retard rapid development.

The fisheries of this region are not specially important when compared with those of some other geographical divisions of the coast States. Nevertheless, though the New England, the Middle Atlantic, and the Pacific States have much larger fishing interests, the Gulf fisheries are remarkable for their recent wonderful growth and for the possibilities of greater advancement in the future. It is noteworthy that in recent years they have surpassed both in extent and value the fisheries of the South Atlantic region.

Investigation of the Gulf fisheries.—In conformity with the prescribed functions of the Division of Fisheries of the U. S. Fish Commission, an investigation of the

fishing industry of the coastal waters of this interesting region was undertaken in the early part of 1891, and covered a period of about three months. The inquiry embraced every phase of the commercial fisheries, including the history, methods, relations, and statistics, and was conducted by the following field agents of the Commission: W. H. Abbott, Ansley Hall, Edward E. Race, and Charles H. Stevenson. The fishermen, fish-dealers, and canners, and the general business public of this region evinced a lively interest in the work, and extended every facility to aid the canvass of the field agents.

Scope of the report.—In this paper it is intended to present a statistical review of the commercial coast fisheries of the States bordering on the Gulf of Mexico. The descriptive matter is intentionally brief, and consists for the most part simply of a discussion of the tables. In the introductory portion of the report the States are considered in relation to each other and to the region as a whole; while the chapters which relate to the separate States give detailed accounts of the various phases of the fisheries. The figures in the general tables show the condition of the fisheries in 1890; the statistics under each State are for two years, 1889 and 1890, and are therefore valuable because of the comparisons permitted.

The report treats of the fisheries of only the Gulf coast of Florida, but in the special chapter on that State condensed figures are given for the east coast.

It is the intention of the Fish Commission to publish, from time to time, separate papers dealing with the fisheries of each of the Gulf States. The absence of full information on the development, methods, relations, etc., of these fisheries is very apparent and must necessarily delay the advancement of the industry. The fisheries of no other section of the United States have received less attention and are so little understood, and it is thought that detailed reports of their present condition and extent, the advantages they offer to capitalists, and the possibilities for their improvement will greatly enhance their importance.

The hunting of alligators constitutes an important fishery enterprise in some of the States of this region, notably Florida and Louisiana. As much the larger number of animals are killed at points distant from the coast, usually in more or less inaccessible regions, no complete investigation of this branch was made. The statistics obtained relate only to the region on or immediately adjacent to the coast, and are not included in the regular tables, but are given in the form of footnotes under each State.

The fishermen.—A large number of nationalities are represented among the fishermen of the Gulf States. There is no section of the eastern United States in which so many unnaturalized persons are found in the fisheries. More foreign fishermen are credited to Louisiana than to any other State; here nearly one-third of the fishing population is made up of aliens, chiefly Italians, Austrians, Malays, Spaniards, and French. In the number of foreign fishermen Florida ranks next to Louisiana, having only a few less; the British provincial element predominates, a large number of both white and colored persons from the Bahama and other British islands being represented; Spaniards, Italians, Portuguese, Norwegians, and Greeks also occur in considerable numbers, the non-naturalized fishermen being between one-fourth and one-third the fishing population. The remaining States have only a small number of foreign fishermen, who are chiefly from the countries of southern Europe, Spain

furnishing the largest number. Taking the Gulf region as a unit, it is seen that the fishermen who are citizens of the United States constitute 76 per cent of the fishing population, while the remaining 24 per cent is composed of foreigners. The percentage of colored persons among the native and naturalized fishermen is about 22, Florida having the most and Texas the fewest. The actual number of American white and colored persons and of aliens employed in the fisheries is shown in Table 4, under the head of "Statistics of the fisheries"; under each State this information is also given in greater detail.

The apparatus of capture.—By referring to the tables under the individual States, it will be seen that the haul seine is the most extensively used device in taking fish proper; it is so generally employed in all the States—in some of them almost to the exclusion of other forms—that it may be called the characteristic means of capture in the Gulf region. The gill net is an unimportant form of apparatus except in Florida, where it yields larger results than the seine. Such minor devices as the cast net and dip net are mostly employed by semi-professional fishermen and take but small quantities of fish; they are most commonly used in Louisiana.

Both in Florida and Louisiana lines constitute a very prominent means of capture; in the former State they take larger quantities of fish proper than any other kind of apparatus.

Such implements as are used in the oyster, sponge, and similar fisheries, in addition to being the least expensive, are naturally the most productive. In every State but Texas they yield much larger returns than any of the other forms of apparatus and in Florida give greater results than all other kinds combined.

The entire absence from the Gulf States of pound nets, trap nets, weirs, and fyke nets, which are so prominent in the fisheries of other portions of the United States coast, is one of the most noticeable features of the fishing industry of this region. Pound nets have been tried at Pensacola, Florida, and elsewhere, but their use has never passed beyond the experimental stage, owing to the natural disadvantages which have heretofore seemed almost insurmountable. The objections to the use of the pound net, trap net, and similar devices may be briefly summarized:

1. The waters of the Gulf of Mexico abound in large, predaceous fish, which were found to enter the pound nets through the door or opening and often made their exit through the netting, generally tearing such large holes in the sides of the trap that all the other fish escaped. Aside from the liberation of the catch, the actual damage to the net was often great. Sharks, tarpon, alligator gars, and jewfish caused the most damage.

2. The teredo is abundant, and is very destructive to the poles, which constitute an important element of expense in building pound nets.

3. The high temperature of the water in this subtropical region exerts a destructive influence on twine, which becomes rotten much more rapidly than in Northern waters.

The possibility of overcoming all these difficulties may be suggested. It is thought that a pound net may be constructed of galvanized iron wire, which will not only withstand the attacks of large fish, but will capture them for food, bait, and fertilizer. Of course such a net can not be handled in the same way an ordinary pound net is drawn, but several other methods of taking the fish from the net are believed to

be practicable, such as the use of a small seine, as in the herring weir fishery in Maine, or the arrangement of the bowl so that it may be raised and lowered by means of pulleys. A false bottom of wire or twine would also be used. The employment of hollow galvanized iron stakes instead of wooden poles is entirely feasible as a protection from the teredo and would ultimately be the more economical practice.

It may be stated here that one of the reasons why gill nets are not more extensively used in this section is the abundance of crabs, garfish, and numerous other species which do no great direct injury to the nets, but are always present to attack and destroy the fish that are gilled.

The importance of the various devices employed in the fisheries of this region, as determined by the value of the products taken, is shown in Table 1. The catch in seines was valued at \$658,764; with lines, at \$289,209; in gill nets and trammel nets, \$219,333; in cast nets and dip nets, \$23,286; and with miscellaneous apparatus, as tongs, spears, sponge hooks, etc., at \$1,248,083.

1.—Table showing by States the value of the fish and other aquatic products taken with each principal form of apparatus in 1890.

States.	Seines.	Lines.	Gill nets and trammel nets.	Cast nets and dip nets.	Miscellaneous apparatus.	Total.
Florida	\$149,604	\$194,036	\$183,686	\$3,298	\$534,115	\$1,064,139
Alabama	24,090	3,095	18,862	1,012	107,812	154,871
Mississippi	68,793	249	9,185	800	166,072	245,699
Louisiana	259,065	78,139	.....	14,636	308,294	660,134
Texas	157,812	13,690	7,600	3,540	131,190	313,832
Total	658,764	289,209	219,333	23,286	1,248,083	2,438,675

The vessels.—The following table shows by States, rigs, tonnage, etc., the statistics of the vessels employed in the Gulf fisheries. In some respects the fishing fleet of this region differs from that employed in other sections of the United States, although it is true that here, as elsewhere, schooners are more universally employed in the fisheries than any other class, and in Florida a large number of the fleet are northern-built craft. This applies more particularly to the vessels employed in the red-snapper and grouper fisheries, which are generally typical New England schooners, though usually of comparatively small size. But while these are generally deep-keel vessels, the greater number of the schooners employed in the oyster and sponge fisheries are shallow, center-board craft, many of them being built in this region for the special trade in which they are employed.

Steam has not yet become an important factor in the fisheries of this region. In Florida it has recently been employed to a limited extent, two small steamers being used chiefly for transporting the catch of fishing gangs to market. Two steamers are employed for a similar purpose in Louisiana and one in Texas.

The sloop rig is still in favor for sailing vessels of comparatively small tonnage. These sloops are mostly wide, shallow, center-board vessels; and it may be remarked that the general character of the coast necessitates the employment of craft with light draft. This is emphasized by the recent employment of large sharpies about Tampa, Florida, averaging 7 or 8 tons burden.

The Gulf region is remarkable for the employment of a large number of small lug-rigged vessels of about 7 tons register. These are mostly found in Louisiana, which

has 86 vessels of this class in a total of 88 for the entire section. The typical lugger is a sharp, shallow, center-board craft, carrying a single large lugsail. Vessels of this rig are celebrated for speed and general fitness for the work they have to perform. They are manned chiefly by fishermen of foreign birth.

2.—Table showing by States the rigs of vessels employed in the fisheries of the Gulf region in 1890.

States.	Steamers.		Schooners.		Sloops.		Luggers.		Sharpies.		Total.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Florida	2	34.40	140	2,489.36	12	80.62	.....	.....	3	22.50	168	2,636.88
Alabama .....	.....	.....	31	334.79	7	53.08	.....	.....	.....	.....	38	387.87
Mississippi .....	.....	.....	55	519.71	5	33.89	2	16.42	.....	.....	62	570.02
Louisiana	2	54.49	24	232.01	7	42.29	86	568.05	.....	.....	119	896.84
Texas	1	88.17	9	82.44	9	60.15	.....	.....	.....	.....	19	240.76
Total	5	177.06	268	3,678.31	40	270.03	88	584.47	3	22.50	404	4,732.37

The products of the fisheries.—Few sections of the United States are better supplied with desirable and important marine fishery products, including fish, reptiles, and invertebrates, than the Gulf States. Among the invertebrates, the oyster ranks first in commercial importance. It is extremely abundant throughout the entire section and constitutes the most prominent fishery product. No other mollusks have as yet attained economic prominence, though in Florida the round clam or quahog is taken in small quantities, and the meat of the conch is used for bait and eaten locally.

A number of species and varieties of sponges occur off the Florida coast and are objects of an important fishery, the only one of the kind prosecuted from the United States. The principal species taken are known as the grass, yellow, velvet, glove, and sheepswool sponges, the poorest and least valuable of which are the glove and grass sponges, while the sheepswool occupies the first rank among American sponges and is the species most eagerly sought.

Among crustaceans the shrimp is the most prominent. It is taken on the coasts of Mississippi, Texas, and Louisiana, the last-named State maintaining the most extensive fishery. The shrimps are eaten fresh, and are also preserved by drying and canning. Crabs are abundant in this region; in addition to the common blue or edible crab of the Atlantic coast, there occur the shore crab, the lady or sand crab, and other species of less importance. The fishermen of Louisiana secure larger quantities of crabs than those of Mississippi and Texas, the only other Gulf States in which the fishery is carried on. The stone crab, which reaches a large size and is very palatable, is probably most abundant on the coast of Florida, where it is a highly esteemed food among the coast inhabitants, but is not sought for commercial purposes. The lady crab is very common in Louisiana waters, and is a favorite product in New Orleans. Several species of crayfish exist in the brackish and fresh waters of the Gulf region, but it is only in Louisiana that they are caught for market. In April, 1890, an experimental attempt was made by the U. S. Fish Commission to acclimatize the lobster in the Gulf of Mexico; 745 adult male and female lobsters and 250,000 eggs were planted in Galveston Bay, but the fresh water of the bay proved fatal to the adults and it is not probable that the eggs hatched. In southern Florida the fishermen take considerable quantities of the spiny lobster, locally called "crawfish," which are mostly used for bait and are only sparingly eaten.

The economic value of the reptiles inhabiting the Gulf States is greater than in any other section. Foremost among them is the alligator, which occurs in every State, but is of commercial importance only in Florida and Louisiana. The crocodile is also found in Florida and is occasionally though very rarely taken. There are at least five species of terrapins in this section which are valuable as food. Four of these occur in fresh water, one of which, the "mobilian," reaches a length of 16 inches and is very highly esteemed, especially in New Orleans, Mobile, and other Southern cities. The salt-water or diamond-back terrapin is also found in the salt marshes from Florida to Texas, and is a valuable object of fishery. This region is included within the range of three soft-shell tortoises, which are chiefly found in shallow, sluggish streams with muddy bottoms; both their flesh and eggs rank high as articles of food. Two species of snapping turtle also inhabit the fresh waters of these States and are sometimes captured. Three important marine turtles frequent the Gulf of Mexico and are sought by the fishermen of nearly every State; these are the green turtle, the loggerhead, and the hawksbill or tortoise-shell turtle. The loggerhead turtle often attains a weight of 1,600 pounds, but the average weight is very much less; the green turtle is intermediate in size between the loggerhead and the hawksbill.

Taking the region as a whole, the most prominent fish is the mullet, although this is relatively important only in Florida. Of the fish that are generally distributed and are taken in greater or less quantities in each State, the squeteague or trout ranks first, followed by the sheepshead and the redfish or channel bass. Other valuable fishes are the bluefish, buffalo-fish, catfish, croakers, grunts, pompano, red snapper, and Spanish mackerel. The most important of these is the red snapper; the catch exceeds that of all other species except the mullet. In addition to the foregoing there is a great variety of other species, some of which are more or less peculiar to this region, such as the minor snappers, groupers, lady-fish, whiting, drum, pinfish, sailor's choice, jurel, grunts, angel-fish, sea bass, etc.

In the tables of products all objects of capture have been reduced to the common unit of a pound, in order that the aggregate weight of the products of the fisheries may be shown. Oysters, among a few other products, are rarely, if ever, marketed on this basis, and it should therefore be borne in mind in reading the tables that the quantity of oysters given represents the weight of the edible portion, of which about 7 pounds are obtained from each bushel. Footnotes to all the general tables show the yield of oysters in bushels.

A list and classification of the fishery products of the Gulf States is given in the following table. In the first column the various local names employed in this region are shown; the second column contains the scientific identification of the species; in the third column the names are given under which the products are recorded in the tabulations. Without having the actual specimens at hand for examination it would be impossible to identify with certainty all the fishes of this region by the vernacular names in use among the fishermen; some of the local names have never been recorded and are of doubtful application, while many of the common designations are borne by two or more species, which may be of widely different character. This duplication of names is not only found by comparing distant sections or different States, but exists in the same localities. On the other hand, the same species may have totally different names in different localities.

Common and scientific names of the important commercial fishes, reptiles, etc., of the Gulf States.

Local common names.	Scientific names.	Names under which tabulated.
FISH.		
Aigrette.....	<i>Lachnolæmus falcatus</i>	Sailor's choice.
Albacore.....	<i>Seriola dumerili</i>	Amber-fish.
Almicore.....	Do.....	Do.
Amber-fish.....	Do.....	Do.
Do.....	<i>Seriola stearnsi</i>	Do.
Amber-jack.....	<i>Seriola lalandi</i>	Do.
Angel-fish.....	<i>Chætodipterus faber</i>	Angel-fish.
Blackfish.....	<i>Serranus atrarius</i>	Sea bass.
Blanca.....	<i>Lelostomus xanthurus</i>	Spot.
Blonker.....	Do.....	Do.
Bluefish.....	<i>Pomatomus saltatrix</i>	Bluefish.
Bonefish.....	<i>Albula vulpes</i>	Lady-fish.
Do.....	<i>Acanthurus cœruleus</i>	Do.
Do.....	<i>Acanthurus nigricans</i>	Do.
Bream.....	Centrarchidæ (numerous species).....	Bream and sunfish.
Do.....	<i>Lagodon rhomboides</i>	Pinfish.
Buffalo-fish.....	<i>Ictiobus cyprinella</i>	Buffalo-fish.
Do.....	<i>Ictiobus bubalus</i>	Do.
Do.....	<i>Ictiobus urus</i>	Do.
Do.....	<i>Ictiobus velifer</i>	Do.
Callifavor.....	<i>Mugil cephalus</i>	Mullet.
Capitaine.....	<i>Lachnolæmus falcatus</i>	Sailor's choice.
Catfish, blue.....	<i>Tachysurus felis</i>	Catfish.
Catfish, channel.....	<i>Ictalurus punctatus</i>	Do.
Catfish, fiannel-mouth.....	<i>Ameiurus nigricans</i>	Do.
Catfish, gaff-topsail.....	<i>Ælurichthys marinus</i>	Do.
Catfish, great.....	<i>Ameiurus nigricans</i>	Do.
Catfish, Mississippi.....	Do.....	Do.
Catfish, sea.....	<i>Ælurichthys marinus</i>	Do.
Do.....	<i>Tachysurus felis</i>	Do.
Catfish, silver.....	<i>Ictalurus punctatus</i>	Do.
Catfish, white.....	Do.....	Do.
Cavalla.....	<i>Caranx hippos</i>	Crevalle.
Cero.....	<i>Scomberomorus caballa</i>	Kingfish.
Channel bass.....	<i>Sciæna ocellata</i>	Channel bass.
Chopa.....	<i>Lagodon rhomboides</i>	Pinfish.
Chopa blanca.....	<i>Lelostomus xanthurus</i>	Spot.
Chopa spina.....	<i>Lagodon rhomboides</i>	Pinfish.
Cobbler.....	<i>Trachynotus falcatus</i>	Pompano.
Coney.....	<i>Epinephelus guttatus</i>	Groupers.
Crevalle.....	<i>Caranx hippos</i>	Crevalle.
Croaker.....	<i>Micropogon undulatus</i>	Croaker.
Croaker, bastard.....	<i>Sciæna punctata</i>	Silver perch.
Croaker, flat.....	<i>Lelostomus xanthurus</i>	Spot.
Croaker, post.....	Do.....	Do.
Drum.....	<i>Pogonias cromis</i>	Drum, salt-water.
Drum, fresh-water.....	<i>Aplodinotus grunniens</i>	Drum, fresh-water.
Flounder.....	<i>Paralichthys albigutta</i>	Flounders.
Do.....	<i>Paralichthys lethostigma</i>	Do.
Gag.....	<i>Mycteroperca microlepis</i>	Groupers.
Gaspergou.....	<i>Aplodinotus grunniens</i>	Drum, fresh-water.
Green trout.....	<i>Micropterus dolomieu</i>	Black bass.
Do.....	<i>Micropterus salmoides</i>	Do.
Ground mullet.....	<i>Menticirrhus americanus</i>	Whiting.

Common and scientific names of the important commercial fishes, reptiles, etc.—Continued.

Local common names.	Scientific name.	Names under which tabulated.
FISH—continued.		
Grouper, black	<i>Epinephelus nigritus</i>	Jewfish.
Do	<i>Mycteroperca microlepis</i>	Groupers.
Do	<i>Mycteroperca bonaci</i>	Do.
Grouper, Nassau	<i>Epinephelus striatus</i>	Do.
Grouper, red	<i>Epinephelus morio</i>	Do.
Grouper, yellow-fin	<i>Mycteroperca venenosa</i>	Do.
Grunt, black	<i>Hæmulon plumieri</i>	Grunts.
Grunt, boar	Do	Do.
Grunt, common	Do	Do.
Grunt, French	<i>Hæmulon flavolineatum</i>	Do.
Grunt, open-mouth	Do	Do.
Grunt, red-mouth	<i>Hæmulon plumieri</i>	Do.
Grunt, sow	Do	Do.
Grunt, striped	<i>Hæmulon tæniatum</i>	Do.
Grunt, yellow	<i>Hæmulon sciurus</i>	Do.
Guasa	<i>Promicrops itaiara</i>	Jewfish.
Hardtail	<i>Caranx chrysos</i>	Jurel.
Hind	<i>Epinephelus drummond-hayi</i>	Groupers.
Hind, rock	<i>Epinephelus ascensionis</i>	Do.
Hind, speckled	<i>Epinephelus drummond-hayi</i>	Do.
Hogfish	<i>Lachnolæmus falcatus</i>	Sailor's choice.
Horse-eye jack	<i>Caranx latus</i>	Crevalle.
Jack	<i>Caranx hippos</i>	Do.
Do	<i>Lucius reticulatus</i>	Pike and pickerel.
Do	<i>Lucius vermiculatus</i>	Do.
Jackfish	<i>Caranx chrysos</i>	Jurel.
Do	<i>Caranx hippos</i>	Crevalle.
Jack, horse-eye	<i>Caranx latus</i>	Do.
Jewfish	<i>Epinephelus nigritus</i>	Jewfish.
John Paw	<i>Epinephelus drummond-hayi</i>	Groupers.
Jurel	<i>Caranx chrysos</i>	Jurel.
Kingfish	<i>Scomberomorus caballa</i>	Kingfish.
Do	<i>Scomberomorus regalis</i>	Do.
King cero	Do	Do.
Lady-fish	<i>Albula vulpes</i>	Lady-fish.
Lawyer	<i>Lutjanus caxis</i>	Snappers, gray and others.
Mademoiselle	<i>Sciæna punctata</i>	Silver perch.
*Menille	<i>Mugil cephalus</i>	Mullet.
Molly	Do	Do.
Moonfish	<i>Chaetodipterus faber</i>	Angel-fish.
Mullet, blue-back	<i>Mugil curema</i>	Mullet.
Mullet, common	<i>Mugil cephalus</i>	Do.
Mullet, ground	<i>Menticirrus americanus</i>	Do.
Mullet, silver	<i>Mugil curema</i>	Do.
Mullet, striped	<i>Mugil cephalus</i>	Do.
Mullet, white	<i>Mugil curema</i>	Do.
Nigger-fish	<i>Enneacentrus fulvus</i>	Groupers.
Oldwife	<i>Trachynotus glaucus</i>	Pompano.
Palometa	<i>Trachynotus rhomboides</i>	Do.
Pampa	<i>Trachynotus rhodopus</i>	Do.
Pargo colorado	<i>Lutjanus blackfordi</i>	Snappers, red.
Perch	Centrarchidæ (numerous species)	Bream and sunfish.
Perch, silver	<i>Sciæna punctata</i>	Silver perch.
Perch, white	<i>Aplodinotus grunniens</i>	Drum, fresh-water.
Permit	<i>Trachynotus rhodopus</i>	Pompano.
Pez colorado	<i>Sciæna ocellata</i>	Channel bass.

Common and scientific names of the important commercial fishes, reptiles, etc.—Continued.

Local common names.	Scientific names.	Names under which tabulated.
FISH—continued.		
Pickereel	<i>Lucius reticulatus</i>	Pike and pickereel.
Do	<i>Lucius vermiculatus</i>	Do.
Pigfish	<i>Orthopristis chrysopterus</i>	Grunts.
Pike	<i>Lucius reticulatus</i>	Pike and pickereel.
Do	<i>Lucius vermiculatus</i>	Do.
Pinfish	<i>Lagodon rhomboides</i>	Pinfish.
Pintadilla	<i>Scomberomorus maculatus</i>	Spanish mackerel.
Pompano, common	<i>Trachinotus carolinus</i>	Pompano.
Pompano, gaff-topsail	<i>Trachinotus glaucus</i>	Do.
Pompano, round	<i>Trachinotus rhomboides</i>	Do.
Poisson rouge	<i>Sciæna ocellata</i>	Channel bass.
Porgy	<i>Lagodon rhomboides</i>	Pinfish.
Post croaker	<i>Leiostomus xanthurus</i>	Spot.
Redfish	<i>Sciæna ocellata</i>	Channel bass.
Rock bass	<i>Ambloplites rupestris</i>	Rock bass.
Rockfish	<i>Mycteroperca venenosa</i>	Groupers.
Do	<i>Roccus lineatus</i>	Striped bass.
Ronco	<i>Micropogon undulatus</i>	Croaker.
Ronco amarillo	<i>Hæmulon sciurus</i>	Grunts.
Ronco grande	<i>Hæmulon plumieri</i>	Do.
Ronker	<i>Micropogon undulatus</i>	Croaker.
Runner	<i>Caranx chrysos</i>	Jurel.
Do	<i>Elagatis bipinnulatus</i>	Shoemaker.
Sac-à-lait	<i>Pomoxis annularis</i>	Bream and sunfish.
Sailor's choice	<i>Lachnolæmus falcatus</i>	Sailor's choice.
Schoolmaster	<i>Lutjanus caxis</i>	Snappers, gray and others.
Do	<i>Lutjanus jocu</i>	Do.
Sea bass	<i>Serranus atrarius</i>	Sea bass.
Sea-kitten	<i>Ælurichthys marinus</i>	Catfish.
Sea perch	<i>Leiostomus xanthurus</i>	Spot.
Sheepshead	<i>Archosargus probatocephalus</i>	Sheepshead.
Shiner	<i>Lagodon rhomboides</i>	Pinfish.
Shoemaker	<i>Elagatis bipinnulatus</i>	Shoemaker.
Silver-fish	<i>Sciæna punctata</i>	Silver perch.
Silver perch	Do	Do.
Skipjack	<i>Albula vulpes</i>	Lady-fish.
Do	<i>Caranx chrysos</i>	Jurel.
Do	<i>Elagatis bipinnulatus</i>	Shoemaker.
Snapper, black	<i>Lutjanus caxis</i>	Snappers, gray and others.
Snapper, dog	<i>Lutjanus jocu</i>	Do.
Snapper, gray	<i>Lutjanus caballerote</i>	Do.
Do	<i>Lutjanus caxis</i>	Do.
Do	<i>Lutjanus griseus</i>	Do.
Snapper, lone	<i>Lutjanus synagris</i>	Do.
Snapper, mangrove	<i>Lutjanus caballerote</i>	Do.
Do	<i>Lutjanus griseus</i>	Do.
Snapper, red	<i>Lutjanus blackfordi</i>	Snappers, red.
Do	<i>Lutjanus campechianus</i>	Do.
Snapper, yellow-tail	<i>Ocyurus chrysurus</i>	Snappers, gray and others.
Spadefish	<i>Chætodipterus faber</i>	Angel-fish.
Spanish mackerel	<i>Scomberomorus maculatus</i>	Spanish mackerel.
Spot	<i>Leiostomus xanthurus</i>	Spot.
Sunfish	<i>Caranx erinitus</i>	Crevalle.
Do	Centrarchidæ (numerous species)	Bream and sunfish.
Tallowag	<i>Serranus atrarius</i>	Sea bass.
Tallywag	Do	Do.

Common and scientific names of the important commercial fishes, reptiles, etc.—Continued.

Local common names.	Scientific names.	Names under which tabulated.
FISH—continued.		
Tamboro	<i>Pogonias cromis</i>	Drum, salt-water.
Trout, fresh-water	<i>Micropterus dolomieu</i>	Black bass.
Do	<i>Micropterus salmoides</i>	Do.
Trout, green	<i>Micropterus dolomieu</i>	Do.
Do	<i>Micropterus salmoides</i>	Do.
Trout, salt-water	<i>Cynoscion maculatum</i>	Trout.
Do	<i>Cynoscion nothum</i>	Do.
Trout, sand	Do	Do.
Trout, sea	<i>Cynoscion maculatum</i>	Do.
Trout, speckled	Do	Do.
Trout, spotted	Do	Do.
Trout, white	<i>Cynoscion nothum</i>	Do.
Warsaw	<i>Epinephelus nigritus</i>	Jewfish.
Whiting	<i>Menticirrhus americanus</i>	Whiting.
Whiting, surf	<i>Menticirrhus littoralis</i>	Do.
Yellow-jack	<i>Caranx bartholomæi</i>	Crevalle.
Yellow-tail	<i>Elagatis bipinnulatus</i>	Shoemaker.
Do	<i>Sciaen punctata</i>	Silver perch.
REPTILES.		
Cooter	<i>Pseudemys concinna</i>	Terrapins.
Mobilian	<i>Pseudemys mobilensis</i>	Do.
Terrapin, fresh-water	<i>Pseudemys concinna</i>	Do.
Do	<i>Pseudemys elegans</i>	Do.
Do	<i>Pseudemys hieroglyphica</i>	Do.
Terrapin, diamond-back	<i>Malaclemmys palustris</i>	Do.
Terrapin, salt-water	Do	Do.
Tortoise, soft-shell	<i>Aspionectes asper</i>	Do.
Do	<i>Aspionectes emoryi</i>	Do.
Do	<i>Aspionectes ferox</i>	Do.
Turtle, alligator	<i>Macrochelys lacertina</i>	Turtles.
Turtle, green	<i>Chelonia mydas</i>	Do.
Turtle, hawkbill	<i>Eretmochelys imbricata</i>	Do.
Turtle, loggerhead	<i>Thalassochelys caretta</i>	Do.
Turtle, snapping	<i>Chelydra serpentina</i>	Do.
Do	<i>Macrochelys lacertina</i>	Do.
Turtle, tortoise-shell	<i>Eretmochelys imbricata</i>	Do.
INVERTEBRATES.		
Crab, blue	<i>Callinectes hastatus</i>	Crabs.
Crab, lady	<i>Platyonichus ocellatus</i>	Do.
Crab, sand	Do	Do.
Crab, sea	<i>Callinectes hastatus</i>	Do.
Crab, stone	<i>Menippe mercenarius</i>	Do.
Crayfish	<i>Cambarus acutus</i>	Crayfish.
Do	<i>Cambarus clarkii</i>	Do.
Do	<i>Cambarus virilis</i>	Do.
Oyster	<i>Ostrea virginica</i>	Oysters.
Quahog	<i>Venus mercenaria</i>	Quahogs.
Shrimp	<i>Panæus brasiliensis</i>	Shrimp.
Do	<i>Panæus setiferus</i>	Do.
Sponge, glove	<i>Spongia officinalis tubulifera</i>	Sponges.
Sponge, grass	<i>Spongia graminea</i>	Do.
Do	<i>Spongia equina cerebriformis</i>	Do.
Sponge, sheepswool	<i>Spongia equina gossypina</i>	Do.
Sponge, velvet	<i>Spongia equina meandriniformis</i>	Do.
Sponge, yellow	<i>Spongia agaricina corlosia</i>	Do.
Do	<i>Spongia agaricina dura</i>	Do.

Statistics of the fisheries.—In 1890 there were 11,752 persons employed in the fisheries of the Gulf States; the capital invested in the industry amounted to \$2,978,292; the quantity of products taken was 69,075,534 pounds; and the original value of the yield was \$2,438,675. In the number of persons engaged in connection with the fisheries, Florida and Louisiana rank first, the former having 3,602 fishermen and 466 shoresmen, and the latter 3,608 fishermen and 460 shoresmen, an aggregate in each State of 4,068. Among the three remaining States, Mississippi is considerably in the lead, although Texas is credited with more fishermen; 1,721 persons devoted attention to the fisheries in Mississippi, of whom 690 were fishermen and 1,031 shoresmen, the number of the latter being actually and relatively larger than in any of the other States. Texas had 1,116 fishermen and 161 shoresmen, a total of 1,277; Alabama had 509 fishermen and 109 shoresmen, or 618 all told.

Florida takes precedence over the other States in the matter of investment, \$1,369,294, or nearly half the sum devoted to the industry in the entire section, being credited to that State, after which come Louisiana with \$719,876, Mississippi with \$434,710, Texas with \$319,122, and Alabama with \$135,290. The specially prominent feature of the investment in Florida is the considerable number of vessels of relatively large size and value; in Louisiana the fleet is almost as numerous as in Florida, but the craft are much smaller and less expensive. Louisiana leads Florida in the number of boats employed in the shore fisheries, but in the latter State the value of boats is very much greater. Considering the entire region, it is interesting to observe that \$590,124 was invested in vessels and their outfits, \$557,257 in boats, \$134,764 in apparatus of capture, \$676,647 in shore property, and \$1,019,500 in working capital.

The products of the fisheries are greater and more valuable in Florida than in any other Gulf State; 27,418,562 pounds of fish, mollusks, etc., worth \$1,064,139, were taken in 1890. The most valuable objects of capture in the fisheries of this State are the sponges, which are not sought for in the other States of this region. After sponges come mullet, red snapper, pompano, Spanish mackerel, and turtle, in the catch of which Florida takes the lead. Louisiana follows Florida with 20,789,203 pounds, valued at \$660,134. Here the most important products are oysters, shrimp, catfish, and buffalo-fish, in the output of which the State takes precedence. Texas holds third rank with 7,959,400 pounds, worth \$313,832; oysters are the most valuable objects of fishery, though the output is less than in Louisiana or Mississippi. The next important species are squeteague or trout, channel bass or redfish, and sheepshead, in the catch of which Texas excels. Mississippi shows a larger quantity of fishery products than Texas, but their value is considerably less, the figures being 8,131,401 pounds, which sold for \$245,699. More than half of this value represents oysters; the other prominent products are squeteague, shrimp, and redfish, which are relatively unimportant. The fishery products of Alabama in 1890 amounted to 4,776,968 pounds, worth \$154,871, of which sum oysters constituted more than two-thirds. The only other important species are mullet and squeteague.

In the four following tables statistics of the fisheries of the Gulf region in 1890 are given, the specification being by States. The first table relates to persons engaged, the second to the nationalities of the fishermen, the third to the capital invested, and the fourth to the products taken.

6.—Table showing by States the products of the fisheries of the Gulf States in 1890—Continued.

Species.	Florida.		Alabama.		Mississippi.		Louisiana.		Texas.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Pickereel and pike, fresh			34,500	\$1,035	14,750	\$590			32,450	\$1,402
Pinfish, fresh	52,535	\$778	15,416	375	55,200	1,593				
Pompano, fresh	259,056	24,489	17,178	2,577	14,875	1,637	32,450	\$4,378	2,000	600
Pompano, salted	41,300	1,870								
Rock bass, fresh							54,200	3,047		
Sailor's choice, fresh	58,277	856	2,800	98					25,850	1,204
Sea bass, fresh	5,700	136			23,660	1,065				
Sheepshead, fresh	543,797	9,449	35,114	1,314	173,200	7,870	390,817	25,906	778,800	30,871
Shoemaker, fresh									12,300	513
Silver perch, fresh	36,177	796	4,845	73			140,160	6,206		
Snappers, red, fresh	4,172,942	123,799	62,375	2,405			240,500	7,215	4,800	240
Snappers, gray and others, fresh	47,303	967								
Spanish mackerel, fresh	434,193	20,908	43,966	2,464	46,500	3,150	144,000	14,065	25,000	1,313
Spanish mackerel, salt	6,800	192								
Spots, fresh	35,315	508	25,450	606	45,885	1,375	30,000	1,520		
Striped bass, fresh							49,950	3,050	9,000	391
Trout, fresh	551,113	12,036	208,750	10,706	372,100	17,596	655,070	33,026	1,120,450	47,864
Trout, salted	51,350	1,342								
Whiting, fresh	25,242	521	4,307	65						
Miscellaneous fish, fresh	477,211	22,389					161,380	9,319	184,000	6,744
Miscellaneous fish, salt	67,900	1,457								
Sponges	366,772	438,682								
Oysters	2,597,567	93,692	3,367,490	107,812	5,645,346	166,672	5,891,095	299,896	3,085,800	127,996
Quahogs	7,330	747								
Shrimp					613,500	12,622	6,662,050	90,519	175,800	5,670
Crayfish							140,650	7,030		
Crabs, hard					32,560	1,307	850,800	12,815	190,800	5,095
Crabs, soft					14,600	730	129,900	6,547		
Terrapins	4,180	130	4,700	940			58,333	1,543	6,200	1,532
Turtles	468,256	20,972					90,793	2,335	583,000	9,345
Turtle eggs	6,625	994								
Tortoise shell	1,153	2,884								
Total	27,418,502	1,064,139	4,776,968	154,871	8,131,401	245,699	20,789,203	680,134	7,959,400	313,882

SUMMARY.

Species.	Pounds.	Value.	Species.	Pounds.	Value.
Amber-fish, fresh	65,000	\$2,600	Sailor's choice, fresh	86,927	\$2,158
Angel-fish, fresh	161,244	3,076	Sea bass, fresh	29,360	1,201
Black bass, fresh	92,570	4,619	Sheepshead, fresh	1,921,728	75,410
Bluefish, fresh	610,256	18,376	Shoemaker, fresh	12,300	513
Bream and snuffish, fresh	451,108	22,743	Silver perch, fresh	181,182	7,075
Buffalo-fish, fresh	1,315,750	24,847	Snappers, red, fresh	4,480,617	133,749
Catfish, fresh	2,850,007	59,550	Snappers, gray and others, fresh	47,303	967
Channel bass, fresh	2,160,797	77,410	Spanish mackerel, fresh	693,659	42,500
Croakers, fresh	84,374	2,879	Spanish mackerel, salted	6,800	192
Croakers, fresh	532,540	21,555	Spots, fresh	137,250	4,009
Drum, fresh-water, fresh	71,084	2,123	Striped bass, fresh	58,950	3,441
Drum, salt-water, fresh	136,053	2,286	Trout, fresh	2,908,083	121,228
Flounders, fresh	276,245	12,853	Trout, salted	51,350	1,342
Groupers, fresh	427,731	4,893	Whiting, fresh	29,540	586
Grunts, fresh	680,725	22,202	Miscellaneous fish, fresh	822,501	38,452
Jewfish, fresh	46,000	1,874	Miscellaneous fish, salted	67,900	1,457
Jurel, fresh	346,125	4,139	Oysters	*20,587,098	796,062
Kingfish, fresh	291,725	12,625	Quahogs	17,330	747
Lady-fish, fresh	112,594	1,685	Shrimp	7,451,350	108,811
Lady-fish, salted	22,000	600	Crayfish	140,650	7,030
Mullet, fresh	11,915,114	140,939	Crabs, hard	1,074,100	19,217
Mullet, salted	2,968,254	80,184	Crabs, soft	144,500	7,277
Mullet, smoked	3,200	148	Terrapins	73,413	4,145
Mullet roe, salted	298,549	17,257	Turtles	1,142,049	32,652
Pickereel and pike, fresh	81,700	3,027	Turtle eggs	6,625	994
Pinfish, fresh	123,151	2,746	Tortoise shell	1,153	2,884
Pompano, fresh	325,559	33,681			
Pompano, salted	41,300	1,870			
Rock bass, fresh	54,200	3,047			
Total			Total	69,075,534	2,438,675

* 2,941,014 bushels.

† 733 bushels.

In the following table the relative quantity and value, in 1890, of each product is shown for each State and for the entire region. The figures represent the percentage which each species bears to the aggregate yield of the fisheries of the States and region.

7.—Table showing by States the percentage of the quantity and value of each species taken in the fisheries of the Gulf States in 1890.

Species.	Florida.		Alabama.		Mississippi.		Louisiana.		Texas.		Total.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Amber-fish	.24	.24									.09	.11
Angel-fish	.46	.19	.11	.03	.36	.41					.23	.13
Black bass	.02	.01			.07	.12	.39	.04			.13	.19
Bluefish	1.53	1.03	1.17	.78	1.18	1.87	.06	.13	.32	.42	.88	.75
Bream and sunfish	.14	.09	.40	.62	1.10	1.47	1.30	2.38	.43	.49	.65	.93
Buffalo-fish					1.50	.50	5.63	3.48	.17	.22	1.91	1.02
Catfish			.79	.61	1.15	.73	12.86	8.29	.57	.66	4.13	2.44
Channel bass	1.67	.68	1.14	1.45	2.48	3.56	1.63	1.71	13.92	15.26	3.13	3.17
Crevalle	.07	.02	.21	.23					.71	.72	.12	.12
Croakers	.16	.06	2.05	2.09	.70	.60	.76	1.44	2.22	2.14	.77	.89
Drum, fresh-water	.19	.07					.09	.21			.10	.09
Drum, salt-water	.44	.17	.15	.14	.04	.07			.05	.03	.20	.09
Flounders	.09	.03	.41	.77	.94	1.26	.12	.36	1.64	1.86	.40	.53
Groupers	1.45	.42	.24	.15			.08	.03			.62	.20
Grunts	2.48	2.08									.99	.91
Jewfish									.58	.60	.07	.08
Jurel	1.15	.34	.65	.30							.50	.17
Kingfish	1.06	1.18									.42	.52
Lady-fish	.44	.21	.27	.08							.20	.10
Mullet	50.77	19.84	12.30	8.46	3.76	1.42	1.38	1.22	1.05	.88	21.98	9.78
Pickrel and pike			.72	.67	.18	.24			.41	.45	.12	.12
Pinfish	.19	.07	.32	.24	.68	.65					.18	.11
Pompano	1.10	2.48	.36	1.66	.18	.07	.16	.66	.03	.19	.53	1.46
Rock bass							.27	.46			.08	.12
Sailor's choice	.21	.08	.06	.06					.32	.38	.13	.09
Sea bass	.02	.01			.29	.43					.04	.05
Sheepshead	1.98	.89	.74	.85	2.13	3.20	1.88	3.92	9.78	9.84	2.78	3.09
Shoemaker									.15	.16	.02	.02
Silver perch	.13	.07	.10	.05			.67	.94			.26	.29
Snappers, red	15.22	11.63	1.31	1.61			1.16	1.09	.06	.08	6.49	5.48
Snappers, gray and others	.17	.09									.07	.04
Spanish mackerel	1.61	1.99	.92	1.59	.57	1.23	.60	2.22	.31	.42	1.01	1.75
Spots	.13	.05	.53	.39	.50	.56	.15	.23			.20	.16
Striped bass							.24	.46	.11	.12	.09	.14
Trout	2.20	1.26	4.37	6.91	4.58	7.16	3.15	5.00	14.08	15.25	4.29	5.03
Whiting	.09	.05	.09	.04							.04	.02
Miscellaneous fish	1.99	2.24					.78	1.41	2.31	2.15	1.29	1.64
Sponges	1.34	41.22									.53	17.99
Oysters	9.47	8.80	70.49	69.61	69.43	67.83	28.34	45.43	38.77	40.78	29.80	32.04
Quahogs		.03									.01	.03
Shrimp					7.54	5.14	32.05	13.71	2.21	1.81	10.79	4.46
Crayfish							.68	1.07			.20	.29
Crabs, hard					.40	.53	4.09	1.94	2.40	1.62	1.55	.79
Crabs, soft					.18	.30	.62	.99			.21	.30
Terrapins	.02	.01	.10	.61			.28	.23	.08	.49	.11	.17
Turtles	1.74	2.33					.44	.35	7.32	2.98	1.66	1.50
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The above table shows that in Florida the mullet constitutes 50.77 per cent of the output and 19.84 per cent of the value of the fisheries. The red snapper is the next important species as regards quantity, forming 15.22 per cent of the yield, but the relative value—viz, 11.63 per cent—is less than that of sponges. The proportion of oysters to the total yield is 9.47 per cent of the quantity and 8.80 per cent of the value. The quantity of sponges taken is only 1.34 per cent, but the value is 41.22 per cent, and is greater than that of any other product. The disparity between the quantity and value of the yield is worthy of notice.

In Mississippi and Alabama the oyster surpasses, both in quantity and value, all the other products combined, and represents about 70 per cent of the total catch and income of the fishermen. The only other products of importance are mullet in Mississippi, and trout and shrimp in Alabama!

Oysters constitute 28.34 per cent of the quantity and 45.43 per cent of the value of the product of the Louisiana fisheries, and shrimp 32.05 per cent and 13.71 per cent, respectively. Catfish is the only additional product that is relatively important, with 12.86 per cent of the quantity and 8.29 per cent of the value.

In Texas the output of oysters is 38.77 per cent of the quantity and 40.78 per cent of the value of the catch. Three fish are also important—viz, channel bass, trout, and sheepshead—the proportions for each being from 10 to 15 per cent of quantity and value. Turtles constitute 7.32 per cent of the yield, but have a much lower relative value.

Taking the region as a whole, the products which are taken in largest quantities are, in the order of their rank, oysters, mullet, shrimp, red snappers, and trout. With the value of the catch as a basis, the important species are oysters, sponge, mullet, red snappers, and trout.

Comparisons with 1880.—Table 8 shows in a condensed form the changes which have taken place in the fisheries of the Gulf States between 1880 and 1890.

There has been a large increase in the number of persons engaged in the fisheries, which has been participated in by every State except Alabama. The increase has been 6,621, or 129.04 per cent. Louisiana has undergone the greatest actual advance, and Mississippi the largest relative increase.

Every State has shared in the increase in the amount of capital invested in the fishing industry. This was \$2,432,708, or 445.89 per cent, Florida leading the other States in the actual money value of the advance and Mississippi in the percentage.

The value of the products of the fisheries in 1890 was \$1,211,131, or 98.66 per cent more than in 1880. As in the case of the investment, Florida and Mississippi respectively show the greatest real and proportional increase.

8.—Comparative table showing the extent of the fisheries of the Gulf States in 1880 and 1890.

States.	Persons employed.				Capital invested.			
	1880.	1890.	Increase or decrease in 1890.	Percentage of increase or decrease in 1890.	1880.	1890.	Increase in 1890.	Percentage of increase in 1890.
Florida	2,112	4,068	+1,956	+ 92.61	\$362,563	\$1,360,294	+\$1,006,731	+ 277.67
Alabama	635	618	- 17	- 2.68	38,200	135,290	+ 97,090	+ 254.16
Mississippi	186	1,721	+1,535	+25.27	8,500	434,710	+ 426,210	+4,839.89
Louisiana	1,597	4,068	+2,471	+154.73	93,621	719,876	+ 626,255	+ 668.93
Texas	601	1,277	+ 676	+112.48	42,400	319,122	+ 276,722	+ 652.65
Total	5,181	11,752	+6,621	+129.04	545,584	2,978,292	+ 2,432,708	+ 445.89

States.	Value of products.			
	1880.	1890.	Increase in 1890.	Percentage of increase in 1890.
Florida	\$504,819	\$1,084,139	+ \$499,320	+ 88.40
Alabama	119,275	154,871	+ 35,596	+ 29.84
Mississippi	22,540	245,099	+ 223,159	+990.06
Louisiana	392,610	680,134	+ 287,524	+ 68.14
Texas	128,300	313,832	+ 185,532	+144.61
Total	1,227,544	2,438,675	+1,211,131	+ 98.66

More than a third of the aggregate increase in the value of products during the decade specified accrued from oysters. In all the States the augmentation of the output of this product since 1880 has been phenomenally large. The following table gives by States the quantity and value of oysters taken in this region in 1880 and 1890:

9.—Comparative table showing by States the oyster yield of the Gulf States in 1880 and 1890.

States.	1880.		1890.	
	Bushels.	Value.	Bushels.	Value.
Florida	58,600	\$10,950	371,081	\$93,692
Alabama	104,500	44,950	481,070	107,812
Mississippi	25,000	10,000	806,478	106,072
Louisiana	295,000	*118,000	841,585	299,896
Texas	95,025	47,300	440,800	127,990
Total	578,725	231,200	2,941,014	796,062

* The value assigned in "The Fisheries and Fishery Industries of the United States," Section II, is \$200,000, or nearly 70 cents a bushel. This is a manifest error, and conflicts with other statements in the same report. The price given in this table is thought to be approximately correct.

II.—FISHERIES OF FLORIDA.

Note on the geography of the coast.—The west side of Florida has a larger coast line than any other Gulf State, the approximate length being 2,810 miles. The shores are very low and are indented with numerous bays, sounds, and lagoons. These are generally shut in from the open waters of the Gulf by keys and low sand-spits, which are important factors to the fishing interests, as nearly all the shore fishing is carried on in the shallow water between them and the mainland. The water in most of the bays and sounds is very clear. Many of the indentations are remarkable for extensive mud and grassy flats and "coon-oyster" bars, which restrict navigation or render it difficult. The principal indentations are Charlotte Harbor, Tampa Bay, Wiccasassee Bay, Apalachee Bay, St. George Sound, Apalachicola Bay, St. Andrew Bay, Choctawhatchee Bay, Santa Rosa Sound, and Pensacola Bay, the second and last affording excellent anchorage and harbor facilities to large vessels. The rivers and small streams entering the Gulf are numerous, and some are navigable for considerable distances. The most important are the Caloosahatchee, Manatee, Withlacoochee, Suwannee, Apalachicola, Choctawhatchee, and Escambia.

There are numerous cities, towns, villages, and "camps" located at frequent intervals along the coast that are more or less interested in or dependent upon the fisheries, among which may be mentioned Key West, Punta Gorda, St. Petersburg, Tampa, Cedar Keys, Apalachicola, St. Andrew Bay, and Pensacola.

Importance of the fisheries.—In most respects, the fisheries of western Florida are more important and extensive than those of any other State of this region. The number of persons engaged in the industry is the same as in Louisiana, but in the value of the fishing property and in the quantity and value of the catch Florida is far in advance of other States. Since 1880 there has been a noteworthy advance in the fisheries, as shown in the previous section of this report. Florida is now the only State

from which the sponge fishery is prosecuted, and the increase in this important branch during the decade has been large. There are other products in the yield of which the State takes precedence, as bluefish, mullet, red snappers, Spanish mackerel, and turtles, although in the output of oysters it ranks last.

Condensed statistics.—Tables 10, 11, 12, and 13 give a summary of the economic fisheries of the west coast of Florida as they existed in 1889 and 1890.

From Table 10 it will be seen that in the latter year 2,517 persons engaged in the shore or boat fisheries, 1,030 in the vessel fisheries, 55 in the transporting trade, and 466 in the shore industries connected with the fishing business. The relatively large number of vessel fishermen is a prominent feature.

In Table 11 the nationalities of the persons employed are given in some detail. While the native or naturalized citizens of the United States greatly predominate, and constitute seven-tenths of the fishing population, there is a large number of fishermen from the British possessions in the West Indies, principally the Bahamas; these are the most numerous foreign element in the fisheries of the State; about four-fifths are colored. The other important nationalities represented are Spanish, Portuguese, Italian, Norwegian, and Greek.

Considering the number and value of vessels, boats, apparatus, etc., employed in the fisheries of Florida, the following figures are presented in Table 12: The number of vessels engaged in 1890 was 166, a much larger fleet than any other State in this region possesses; these were valued at \$386,318, including their outfits, and the apparatus carried was worth \$5,460 more. The 2,075 boats employed in the shore fisheries had a value of \$263,529 with their outfits. The apparatus of capture in the shore or boat fisheries was worth \$44,180, seines and gill nets being the most expensive forms. The shore property and cash capital required for carrying on the fisheries and the shore industries dependent thereon amounted to \$669,807. The total investment was \$1,369,294, a sum considerably in excess of that of any other Gulf State.

The total yield of the commercial fisheries in 1889 was 23,597,240 pounds, worth \$948,845; in 1890 it was 27,418,562 pounds, valued at \$1,064,139, this substantial increase being chiefly in mullet, oysters, and sponges. The two most important products of the Florida fisheries in 1890 were sponges, valued at \$438,632, and mullet, worth \$211,161. After these come red snappers, oysters, turtles, pompano, grunts, and Spanish mackerel.

10.—Table of persons employed.

How engaged.	1889.	1890.
On vessels fishing	952	1,030
On vessels transporting	44	55
In shore fisheries	*2,338	*2,517
On shore, in factories, etc	405	466
Total	3,739	4,068

*In addition to these persons, there were 278 alligator-hunters in 1889 and 267 in 1890 employed in the coast counties of western Florida.

11.—Table showing the nationality of persons engaged.

Nationalities.	In vessel fisheries.		In shore fisheries.		On shore.		Total.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
Americans, white.....	311	335	1,293	1,420	239	271	1,843	2,026
Americans, colored.....	47	48	534	570	157	181	738	799
British provincials, white.....	14	13	123	121	2	2	139	136
British provincials, colored.....	530	592	164	162	.....	.....	694	754
Italians.....	.....	.....	47	53	6	8	53	61
Portuguese.....	23	29	27	28	.....	.....	50	57
Spaniards.....	22	19	57	56	.....	1	79	76
Norwegians.....	30	23	8	9	.....	.....	38	32
Swedes.....	.....	.....	6	7	.....	.....	6	7
Greeks.....	.....	.....	17	29	.....	.....	17	29
French.....	5	3	.....	.....	.....	.....	5	3
Chinese.....	.....	.....	.....	.....	1	3	1	3
Others.....	14	23	62	62	.....	.....	76	85
Total.....	996	1,085	2,338	2,517	405	466	3,739	4,088

12.—Table of apparatus and capital.

Designation.	1889.		1890.	
	Number.	Value.	Number.	Value.
Vessels fishing.....	132	\$201,200	145	\$213,990
Tonnage.....	2,196.61	.....	2,356.67	.....
Outfit.....	.....	125,919	.....	139,813
Vessels transporting.....	18	23,750	21	27,750
Tonnage.....	240.56	.....	280.21	.....
Outfit.....	.....	4,145	.....	4,765
Boats.....	1,954	137,890	2,075	147,538
Outfit.....	.....	105,942	.....	115,991
Apparatus of capture—vessel fisheries:	.....	.....	.....	.....
Seine.....	8	735	9	850
Gill nets.....	17	465	26	690
Turtle nets.....	18	900	17	800
Lines.....	.....	1,511	.....	1,584
Tongs.....	20	161	27	217
Dredges.....	1	30	6	130
Sponge outfit.....	.....	1,049	.....	1,139
Apparatus of capture—shore fisheries:	.....	.....	.....	.....
Seine and stop nets.....	156	11,955	196	14,540
Gill nets.....	654	17,530	714	18,998
Turtle nets.....	114	3,186	136	3,746
Cast nets.....	107	670	109	683
Lines.....	.....	1,791	.....	2,068
Tongs and rakes.....	295	2,401	323	2,622
Sponge outfit.....	.....	1,373	.....	1,388
Miscellaneous.....	.....	135	.....	135
Shore property.....	.....	168,002	.....	183,207
Cash capital.....	.....	470,450	.....	486,600
Total.....	.....	1,281,190	.....	1,369,294

NOTE.—In addition to the above fishing property, the alligator hunters of the west coast of Florida had, in 1889, 76 boats, valued at \$1,250; outfits and provisions, valued at \$3,540, and 294 guns, valued at \$4,410; and in 1890 the same number of boats, with \$3,518 worth of outfits, etc., and 289 guns, valued at \$4,245.

13.—Table of products.

Species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.
Amber-fish, fresh.....	60,000	\$2,400	65,000	\$2,600
Angel-fish, fresh.....	89,690	1,423	126,728	2,005
Black bass, fresh.....	4,300	86	5,000	100
Bluefish, fresh.....	364,397	9,315	420,046	10,398
Bream and sunfish, fresh.....	25,859	719	38,088	966
Channel bass, fresh.....	390,907	6,005	457,737	7,236
Channel bass, salted.....	1,000	25	.....	.....
Crovalle, fresh.....	17,280	246	18,024	287
Croakers, fresh.....	36,366	565	42,023	650
Drum, fresh-water, fresh.....	48,974	684	52,884	771
Drum, salt-water, fresh.....	102,305	1,478	121,853	1,836
Flounders, fresh.....	20,129	276	23,020	336
Groupers, fresh.....	417,522	6,462	398,731	4,490
Grunts, fresh.....	611,855	20,016	680,725	22,202
Jurel, fresh.....	167,616	2,149	314,840	3,666
Kingfish, fresh.....	456,231	16,747	291,725	12,625
Lady-fish, fresh.....	103,426	1,502	90,584	1,556
Lady-fish, salted.....	22,800	684	22,000	660
Mullet, fresh.....	8,794,586	97,699	10,650,959	113,572
Mullet, salted.....	2,728,785	33,306	2,968,254	80,184
Mullet, smoked.....	4,500	215	3,200	148
Mullet roe, salted.....	244,080	15,218	298,549	17,257
Pinfish, fresh.....	33,309	475	52,535	778
Pompano, fresh.....	267,693	28,596	259,056	24,489
Pompano, salted.....	76,062	3,048	41,300	1,870
Sailor's choice, fresh.....	58,295	844	58,277	856
Sea bass, fresh.....	5,200	124	5,700	136
Sheepshead, fresh.....	527,126	9,465	543,797	9,449
Silver perch, fresh.....	20,908	424	36,377	796
Snappers, red, fresh.....	3,469,370	105,557	4,172,942	123,799
Snappers, gray and others, fresh.....	45,867	927	47,303	967
Spanish mackerel, fresh.....	344,814	17,405	434,193	20,908
Spanish mackerel, salted.....	18,600	506	6,800	192
Spots, fresh.....	25,145	349	35,315	508
Trout, fresh.....	517,241	11,409	551,113	12,036
Trout, salted.....	97,440	2,413	51,350	1,342
Whiting, fresh.....	14,934	361	25,242	521
Miscellaneous fish, fresh.....	436,260	20,404	477,211	22,389
Miscellaneous fish, salted.....	93,500	2,054	67,900	1,457
Sponges.....	316,559	381,087	366,772	438,682
Oysters.....	*2,064,097	75,189	†2,597,567	93,692
Quahogs.....	17,330	747	17,330	747
Terrapins.....	5,000	125	4,180	130
Turtles.....	432,877	18,706	468,256	20,972
Turtle eggs.....	6,000	900	6,625	994
Tortoise shell.....	1,003	2,510	1,153	2,884
Total.....	23,597,240	948,845	27,418,562	1,004,139

* Equivalent to 294,871 bushels. † Equivalent to 371,081 bushels. ‡ Equivalent to 733 bushels.

NOTE.—In order to show the extent of the fisheries of the entire State, the following condensed table, covering the east coast of the State, is introduced. Combining the two sets of figures, it is seen that the fisheries of the east and west coasts gave employment to 4,983 persons in 1889 and 5,472 persons in 1890. The capital invested was \$1,411,344 in the former year and \$1,510,673 in the latter, and the value of the products of the fisheries was \$1,148,933 in 1889 and \$1,281,670 in 1890, not including alligators.

Designation.	1889.	1890.	Designation.	1889.	1890.
Persons employed:			Products:		
Vessel fishermen.....No..	2	6	Pounds of fish.....	5,344,418	6,547,648
Shore fishermen.....do..	1,059	1,168	Value.....	\$181,154	\$193,808
Shoemen.....do..	183	230	Pounds of mollusks.....	441,292	637,050
Total.....	1,244	1,404	Value.....	\$11,423	\$15,200
Apparatus and capital:			Pounds of reptiles.....	48,802	70,460
Vessels.....No..	1	3	Value.....	\$4,291	\$5,866
Boats.....do..	650	715	Pounds of crustaceans.....	89,000	67,900
Saines.....do..	86	105	Value.....	\$3,220	\$2,657
Gill nets.....do..	357	468	Total pounds.....	5,923,512	7,373,048
Total value of fishing property.....	\$130,154	\$141,379	Value.....	\$200,088	\$217,581

In addition to the products shown in the foregoing table the following were taken by the fishermen of Key West and mostly used for bait: In 1889, 135,000 spiny lobsters (*Panulirus americanus*), locally called "crawfish," valued at \$4,500; 12,500 meats of the conch (*Strombus gigas*), valued at \$625; and 73,000 pounds of "sardines" and "pilchards" (*Clupea pensacolæ* and *C. sardina*), valued at \$1,168; in 1890, 166,000 spiny lobsters, valued at \$5,533; 13,000 conch meats, valued at \$650; and 79,000 pounds of "sardines" and "pilchards," valued at \$1,264.

The alligator industry of the west coast of Florida, which is not covered in the regular statistics, resulted as follows: In 1889, 43,455 alligator hides, valued at \$32,963; 70,286 alligator feet, valued at \$3,506, and 825 otter skins, valued at \$1,912; in 1890, 48,942 alligator hides, valued at \$35,465; 84,110 alligator feet, valued at \$4,205, and 775 otter skins, valued at \$1,787. The hunting of alligators is prosecuted in Lee, De Soto, Manatee, Hillsboro, Levy, Wakulla, and Franklin counties, but is most important in Lee County, where about eleven-twelfths of the product is taken. The otter (*Lutra canadensis*) is incidentally hunted with the alligators in Lee and De Soto counties.

The fisheries by counties.—There are 19 coastal counties on the Gulf side of Florida; in 18 of these there are commercial fisheries. The two counties having the most extensive fishing interests are Monroe and Escambia, which occupy the two extremes of the coast line and contain the important fishing towns of Key West and Pensacola.

Detailed figures for each county are given in the three following tables, relating to persons employed, capital invested, and products. Many additional phases of the fisheries in each county are also contained in the tables showing the vessel and shore fisheries and the fisheries by apparatus.

14.—Table showing by counties the number of persons employed in the fisheries of the west coast of Florida in 1889 and 1890.

Counties.	On vessels fishing.		On vessels transporting.		In shore fisheries.		On shore, in factories, etc.		Total.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
Monroe	660	717	10	16	714	724	96	101	1,480	1,558
Lee					85	106	10	10	95	116
De Soto			6	8	89	105	22	24	117	137
Manatee	3	3	8	8	115	128	12	12	138	151
Hillsboro	7	2	14	14	165	208	84	107	270	331
Pasco					16	24			16	24
Hernando					41	42			41	42
Citrus					85	40	9	9	44	49
Levy	13	24	2	6	170	161	25	24	210	215
Lafayette					40	40			40	40
Taylor					112	112	2	2	114	114
Jefferson					4	10			4	10
Wakulla		5			206	224	1	1	207	230
Franklin	62	49	4	3	193	233	106	137	365	422
Calhoun					24	24			24	24
Washington	25	28			121	123			146	151
Santa Rosa	4	4			6	6			10	10
Escambia	178	198			202	207	38	39	418	444
Total	952	1,030	44	55	2,338	2,517	405	466	3,739	4,068

15.—Table showing by counties the apparatus and capital employed in the fisheries of the west coast of Florida in 1889 and 1890.

Designation.	Monroe.				Lee.				De Soto.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	81	\$124,900	89	\$128,470								
Tonnage	1,159.83		1,187.08									
Outfit		73,373		78,686								
Vessels transporting	2	5,800	3	8,300					3	\$2,000	4	\$3,000
Tonnage	72.98		104.83						22.01		29.73	
Outfit		550		870						520		700
Boats	835	67,025	840	66,875	18	\$2,310	24	\$2,965	78	4,425	94	5,660
Outfit		53,368		55,916		4,075		4,795		8,360		8,675
Apparatus of capture— vessel fisheries:												
Seines			1	100								
Gillnets	6	150	6	150								
Turtle nets	18	900	17	800								
Lines		50										
Sponge outfits		972		1,080								
Apparatus of capture— shore fisheries:												
Seines and stop nets	2	90	2	90	6	950	9	1,250			1	125
Gill nets					1	25	2	50	79	2,215	86	2,420
Turtle nets	15	750	15	750	6	150	6	150			2	60
Cast nets	15	105	15	105			2	13				
Lines		1,680		1,913						20		20
Tongs and rakes					6	29	7	37	10	80	17	136
Sponge outfits		1,825		1,325								
Miscellaneous		135		135								
Shore property and ac- cessories		55,665		60,740		1,700		1,740		1,705		1,825
Cash capital		285,500		297,500		10,000		10,000		16,000		15,750
Total		672,943		703,815		19,239		21,000		35,325		38,371

Designation.	Manatee.				Hillsboro.				Pasco.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	1	\$500	1	\$500	2	\$4,400	1	\$400				
Tonnage	10.40		10.40		43.43		7.00					
Outfit		260		260		450		125				
Vessels transporting	4	3,450	4	3,450	5	8,600	5	8,600				
Tonnage	35.07		35.07		53.75		53.75					
Outfit		480		480		2,160		2,250				
Boats	100	5,635	111	6,955	222	16,560	269	19,415	14	\$155	16	\$225
Outfit		5,664		6,350		9,875		13,335		255		545
Apparatus of capture— vessel fisheries:												
Gill nets	7	205	7	205								
Tongs					2	17	2	17				
Dredges					1	30						
Apparatus of capture— shore fisheries:												
Seines and stop nets	40	2,205	42	2,265	37	1,980	60	3,440				
Gill nets	109	2,995	120	3,270	123	3,340	170	4,525	12	300	16	365
Cast nets					62	400	62	400				
Lines						18		23				
Tongs and rakes	2	18	2	18	30	332	39	332				
Shore property and ac- cessories		1,025		1,000		25,629		33,334		85		135
Cash capital						21,600		24,700				
Total		22,437		24,753		95,386		110,806		795		1,270

15.—Table showing by counties the apparatus and capital employed in the fisheries of the west coast of Florida in 1889 and 1890—Continued.

Designation.	Hernando.				Citrus.				Levy.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing									1	\$2,250		\$4,950
Tonnage									18.50		37.17	
Outfit										774		1,715
Vessels transporting									1	500	3	2,100
Tonnage									5.10		19.50	
Outfit										125		325
Boats	31	\$310	30	\$300	33	\$635	27	\$875	147	14,701	143	15,895
Outfit		500		550		885		1,145		8,410		8,165
Apparatus of capture—vessel fisheries:												
Sponge outfits										18		33
Apparatus of capture—shore fisheries:												
Seines and stop nets									3	300	10	760
Gill nets	31	930	30	900	25	640	16	480	76	2,280	59	1,770
Turtle nets									93	2,286	113	2,786
Lines						1		1				10
Tongs and rakes					10	75	17	123	41	322	34	266
Sponge outfits										7		7
Shore property and accessories		50		50		550		550		3,980		3,715
Cash capital						850		850		13,000		10,000
Total		1,790		1,800		3,936		4,029		48,963		52,497

Designation.	Lafayette.				Taylor.				Jefferson.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Boats	20	\$160	20	\$160	56	\$468	56	\$464	2	\$16	5	\$40
Outfit		500		500		1,025		1,025		50		125
Apparatus of capture—shore fisheries:												
Gill nets	20	500	20	500	56	1,262	56	1,256	2	50	5	125
Shore property and accessories		75		75		235		235		10		20
Total		1,235		1,235		2,990		2,980		126		310

Designation.	Wakulla.				Franklin.				Calhoun.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing			1	\$100	12	\$6,150	12	\$5,750				
Tonnage			5.40		93.26		86.70					
Outfit				125		2,090		1,815				
Vessels transporting					2	1,400	1	800				
Tonnage					31.15		16.92					
Outfit						190		90				
Boats	115	\$1,769	121	1,843	146	12,021	177	15,501	9	\$240	9	\$240
Outfit		4,070		4,445		3,430		4,970		625		600
Apparatus of capture—vessel fisheries:												
Seines					2	130						
Gill nets					4	110	13	335				
Lines								4				
Tongs					18	144	25	200				
Sponge outfits				4		59		22				
Apparatus of capture—shore fisheries:												
Seines and stop nets	9	810	10	885	8	750	10	940	4	500	4	500
Gill nets	91	2,113	95	2,207	24	710	31	855				
Cast nets				1	15	90	15	90	6	30	6	30
Lines		1		1		10		10				
Tongs and rakes	8	65	8	65	107	854	127	1,014				
Sponge outfits		8		8		93		48				
Shore property and accessories		5,853		5,908		14,545		16,895		75		75
Cash capital		4,000		4,000		23,500		28,500				
Total		18,689		19,591		66,816		77,839		1,470		1,445

15.—Table showing by counties the apparatus and capital employed in the fisheries of the west coast of Florida in 1889 and 1890—Continued.

Designation.	Washington.				Santa Rosa.				Escambia.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing.....	5	\$4,950	7	\$7,650	1	\$500	1	\$570	29	\$57,550	31	\$65,000
Tonnage.....	77.36		106.37		5.36		5.36		788.47		911.19	
Outfit.....		1,395		1,830		295		255		47,277		54,992
Vessels transporting.....	1	2,000									1	1,500
Tonnage.....	20.41										20.41	
Outfit.....		120										50
Boats.....	68	3,030	71	3,095	5	330	5	380	55	6,000	57	6,650
Outfit.....		4,450		4,450		400		400				
Apparatus of capture— vessel fisheries:												
Seines.....	2	255	3	350	1	100	1	100	3	250	4	300
Lines.....		50		78		40		50		1,305		1,452
Dredges.....											6	180
Apparatus of capture— shore fisheries:												
Seines and stop nets.....	22	2,375	22	2,345	1	100	1	100	24	1,895	25	1,840
Gill nets.....	4	120	6	150					1	50	2	125
Cast nets.....	9	45	9	45								
Lines.....						20				46		90
Tongs and rakes.....	28	230	28	230					44	396	44	396
Shore property and ac- cessories.....		3,100		3,135		275		275		53,435		53,500
Cash capital.....										96,000		95,300
Total.....		22,126		23,358		2,060		2,130		204,864		281,975

Designation.	Total for west coast.			
	1889.		1890.	
	No.	Value.	No.	Value.
Vessels fishing.....	132	\$201,200	145	\$213,990
Tonnage.....	2,196.61		2,356.67	
Outfit.....		125,919		139,813
Vessels transporting.....	18	23,750	21	27,750
Tonnage.....	240.56		280.21	
Outfit.....		4,145		4,765
Boats.....	1,954	137,890	2,075	147,538
Outfit.....		105,942		115,991
Apparatus of capture—vessel fisheries:				
Seines.....	8	735	9	850
Gill nets.....	17	465	26	690
Turtle nets.....	18	900	17	800
Lines.....		1,511		1,584
Tongs.....	20	161	27	217
Dredges.....	1	30	6	180
Sponge outfits.....		1,049		1,139
Apparatus of capture—shore fisheries:				
Seines and stop nets.....	156	11,955	196	14,540
Gill nets.....	654	17,530	714	18,998
Turtle nets.....	114	3,186	136	3,746
Cast nets.....	107	670	109	683
Lines.....		1,791		2,068
Tongs and rakes.....	295	2,401	323	2,622
Sponge outfits.....		1,373		1,388
Miscellaneous.....		135		135
Shore property and accessories.....		168,002		183,207
Cash capital.....		470,450		486,600
Total.....		1,281,190		1,369,294

16.—Table showing by counties and species the yield of the fisheries of the west coast of Florida in 1889 and 1890.

Species.	Monroe.				Lee.				De Soto.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Amber-fish, fresh.....	60,000	\$2,400	65,000	\$2,600								
Angol-fish, fresh.....									6,200	\$79	6,000	\$75
Channel bass, fresh.....									68,585	857	71,810	898
Drum, fresh-water, fresh.....									4,877	61	5,590	70
Drum, salt-water, fresh.....									6,110	77	7,285	91
Groupers, fresh.....	50,700	2,490										
Grunts, fresh.....	587,630	19,588	650,850	21,707								
Kingfish, fresh.....	456,231	16,747	291,725	12,625								
Lady-fish, fresh.....	4,680	515	5,000	550								
Mullet, fresh.....	61,500	786	68,450	919	2,332	\$350	2,065	\$400	1,372,560	10,475	1,438,135	10,975
Mullet, salted.....			15,000	600	707,900	31,070	604,348	21,559	60,000	1,650	134,000	3,050
Mullet, smoked.....					3,000	150	2,000	100				
Mullet roe, salted.....			2,200	154	60,974	3,918	60,843	3,498	10,300	715	15,515	624
Pinfish, fresh.....									4,000	50	4,500	50
Pompano, fresh.....									54,286	3,257	56,945	3,411
Pompano, salted.....					2,350	353	3,500	525				
Sailor's choice, fresh.....									5,440	68	5,825	73
Sheepshead, fresh.....	1,000	15	1,200	18					119,970	1,500	125,775	1,572
Snappers, red, fresh.....	100,000	5,000	20,000	1,000								
Snappers, gray and others, fresh.....	1,000	125	1,000	125					5,318	67	4,360	55
Spanish mack'l, fresh.....	20,000	2,000	22,500	2,250					17,094	1,026	17,955	1,077
Trout, fresh.....	900	14	1,000	15					51,385	642	53,750	672
Other fish, fresh.....	378,000	18,900	416,850	20,843								
Sponges.....	307,595	387,954	358,487	427,375								
Oysters.....					10,360	840	13,825	1,095	37,100	2,120	78,295	4,515
Quahogs.....	1,330	200	1,330	200	1,330	62	1,330	62				
Turtles.....	287,092	12,236	291,804	12,352	3,500	280	3,000	240			4,000	320
Turtle eggs.....	3,600	540	4,200	630								
Tortoise shell.....	1,003	2,510	1,153	2,884								
Total.....	2,322,261	452,020	2,217,779	506,847	791,746	37,023	691,509	27,479	1,823,315	22,644	2,029,740	27,534

Species.	Manatee.				Hillsboro.				Pasco.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish, fresh.....	27,751	\$529	30,532	\$603	21,798	\$319	29,929	\$461				
Bluefish, fresh.....	22,471	416	29,501	591	22,535	423	34,154	683				
Channel bass, fresh.....	62,323	1,022	77,516	1,281	76,162	1,040	108,704	1,531				
Crovalle, fresh.....	6,259	80	6,043	93	5,921	89	7,077	121				
Drum, fresh-water, fresh.....	24,499	346	23,007	338	19,598	277	24,287	363				
Drum, salt-water, fresh.....	19,842	274	26,703	405	15,688	217	29,473	464				
Flounders, fresh.....	10,677	143	11,378	159	8,542	114	11,442	160				
Groupers, fresh.....					30,000	600	35,000	700				
Grunts, fresh.....	7,792	118	9,859	140	16,433	310	19,916	355				
Jurel, fresh.....	10,904	174	11,516	101	11,016	208	14,081	263				
Mullet, fresh.....	1,406,724	9,948	2,138,036	16,094	1,425,062	10,537	2,438,315	18,988	25,200	\$297	121,700	\$1,100
Mullet, salted.....	306,825	7,055	276,972	6,116	133,875	2,620	136,807	3,604	50,350	905	57,450	1,121
Mullet, smoked.....					1,500	65	1,200	48				
Mullet roe, salted.....	33,650	1,885	27,400	1,320	5,900	330	10,955	870				
Pompano, fresh.....	35,235	1,720	38,593	1,965	80,062	4,075	87,112	4,608				
Pompano, salted.....	15,112	747	8,300	415								
Sailor's choice, fresh.....	15,621	225	14,641	218	14,394	209	15,919	237				
Sea bass, fresh.....					2,000	60	2,200	66				
Sheepshead, fresh.....	73,610	1,370	79,262	1,522	80,477	1,165	102,938	1,494				
Snappers, gray and others, fresh.....	16,739	310	17,539	340	13,810	205	17,104	257				
Spanish mack'l, fresh.....	24,991	1,713	26,950	1,791	32,007	2,312	72,080	4,587				
Spanish mackerel, salted.....					1,600	50						
Trout, fresh.....	64,875	1,884	71,095	2,001	60,565	1,247	91,115	1,720				
Other fish, fresh.....					13,125	262	17,062	340				
Other fish, salted.....					5,000	100	4,000	80				
Oysters.....	525	25	630	30	416,920	15,734	414,540	15,745				
Quahogs.....					1,340	85	1,340	85				
Turtles.....	60,000	1,400	60,000	1,400	10,000	150	10,244	170				
Turtle eggs.....	665	100	665	100	1,735	260	1,760	264				
Total.....	2,247,090	31,484	2,986,738	37,113	2,527,065	43,063	3,738,754	58,264	75,550	1,202	170,150	2,221

16.—Table showing by counties and species the yield of the fisheries of the west coast of Florida in 1889 and 1890—Continued.

Species.	Hernando.				Citrus.				Levy.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish, fresh.....									20,749	\$312	19,800	\$297
Bluefish, fresh.....									30,338	455	29,196	438
Channel bass, fresh.....	1,000	\$15	1,800	\$27	2,000	\$50	2,300	\$58	106,165	1,592	102,137	1,533
Crevalle, fresh.....									5,100	77	4,904	73
Drum, salt-water, fresh.....									60,665	910	58,392	876
Groupers, fresh.....											10,000	250
Jurel, fresh.....									12,066	181	11,688	176
Mullet, fresh.....	172,500	1,494	157,100	1,390	94,296	1,070	60,348	718	909,981	9,100	875,886	8,759
Mullet, salted.....	28,900	722	30,500	762	52,000	1,159	57,850	1,298	51,735	1,170	45,952	1,035
Mullet roe, salted.....									5,556	278	4,346	217
Pompano, fresh.....					1,250	50	550	22	9,000	450	1,500	75
Sailor's choice, fresh.....									22,750	342	21,892	328
Sheepshead, fresh.....	1,500	28	2,000	30	29,520	1,024	24,000	630	121,830	1,820	116,785	1,752
Snappers, red, fresh.....											6,000	150
Snappers, gray and others, fresh.....					9,000	220	7,300	190				
Spanish mack'l, fresh.....									750	36	500	25
Trout, fresh.....	5,000	75	7,500	112	16,300	342	10,540	231	227,496	4,550	218,972	4,380
Sponges.....					27,125	969	34,440	1,230	952	965	4,160	5,000
Oysters.....									145,425	5,194	116,200	3,602
Quahogs.....									3,330	400	3,330	400
Terrapins.....									5,000	125	4,180	130
Turtles.....									70,705	4,596	89,958	6,297
Total.....	208,900	2,329	198,900	2,321	231,491	4,884	197,328	4,377	1,809,093	32,553	1,745,778	35,793

Species.	Lafayette.				Taylor.				Jefferson.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Mullet, fresh.....	261,250	\$4,750	275,000	\$5,000	807,125	\$12,240	825,500	\$12,500			61,875	\$900
Mullet, salted.....	73,750	2,700	87,500	3,000	207,250	6,000	216,250	6,250	21,875	\$625	26,250	750
Mullet roe, salted.....	4,000	200	4,800	240								
Total.....	344,000	7,650	367,300	8,240	1,014,375	18,240	1,041,750	18,750	21,875	625	88,125	1,650

Species.	Wakulla.				Franklin.				Calhoun.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Black bass, fresh.....	4,300	\$86	5,000	\$100								
Bluefish, fresh.....	900	53	850	50	6,700	\$145	7,550	\$164				
Bream and sunfish, fresh.....					10,000	500	12,000	600				
Channel bass, fresh.....	16,000	320	18,300	366	26,350	552	28,500	607				
Flounders, fresh.....	800	16	750	15								
Mullet, fresh.....	1,332,375	19,380	1,255,625	18,220	245,250	4,683	322,250	5,912	13,000	\$325	12,000	\$300
Mullet, salted.....	320,875	8,680	370,475	9,872	180,650	5,171	389,450	8,082	96,000	2,520	80,000	2,100
Mullet roe, salted.....	12,300	645	14,400	751	22,000	1,314	60,290	3,587	18,000	1,260	16,000	1,120
Pinfish, fresh.....	4,800	96	5,000	100								
Pompano, salted.....					1,500	53	1,800	63	6,500	163	3,000	82
Sea bass, fresh.....	3,200	64	3,500	70								
Sheepshead, fresh.....	13,750	275	14,920	307	22,430	476	25,500	542				
Snappers, red, fresh.....							2,000	50				
Spanish mack'l, fresh.....	600	30	500	30	500	12	300	8				
Spanish mackerel, salted.....					1,000	35	1,200	42				
Trout, fresh.....	13,200	292	13,600	303	37,910	821	44,625	971				
Trout, salted.....									13,490	338	6,400	176
Miscellaneous fish, fresh.....	5,200	156	6,000	180	17,000	850	16,000	800				
Miscellaneous fish, salted.....	31,500	484	28,600	429					5,000	125	3,100	85
Sponges.....	990	990	640	640	7,022	11,178	3,505	5,667				
Oysters.....	17,815	640	18,095	653	1,061,886	25,850	1,528,282	36,971				
Total.....	1,778,405	32,213	1,756,255	32,086	1,640,198	51,040	2,443,252	64,066	151,990	4,731	120,500	3,863

16.—Table showing by counties and species the yield of the fisheries of the west coast of Florida in 1889 and 1890—Continued.

Species.	Washington.				Santa Rosa.				Escambia.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish, fresh									13, 102	\$184	40, 465	\$569
Bluefish, fresh	26, 444	\$510	17, 241	\$344	23, 540	\$454	15, 501	\$309	231, 469	6, 859	286, 053	7, 819
Bream and sunfish, fresh	2, 079	21	2, 275	23	1, 783	17	1, 950	19	11, 997	181	21, 863	324
Channel bass, fresh	3, 136	42	2, 584	35	3, 781	56	3, 491	47	25, 495	459	40, 505	853
Channel bass, salted	1, 000	25										
Croakers, fresh									36, 368	565	42, 923	650
Flounders, fresh	110	3	50	2								
Groupers, fresh	9, 500	95	33, 500	335	6, 060	60	4, 690	47	321, 262	3, 217	315, 541	3, 158
Jurel, fresh	21, 425	214	29, 866	290	18, 363	184	25, 599	256	93, 842	1, 188	222, 090	2, 481
Lady-fish, fresh	4, 929	49	4, 847	48	4, 225	42	4, 741	48	89, 592	896	84, 996	910
Lady-fish, salted	22, 800	684	22, 000	660								
Mullet, fresh	46, 055	848	40, 915	753	31, 154	417	29, 383	393	588, 222	10, 999	527, 828	10, 251
Mullet, salted	432, 000	11, 259	439, 450	10, 985								
Mullet roe, salted	71, 400	4, 673	81, 800	4, 876								
Pinfish, fresh									24, 509	329	43, 035	622
Pompano, fresh	4, 016	597	5, 086	521	4, 737	622	6, 901	662	79, 107	15, 825	62, 369	13, 225
Pompano, salted	50, 600	1, 732	24, 700	785								
Sheepshead, fresh	5, 257	106	5, 126	109	4, 678	92	5, 021	94	53, 704	1, 599	41, 270	1, 379
Silver perch, fresh									20, 908	424	56, 177	796
Snappers, red, fresh	85, 000	2, 375	100, 260	2, 811	42, 186	1, 432	47, 280	1, 773	3, 242, 184	96, 750	3, 997, 402	118, 015
Spanish mackerel, fresh	14, 056	427	22, 239	697	19, 549	591	32, 624	949	215, 267	9, 252	238, 545	9, 494
Spanish mackerel, salted	16, 000	421	5, 600	150								
Spots, fresh									25, 145	349	35, 315	508
Trout, fresh	748	24	843	25	1, 546	49	900	28	37, 316	1, 409	36, 564	1, 578
Trout, salted	83, 950	2, 075	44, 950	1, 166								
Whiting, fresh									14, 934	361	25, 242	521
Miscellaneous fish, fresh	12, 815	126	11, 466	121	10, 120	110	9, 833	105				
Miscellaneous fish, salted	52, 000	1, 345	32, 200	863								
Oysters	49, 441	2, 792	56, 385	3, 173					297, 500	21, 025	336, 875	26, 678
Turtles	100	2			740	21	7, 000	140	740	21	2, 250	53
Total	1, 014, 861	30, 445	983, 383	28, 781	172, 362	4, 147	194, 923	4, 870	5, 422, 603	171, 952	6, 437, 398	109, 884

SUMMARY.

Species.	1889.		1890.		Species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.		Pounds.	Value.	Pounds.	Value.
Amber-fish, fresh	60, 000	\$2, 400	65, 000	\$2, 600	Sailor's choice, fresh	58, 205	\$844	58, 277	\$850
Angel-fish, fresh	89, 690	1, 423	126, 726	2, 005	Sea bass, fresh	5, 200	124	5, 700	136
Black bass, fresh	4, 300	86	5, 000	100	Sheepshead, fresh	527, 126	9, 465	543, 797	9, 449
Bluefish, fresh	364, 397	9, 315	420, 046	10, 398	Silver perch, fresh	20, 908	424	36, 177	796
Bream and sunfish, fresh	25, 859	719	38, 088	966	Snappers, red, fresh	3, 469, 370	105, 557	4, 172, 942	123, 799
Channel bass, fresh	390, 997	6, 005	457, 737	7, 236	Snappers, gray and others, fresh	45, 867	927	47, 303	967
Channel bass, salted	1, 000	25			Spanish mackerel, fresh	344, 814	17, 405	434, 193	20, 908
Crevalle, fresh	17, 280	246	18, 024	287	Spanish mackerel, salted	18, 600	506	6, 800	192
Croakers, fresh	36, 368	565	42, 923	650	Spots, fresh	25, 145	349	35, 315	508
Drum, fresh-water, fresh	48, 974	684	52, 884	771	Trout, fresh	517, 241	11, 409	551, 113	12, 036
Drum, salt-water, fresh	102, 905	1, 478	121, 853	1, 836	Trout, salted	97, 440	2, 413	51, 350	1, 342
Flounders, fresh	20, 129	276	23, 620	336	Whiting, fresh	14, 934	361	25, 242	521
Groupers, fresh	417, 522	6, 462	398, 731	4, 490	Miscellaneous fish, fresh	436, 260	20, 404	477, 211	22, 369
Grunts, fresh	611, 855	20, 016	680, 725	22, 202	Miscellaneous fish, salted	93, 500	2, 054	67, 000	1, 457
Jurel, fresh	187, 616	2, 149	314, 840	3, 666	Sponges	316, 559	381, 087	366, 772	438, 682
Kingfish, fresh	456, 231	16, 747	291, 725	12, 225	Oysters	2, 064, 097	75, 189	2, 597, 567	93, 692
Lady-fish, fresh	103, 426	1, 502	90, 584	1, 556	Quahogs	7, 330	747	7, 330	747
Lady-fish, salted	22, 800	684	22, 000	660	Terrapins	5, 000	125	4, 180	130
Mullet, fresh	8, 794, 586	97, 699	10, 650, 959	113, 572	Turtles	432, 877	18, 706	468, 256	20, 972
Mullet, salted	2, 728, 785	83, 306	2, 968, 254	80, 184	Turtle eggs	6, 000	900	6, 625	994
Mullet, smoked	4, 509	215	3, 200	148	Tortoise shell	1, 003	2, 510	1, 153	2, 884
Mullet roe, salted	244, 080	15, 218	298, 549	17, 257	Total	23, 597, 240	948, 845	27, 418, 562	1, 064, 139
Pinfish, fresh	33, 309	475	52, 535	778					
Pompano, fresh	207, 693	26, 596	259, 056	24, 489					
Pompano, salted	76, 062	3, 048	41, 300	1, 870					

Products of the vessel and shore fisheries.—In the foregoing discussion of the fisheries by counties the persons and apparatus employed in the vessel and shore fisheries were exhibited; it therefore only remains to present the products resulting from each of these branches.

Although the vessel fisheries of Florida are much more extensive than in any other Gulf State, they are considerably less important than the shore fisheries. Vessel fishing is prosecuted from eight counties, but it is relatively important only in Monroe and Escambia counties; in the former the sponge fishery and in the latter the red snapper fishery take precedence.

In 1890 the vessel catch amounted to 5,287,210 pounds, valued at \$427,762, this being a substantial increase over the previous year. The most important products of the vessel fisheries are sponges (the value of which was \$254,737 in 1889 and \$283,051 in 1890) and red snappers (the yield of which was worth \$92,259 in 1889 and \$115,371 in 1890). Table 17, which follows, is a detailed exhibition of the products of the vessel fisheries.

As shown in Table 18, the yield of the shore fisheries of Florida in 1889 was valued at \$573,539, and in 1890 at \$636,377, the marked advance in the latter year being chiefly due to an increase in the sponge and oyster fisheries. The most prominent products in 1890 were, in the order of their importance, mullet, worth \$204,317; sponges, worth \$155,631; oysters, worth \$84,020; pompano, worth \$24,597; grunts, worth \$22,202, and turtles and their products, worth \$19,923. Monroe County also ranks first in the extent of its shore fisheries, and Escambia County occupies the second position.

17.—Table showing by counties and species the yield of the vessel fisheries of the west coast of Florida in 1889 and 1890.

Species.	Monroe.				Manatee.				Hillsboro.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish, fresh.....					800	\$12	850	\$13				
Bluefish, fresh.....					1,800	36	2,000	40				
Channel bass, fresh.....					1,500	23	2,000	30				
Groupers, fresh.....	50,700	\$2,490										
Mullet, fresh.....	51,500	386	55,900	\$419	82,100	657	93,750	750				
Mullet, salted.....			15,000	600								
Mullet roe, salted.....			2,200	154								
Pompano, fresh.....					14,700	686	18,100	896				
Sailor's choice, fresh.....					750	11	800	12				
Sheepshead, fresh.....	1,000	15	1,200	18	12,500	188	15,000	225				
Spanish mackerel, fresh.....					6,250	281	8,075	363				
Trout, fresh.....	900	14	1,000	15	4,100	82	4,000	80				
Oysters.....									59,850	\$2,386	7,875	\$949
Quahogs.....	1,330	200	1,330	200								
Sponge.....	197,322	246,654	220,399	275,500								
Turtles.....	89,345	4,969	84,630	4,745								
Tortoise shell.....	3	10	3	9								
Total.....	392,100	254,738	381,662	281,600	124,500	1,976	144,575	2,409	59,850	2,386	7,875	949

17.—Table showing by counties and species the yield of the vessel fisheries of the west coast of Florida in 1889 and 1890—Continued.

Species.	Levy.				Franklin.				Washington.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Channel bass, salted									1,000	\$25		
Grouper, fresh									9,500	95	33,500	\$335
Mullet, salted					26,650	\$603	96,100	\$2,168			50,200	1,246
Mullet roe, salted					2,800	168	11,090	715			7,000	490
Pompano, salted									23,600	1,042	8,200	312
Snappers, red, fresh							2,000	50	85,000	2,375	100,260	2,811
Spanish mackerel, salted									7,200	180	600	12
Trout, salted									10,000	250	5,800	141
Miscellaneous fish, salted									10,000	250	9,000	225
Oysters					128,800	3,018	156,100	3,670				
Sponges	52	\$65	3,360	\$4,200	5,047	8,018	2,100	3,351				
Total	52	65	3,360	4,200	163,297	11,807	287,390	9,954	146,300	4,217	214,560	5,572

Species.	Santa Rosa.				Escambia.				Total.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish, fresh					1,013	\$10	1,200	\$12	1,813	\$22	2,050	\$25
Bluefish, fresh	873	\$17	724	\$14	12,348	246	10,974	218	16,021	299	13,698	272
Bream and sunfish, fresh					1,387	13	1,200	12	1,337	13	1,200	12
Channel bass, fresh	1,093	20	1,275	17	2,358	37	2,200	31	4,951	80	5,475	78
Channel bass, salted									1,000	25		
Croakers, fresh					1,181	12	1,200	12	1,181	12	1,200	12
Grouper, fresh	3,797	38	4,690	47	296,542	2,970	298,011	2,983	360,539	5,593	336,201	3,305
Jurel, fresh					18,913	189	18,000	180	18,913	189	18,000	180
Lady-fish, fresh			585	6	4,437	44	2,985	30	4,437	44	3,570	36
Mullet, fresh	250	3	100	2	25,541	340	22,540	300	159,391	1,386	172,290	1,471
Mullet, salted									26,650	603	161,300	4,014
Mullet roe, salted									2,800	168	20,290	1,359
Pinfish, fresh					1,350	13	1,200	12	1,350	13	1,200	12
Pompano, fresh	1,294	110	2,541	216	2,247	275	3,083	338	18,241	1,071	23,724	1,450
Pompano, salted									23,600	1,042	8,200	312
Sailor's choice, fresh									750	11	800	12
Sheepshead, fresh	71	2	627	13	1,252	26	1,827	37	14,823	231	18,654	293
Silver perch, fresh					720	11	800	12	720	11	800	12
Snappers, red, fresh	22,186	832	47,280	1,773	2,985,434	89,052	3,754,802	110,737	3,092,620	92,259	3,004,342	115,371
Spanish mackerel, fresh	7,500	225	13,560	407	8,445	249	11,630	339	22,195	755	33,274	1,109
Spanish mackerel, salted									7,200	180	600	12
Spots, fresh					1,620	16	1,585	18	1,620	16	1,585	18
Trout, fresh	904	27	185	6	1,579	48	750	20	7,483	171	5,935	121
Trout, salted									10,000	250	5,800	141
Miscellaneous fish, salted									10,000	250	9,000	225
Oysters					49,000	5,250	53,375	5,053	237,650	10,954	217,350	9,672
Quahogs									1,330	200	1,330	200
Sponges									202,421	254,737	225,859	233,051
Turtles	740	21	7,000	140	740	21	1,850	33	90,825	5,011	93,480	4,918
Tortoise shell									3	10	3	9
Total	38,708	1,295	78,567	2,641	3,416,057	98,822	4,189,221	120,377	4,340,864	375,306	5,237,210	427,762

18.—Table showing by counties and species the yield of the shore fisheries of the west coast of Florida in 1889 and 1890.

Species.	Monroe.				Lee.				De Soto.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Amber-fish, fresh	60,000	\$2,400	65,000	\$2,600								
Angel-fish, fresh									6,290	\$79	6,000	\$75
Channel bass, fresh									68,585	857	71,810	898
Drum, fresh-water, fresh									4,877	61	5,590	70
Drum, salt-water, fresh									6,110	77	7,285	91
Grunts, fresh	587,630	19,588	650,950	21,707								
Kingfish, fresh	456,231	16,747	291,725	12,625								
Lady-fish, fresh	4,680	515	5,000	550								
Mullet, fresh	10,000	400	12,500	500	2,332	\$350	2,668	\$400	1,372,560	10,475	1,433,135	10,975
Mullet, salted					707,900	31,070	604,348	21,559	60,000	1,650	134,000	3,050
Mullet, smoked					3,000	150	2,000	100				
Mullet, roe, salted					60,974	3,918	60,843	3,498	10,300	715	15,515	624
Pinfish, fresh									4,000	50	4,500	56
Pompano, fresh									54,236	3,257	56,945	3,411
Pompano, salted					2,350	353	3,500	525				
Sailor's choice, fresh									5,440	68	5,825	73
Sheepshead, fresh									119,970	1,500	125,775	1,572
Snappers, red, fresh	100,000	5,000	20,000	1,000								
Snappers, gray and other, fresh	1,000	125	1,000	125					5,318	67	4,360	55
Spanish mackerel, fresh	20,000	2,000	22,500	2,250					17,094	1,023	17,955	1,077
Trout, fresh									51,385	642	53,750	672
Miscellaneous fish, fresh	378,000	18,900	416,850	20,843								
Sponges	110,273	121,800	138,068	151,875	10,360	840	13,825	1,095	37,100	2,120	78,295	4,515
Oysters					1,330	62	1,330	62				
Quahogs					3,500	280	3,000	240			4,000	320
Turtles	197,747	7,287	207,174	7,607								
Turtle eggs	3,000	540	4,200	630								
Tortoise shell	1,000	2,500	1,150	2,875								
Total	1,930,161	197,282	1,836,117	225,187	791,746	37,023	691,509	27,479	1,823,315	22,644	2,029,740	27,534

Species.	Manatee.				Hillsboro.				Pasco.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish, fresh	26,951	\$517	29,632	\$500	21,798	\$319	29,929	\$461				
Bluefish, fresh	20,071	330	27,501	551	22,535	423	34,154	683				
Channel bass, fresh	60,823	999	75,516	1,251	76,162	1,040	108,704	1,531				
Crevalle, fresh	6,259	80	6,043	93	5,921	89	7,077	121				
Drum, fresh-water, fresh	24,499	346	23,007	338	19,598	277	24,287	363				
Drum, salt-water, fresh	10,842	274	26,703	405	15,688	217	29,473	464				
Flounders, fresh	10,877	143	11,378	159	8,542	114	11,442	160				
Groupers, fresh					30,000	600	35,000	700				
Grunts, fresh	7,792	118	9,859	140	16,433	310	19,916	355				
Jurel, fresh	10,904	174	11,516	191	11,016	208	14,081	263				
Mullet, fresh	1,324,624	9,291	2,044,286	15,344	1,425,062	10,537	2,438,315	18,988	25,200	\$297	121,700	\$1,100
Mullet, salted	300,825	7,055	270,972	6,116	133,875	2,620	138,907	3,604	50,350	905	57,450	1,121
Mullet, smoked					1,500	65	1,200	48				
Mullet roe, salted	33,650	1,885	27,400	1,320	5,900	330	10,955	870				
Pompano, fresh	20,535	1,034	20,493	1,059	80,062	4,075	87,112	4,608				
Pompano, salted	15,112	747	8,300	415								
Sailor's choice, fresh	14,871	214	13,841	206	14,364	209	15,919	237				
Sea bass, fresh					2,000	60	2,200	66				
Sheepshead, fresh	61,110	1,182	64,262	1,297	80,477	1,165	102,938	1,494				
Snappers, gray and others, fresh	16,739	310	17,539	340	13,810	205	17,104	257				
Spanish mack'l, fresh	18,741	1,432	18,875	1,428	32,007	2,312	72,080	4,587				
Spanish mack'l, salt					1,800	50						
Trout, fresh	60,775	1,802	67,695	1,921	60,565	1,247	91,115	1,720				
Miscellaneous fish, fresh					13,125	262	17,062	340				
Miscellaneous fish, salted					5,000	100	4,000	80				
Oysters	525	25	630	30	357,070	13,348	400,665	14,796				
Quahogs					1,340	85	1,340	85				
Turtles	60,000	1,400	60,000	1,400	10,000	150	10,244	170				
Turtle eggs	665	100	665	100	1,735	260	1,760	264				
Total	2,122,590	29,508	2,842,163	34,794	2,467,215	40,677	3,730,879	57,815	75,550	1,202	179,150	2,221

18.—Table showing by counties and species the yield of the shore fisheries of the west coast of Florida in 1889 and 1890—Continued.

Species.	Hernando.				Citrus.				Levy.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish, fresh.....									20,749	\$312	19,800	\$297
Bluefish, fresh.....									30,338	455	29,196	438
Chammel bass, fresh..	1,000	\$15	1,800	\$27	2,000	\$50	2,300	\$58	108,165	1,592	102,137	1,533
Crevalle, fresh.....									5,100	77	4,904	73
Drum, salt-water, fresh.....									60,665	910	58,302	876
Groupers, fresh.....											16,000	250
Jurel, fresh.....									12,066	181	11,688	176
Mullet, fresh.....	172,500	1,494	157,100	1,390	84,296	1,070	60,348	718	909,981	9,100	875,886	8,759
Mullet, salted.....	28,900	722	30,500	762	52,000	1,159	57,850	1,298	51,735	1,170	45,952	1,035
Mullet roe, salted.....									5,556	278	4,340	217
Pompano, fresh.....					1,250	50	550	22	9,000	450	1,500	75
Sailor's choice, fresh.....									22,750	342	21,892	328
Sheepshead, fresh.....	1,500	23	2,000	30	29,520	1,024	24,000	630	121,330	1,820	116,785	1,752
Snappers, red, fresh.....											6,000	150
Snappers, gray and others, fresh.....					9,000	220	7,300	190				
Spanish mackerel, fresh.....									750	36	500	25
Trout, fresh.....	5,000	75	7,500	112	16,300	342	10,540	231	227,496	4,550	218,972	4,380
Sponges.....									900	900	800	800
Oysters.....					27,125	969	34,440	1,230	145,425	5,194	116,200	3,602
Quahogs.....									3,330	400	3,330	400
Terrapins.....									5,000	125	4,180	130
Turtles.....									70,705	4,596	89,958	6,297
Total.....	208,900	2,329	198,900	2,321	231,491	4,884	107,328	4,377	1,809,041	32,488	1,742,418	31,593

Species.	Lafayette.				Taylor.				Jefferson.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Mullet, fresh.....	261,250	\$4,750	275,000	\$5,000	807,125	\$12,240	825,500	\$12,500			61,875	\$900
Mullet, salted.....	78,750	2,700	87,500	3,000	207,250	6,000	216,250	6,250	21,875	\$625	26,250	750
Mullet roe, salted.....	4,000	200	4,800	240								
Total.....	344,000	7,650	367,300	8,240	1,014,375	18,240	1,041,750	18,750	21,875	625	88,125	1,650

Species.	Wakulla.				Franklin.				Calhoun.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Black bass, fresh.....	4,300	\$86	5,000	\$100								
Bluefish, fresh.....	900	53	850	50	6,700	\$145	7,550	\$164				
Bream and sunfish, fresh.....					10,000	500	12,000	300				
Channel bass, fresh..	16,000	320	18,300	366	26,350	552	28,500	607				
Flounders, fresh.....	800	16	750	15								
Mullet, fresh.....	1,332,375	19,380	1,255,625	18,220	245,250	4,683	322,250	5,912	13,000	\$325	12,000	\$300
Mullet, salted.....	320,875	8,080	370,475	9,872	154,000	4,568	293,350	5,914	96,000	2,520	80,000	2,100
Mullet roe, salted.....	12,300	645	14,400	751	19,200	1,146	49,200	2,872	18,000	1,260	16,000	1,120
Pinfish, fresh.....	4,800	96	5,000	100								
Pompano, salted.....					1,500	53	1,800	63	6,500	163	3,000	82
Sea bass, fresh.....	3,200	64	3,500	70								
Sheepshead, fresh.....	13,750	275	14,920	307	22,430	476	25,500	542				
Spanish mackerel, fresh.....	600	36	500	30	500	12	300	8				
Spanish mackerel, salted.....					1,000	35	1,200	42				
Trout, fresh.....	13,200	292	13,600	303	37,910	821	44,625	971				
Trout, salted.....									13,490	338	6,400	176
Miscellaneous fish, fresh.....	5,200	156	6,000	180	17,000	850	16,000	800				
Miscellaneous fish, salted.....	31,500	484	28,600	429					5,000	125	3,100	85
Sponges.....	990	990	640	640	1,975	3,160	1,405	2,316				
Oysters.....	17,815	640	18,095	653	933,086	22,832	1,372,162	33,301				
Total.....	1,778,405	32,213	1,756,255	32,086	1,476,901	30,833	2,175,862	54,112	151,990	4,731	120,500	3,663

18.—Table showing by counties and species the yield of the shore fisheries of the west coast of Florida in 1889 and 1890—Continued.

Species.	Washington.				Santa Rosa.				Escambia.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish, fresh									12,089	\$174	39,265	\$557
Bluefish, fresh	20,444	\$510	17,241	\$344	22,607	\$437	14,777	\$295	219,121	6,613	275,079	7,601
Bream and sunfish, fresh	2,079	21	2,275	23	1,783	17	1,950	19	10,660	108	20,663	312
Channel bass, fresh	3,136	42	2,584	35	2,688	36	2,216	30	23,137	422	38,395	822
Croakers, fresh									35,187	553	41,723	638
Flounders, fresh	110	3	50	2								
Groupers, fresh					2,263	22			24,720	247	17,530	175
Jurel, fresh	21,425	214	29,806	299	18,363	184	25,599	256	74,929	999	204,090	2,301
Lady-fish, fresh	4,929	49	4,847	48	4,225	42	4,156	42	85,155	852	82,011	880
Lady-fish, salted	22,800	684	22,000	660								
Mullet, fresh	46,055	848	40,915	753	30,904	414	29,283	391	562,681	10,659	505,288	9,951
Mullet, salted	432,000	11,259	389,250	9,739								
Mullet roe, salted	71,400	4,673	74,800	4,386								
Pinfish, fresh									23,159	316	41,835	610
Pompano, fresh	4,016	597	5,086	521	3,443	512	4,360	446	70,860	15,550	59,286	12,887
Pompano, salted	27,000	690	16,500	473								
Sheepshead, fresh	5,257	106	5,126	109	4,507	90	4,394	81	52,452	1,572	39,443	1,342
Silver perch, fresh									20,188	413	35,377	784
Snappers, red, fresh					20,000	600			250,750	7,698	242,600	7,278
Spanish mackerel, fresh	14,056	427	22,239	697	12,049	366	19,064	542	200,822	9,003	226,906	9,155
Spanish mackerel, salted	8,800	241	5,000	138								
Spots, fresh									23,525	333	33,730	490
Trout, fresh	748	24	843	25	642	22	724	22	35,737	1,421	35,814	1,558
Trout, salted	73,950	1,825	39,150	1,025								
Whiting, fresh									14,934	361	25,242	521
Miscellaneous fish, fresh	12,815	126	11,466	121	10,120	110	9,833	105				
Miscellaneous fish, salted	42,000	1,095	23,200	638								
Oysters	49,441	2,792	56,385	3,173					248,500	15,775	288,500	21,625
Turtles	100	2									400	20
Total	808,501	26,228	768,823	23,209	133,654	2,852	116,356	2,229	2,006,606	73,130	2,248,177	79,507

SUMMARY.

Species.	1889.		1890.		Species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.		Pounds.	Value.	Pounds.	Value.
Amber-fish, fresh	60,000	\$2,400	65,000	\$2,600	Sea bass, fresh	5,200	\$124	5,700	\$136
Angel-fish, fresh	87,877	1,401	124,676	1,980	Sheepshead, fresh	512,303	9,234	525,143	9,156
Black bass, fresh	4,300	86	5,000	100	Silver perch, fresh	20,188	413	35,377	784
Bluefish, fresh	349,376	9,016	406,348	10,126	Snappers, red, fresh	376,750	13,298	268,600	8,428
Bream and sunfish, fresh	24,522	706	36,888	954	Snappers, gray and others, fresh	45,867	927	47,303	967
Channel bass, fresh	386,046	5,925	452,262	7,158	Spanish mackerel, fresh	322,619	16,650	400,919	19,799
Crevalle, fresh	17,280	246	18,024	287	Spanish mackerel, salted	11,400	326	6,200	180
Croakers, fresh	35,187	553	41,723	638	Spots, fresh	23,525	333	33,730	490
Drum, fresh-water, fresh	48,974	684	52,884	771	Trout, fresh	509,758	11,238	545,178	11,915
Drum, salt-water, fresh	102,305	1,478	121,853	1,836	Trout, salted	87,440	2,163	45,550	1,201
Flounders, fresh	20,129	276	23,620	336	Whiting, fresh	14,934	361	25,242	521
Groupers, fresh	56,983	809	62,530	1,125	Miscellaneous fish, fresh	436,260	20,404	477,211	22,389
Grunts, fresh	611,855	20,016	680,725	22,202	Miscellaneous fish, salted	83,500	1,804	58,900	1,292
Jurel, fresh	148,703	1,900	296,840	3,486	Sponges	114,138	126,950	140,913	155,631
Kingfish, fresh	456,231	16,747	291,725	12,625	Oysters	1,826,447	64,535	2,380,217	84,020
Lady-fish, fresh	98,989	1,458	96,014	1,520	Quahogs	6,000	547	6,000	547
Lady-fish, salted	22,800	684	22,000	660	Terrapins	5,000	125	4,180	130
Mullet, fresh	8,635,195	96,313	10,478,069	112,101	Turtles	342,052	13,695	374,776	16,054
Mullet, salted	2,702,135	82,703	2,806,954	76,170	Turtle eggs	6,000	900	6,625	994
Mullet, smoked	4,500	215	3,200	148	Tortoise shell	1,000	2,500	1,150	2,875
Mullet roe, salted	241,280	15,050	278,259	15,898					
Pinfish, fresh	31,959	462	51,335	706					
Pompano, fresh	249,452	25,525	235,332	23,039					
Pompano, salted	52,462	2,006	33,100	1,558					
Sailor's choice, fresh	57,455	833	57,477	844					
Total	19,250,376	573,539	22,131,352	636,377					

Vessel fisheries by customs districts.—The west coast of Florida is occupied by five customs districts, viz, Key West, Tampa, St. Marks, Apalachicola, and Pensacola. The importance of the vessel fisheries of the State justifies the presentation of the following special tables, showing the extent of the fishing done by craft taking out licenses in each of these districts.

19.—Summary by customs districts of the vessel fisheries of the west coast of Florida in 1889 and 1890.

FISHING VESSELS.

Customs districts.	Number and nationality of fishermen.															
	1889.							1890.								
	Americans.	British pro- vincials.	Spaniards.	French.	Portuguese.	Norwegians.	Others.	Total.	Americans.	British pro- vincials.	Spaniards.	French.	Portuguese.	Norwegians.	Others.	Total.
Key West	127	525	8	.....	.....	.....	.....	660	141	572	4	.....	.....	.....	.....	717
Tampa	10	.....	.....	.....	.....	.....	.....	10	5	.....	.....	.....	.....	.....	.....	5
St. Marks	6	7	.....	.....	.....	.....	.....	13	16	13	.....	.....	.....	.....	.....	29
Apalachicola	62	.....	.....	.....	.....	.....	.....	62	49	.....	.....	.....	.....	.....	.....	49
Pensacola	117	8	10	5	30	23	14	207	129	13	10	3	29	23	23	230
Total	322	540	18	5	30	23	14	952	340	598	14	3	29	23	23	1,030

Customs districts.	Number of ves- sels fishing.		Net tonnage.		Value of vessels.		Value of outfit, gear, provisions, fuel, etc.		Value of catch.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
	Key West	81	88	1,159.83	1,187.08	\$124,900	\$128,470	\$75,450	\$80,826	\$254,738	$281,000
Tampa	3	2	53.83	17.40	4,900	900	962	607	4,362	3,358
St. Marks	1	3	18.50	42.57	2,250	5,050	792	1,877	65	4,200
Apalachicola	12	12	93.26	86.70	6,150	5,750	2,533	2,376	11,807	9,954
Pensacola	35	40	871.19	1,022.92	63,000	73,820	51,033	59,587	104,334	128,590
Total	132	145	2,196.61	2,356.67	201,200	213,990	130,770	145,273	375,306	427,762

TRANSPORTING VESSELS.

Customs districts.	No. of ves- sels trans- porting.		Net tonnage.		Value of ves- sels.		Value of provisions, fuel, etc.		Number and nationality of crew.							Value of prod- ucts trans- ported.		
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.	1889.				1890.			1889.	1890.	
									Americans.	British pro- vincials.	Spaniards.	Total.	Americans.	British pro- vincials.	Spaniards.			Total.
Key West	5	7	94.99	134.56	\$7,800	\$11,300	\$1,070	\$1,570	8	4	4	16	12	7	5	24	\$25,460	\$29,326
Tampa	9	9	88.82	88.82	12,050	12,050	2,640	2,730	22	.....	.....	22	22	.....	.....	22	30,000	40,000
St. Marks	1	3	5.19	19.50	500	2,100	125	325	2	.....	.....	2	6	.....	.....	6	7,500	12,500
Apalachicola	2	1	31.15	16.92	1,400	800	190	90	4	.....	.....	4	3	.....	.....	3	1,630	2,155
Pensacola	1	1	20.41	20.41	2,000	1,500	120	50	.....	.....	.....	.....	.....	.....	.....	.....	1,800	1,975
Total	18	21	240.56	280.21	23,750	27,750	4,145	4,705	36	4	4	44	43	7	5	55	66,390	85,956

* Employed also in the shore fisheries and there enumerated.

20.—Table showing by customs districts and species the yield of the vessel fisheries of the west coast of Florida in 1889 and 1890.

Species.	Key West.				Tampa.				St. Marks.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish, fresh					800	\$12	850	\$13				
Bluefish, fresh					1,800	36	2,000	40				
Channel bass, fresh					1,500	23	2,000	30				
Groupers, fresh	50,700	\$2,490										
Mullet, fresh	51,500	386	55,900	\$419	82,100	657	93,750	750				
Mullet, salted			15,000	600								
Mullet roe, salted			2,200	154								
Pompano, fresh					14,700	686	18,100	896				
Sailor's choice, fresh					750	11	800	12				
Sheephead, fresh	1,000	15	1,200	18	12,500	188	15,000	225				
Spanish mackerel, fresh					6,250	281	8,075	363				
Trout, fresh	900	14	1,000	15	4,100	82	4,000	80				
Sponges	197,322	246,654	220,399	275,500					52	\$65	3,360	\$4,200
Oysters					59,850	2,386	7,875	949				
Quahogs	1,350	206	1,350	200								
Turtles	89,345	4,969	84,630	4,745								
Tortoise shell	3	10	3	9								
Total	392,100	254,738	381,602	281,600	184,350	4,362	162,450	3,358	52	65	3,360	4,200

Species.	Apalachicola.				Pensacola.				Total.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish, fresh					1,013	\$10	1,200	\$12	1,813	\$22	2,050	\$25
Bluefish, fresh					13,221	263	11,698	232	15,021	299	13,698	272
Bream and sunfish, fresh					1,337	13	1,200	12	1,337	13	1,200	12
Channel bass, fresh					3,451	57	3,475	48	4,951	80	5,475	78
Channel bass, salted					1,000	25			1,000	25		
Croaker, fresh					1,181	12	1,200	12	1,181	12	1,200	12
Groupers, fresh					309,830	3,103	336,201	3,365	360,539	5,593	336,201	3,365
Jurol, fresh					18,913	189	18,000	180	18,913	189	18,000	180
Lady-fish, fresh					4,437	44	3,570	36	4,437	44	3,570	36
Mullet, fresh					25,791	343	22,640	302	159,391	1,386	172,290	1,471
Mullet, salted	26,650	\$603	96,100	\$2,168			50,200	1,246	26,650	603	161,300	4,014
Mullet roe, salted	2,800	168	11,090	715			7,000	490	2,800	168	20,290	1,359
Pinfish, fresh					1,350	13	1,200	12	1,350	13	1,200	12
Pompano, fresh					3,541	385	5,624	554	18,241	1,071	23,724	1,450
Pompano, salted					23,600	1,042	8,200	312	23,600	1,042	8,200	312
Sailor's choice, fresh									750	11	800	12
Sheephead, fresh					1,323	28	2,454	50	14,823	231	18,654	293
Silver perch, fresh					720	11	800	12	720	11	800	12
Snappers, red, fresh			2,000	50	3,092,620	92,259	3,302,342	115,321	3,092,620	92,259	3,004,342	115,371
Spanish mackerel, fresh					15,945	474	25,199	746	22,195	755	33,274	1,109
Spanish mackerel, salted					7,200	180	600	12	7,200	180	600	12
Spots, fresh					1,620	16	1,585	18	1,620	16	1,585	18
Trout, fresh					2,483	75	935	26	7,483	171	5,935	121
Trout, salted					10,000	250	5,800	141	10,000	350	5,800	141
Miscellaneous fish, salted					10,000	250	9,000	225	10,000	250	9,000	225
Sponges	5,047	8,018	2,100	3,351					202,421	254,737	225,859	283,051
Oysters	128,800	3,018	156,100	3,670	49,000	5,250	53,375	5,053	237,650	10,654	217,350	9,672
Quahogs									1,330	200	1,330	200
Turtle					1,480	42	8,850	179	90,825	5,011	93,480	4,018
Tortoise shell									3	10	3	9
Total	163,297	11,807	267,390	9,954	3,601,065	104,334	4,482,348	128,590	4,340,864	375,306	5,287,210	427,762

Fisheries by apparatus.—The quantity and value of products taken with each of the principal forms of apparatus are shown in Tables 21 and 22, which relate to the vessel and shore fisheries respectively. The variety of apparatus employed in the fisheries of Florida is very limited, consisting principally of seines, gill nets, and lines for the capture of fish proper, together with a few cast nets and other minor forms.

In the vessel fisheries much the largest catch of fish is made with lines; in 1890 4,240,688 pounds, valued at \$118,738, were obtained in this way, of which 3,904,342 pounds, worth \$115,371, were red snappers. Gill nets rank next in importance, taking 309,865 pounds in 1890, for which the fishermen received \$5,744; mullet is the only important species thus captured. Seines secure the greatest number of species, and took 198,635 pounds, valued at \$5,430, of which the most prominent fish were mullet and Spanish mackerel. Such miscellaneous apparatus as dredges, rakes, tongs, and hooks took oysters, quahogs, and sponges to the value of \$292,923. A special form of net was employed for turtles, the value of which was \$4,927.

Gill nets are the most important means of capture in the shore or boat fisheries of the State. In 1890, 11,073,639 pounds, worth \$153,956, were thus secured. Mullet is the most prominent fish taken in gill nets, but considerable quantities of pompano, sheepshead, and trout are also obtained. The seine catch is only about one-half the gill-net yield, but has a value nearly as great; in addition to mullet, which constitutes the principal part of the catch, bluefish, pompano, and Spanish mackerel are important species. The product of the line fishery amounted to 1,930,315 pounds in 1890, with a value of \$75,298, grunts, kingfish, and snappers being the principal species caught. Cast nets and other minor nets and traps are credited with taking 119,300 pounds, worth \$3,298. The invertebrates and reptiles secured with miscellaneous devices, as tongs, hooks, etc., had a value of \$260,251 in 1890.

21.—Table showing by counties and apparatus the yield of the vessel fisheries of the west coast of Florida in 1889 and 1890.

Apparatus and species.	Monroe.				Manatee.				Hillsboro.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Mullet, salted.....			15,000	\$600								
Mullet roe, salted.....			2,200	154								
Total.....			17,200	754								
Gill nets:												
Angel-fish, fresh.....					800	\$12	850	\$13				
Bluefish, fresh.....					1,800	36	2,000	40				
Channel bass, fresh.....					1,500	23	2,000	30				
Mullet, fresh.....	51,500	\$386	55,900	419	82,100	657	93,750	750				
Pompano, fresh.....					14,700	686	18,100	896				
Sailor's choice, fr'h.....					750	11	800	12				
Sheepshead, fresh.....	1,000	15	1,200	18	12,500	188	15,000	225				
Spanish mackerel, fresh.....					6,250	281	8,075	363				
Trout, fresh.....	900	14	1,000	15	4,100	82	4,000	80				
Total.....	53,400	415	58,100	452	124,500	1,976	144,575	2,409				
Lines:												
Groupers, fresh.....	50,700	2,490										
Miscellaneous:												
Oysters.....									59,850	\$2,386	7,875	\$649
Quahogs.....	1,330	200	1,330	200								
Sponges.....	197,322	246,654	220,399	275,500								
Turtles.....	80,345	4,969	84,630	4,745								
Tortoise shell.....	3	10	3	9								
Total.....	288,000	251,833	306,362	280,454					59,850	2,386	7,875	949
Grand total.....	392,100	254,738	381,662	281,660	124,500	1,976	144,575	2,409	59,850	2,386	7,875	949

21.—Table showing by counties and apparatus the yield of the vessel fisheries of the west coast of Florida in 1889 and 1890—Continued.

Apparatus and species.	Levy.				Franklin.				Washington.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Channel bass, salted.....									1,000	\$25	50,200	\$1,246
Mullet, salted.....					7,650	\$153					7,000	490
Mullet roe, salted.....					1,000	60					8,200	312
Pompano, salted.....									23,600	1,042		
Spanish mackerel, salted.....									7,200	180	600	12
Trout, salted.....									10,000	250	5,800	141
Miscellaneous fish, salted.....									10,000	250	9,000	225
Total.....					8,650	213			51,800	1,747	80,800	2,426
Gill nets:												
Mullet, salted.....					19,000	450	96,100	\$2,168				
Mullet roe, salted.....					1,800	108	11,090	715				
Total.....					20,800	558	107,190	2,883				
Lines:												
Groupers, fresh.....									9,500	95	33,500	335
Snappers, red, fresh.....							2,000	50	85,000	2,375	100,260	2,811
Total.....							2,000	50	94,500	2,470	133,760	3,146
Miscellaneous:												
Oysters.....					128,800	3,018	156,100	3,670				
Sponges.....	52	\$65	3,360	\$4,200	5,047	8,018	2,100	3,351				
Total.....	52	65	3,360	4,200	133,847	11,036	158,200	7,021				
Grand total.....	52	65	3,360	4,200	163,297	11,807	267,390	9,954	146,300	4,217	214,560	5,572

Apparatus and species.	Santa Rosa.				Escambia.				Total.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Angel-fish, fresh.....					1,013	\$10	1,200	\$12	1,013	\$10	1,200	\$12
Bluefish, fresh.....	873	\$17	724	\$14	12,348	246	10,974	218	13,221	263	11,698	232
Bream and sunfish, fresh.....					1,337	13	1,200	12	1,337	13	1,200	12
Channel bass, fresh.....	1,093	20	1,275	17	2,358	37	2,055	29	3,451	57	3,330	46
Channel bass, salted.....									1,000	25		
Croakers, fresh.....					1,181	12	1,200	12	1,181	12	1,200	12
Jurel, fresh.....					18,913	189	18,000	180	18,913	189	18,000	180
Lady-fish, fresh.....			585	6	4,437	44	2,985	30	4,437	44	3,570	36
Mullet, fresh.....	250	3	100	2	25,541	340	22,540	300	25,791	343	22,640	302
Mullet, salted.....									7,650	153	65,200	1,846
Mullet roe, salted.....									1,000	60	9,200	644
Pinfish, fresh.....					1,350	13	1,200	12	1,350	13	1,200	12
Pompano, fresh.....	1,294	110	2,541	216	2,247	275	3,083	338	3,541	385	5,624	554
Pompano, salted.....									23,600	1,042	8,200	312
Sheepshead, fresh.....	71	2	627	13	1,252	26	1,827	37	1,323	28	2,454	50
Silver perch, fresh.....					720	11	800	12	720	11	800	12
Spanish mackerel, fresh.....	7,500	225	13,560	407	8,445	249	11,639	339	15,945	474	25,199	746
Spanish mackerel, salted.....									7,200	180	600	12
Spots, fresh.....					1,620	16	1,585	18	1,620	16	1,585	18
Trout, fresh.....	904	27	185	6	1,579	48	750	20	2,483	75	935	26
Trout, salted.....									10,000	250	5,800	141
Miscellaneous fish, salted.....									10,000	250	9,000	225
Total.....	11,985	404	19,597	681	84,341	1,529	81,038	1,569	156,776	3,893	198,635	5,430

21.—Table showing by counties and apparatus the yield of the vessel fisheries of the west coast of Florida in 1889 and 1890—Continued.

Apparatus and species.	Santa Rosa.				Escambia.				Total.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Gill nets:												
Angel-fish, fresh									800	\$12	850	\$13
Bluefish, fresh									1,800	36	2,000	40
Channel bass, fresh									1,500	23	2,000	30
Mullet, fresh									193,600	1,043	149,050	1,169
Mullet, salted									19,000	450	96,100	2,168
Mullet roe, salted									1,800	108	11,090	715
Pompano, fresh									14,700	686	18,100	896
Sailor's choice, fresh									750	11	800	12
Sheepshead, fresh									13,500	203	16,200	243
Spanish mackerel, fresh									6,250	281	8,075	363
Trout, fresh									5,000	96	5,000	95
Total									198,700	2,949	309,865	5,744
Lines:												
Channel bass, fresh							145	\$2			145	2
Groupers, fresh	3,797	\$38	4,600	\$47	206,542	\$2,970	208,011	2,983	300,530	5,593	336,201	3,365
Snappers, red, fresh	22,186	832	47,280	1,773	2,985,434	89,052	3,764,802	110,737	3,092,620	92,259	3,904,342	115,371
Total	25,983	870	51,970	1,820	3,281,976	92,022	4,052,058	113,722	3,453,159	97,852	4,240,688	118,738
Miscellaneous:												
Oysters					49,000	5,250	53,375	5,053	237,650	10,654	217,350	9,672
Quahogs									1,330	200	1,330	200
Sponges									202,421	254,737	225,850	283,051
Turtles	740	21	7,000	140	740	21	1,850	33	90,825	5,011	93,480	4,918
Tortoise shell									3	10	3	9
Total	740	21	7,000	140	49,740	5,271	55,225	5,086	532,229	270,612	538,022	297,850
Grand total	38,708	1,295	78,567	2,641	3,416,057	98,822	4,189,221	120,377	4,340,864	375,306	5,287,210	127,762

22.—Table showing by counties and apparatus the yield of the shore fisheries of the west coast of Florida in 1889 and 1890.

Apparatus and species.	Monroe.				Lee.				De Soto.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Lady-fish, fresh	4,680	\$515	5,000	\$550								
Mullet, salted					707,900	\$31,070	587,548	\$21,319	60,000	\$1,650	194,000	\$3,050
Mullet roe, salted					60,974	3,918	60,843	3,498	10,000	700	15,200	608
Pompano, salted					2,350	353	3,500	525				
Total	4,680	515	5,000	550	771,224	35,341	651,891	25,342	70,000	2,350	149,200	3,658
Gill nets:												
Angel-fish, fresh									6,200	79	6,000	75
Channel bass, fresh									68,585	857	71,810	898
Drum, fresh-water, fresh									4,877	61	5,590	70
Drum, salt-water, fresh									6,110	77	7,285	91
Mullet, fresh					2,332	350	2,063	400	1,372,560	10,475	1,438,135	10,975
Mullet, salted									16,800	240		
Mullet roe, salted									300	15	315	16
Pinfish, fresh									4,000	50	4,500	56
Pompano, fresh									54,286	3,257	56,945	3,411
Sailor's choice, fresh									5,440	68	5,825	73
Sheepshead, fresh									119,970	1,500	125,775	1,572
Snappers, gray and others, fresh									5,318	67	4,300	55
Spanish mackerel, fresh									17,094	1,026	17,955	1,077
Trout, fresh									51,385	642	59,750	672
Total					2,332	350	19,463	640	1,716,215	18,174	1,798,245	19,041

22.—Table showing by counties and apparatus the yield of the shore fisheries of the west coast of Florida in 1889 and 1890—Continued.

Apparatus and species.	Monroe.				Lee.				De Soto.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Cast nets and minor nets:												
Grunts, fresh	800	\$27	950	\$32								
Mullet, fresh.....	10,000	400	12,500	500								
Mullet, smoked.....					3,000	\$150	2,000	\$100				
Snappers, gray and others, fresh.....	1,000	125	1,000	125								
Miscellaneous fish, fresh.....	10,000	500	10,350	518								
Total	21,800	1,052	24,800	1,175	3,000	150	2,000	100				
Lines:												
Amber-fish fresh ..	60,000	2,400	65,000	2,600								
Grunts, fresh.....	586,830	19,561	650,000	21,675								
Kingfish, fresh.....	456,231	16,747	291,725	12,625								
Snappers, red, fresh.....	100,000	5,000	20,000	1,000								
Spanish mackerel, fresh.....	20,000	2,000	22,500	2,250								
Miscellaneous fish, fresh.....	308,006	18,406	406,500	20,325								
Total	1,591,061	64,108	1,455,725	60,475								
Miscellaneous:												
Sponges.....	110,273	121,300	138,068	151,875								
Oysters.....					10,300	840	13,825	1,095	37,100	\$2,120	78,205	\$4,515
Quahogs.....						62		62				
Turtles.....	197,747	7,267	207,174	7,607	3,500	280	3,000	240			4,000	320
Turtle eggs.....	3,600	540	4,200	630								
Tortoise shell.....	1,000	2,500	1,150	2,875								
Total	312,620	131,607	350,592	162,087	15,190	1,182	18,155	1,397	37,100	2,120	82,205	4,835
Grand total.....	1,930,161	197,282	1,836,117	225,187	791,746	37,023	691,509	27,479	1,823,315	22,644	2,029,740	27,534

Apparatus and species.	Manatee.				Hillsboro.				Pasco.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Angel-fish, fresh...	6,751	\$99	8,623	\$131	5,093	\$74	7,346	\$111				
Bluefish, fresh.....	5,938	109	9,234	185	4,480	82	7,865	157				
Channel bass, fresh..	32,032	435	41,662	592	24,612	334	35,924	509				
Creville, fresh.....	1,798	23	2,029	31	1,493	22	1,849	30				
Drum, fresh-water, fresh.....	7,037	99	7,724	113	5,310	75	6,580	97				
Drum, salt-water, fresh.....	8,586	123	12,765	194	6,478	93	10,873	165				
Flounders, fresh.....	3,067	41	3,820	53	2,815	31	3,254	46				
Grunts, fresh.....	2,238	34	3,310	47	1,944	33	3,060	46				
Jurel, fresh.....	3,132	50	3,866	64	2,707	48	3,593	63				
Mullet, fresh.....	371,890	2,617	676,276	5,091	287,640	2,025	584,716	4,401				
Mullet, salted.....	208,660	4,687	193,438	4,084	44,125	982	56,230	1,500				
Mullet roe, salted.....	27,200	1,562	20,200	960	1,810	101	1,804	101				
Pompano, fresh.....	5,272	266	5,589	292	4,277	227	5,261	293				
Pompano, salted.....	912	37										
Sallor's choice, fresh.....	4,272	62	4,647	69	3,222	46	3,958	59				
Sheepshead, fresh.....	14,538	189	16,387	225	11,518	158	14,495	206				
Snappers, gray and others, fresh.....	4,205	59	5,042	72	3,173	44	4,295	62				
Spanish mackerel, fresh.....	14,410	1,101	14,288	1,081	9,213	704	12,172	921				
Spanish mackerel, salted.....					1,600	50						
Trout, fresh.....	11,483	219	15,593	288	10,039	206	14,624	281				
Miscellaneous fish, salted.....					750	12	480	10				
Total	733,421	11,812	1,044,493	13,572	431,799	5,347	778,379	9,058				

22.—Table showing by counties and apparatus the yield of the shore fisheries of the west coast of Florida in 1889 and 1890—Continued.

Apparatus and species.	Manatee.				Hillsboro.				Pasco.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Gill nets:												
Angel-fish, fresh	16,750	\$245	17,059	\$259	16,705	\$245	22,583	\$350				
Bluefish, fresh	14,733	271	18,287	366	18,055	341	26,289	526				
Channel bass, fresh	24,041	326	28,854	409	51,550	706	66,850	948				
Crevalle, fresh	4,461	57	4,014	62	4,428	67	5,228	91				
Drum, fresh-water, fresh	17,462	247	15,283	225	14,288	202	17,707	266				
Drum, salt-water, fresh	11,256	151	13,938	211	9,210	124	18,600	299				
Flounders, fresh	7,610	102	7,558	106	6,227	83	8,188	114				
Grunts, fresh	5,554	84	6,549	93	5,989	107	8,856	149				
Jurel, fresh	7,772	124	7,650	127	8,309	160	10,488	200				
Mullet, fresh	952,734	6,674	1,368,010	10,253	1,098,047	7,726	1,818,161	13,879	25,200	\$297	121,700	\$1,100
Mullet, salted	98,165	2,368	83,534	2,032	89,750	1,638	80,577	2,104	50,350	905	57,450	1,121
Mullet, smoked					1,500	65	1,200	48				
Mulletree, salted	6,450	323	7,200	360	4,090	229	9,151	769				
Pompano, fresh	15,263	768	14,904	777	75,785	3,848	81,851	4,315				
Pompano, salted	14,200	710	8,300	415								
Sailor's choice, fresh	10,589	152	9,194	137	11,172	163	11,961	178				
Sea bass, fresh					2,000	60	2,200	66				
Sheepshead, fresh	36,072	468	36,475	502	68,959	1,007	70,163	1,059				
Snappers, gray and others, fresh	10,434	146	9,907	143	8,537	119	10,809	155				
Spanish mackerel, fresh	4,331	331	4,587	347	22,794	1,608	32,458	2,293				
Trout, fresh	28,492	543	30,852	570	50,526	1,041	64,141	1,285				
Miscellaneous fish, salted					4,250	88	3,520	70				
Total	1,286,379	14,090	1,692,225	17,394	1,572,171	19,627	2,370,981	29,164	75,550	1,202	179,150	2,221
Cast nets and minor nets:												
Mullet, fresh					39,375	786	35,438	708				
Miscellaneous fish, fresh					13,125	262	17,062	340				
Total					52,500	1,048	52,500	1,048				
Lines:												
Angel-fish, fresh	3,450	173	4,000	200								
Channel bass, fresh	4,750	238	5,000	250			5,930	74				
Groupers, fresh					30,000	600	35,000	700				
Grunts, fresh					8,500	170	8,000	160				
Sheepshead, fresh	10,500	525	11,400	570			18,280	229				
Snappers, gray and others, fresh	2,100	105	2,500	125	2,100	42	2,000	40				
Spanish mackerel, fresh							27,450	1,373				
Trout, fresh	20,800	1,040	21,250	1,063			12,350	154				
Total	41,600	2,081	44,150	2,208	40,600	812	109,010	2,730				
Miscellaneous:												
Oysters	525	25	630	30	357,070	13,348	406,665	14,796				
Quahogs					1,340	85	1,340	85				
Turtles	60,000	1,400	60,000	1,400	10,000	150	10,244	170				
Turtle eggs	665	100	665	100	1,735	260	1,780	264				
Total	61,190	1,525	61,295	1,530	370,145	13,843	420,009	15,315				
Grand total	2,122,590	29,508	2,842,163	34,704	2,467,215	40,677	3,780,879	57,315	75,550	1,202	179,150	2,221

22.—Table showing by counties and apparatus the yield of the shore fisheries of the west coast of Florida in 1889 and 1890—Continued.

Apparatus and species.	Hernando.				Citrus.				Levy.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Angel-fish, fresh.....									1,500	\$23	3,000	\$45
Bluefish, fresh.....									2,000	30	6,379	96
Channel bass, fresh.....									10,360	155	20,500	308
Crevalle, fresh.....									700	11	1,560	23
Drum, salt-water, fresh.....									7,600	114	10,758	161
Jurel, fresh.....									1,000	15	2,100	32
Mullet, fresh.....									49,500	495	131,382	1,314
Pompano, fresh.....									6,000	300		
Sailor's choice, fresh.....									1,500	23	4,200	63
Sheepshead, fresh.....									7,500	113	17,850	268
Trout, fresh.....									15,000	300	32,845	657
Total.....									102,000	1,579	230,574	2,967
Gill nets:												
Angel-fish, fresh.....									19,249	289	16,800	252
Bluefish, fresh.....									23,338	425	22,817	342
Channel bass, fresh.....	1,000	\$15	1,800	\$27	1,500	\$30	1,700	\$34	95,805	1,437	81,637	1,225
Crevalle, fresh.....									4,400	66	3,344	50
Drum, salt-water, fresh.....									53,065	796	47,634	715
Jurel, fresh.....									11,066	166	9,588	144
Mullet, fresh.....	172,500	1,494	157,100	1,390	94,296	1,070	60,348	718	880,481	8,605	744,504	7,445
Mullet, salted.....	28,900	722	30,500	782	52,000	1,159	57,850	1,298	51,735	1,170	45,952	1,035
Mullet roe, salted.....									5,556	278	4,346	217
Pompano, fresh.....					1,250	50	550	22	3,000	150	1,500	75
Sailor's choice, fresh.....									21,250	319	17,692	265
Sheepshead, fresh.....	1,500	23	2,000	30	22,520	744	16,500	330	113,830	1,707	98,935	1,484
Snappers, gray and others, fresh.....					7,000	140	5,100	102				
Spanish mackerel, fresh.....									750	36	500	25
Trout, fresh.....	5,000	75	7,500	112	15,500	310	9,540	191	212,498	4,250	186,127	3,723
Total.....	208,900	2,329	198,900	2,321	194,066	3,503	151,588	2,695	1,481,021	10,604	1,281,376	16,997
Lines:												
Channel bass, fresh.....					500	20	600	24				
Groupers, fresh.....											10,000	250
Sheepshead, fresh.....					7,000	280	7,500	300				
Snappers, red, fresh.....											6,000	150
Snappers, gray and others, fresh.....					2,000	80	2,200	88				
Trout, fresh.....					800	32	1,000	40				
Total.....					10,300	412	11,300	452			16,000	400
Miscellaneous:												
Sponges.....									900	900	800	800
Oysters.....					27,125	969	34,440	1,230	145,425	5,194	116,200	3,602
Quahogs.....									3,330	400	3,330	400
Terrapins.....									5,000	125	4,180	130
Turtles.....									70,705	4,596	89,958	6,297
Total.....					27,125	969	34,440	1,230	225,360	11,215	214,468	11,229
Grand total.....	208,900	2,329	198,900	2,321	231,491	4,884	197,328	4,377	1,809,041	32,488	1,742,418	31,593

22.—Table showing by counties and apparatus the yield of the shore fisheries of the west coast of Florida in 1889 and 1890—Continued.

Apparatus and species.	Lafayette.				Taylor.				Jefferson.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Gill nets:												
Mullet, fresh	261,250	\$4,750	275,000	\$5,000	807,125	\$12,240	825,500	\$12,500			61,875	\$900
Mullet, salted	78,750	2,700	87,500	3,000	207,250	6,000	216,250	6,250	21,875	\$625	26,250	750
Mullet roe, salted.....	4,000	200	4,800	240								
Total	344,000	7,650	367,300	8,240	1,014,375	18,240	1,041,750	18,750	21,875	625	88,125	1,650
Apparatus and species.	Wakulla.				Franklin.				Calhoun.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Bluefish, fresh.....					800	\$20	1,000	\$25				
Channel bass, fresh..	7,500	\$150	7,800	\$156	12,450	257	13,800	295				
Flounders, fresh.....	800	16	750	15								
Mullet, fresh.....	171,875	2,500	190,000	2,720	71,000	1,458	79,250	1,627				
Mullet, salted.....	79,750	2,223	98,875	2,800	93,000	3,338	224,850	4,544	96,000	\$2,520	80,000	\$2,100
Mullet roe, salted....	7,500	405	9,250	493	14,800	918	43,350	2,561	18,000	1,260	16,000	1,120
Pompano, salted.....					1,500	53	1,800	63				
Sheepshead, fresh....	6,000	120	6,250	133	9,800	208	11,150	237	6,500	163	3,000	82
Spanish mackerel, fresh					500	12	300	8				
Spanish mackerel, salted					1,000	35	1,200	42				
Trout, fresh.....	5,700	114	5,200	104	12,970	291	16,200	367				
Trout, salted.....									13,490	338	6,400	176
Miscellaneous fish, salted									5,000	125	3,100	85
Total	279,125	5,523	318,125	5,921	217,820	6,500	392,900	9,769	138,990	4,406	108,500	3,563
Gill nets:												
Black bass, fresh..	4,300	86	5,000	100								
Bluefish, fresh.....	900	53	850	50	5,900	125	6,550	139				
Channel bass, fresh..	8,500	170	10,500	210	13,900	295	14,700	312				
Mullet, fresh.....	1,160,500	16,880	1,065,625	15,500	164,250	3,000	233,000	4,060				
Mullet, salted.....	240,925	6,457	271,600	7,572	61,000	1,230	68,500	1,370				
Mullet roe, salted....	4,800	240	5,150	258	4,400	228	5,850	311				
Pinfish, fresh.....	4,800	96	5,000	100								
Sea bass, fresh.....	3,200	64	3,500	70								
Sheepshead, fresh....	7,750	155	8,670	174	12,630	268	14,350	305				
Spanish mackerel, fresh	600	36	500	30								
Trout, fresh.....	7,500	178	8,400	199	24,940	530	28,425	604				
Miscellaneous fish, salted	31,500	484	28,600	429								
Total	1,475,275	24,899	1,413,395	24,692	287,020	5,676	371,375	7,101				
Cast nets:												
Mullet, fresh.....					10,000	225	10,000	225	13,000	325	12,000	300
Lines:												
Bream, fresh.....					10,000	500	12,000	600				
Miscellaneous fish, fresh	5,200	156	6,000	180	17,000	850	16,000	800				
Total	5,200	156	6,000	180	27,000	1,350	28,000	1,400				
Miscellaneous:												
Sponges.....	990	900	640	640	1,975	3,160	1,405	2,316				
Oysters.....	17,815	640	18,095	653	933,086	22,832	1,372,182	33,301				
Total	18,805	1,630	18,735	1,293	935,061	25,992	1,373,587	35,617				
Grand total.....	1,778,405	32,213	1,756,255	32,086	1,476,901	39,833	2,175,862	54,112	151,990	4,781	120,500	3,863

22.—Table showing by counties and apparatus the yield of the shore fisheries of the west coast of Florida in 1889 and 1890—Continued.

Apparatus and species.	Washington.				Santa Rosa.				Escambia.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Angel-fish, fresh.....									12,089	\$174	39,265	\$557
Bluefish, fresh.....	26,444	\$510	17,241	\$344	22,667	\$437	14,777	\$295	217,267	6,554	270,464	7,385
Bream and sunfish, fresh.....	2,079	21	2,275	23	1,783	17	1,950	19	10,660	168	20,663	312
Channel bass, fresh.....	3,136	42	2,584	35	2,688	36	2,216	30	23,137	422	38,395	822
Croakers, fresh.....									35,187	553	41,723	638
Flounders, fresh.....	110	3	50	2								
Lady-fish, fresh.....	4,929	49	4,847	48	4,225	42	4,156	42	85,155	852	82,011	880
Lady-fish, salted.....	22,800	651	22,000	660								
Jurel, fresh.....	21,425	214	29,866	289	18,363	184	25,599	250	74,929	999	204,090	2,301
Mullet, fresh.....	26,055	348	22,915	303	30,904	414	29,283	391	543,936	10,251	468,453	9,190
Mullet, salted.....	402,000	10,472	354,750	8,836								
Mullet roe, salted.....	65,900	4,288	68,400	3,938								
Pinfish, fresh.....									23,159	316	41,835	610
Pompano, fresh.....	4,016	597	5,086	521	3,443	512	4,360	446	70,860	15,550	59,286	12,837
Pompano, salted.....	27,000	690	10,500	473								
Sheepshead, fresh.....	5,257	106	5,126	109	4,507	90	4,394	81	52,452	1,573	39,443	1,342
Silver perch or yellow-tail, fresh.....									20,188	413	35,377	784
Spanish mackerel, fresh.....	14,056	427	22,239	697	12,049	366	19,064	542	205,728	8,930	223,281	8,919
Spanish mackerel, salted.....	8,800	241	5,000	138								
Spots, fresh.....									23,525	333	33,730	490
Trout, fresh.....	748	24	843	25	642	22	724	22	34,458	1,375	31,723	1,325
Trout, salted.....	66,450	1,037	33,750	890								
Whiting, fresh.....									14,934	361	25,242	521
Miscellaneous fish, fresh.....	12,815	126	11,466	121	10,120	110	9,833	105				
Miscellaneous fish, salted.....	36,800	904	18,900	520								
Total.....	750,820	21,443	643,838	17,982	111,391	2,230	116,356	2,229	1,453,664	48,824	1,654,981	48,903
Gill nets:												
Bluefish, fresh.....									1,854	59	4,615	219
Mullet, fresh.....									18,745	408	36,835	761
Mullet, salted.....	30,000	787	34,500	903								
Mullet roe, salted.....	5,500	385	6,400	448								
Spanish mackerel, fresh.....									1,094	73	3,625	236
Trout, fresh.....									1,279	46	4,091	233
Trout, salted.....	7,500	188	5,400	135								
Miscellaneous fish, salted.....	5,200	131	4,300	118								
Total.....	48,200	1,491	50,600	1,604					22,972	586	49,166	1,446
Cast nets:												
Mullet, fresh.....	20,000	500	18,000	450								
Lines:												
Grouper, fresh.....					2,263	22			24,720	247	17,530	175
Snappers, red, fresh.....					20,000	600			256,750	7,698	242,600	7,278
Total.....					22,263	622			281,470	7,945	260,130	7,453
Miscellaneous:												
Oysters.....	49,441	2,792	56,385	3,173					248,500	15,775	283,500	21,625
Turtles.....	100	2									400	20
Total.....	49,541	2,794	56,385	3,173					248,500	15,775	283,900	21,645
Grand total.....	868,561	26,228	768,823	23,209	133,654	2,852	116,356	2,229	2,006,666	73,130	2,248,177	79,507

22.—Table showing by counties and apparatus the yield of the shore fisheries of the west coast of Florida in 1889 and 1890—Continued.

SUMMARY.

Apparatus and species.	1889.		1890.		Apparatus and species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.		Pounds.	Value.	Pounds.	Value.
Seines:									
Angel-fish, fresh.....	25,433	\$370	58,234	\$844	Gill nets—continued.				
Bluefish, fresh.....	279,596	7,742	326,960	8,487	Pompano, fresh.....	149,584	\$8,073	155,750	\$8,600
Bream and sunfish, fresh.....	14,522	206	24,888	354	Pompano, salted.....	14,200	710	8,300	415
Channel bass, fresh.....	115,915	1,831	162,881	2,747	Sailor's choice, fresh.....	48,461	702	44,672	653
Crevalle, fresh.....	3,991	56	5,438	84	Sea bass, fresh.....	5,200	124	5,700	136
Croakers, fresh.....	35,187	553	41,723	638	Sheepshead, fresh.....	383,231	5,872	372,868	5,456
Drum, fresh-water, fresh.....	12,347	174	14,304	210	Snappers, gray and others, fresh.....	31,289	472	30,266	455
Drum, salt-water, fresh.....	22,664	330	34,396	520	Spanish mackerel, fresh.....	46,663	3,110	59,625	4,008
Flounders, fresh.....	6,292	91	7,874	116	Trout, fresh.....	397,118	7,615	392,826	7,589
Grunts, fresh.....	4,182	67	6,370	93	Trout, salted.....	7,500	188	5,400	135
Lady-fish, fresh.....	98,989	1,458	96,014	1,520	Miscellaneous fish, salted.....	40,950	703	36,420	617
Lady-fish, salted.....	22,800	684	22,000	660	Total.....	9,750,351	138,136	11,073,639	153,956
Jurel, fresh.....	121,556	1,510	269,114	3,015	Cast nets and minor nets:				
Mullet, fresh.....	1,552,800	20,108	2,182,275	25,037	Grunts, fresh.....	800	27	950	32
Mullet, salted.....	1,691,435	56,942	1,729,691	47,733	Mullet, fresh.....	92,375	2,236	87,938	2,183
Mullet roe, salted.....	206,184	13,152	235,047	13,279	Mullet, smoked.....	3,000	150	2,000	100
Pinfish, fresh.....	23,159	316	41,835	610	Snappers, gray and others, fresh.....	1,000	125	1,000	125
Pompano, fresh.....	99,868	17,452	79,582	14,439	Miscellaneous fish, fresh.....	23,125	762	27,412	858
Pompano, salted.....	38,262	1,296	24,800	1,143	Total.....	120,300	3,300	119,300	3,298
Sailor's choice, fresh.....	8,994	131	12,805	191	Lines:				
Sheepshead, fresh.....	111,572	2,557	115,095	2,601	Amber-fish, fresh.....	60,000	2,400	65,000	2,600
Silver perch or yellow-tail, fresh.....	20,188	413	35,377	784	Angel-fish, fresh.....	3,450	173	4,000	200
Snappers, gray and others, fresh.....	7,878	103	9,337	134	Bream, fresh.....	10,000	500	12,000	600
Spanish mackerel, fresh.....	255,956	11,540	301,344	12,168	Channel bass, fresh.....	5,250	258	11,530	348
Spanish mackerel, salted.....	11,400	326	6,200	180	Groupers, fresh.....	56,983	869	62,530	1,125
Spots, fresh.....	23,525	333	33,730	490	Grunts, fresh.....	595,330	19,731	658,000	21,835
Trout, fresh.....	91,040	2,551	117,752	3,069	Kingfish, fresh.....	456,231	16,747	291,725	12,625
Trout, salted.....	79,940	1,975	40,150	1,066	Sheepshead, fresh.....	17,500	805	37,180	1,099
Whiting, fresh.....	14,934	361	25,242	521	Snappers, red, fresh.....	376,750	13,298	268,600	8,428
Miscellaneous fish, fresh.....	22,935	236	21,290	223	Snappers, gray and others, fresh.....	6,200	227	6,700	253
Miscellaneous fish, salted.....	42,550	1,101	22,480	615	Spanish mackerel, fresh.....	20,000	2,000	49,950	3,623
Total.....	5,065,594	145,965	6,094,237	142,574	Trout, fresh.....	21,600	1,072	34,600	1,257
Gill nets:					Miscellaneous fish, fresh.....	390,200	19,406	428,500	21,305
Angel-fish, fresh.....	58,994	858	62,442	936	Total.....	2,019,494	77,486	1,930,315	75,298
Black bass, fresh.....	4,300	86	5,000	100	Miscellaneous:				
Bluefish, fresh.....	69,730	1,274	79,368	1,638	Sponges.....	114,138	126,350	140,913	155,631
Channel bass, fresh.....	264,881	3,836	277,851	4,063	Oysters.....	1,820,447	64,535	2,380,217	84,020
Crevalle, fresh.....	13,289	190	12,586	203	Qualogs.....	6,000	547	6,000	547
Drum, fresh-water, fresh.....	36,627	510	38,580	561	Terrapins.....	5,000	125	4,180	130
Drum, salt-water, fresh.....	79,641	1,148	87,457	1,316	Turtles.....	342,052	13,695	374,776	16,054
Flounders, fresh.....	13,897	185	15,746	220	Turtle eggs.....	6,000	900	6,625	994
Grunts, fresh.....	11,543	191	15,405	242	Tortoise shell.....	1,000	2,500	1,150	2,875
Jurel, fresh.....	27,147	450	27,726	471	Total.....	2,300,637	208,652	2,918,861	260,251
Mullet, fresh.....	6,990,020	79,969	8,208,456	84,881	Grand total.....	19,250,376	573,539	22,131,352	636,377
Mullet, salted.....	1,010,700	25,761	1,077,263	28,437					
Mullet, smoked.....	1,500	65	1,200	48					
Mullet roe, salted.....	35,096	1,898	43,212	2,019					
Pinfish, fresh.....	8,800	146	9,500	156					

The shore industries.—The branches of the fishing industry which are prosecuted on shore by the citizens of Florida are of considerable importance and consist of the wholesale trade in fresh and salt fish, the wholesale oyster trade, the oyster-canning industry, the wholesale sponge trade, the wholesale trade in green turtles, and the wholesale alligator trade. The extent of these is shown in the following tables. To avoid the exhibition of private interests it has been necessary to present the figures in a condensed form for the entire state instead of by counties.

The trade in fresh and salt fish is carried on in Mouroe, De Soto, Manatee, Hillsboro, Citrus, Levy, Franklin, and Escambia counties. The most extensive fresh-fish business is in Hillsboro and Escambia counties, at Tampa, St. Petersburg, and Pensacola. The salt-fish trade is most important in Franklin county, at Apalachicola, where about two-thirds of the salt fish are handled; there is also some trade in salt fish in Manatee, Hillsboro, Citrus, and Levy counties.

As shown in Table 23, the number of firms engaged in this business was 29 in 1889 and 31 in 1890. These had 127 employes the first year and 135 the next, exclusive of a small number of persons who gave more attention to other branches of the fishing industry and have been there included. The capital invested in the business amounted to over \$235,000, and the annual wages paid to employes was about \$35,000. The quantities of fresh and salt fish handled in 1890 aggregated 16,123,156 pounds, for which the dealers paid \$312,237 and received \$577,827, the gross profits being \$265,590.

23.—Table showing the wholesale fish trade of the west coast of Florida in 1889 and 1890.

Designation.	1889.	1890.
Number of firms.....	29	31
Number of persons employed.....	127	135
Value of property.....	\$79,949	\$89,139
Cash capital.....	\$143,550	\$146,650
Wages paid.....	\$34,440	\$34,650
Pounds of fresh fish handled.....	13,023,986	15,448,894
Value paid.....	\$242,216	\$294,772
Value received.....	\$465,000	\$551,815
Pounds of salt fish handled.....	628,000	674,262
Value paid.....	\$16,607	\$17,465
Value received.....	\$28,622	\$26,012
Enhancement in value.....	\$229,799	\$265,590

The oyster trade of the west coast of Florida is less extensive than that of any other Gulf State, but is nevertheless of considerable importance to the four counties (De Soto, Hillsboro, Levy, and Franklin) in which it is prosecuted. In Table 24 the most prominent features of the business are shown. Of the total number of firms, 3 in 1889 and 4 in 1890 were also engaged in other branches of the fishing industry. The number of persons actually employed in this trade was 32 in the first year and 42 in the second, but only those given in the table could be properly credited, as the others devoted more time and attention to other fishing business under which they have been included.

The oyster trade consists in the shipment of oysters in the shell and in the opening of oysters and the sale of the meats; the former business consumes more oysters, but the latter yields larger returns. In 1890, 83,466 bushels were handled, for which the dealers paid \$20,370. The oysters sold in the shells and in an opened state yielded \$47,609, so that the gross profits were \$27,239.

24.—Table showing the extent of the wholesale oyster trade of Florida in 1889 and 1890.

Designation.	1889.	1890.
Number of firms.....	8	10
Number of persons employed.....	17	19
Value of property.....	\$9, 095	\$9, 920
Cash capital.....	\$7, 000	\$8, 000
Wages paid.....	\$3, 980	\$4, 560
Oysters handled..... bushels..	82, 825	83, 466
Value paid.....	\$20, 099	\$20, 370
Oysters sold in the shell..... bushels..	43, 632	39, 020
Value.....	\$18, 025	\$16, 025
Oysters opened and sold..... gallons..	25, 380	33, 650
Value.....	\$27, 588	\$30, 984
Enhancement in value.....	\$26, 114	\$27, 239

At present the business of canning oysters is confined to Franklin County, which had one cannery in 1889 and two canneries in 1890. In the latter year 200,826 bushels of oysters were consumed in the preparation of 997,008 one-pound and two-pound cans. The cost of the raw products was \$38,471, and the market value of the canned goods was \$86,768. Other features of this industry are brought out in Table 25.

25.—Table showing the extent of the oyster-canning industry of the west coast of Florida in 1889 and 1890.

Designation.	1889.	1890.
Number of firms.....	1	2
Number of persons employed.....	91	122
Value of property.....	\$7, 150	\$9, 450
Cash capital.....	\$15, 000	\$20, 000
Wages paid.....	\$6, 886	\$10, 907
Oysters handled..... bushels..	134, 698	200, 826
Value paid.....	\$22, 450	\$38, 471
Oysters canned:		
One-pound cans..... number..	600, 432	919, 728
Two-pound cans..... do.....	52, 872	77, 280
Value as sold.....	\$50, 155	\$86, 768

The extent of the trade in green turtles is shown in Table 26. The business is carried on by five firms, in Monroe, De Soto, and Levy counties, the first and last each having two firms, only one of which devotes exclusive attention to the handling of turtles. The number of employes shown in the table represents only the persons who were connected with the firms having no other fishing business, and should be increased by five each year to cover those employed in two or more branches.

26.—Table showing the extent of the wholesale green-turtle trade of the west coast of Florida in 1889 and 1890.

Designation.	1889.	1890.
Number of firms.....	5	5
Number of persons employed.....	3	3
Value of property.....	\$400	\$400
Cash capital.....	\$3, 750	\$3, 600
Wages paid.....	\$350	\$350
Green turtles handled..... pounds..	252, 044	263, 471
Value paid.....	\$14, 479	\$15, 466
Value received.....	\$21, 886	\$22, 735
Enhancement in value.....	\$7, 407	\$7, 269

The sponge trade of Florida is one of the most important shore fishing industries. It is centered in Monroe, Wakulla, and Franklin counties, at Key West, St. Marks, and Apalachicola, and was carried on by 9 firms in 1889 and 10 in 1890, of which 6 and 7, respectively, were located in Key West. As will be seen from Table 27, 366,772 pounds of sponges were bought in 1890, for which \$438,682 was paid. In the same year 408,873 pounds, with a cost value of \$511,131, were sold, the price received being \$650,668. In explanation of the fact that in 1890 more sponges were sold than were bought, it should be stated that the bulk of the sponges is bought during November and December and is not ready for shipment until the early part of the following year; the difference in the quantities purchased and sold therefore represents the sponges held over from the preceding season's stock. In 1889, 316,559 pounds of sponges were bought at a cost of \$381,087, and there were sold 217,336 pounds, for which \$272,835 was paid and \$398,136 received. During this year the conditions were directly opposite to what they were in 1890, and, as has been shown, fewer sponges were sold than bought, the explanation being that a relatively small stock was carried over from the previous year and that a comparatively large part of the sponges bought in 1889 were held until the next year before being sold. The gross profits of the trade were \$125,301 in 1889 and \$139,537 in 1890.

During the last few years considerable quantities of Florida sponges have been exported to Europe, the value of the exports amounting to about \$50,000 annually. Prior to 1888 only a few hundred dollars' worth of Florida sponges were shipped abroad annually, practically the entire export trade from New York being in the cheaper grades of sponges from the Bahama Islands.

27.—Table showing the extent of the wholesale sponge trade of the west coast of Florida in 1889 and 1890.

Designation.	1889.	1890.
Number of firms.....	9	10
Number of persons employed.....	62	66
Value of property.....	\$43,965	\$49,040
Cash capital.....	\$249,500	\$257,500
Wages paid.....	\$35,140	\$39,725
Sponges bought..... pounds..	316,559	366,772
Value paid.....	\$381,087	\$438,682
Sponges sold..... pounds..	217,336	408,873
Value paid.....	\$272,835	\$511,131
Value received.....	\$398,136	\$650,668
Enhancement in value.....	\$125,301	\$139,537

The trade in alligator hides is confined to Lee, De Soto, and Manatee counties, by far the largest business being done in Lee County. The table shows that in 1889 39,435 hides and in 1890 46,077 hides passed through the hands of the seven dealers. In addition to the hides there is also a considerable trade in alligator feet, which are brought in by the hunters and given in exchange for provisions and other supplies. In 1889, 70,286 feet, with a nominal value of \$3,506, were handled, and in 1890, 84,110 feet, worth \$4,205. Whatever pecuniary advantage accrues to the dealers simply represents the usual profits on the goods given in exchange. Otter skins incidentally taken by the alligator hunters are also handled by the dealers; the number received was 825 in 1889 and 775 in 1890, for which the fishermen were paid \$1,912 and \$1,787, respectively.

28.—Table showing the extent of the wholesale alligator trade of the west coast of Florida in 1889 and 1890.

Designation.	1889.	1890.
Number of firms.....	7	7
Number of persons employed.....	11	11
Value of property.....	\$550	\$550
Cash capital.....	\$10,450	\$10,350
Wages paid.....	\$350	\$350
Alligator hides handled..... number	39,435	46,077
Value paid.....	\$30,103	\$33,484
Value received.....	\$35,924	\$39,258
Enhancement in value.....	\$5,821	\$5,774

III.—FISHERIES OF ALABAMA.

Geography of the coast.—The coast line of Alabama is much shorter than that of any other State in the Gulf region, being only 180 miles long, made up chiefly of Mobile Bay, the only indentation of importance in the shore of the State. The Mobile River enters the head of the bay, and is a stream of considerable size, formed by two main branches, the Tombigbee and Alabama rivers. The shores are low, and for the most part sandy and marshy. A number of islands occur off the coast, especially at the mouth of Mobile Bay and in the western part of the State. Mississippi Sound, a large body of water extending the entire length of Mississippi, occupies that portion of Alabama west of Mobile Bay, the sound and bay being connected by Grant Pass. The only fishing settlements on this coast of sufficient size to warrant special mention are Mobile, at the head of Mobile Bay, and Bon Secours, on the bay of the same name, which is an eastward prolongation of the lower part of Mobile Bay.

General importance of the fisheries.—Alabama is interested in the fisheries to a less extent than any other Gulf State, although in proportion to the length of coast line the value of the products compares very favorably with the other States in this region. Alabama has undergone a satisfactory increase in the past decade in the essential elements of capital invested and value of products, the advance amounting to 254.16 per cent and 29.84 per cent, respectively. The increase is chiefly due to the development of the oyster industry, which is probably destined to attain much greater proportions, as the natural advantages of the State for oyster-culture will doubtless be more appreciated and receive greater attention in the near future. A large number of edible fishes occur in the waters of the State, the most important of which are mullet, trout, croakers, pompano, channel bass, snappers, and Spanish mackerel.

General statistics.—Four tables show in a condensed form the extent of the fisheries of Alabama in 1889 and 1890; these relate to the number of persons employed, the nationalities represented among the fishermen, the capital invested, and the products.

From Table 29 it will be seen that of the 618 persons engaged in the fishing industry in 1890, 93 were employed in vessel fisheries, 416 in shore or boat fisheries, and 109 in factories, fish-houses, etc.

The American nationality very largely predominates among the fishermen of this State, as shown in Table 30. In 1890 there were 540 citizens of the United States and 78 foreigners, chiefly Spanish. The foreign element is found chiefly in the shore fisheries, is only sparingly present in the vessel fisheries, and is entirely absent from the shore industries.

The capital invested in the fisheries of Alabama in 1890 was \$135,290, of which \$31,810 represented vessels and their outfits, \$17,230 boats, \$11,550 apparatus used in taking products, and \$74,700 shore property and working capital. Seines are the most expensive means of capture, but tongs are the most numerous form.

The yield of the fisheries of Alabama in 1889 was 4,560,269 pounds, valued at \$146,841, and in 1890 4,776,968 pounds, worth \$154,871. Oysters are by far the most important product, \$96,758 in 1889 and \$107,812 in 1890 accruing from their sale. The most important species of fish taken are mullet and trout.

29.—Table of persons employed.

How engaged.	1889.	1890.
On vessels fishing	72	69
On vessels transporting	22	24
In shore fisheries	402	416
On shore, in fish-houses, etc	98	109
Total	594	618

30.—Table showing the nationality of persons engaged.

Nationalities.	Vessel fisher- men.		Shore fisher- men.		Shoresmen.		Total.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
American, white	86	86	321	335	45	48	452	469
American, colored	2	2	8	8	53	61	63	71
Spanish	1	.....	32	32	.....	.....	33	32
Italian .....	.....	.....	6	6	.....	.....	6	6
Portuguese	1	.....	9	9	.....	.....	10	9
Norwegian .....	.....	.....	2	2	.....	.....	2	2
Swedish	2	1	.....	.....	.....	.....	2	1
Malay .....	.....	.....	12	12	.....	.....	12	12
Others	2	4	12	12	.....	.....	14	16
Total	94	93	402	416	98	109	594	618

31.—Table of apparatus and capital.

Designation.	1889.		1890.	
	No.	Value.	No.	Value.
Vessels fishing	27	\$16,600	26	\$15,700
Tonnage	283.38	.....	268.47	.....
Outfit .....	.....	5,469	.....	5,545
Vessels transporting	11	7,900	12	9,000
Tonnage	101.17	.....	119.40	.....
Outfit .....	.....	1,594	.....	1,565
Boats	205	14,995	212	17,230
Apparatus of capture—vessel fisheries:	.....	.....	.....	.....
Seines	1	100	.....	.....
Lines .....	.....	50	.....	50
Tongs	69	446	65	405
Apparatus of capture—shore fisheries:	.....	.....	.....	.....
Seines	30	2,765	30	2,730
Trammel and gill nets	66	6,620	66	6,620
Cast nets	65	295	65	295
Set lines .....	.....	52	.....	52
Tongs	219	1,314	293	1,398
Shore property .....	.....	28,525	.....	29,100
Cash capital .....	.....	40,200	.....	45,600
Total .....	.....	120,925	.....	135,290

32.—Table of products.

Species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.
Angel-fish.....	6,525	\$65	5,168	\$52
Bluefish.....	57,612	1,242	55,700	1,213
Bream and sunfish.....	21,800	1,090	19,200	960
Catfish.....	37,700	945	37,600	940
Channel bass.....	63,919	2,458	54,464	2,242
Crevalle.....	13,100	458	10,000	351
Croakers.....	103,025	3,445	98,075	3,231
Drum, salt-water.....	7,400	222	7,000	210
Flounders.....	19,800	1,188	19,800	1,188
Groupers.....	9,750	195	11,250	225
Jurel.....	30,875	489	31,285	473
Lady-fish.....	12,850	129	12,920	129
Mullet.....	613,315	13,622	587,555	13,097
Pickrel.....	37,500	1,125	34,500	1,035
Pinfish.....	18,650	400	15,416	375
Pompano.....	17,825	2,674	17,178	2,577
Sailor's choice.....	3,600	126	2,800	98
Sheepshead.....	32,925	1,322	35,114	1,314
Silver perch.....	4,283	65	4,845	73
Snappers, red.....	51,000	2,040	62,375	2,495
Spanish mackerel.....	57,791	3,414	43,966	2,464
Spots.....	25,325	639	25,450	606
Trout.....	204,841	10,740	208,750	10,706
Whiting.....	4,283	64	4,307	65
Terrapins.....	5,000	1,120	4,700	940
Shrimp.....	30,000	600		
Oysters.....	*3,068,975	96,758	†3,367,490	107,812
Total.....	4,560,269	146,841	4,776,968	154,871

* 438,425 bushels.

† 481,070 bushels.

The fisheries by counties.—The coast of Alabama is occupied by the counties of Baldwin and Mobile, each of which has fishery interests of commercial importance; they are separated by Mobile Bay. The city of Mobile is in the county of the same name, and gives to it the lead which its fisheries take over those of Baldwin County.

Tables 33, 34, and 35, which follow, show the extent of the fisheries in these counties; they should be read in connection with other tables under the heads of "Fisheries by apparatus" and "The vessel and shore fisheries," in which additional figures for the counties are given.

33.—Table showing by counties the number of persons employed in the fisheries of Alabama in 1889 and 1890.

How engaged.	Baldwin.		Mobile.		Total.	
	1889.	1890.	1889.	1890.	1889.	1890.
On vessels fishing.....	47	44	25	25	72	69
On vessels transporting.....	2	4	20	20	22	24
In shore fisheries.....	165	173	237	243	402	416
On shore, in fish-houses, etc.....			98	109	98	109
Total.....	214	221	380	397	594	618

34.—Table showing by counties the apparatus and capital employed in the fisheries of Alabama in 1889 and 1890.

Designation.	Baldwin.				Mobile.				Total.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	18	\$11,500	17	\$10,700	9	\$5,100	9	\$5,000	27	\$16,600	26	\$15,700
Tonnage	176.44		165.02		106.94		103.45		283.38		268.47	
Outfit		3,427		3,329		2,042		2,216		5,469		5,545
Vessels transporting	1	800	2	1,600	10	7,100	10	7,400	11	7,900	12	9,000
Tonnage	8.53		19.38		100.67		100.02				119.40	
Outfit		244		400		1,350		1,165		1,594		1,565
Boats	80	7,040	84	8,100	125	7,995	128	9,130	205	14,905	212	17,230
Apparatus of capture— vessel fisheries:												
Seines	1	100							1	100		
Lines						50		50		50		50
Tongs	47	298	44	271	22	148	21	184	69	446	65	405
Apparatus of capture— shore fisheries:												
Seines	19	1,865	19	1,830	11	900	11	900	30	2,765	30	2,730
Trammel and gill nets.	42	4,220	42	4,220	24	2,400	24	2,400	66	6,620	66	6,620
Cast nets	35	175	35	175	30	120	30	120	65	295	65	295
Set lines		52		52						52		52
Tongs	30	180	38	228	189	1,134	195	1,170	219	1,314	233	1,398
Shore property		225		225		28,300		28,875		28,525		29,100
Cash capital						40,200		45,600		40,200		45,600
Total		30,126		31,130		96,799		104,160		120,925		135,260

35.—Table showing by counties and species the yield of the fisheries of Alabama in 1889 and 1890.

Species.	Baldwin.				Mobile.				Total.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish	6,525	\$65	5,168	\$52					6,525	\$65	5,168	\$52
Bluefish	57,612	1,242	55,760	1,213					57,612	1,242	55,760	1,213
Bream and sunfish..	5,800	290	5,000	250	16,000	\$800	14,200	\$710	21,800	1,090	19,200	960
Catfish	26,300	660	27,000	675	11,400	285	10,600	265	37,700	945	37,600	940
Channel bass	35,519	1,310	32,064	1,137	28,400	1,348	22,100	1,105	63,919	2,658	54,464	2,242
Crevalle	9,700	339	7,500	263	3,400	119	2,500	88	13,100	458	10,000	351
Croakers	86,425	2,864	82,575	2,688	10,600	581	15,500	543	103,025	3,445	98,075	3,231
Drum, salt-water	7,400	222	7,000	210					7,400	222	7,000	210
Flounders	18,400	1,104	18,600	1,116	1,400	84	1,200	72	19,800	1,188	19,800	1,188
Groupers					9,750	195	11,250	225	9,750	195	11,250	225
Jurel	30,875	489	31,285	473					30,875	489	31,285	473
Lady-fish	12,850	129	12,920	129					12,850	129	12,920	129
Mullet	428,715	9,006	409,955	8,657	184,600	4,616	177,600	4,440	613,315	13,622	587,555	13,097
Pickrel	37,500	1,125	34,500	1,035					37,500	1,125	34,500	1,035
Pinfish	18,650	406	15,416	375					18,650	406	15,416	375
Pompano	15,325	2,299	15,378	2,307	2,500	375	1,800	270	17,825	2,674	17,178	2,577
Sailor's choice	3,600	126	2,800	98					3,600	126	2,800	98
Sheepshead	16,025	561	20,114	639	10,900	761	15,000	675	32,925	1,322	35,114	1,314
Silver perch	4,283	65	4,845	73					4,283	65	4,845	73
Snappers, rod					51,000	2,040	62,375	2,495	51,000	2,040	62,375	2,495
Spanish mackerel..	49,391	2,154	36,466	1,339	8,400	1,260	7,500	1,125	57,791	3,414	43,966	2,404
Spots	21,825	534	22,250	510	3,500	105	3,200	96	25,325	639	25,450	606
Trout	138,341	7,220	146,750	7,498	66,500	3,520	62,000	3,208	204,841	10,740	208,750	10,706
Whiting	4,283	64	4,307	65					4,283	64	4,307	65
Shrimp	30,000	600							30,000	600		
Terrapins					5,600	1,120	4,700	940	5,600	1,120	4,700	940
Oysters	460,250	21,043	602,574	26,795	2,608,725	75,715	2,764,916	81,017	3,088,975	96,758	3,367,490	107,812
Total	1,525,594	53,017	1,600,527	57,507	3,034,675	92,924	3,176,441	97,274	4,560,269	146,841	4,776,968	154,871

The vessel and shore fisheries.—Under the head of "Fisheries by counties," the personnel and capital employed in the vessel and shore fisheries have been shown; in this place it only remains to consider the quantity and value of products accruing from each branch. The following tables show that in 1890 the vessel fisheries yielded 745,065 pounds of products, valued at \$29,098, and the shore fisheries 4,031,903 pounds, worth \$125,773. The vessel fisheries are chiefly for oysters and are much more important in Baldwin County than in Mobile County. In the shore fisheries, in which the proportion of fish to oysters is much greater than in the vessel fisheries, the yield is larger in Mobile County.

36.—Table showing by counties the yield of the vessel fisheries of Alabama in 1889 and 1890.

Species.	Baldwin.				Mobile.				Total.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Groupers					9,750	\$195	11,250	\$225	9,750	\$195	11,250	\$225
Snappers, red.					51,000	2,040	62,375	2,495	51,000	2,040	62,375	2,495
Shrimp	30,000	\$600							30,000	600		
Oysters	343,084	16,020	413,315	\$18,874	240,975	6,918	258,125	7,504	584,059	22,938	671,440	26,378
Total	373,084	16,620	413,315	18,874	301,725	9,153	331,750	10,224	674,809	25,773	745,065	29,098

37.—Table showing by counties and species the yield of the shore fisheries of Alabama in 1889 and 1890.

Species.	Baldwin.				Mobile.				Total.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish	6,525	\$65	5,168	\$52					6,525	\$65	5,168	\$52
Blufffish	57,612	1,242	55,760	1,213					57,612	1,242	55,760	1,213
Bream and sunfish.	5,800	290	5,000	250	16,000	\$800	14,200	\$710	21,800	1,090	19,200	960
Catfish	26,300	660	27,000	675	11,400	285	10,600	265	37,700	945	37,600	940
Channel bass	35,519	1,310	32,364	1,137	28,400	1,348	22,100	1,105	63,919	2,658	54,464	2,242
Crevalle	9,700	399	7,500	263	3,400	119	2,500	88	13,100	458	10,000	351
Croakers	86,425	2,864	82,575	2,688	16,600	581	15,500	543	103,025	3,445	98,075	3,231
Drum, salt-water	7,400	222	7,000	210					7,400	222	7,000	210
Flounders	18,400	1,104	18,600	1,116	1,400	84	1,200	72	19,800	1,188	19,800	1,188
Jurel	30,875	489	31,285	473					30,875	489	31,285	473
Lady-fish	12,850	129	12,920	129					12,850	129	12,920	129
Mullet	428,715	9,000	409,955	8,657	184,600	4,616	177,600	4,440	613,315	13,622	587,555	13,097
Pickrel	37,500	1,125	34,500	1,035					37,500	1,125	34,500	1,035
Pinfish	18,650	406	15,416	375					18,650	406	15,416	375
Pompano	15,325	2,299	15,378	2,307	2,500	375	1,800	270	17,825	2,674	17,178	2,577
Sailor's choice	3,600	126	2,800	98					3,600	126	2,800	98
Sheepshead	10,025	561	20,114	639	16,900	761	15,000	675	32,925	1,322	35,114	1,314
Silver perch	4,283	65	4,845	73					4,283	65	4,845	73
Spots	21,825	534	22,250	510	3,500	105	3,200	96	25,325	639	25,450	609
Spanish mackerel	49,391	2,154	36,466	1,339	8,400	1,260	7,500	1,125	57,791	3,414	43,966	2,464
Trout	138,341	7,220	146,750	7,498	66,500	3,520	62,000	3,208	204,841	10,740	208,750	10,760
Whiting	4,283	64	4,307	65					4,283	64	4,307	65
Terrapins					5,600	1,120	4,700	940	5,600	1,120	4,700	940
Oysters	117,166	5,023	189,259	7,921	2,367,750	68,797	2,506,791	73,513	2,484,916	73,820	2,696,050	81,434
Total	1,152,510	37,297	1,187,212	38,723	2,732,950	83,771	2,844,691	87,050	3,885,460	121,068	4,031,903	125,773

Fisheries by apparatus.—A table is next presented which shows, by counties, the quantities and values of products taken, with the various kinds of apparatus employed in the shore fisheries of the State. In the vessel fisheries only lines are used in the capture of fish, and tongs are the only other form of apparatus in use, although in 1889 one seine was employed in catching shrimp. The largest quantities of fish are taken

with seines; in 1890 the catch amounted to 767,353 pounds, valued at \$23,650. Gill nets and trammel nets in the same year took 508,300 pounds, worth \$18,362. The yield of cast nets is very small, being only 40,500 pounds in 1890, for which the fishermen received \$1,012. Lines, which are somewhat important in the vessel fishery, took only 15,000 pounds of catfish in the shore fishery. Besides fish proper, seines and gill nets took 4,700 pounds of terrapins, valued at \$940, the catch being nearly equally divided between the two kinds of apparatus.

38.—Table showing by counties and apparatus the yield of the shore fisheries of Alabama in 1889 and 1890.

Apparatus and species.	Baldwin.				Mobile.				Total.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Angel-fish.....	6,525	\$65	5,168	\$52					6,525	\$65	5,168	\$52
Bluefish.....	57,612	1,242	55,760	1,213					57,612	1,242	55,760	1,213
Bream and sun-fish:												
Bream.....	2,300	115	1,000	50	6,500	\$325	5,700	\$285	8,800	440	6,700	335
Catfish.....	3,800	95	2,000	50	11,400	285	10,600	265	15,200	380	12,600	315
Channel bass.....	29,319	1,040	26,864	892	15,800	718	11,600	580	45,119	1,758	38,464	1,472
Crevalle.....	6,200	217	5,000	175	3,400	119	2,500	88	9,600	336	7,500	263
Croakers.....	81,425	2,089	77,075	2,490	16,600	581	15,500	543	98,225	3,270	92,575	3,039
Drum, salt-water.....	3,400	102	2,500	75					3,400	102	2,500	75
Flounders.....	15,900	954	14,600	876	1,400	84	1,200	72	17,300	1,038	15,800	948
Jurel.....	30,875	489	31,285	473					30,875	489	31,285	473
Lady-fish.....	12,850	129	12,920	129					12,850	129	12,920	129
Mullet.....	241,715	4,331	219,455	3,895	65,700	1,643	62,400	1,560	307,415	5,974	281,855	5,455
Pickrel.....	2,500	75	1,500	45					2,500	75	1,500	45
Pinfish.....	16,150	281	12,416	325					16,150	281	12,416	325
Pompano.....	12,825	1,924	13,378	2,007	2,500	375	1,800	270	15,325	2,299	15,178	2,277
Sailor's choice.....	3,800	126	2,800	98					3,800	126	2,800	98
Sheepshead.....	14,025	471	17,614	527	10,500	473	9,400	423	24,525	944	27,014	950
Silver perch.....	4,283	65	4,845	73					4,283	65	4,845	73
Spanish mackerel.....	49,391	2,154	36,466	1,339	8,400	1,260	7,500	1,125	57,791	3,414	43,966	2,464
Spots.....	19,625	468	20,250	450	3,500	105	3,200	90	23,125	573	23,450	546
Trout.....	33,341	1,820	30,750	1,618	38,500	1,540	38,000	1,520	71,841	3,369	68,750	3,138
Whiting.....	4,283	64	4,307	65					4,283	64	4,307	65
Total.....	651,944	18,916	597,953	16,823	184,200	7,508	169,400	6,827	836,144	26,424	767,353	23,650
Trammel nets and gill nets:												
Bream and sun-fish:												
Bream.....	3,500	175	4,000	200	9,500	475	8,500	425	13,000	650	12,500	625
Catfish.....	8,500	215	10,000	250					8,500	215	10,000	250
Channel bass.....	6,200	270	5,500	245	12,600	690	10,500	525	18,800	900	16,000	770
Crevalle.....	3,500	122	2,500	88					3,500	122	2,500	88
Croakers.....	5,000	175	5,500	192					5,000	175	5,500	192
Drum, salt-water.....	4,000	120	4,500	135					4,000	120	4,500	135
Flounders.....	2,500	150	4,000	240					2,500	150	4,000	240
Mullet.....	175,000	4,375	180,000	4,500	87,400	2,185	85,200	2,180	262,400	6,560	265,200	6,630
Pickrel.....	35,000	1,050	33,000	990					35,000	1,050	33,000	990
Pinfish.....	2,500	125	3,000	150					2,500	125	3,000	150
Pompano.....	2,500	375	2,000	300					2,500	375	2,000	300
Sheepshead.....	2,000	90	2,500	112	6,400	288	5,600	252	8,400	378	8,100	364
Spots.....	2,200	66	2,000	60					2,200	66	2,000	60
Trout.....	105,000	5,400	116,000	5,880	28,000	1,980	24,000	1,688	133,000	7,380	140,000	7,568
Total.....	357,400	12,708	374,500	13,342	143,900	5,558	133,800	5,020	501,300	18,266	508,300	18,362
Cast nets:												
Mullet.....	12,000	300	10,500	262	31,500	788	30,000	750	43,500	1,088	40,500	1,012
Lines:												
Catfish.....	14,040	350	15,000	375					14,000	350	15,000	375
Miscellaneous:												
Terrapins.....					5,600	1,120	4,700	940	5,600	1,120	4,700	940
Oysters.....	117,166	5,023	189,259	7,921	2,387,750	68,797	2,506,791	73,513	2,484,916	73,820	2,690,050	81,434
Total.....	117,166	5,023	189,259	7,921	2,373,350	69,917	2,511,491	74,453	2,490,516	74,940	2,700,750	82,374
Grand total.....	1,162,500	37,297	1,187,212	38,723	2,732,950	83,771	2,844,691	87,050	3,885,460	121,068	4,031,903	125,773

The shore industries.—Two shore branches of the fishing business occupy the attention of the people of Alabama; these are the wholesale trades in oysters and fish, which are carried on at Mobile.

The wholesale oyster trade consists of several branches: the shipment of oysters in the shell; the shucking of oysters for shipment in ice in buckets, half-barrels, barrels, etc., and the packing of shucked oysters in hermetically sealed buckets, holding from 1 to 4 quarts. As shown in Table 39, eight firms were engaged in the oyster trade in 1889 and 1890. These handled 78,076 barrels of shell oysters in 1890, for which \$80,292 was paid; the shell and opened oysters sold for \$132,627, giving \$52,335 as the gross profits of the industry. Other details of the business are brought out in Table 39.

The fish trade was engaged in by four firms in 1889 and 1890. In the latter year 2,348,270 pounds of fish were purchased, at a cost of \$123,838; these were sold for \$165,503, so that the gross profits of the business were \$41,665. Other features of this branch are shown in Table 40. Some firms devote attention to both oysters and fish, and in the separation of these two trades in the tables it has been necessary to make an arbitrary division of persons and property. The tables should therefore be considered conjointly.

39.—Table showing the wholesale oyster trade of Alabama in 1889 and 1890.

Designation.	1889.	1890.
Number of firms	8	8
Number of employes	85	95
Value of property	\$19,600	\$20,050
Cash capital	\$19,200	\$23,100
Wages paid to shuckers and others ..	\$24,969	\$28,454
Oysters handled:		
"Reefers"	50,797	58,825
Value paid	\$44,178	\$50,001
"Cullings"	7,815	9,113
Value paid	\$8,597	\$10,015
"Plants"	8,655	10,138
Value paid	\$17,110	\$20,276
• Total	67,267	78,076
Value paid	\$69,885	\$80,292
Value of products as sold	\$116,960	\$132,627
Enhancement in value	\$47,075	\$52,335

40.—Table showing the wholesale fish trade of Alabama in 1889 and 1890.

Designation.	1889.	1890.
Number of firms	4	4
Number of employes	13	14
Value of property	\$8,725	\$8,850
Cash capital	\$21,000	\$22,500
Wages paid	\$3,904	\$4,067
Fish handled	2,039,520	2,348,270
Value paid	\$108,287	\$123,838
Value paid	\$146,186	\$165,508
Enhancement in value	\$37,899	\$41,665

IV.—FISHERIES OF MISSISSIPPI.

Geographical features of the coast.—Mississippi is the middle member of the tier of five States having frontage on the Gulf of Mexico. Its coast line, which is about 215 miles in length, is shorter than any of the other States except Alabama. The shores are low throughout, sandy in places, but generally marshy, and are broken by a number of small indentations, the most important of which are Point Aux Chenes Bay, Pascagoula Bay, Biloxi Bay, and St. Louis Bay. Each of these receives the water of a large number of minor streams. At a distance of about 10 miles the shore is skirted by a line of small, mostly low, islands, which have an important bearing on the fisheries of the region. Between the islands and the mainland is Mississippi Sound, which extends the entire length of the State, terminating on the west in Lake Borgne, Louisiana, and on the east at the mouth of Mobile Bay, Alabama. It is noted for its oyster beds and is the fishing-ground chiefly frequented by the Mississippi fishermen.

The settlements on the coast are Pascagoula, Scranton, Ocean Springs, Biloxi, Beauvoir, Mississippi City, Pass Christian, and Bay St. Louis, all of which are more or less interested in the fisheries.

General importance of the fisheries.—Taking the value of the fishery products as a basis, Mississippi ranks third among the Gulf States, being surpassed by Florida and Louisiana. In 1880 it occupied the fifth position. The State has had a phenomenal increase in its fishery interests since 1880, and no other State in this region or in the country has advanced in greater relative ratio. As shown in Section I of this report, the number of persons engaged in the fishing industry has increased 825.27 per cent; the capital devoted to the business has increased 4,839.89 per cent, and the value of the products has increased 990.06 per cent. The fishery resources of the State, especially the waters for oyster-culture, are still capable of much development, and the history of the past decade indicates that in a short time Mississippi will become one of the foremost oyster-producing States.

General statistics.—The extent of the commercial fisheries of Mississippi in 1889 and 1890 is shown in the following tables.

Table 41 shows 1,809 persons employed in the fisheries in 1889 and 1,721 in 1890, of whom more than half each year were employed on shore, in canneries, packing-houses, etc. The vessel fisheries are seen to have required the services of much fewer men than the shore or boat fisheries.

The nationality of the persons employed in the fisheries of the State was chiefly American, as shown in Table 42, only 78 persons in 1890 being aliens. Of the Americans, about one-fifth are colored people, who are chiefly employed on shore. The largest number of foreigners obtain employment on the vessels and none are found in the shore industries.

The capital invested in the fisheries of this State, as shown in Table 43, was \$455,300 in 1889 and \$434,710 in 1890. The investment is made up largely of shore property and cash capital employed in the canning and other related branches. Sixty-two vessels engaged in the fisheries in 1890; these, with their outfits, had a value of

\$48,759. The number of boats in use was 257, worth \$13,395. The apparatus of capture consisted of seines, tongs, gill nets, trammel nets, cast nets, and lines, and was valued at \$10,485.

The yield of the fisheries in 1889 was 8,933,339 pounds and in 1890 8,131,401 pounds, valued at \$250,884 and \$245,699, respectively. Oysters are by far the most important product, constituting two-thirds the quantity and value of the entire output of the State. Of the fish proper, the sea trout or squeteague is the most valuable, although the mullet is taken in larger numbers. Next to the trout, the value of shrimps is greater than any other single species.

41.—Table of persons employed.

How engaged.	Number.	
	1889.	1890.
In vessel fisheries	191	203
In shore fisheries	553	487
On shore, in fish-houses, etc.....	1,065	1,031
Total	1,809	1,721

42.—Table showing the nationality of persons employed.

Nationalities.	In vessel fisheries.		In shore fisheries.		On shore, in fish-houses, etc.		Total.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
American, white.....	166	170	474	402	776	765	1,416	1,337
American, colored.....	1	.....	43	40	289	266	333	306
Spanish.....	.....	.....	27	28	.....	.....	27	28
Portuguese.....	8	6	3	6	.....	.....	11	12
French.....	4	4	1	1	.....	.....	5	5
Norwegian.....	5	4	5	5	.....	.....	10	9
Swedish.....	1	3	.....	5	.....	.....	1	8
Austrian.....	5	5	.....	.....	.....	.....	5	5
Others.....	1	11	.....	.....	.....	.....	.....	11
Total.....	191	203	553	487	1,065	1,031	1,809	1,721

43.—Table of apparatus and capital.

Designation.	1889.		1890.	
	No.	Value.	No.	Value.
Vessels fishing.....	59	\$34,525	61	\$34,950
Tonnage.....	541.52	.....	557.46	.....
Outfit.....	.....	11,658	.....	12,334
Vessels transporting.....	.....	.....	1	1,450
Tonnage.....	.....	.....	12.56	.....
Outfit.....	.....	.....	.....	25
Boats.....	275	14,685	257	13,395
Apparatus of capture—vessel fisheries:	.....	.....	.....	.....
Seines.....	33	2,255	33	2,350
Tongs.....	192	1,407	201	1,462
Apparatus of capture—shore fisheries:	.....	.....	.....	.....
Seines.....	59	5,070	47	4,330
Trammel and gill nets.....	32	1,160	15	555
Cast nets.....	41	263	8	48
Lines.....	.....	3	.....	3
Tongs.....	323	2,003	278	1,737
Shore property.....	.....	119,821	.....	110,771
Cash capital.....	.....	262,450	.....	251,300
Total.....	.....	455,300	.....	434,710

44.—Table of products

Species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.
Angel-fish	23,500	\$774	29,350	\$1,019
Black bass	5,200	200	6,000	300
Bluefish	90,300	4,515	95,900	4,595
Bream and sunfish	85,200	3,522	89,100	3,600
Buffalo-fish	107,600	1,076	121,700	1,217
Catfish	88,450	1,687	93,400	1,794
Channel bass	184,700	8,277	201,300	8,757
Croakers	53,950	1,353	57,325	1,465
Drum, salt-water	2,500	125	3,200	160
Flounders	70,100	2,754	76,550	3,097
Mullet	721,593	7,000	305,400	3,479
Pickrel	12,300	492	14,750	590
Pinfish	54,700	1,585	55,200	1,593
Pompano	14,025	1,544	14,875	1,637
Sea bass	24,500	1,151	23,060	1,065
Sheepshead	155,700	6,897	173,200	7,870
Spanish mackerel	43,575	2,956	46,500	3,150
Spots	45,075	1,352	45,885	1,375
Trout	370,450	17,163	372,100	17,506
Crabs, hard	48,000	1,307	32,560	1,307
Crabs, soft	19,200	640	14,600	730
Shrimp	794,200	16,741	613,500	12,622
Oysters	*5,918,521	167,713	†5,645,346	166,672
Total	8,933,330	250,884	8,131,401	245,099

* 845,503 bushels.

† 806,478 bushels.

The fisheries by counties.—Three counties occupy the shore line of Mississippi, each of which is interested in the prosecution of commercial fisheries; these are Jackson, Harrison, and Hancock. In Tables 45, 46, and 47, the extent of the fisheries in each of these counties is shown in detail. In other tables which follow, under the captions "The vessel and shore fisheries" and "Fisheries by apparatus," figures giving additional phases of the fisheries in each county are presented.

In Harrison County, in which the important fishing centers, Biloxi and Mississippi City, are located, the fisheries are much more extensive than elsewhere in the State. The tables show that about two-thirds of the persons engaged, three-fourths of the capital invested, and one-half of the value of products taken are to be credited to Harrison County.

45.—Table showing by counties the number of persons employed in the fisheries of Mississippi in 1889 and 1890.

How engaged.	Jackson.		Harrison.		Hancock.		Total.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
In vessel fisheries	30	30	147	158	14	15	191	203
In shore fisheries	128	132	323	257	102	98	553	487
On shore, in factories, fish-houses, etc.	74	81	924	883	67	67	1,065	1,031
Total	232	243	1,394	1,298	183	180	1,800	1,721

46.—Table showing by counties the number and value of vessels, boats, apparatus, etc., employed in the fisheries of Mississippi in 1889 and 1890.

Designation.	Jackson.				Harrison.			
	1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	8	\$4,950	8	\$4,900	47	\$28,225	48	\$27,500
Tonnage	88.17		88.17		413.40		415.78	
Outfit		1,782		1,500		8,966		9,850
Vessels transporting only							1	1,450
Tonnage							12.56	
Outfit								25
Boats	54	3,140	56	3,250	176	7,995	158	6,945
Apparatus of capture— vessel fisheries:								
Seines	5	260	5	250	27	1,960	27	2,050
Tongs	30	223	30	230	147	1,069	153	1,096
Apparatus of capture— shore fisheries:								
Seines	11	990	11	925	42	3,480	30	2,805
Trammel nets and gill nets	3	210	3	200	29	950	12	355
Cast nets					41	263	8	48
Lines						3		3
Tongs	81	525	82	522	164	1,010	122	770
Shore property		10,425		12,450		96,396		85,271
Cash capital		15,500		17,200		219,100		206,150
Total		38,005		41,427		369,417		344,318

Designation.	Hancock.				Total.			
	1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	4	\$1,350	5	\$2,550	59	\$34,525	61	\$34,950
Tonnage	39.95		53.51		544.52		557.46	
Outfit		910		984		11,658		12,334
Vessels transporting only							1	1,450
Tonnage							12.56	
Outfit								25
Boats	45	3,550	43	3,200	275	14,685	257	13,395
Apparatus of capture—ves- sel fisheries:								
Seines	1	35	1	50	33	2,255	33	2,350
Tongs	15	115	18	136	192	1,407	201	1,462
Apparatus of capture— shore fisheries:								
Seines	6	600	6	600	59	5,070	47	4,330
Trammel nets and gill nets					32	1,160	15	555
Cast nets					41	263	8	48
Lines						3		3
Tongs	78	468	74	445	323	2,003	278	1,737
Shore property		13,000		13,050		119,821		110,771
Cash capital		27,850		27,950		262,450		251,300
Total		47,878		48,965		455,300		434,710

47.—Table showing by counties the yield of the fisheries of Mississippi in 1889 and 1890.

Species.	Jackson.				Harrison.			
	1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish	15,900	\$318	18,550	\$371	7,600	\$456	10,800	\$648
Black bass					5,200	260	6,000	300
Bluefish	45,100	2,255	49,700	2,485	23,200	1,160	25,000	1,250
Bream and sunfish	44,300	1,844	49,600	1,984	17,700	750	17,000	725
Buffalo-fish	107,600	1,076	121,700	1,217				
Catfish	40,950	737	46,300	852	23,000	460	22,000	440
Channel bass	75,300	3,012	78,400	2,736	66,400	3,543	79,000	4,265
Croakers	42,650	853	44,025	880	11,300	500	13,300	585
Drum, salt-water					2,500	125	3,200	160
Flounders	28,400	1,056	32,750	1,310	20,200	838	20,000	835
Mullet	133,300	1,333	140,200	1,402	525,093	5,035	97,500	1,400
Pickrel	12,300	492	14,750	590				
Pinfish	14,400	369	15,800	400	28,500	802	28,600	860
Pompano	4,700	405	4,775	477	3,175	404	3,500	500
Sea bass	5,800	410	5,660	441	5,500	275	4,200	210
Sheepshead	68,700	2,748	69,900	2,796	63,500	3,209	74,400	3,018
Spanish mackerel	13,975	840	15,600	876	15,000	1,240	15,800	1,368
Spots	17,575	527	19,985	598	13,400	402	12,500	875
Trout	245,950	10,363	246,500	10,066	90,500	5,100	91,200	5,210
Crabs, hard	4,800	120	3,200	120	36,300	1,014	23,400	666
Crabs, soft	5,400	180	3,200	160	1,800	60	1,600	80
Shrimp	185,400	3,704	196,900	3,792	563,300	12,179	375,000	8,000
Oysters	1,076,754	34,435	1,168,202	39,123	3,845,674	106,495	3,851,516	97,278
Total	2,189,254	67,137	2,345,697	73,276	5,368,842	144,427	4,275,576	129,382

Species.	Hancock.				Total.			
	1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish					23,500	\$774	29,350	\$1,019
Black bass					5,200	260	6,000	300
Bluefish	22,000	\$1,100	21,200	\$860	90,300	4,515	95,900	4,595
Bream and sunfish	23,200	928	22,500	900	85,200	3,522	89,100	3,609
Buffalo-fish					107,600	1,076	121,700	1,217
Catfish	24,500	490	25,100	502	88,450	1,687	93,400	1,794
Channel bass	43,000	1,722	43,900	1,756	184,700	8,277	261,300	8,757
Croakers					53,950	1,953	57,325	1,465
Drum, salt-water					2,500	125	3,200	160
Flounders	21,500	860	23,800	952	70,100	2,754	76,550	3,097
Mullet	63,200	632	67,700	677	721,593	7,000	305,400	3,479
Pickrel					12,300	492	14,750	590
Pinfish	11,800	354	10,800	324	54,700	1,585	55,200	1,593
Pompano	6,150	615	6,600	660	14,025	1,544	14,875	1,637
Sea bass	13,200	466	13,800	414	24,500	1,151	23,600	1,065
Sheepshead	23,500	940	28,900	1,156	155,700	6,897	173,200	7,870
Spanish mackerel	14,600	876	15,100	906	43,575	2,956	40,500	3,150
Spots	14,100	423	13,400	402	45,075	1,352	45,885	1,375
Trout	34,000	1,700	34,400	1,720	370,450	17,163	372,100	17,586
Crabs, hard	6,900	173	5,900	221	48,000	1,307	32,560	1,307
Crabs, soft	12,000	400	9,800	490	19,200	640	14,000	730
Shrimp	45,500	858	41,600	830	794,200	16,741	613,500	12,622
Oysters	996,093	26,783	1,125,628	30,271	5,918,521	167,713	5,645,346	166,672
Total	1,375,243	39,320	1,510,128	43,041	8,933,339	250,884	8,131,401	245,699

The vessel and shore fisheries.—The persons and property belonging to each of these branches have been shown in previous tables, so that it is only necessary in this place to consider the quantity and value of products accruing from each.

The fisheries prosecuted with vessels are much less extensive than those carried on with small boats. The fishing-grounds are so close to the shores that the use of vessels is not so necessary as if long voyages in the open gulf had to be made; and the trouble and expense incident to the customs regulations deter many fishermen from having craft of over 5 tons unless they are absolutely required by the nature of the fishing. In 1889 the species taken with vessels consisted of mullet, shrimp, and oysters, but in 1890 no mullet were obtained, the vessel fishery for that fish being only irregularly followed. As shown in Table 48, the vessel fisheries in 1889 yielded 3,183,006 pounds, valued at \$68,773, and in 1890, 2,899,323 pounds, worth \$72,234. Oysters constitute the great bulk of the output; in 1889 2,459,863 pounds (351,409 bushels), with a market value of \$57,559, were taken, and in the following year 2,760,723 pounds (394,389 bushels), worth \$69,610, were sold. The extent of the vessel fisheries in each county is also exhibited in the table; their importance in Harrison County is seen to greatly excel that of the other two counties combined.

The products of the boat or shore fisheries are given in Table 49. The aggregate catch in 1889 was 5,750,333 pounds, valued at \$182,111, and in 1890 was 5,232,078 pounds, valued at \$173,465. As in the vessel fisheries, oysters constitute the most important part of the yield; in 1889, 3,458,658 pounds of meats (equivalent to 494,094 bushels), worth \$110,154, and in 1890, 2,884,623 pounds of meats (equal to 412,089 bushels), valued at \$97,062, were taken. The general tendency of the shore oyster fishery in recent years has been toward a substantial increase, but, as shown in the table, there was a diminution in the output in 1890 as compared with 1889 of 82,005 bushels. This was due to a depletion of the oyster beds by freshets. The other most noticeable species in the shore fisheries, in the order of their importance, are trout, shrimp, channel bass, and sheephead.

Harrison County leads in the importance of its shore fisheries as well as in its vessel fisheries, although the other counties have extensive interests.

48.—Table showing by species and counties the yield of the vessel fisheries of Mississippi in 1889 and 1890.

Species.	Jackson.				Harrison.			
	1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Mullet.....	38,600	\$768	49,000	\$834	271,343	\$2,171	80,000	\$1,600
Shrimp.....	379,225	9,580	403,004	11,632	402,800	8,119	2,077,642	50,985
Oysters.....					1,871,779	42,979		
Total.....	417,825	10,348	452,004	12,467	2,545,922	53,269	2,157,642	52,585
Species.	Hancock.				Total.			
	1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Mullet.....	10,400	\$156	9,600	\$190	271,343	\$2,171		
Shrimp.....	208,859	5,000	280,077	6,992	451,800	9,043	138,600	\$2,624
Oysters.....					*2,459,863	57,559	†2,760,723	69,610
Total.....	219,259	5,156	289,677	7,182	3,183,006	68,773	2,899,323	72,234

* 351,409 bushels.

† 394,389 bushels.

49.—Table showing by counties and species the yield of the shore fisheries of Mississippi in 1889 and 1890.

Species.	Jackson.				Harrison.			
	1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish	15,900	\$318	18,550	\$371	7,600	\$456	10,800	\$648
Black bass					5,200	260	6,000	300
Bluefish	45,100	2,255	49,700	2,485	23,200	1,160	25,000	1,250
Bream and sunfish	44,300	1,844	49,600	1,984	17,700	750	17,000	725
Buffalo-fish	107,600	1,076	121,700	1,217				
Catfish	40,950	737	46,300	852	23,000	460	22,000	440
Channel bass	75,300	3,012	78,400	2,736	66,400	3,543	79,000	4,265
Croakers	42,650	853	44,025	880	11,300	500	13,300	585
Drum, salt-water					2,500	125	3,200	160
Flounders	28,400	1,056	32,750	1,310	20,200	838	20,000	835
Mullet	133,300	1,333	140,200	1,402	253,750	2,864	97,500	1,400
Pickrel	12,300	492	14,750	590				
Pinfish	14,400	369	15,800	400	28,500	862	28,600	869
Pompano	4,700	465	4,775	477	3,175	464	3,500	500
Sea bass	5,800	410	5,660	441	5,500	275	4,200	210
Sheepshead	68,700	2,748	69,900	2,796	63,500	3,209	74,400	3,918
Spanish mackerel	13,975	840	15,600	876	15,000	1,240	15,800	1,368
Spots	17,575	527	19,985	598	13,400	402	12,500	375
Trout	245,950	10,363	246,500	10,666	90,500	5,100	91,200	5,210
Crabs, hard	4,800	120	3,200	120	36,300	1,014	23,460	966
Crabs, soft	5,400	180	3,200	160	1,800	60	1,600	80
Shrimp	146,800	2,936	147,900	2,958	160,500	4,060	295,000	6,400
Oysters	697,529	24,855	765,198	27,490	1,973,895	63,516	1,273,874	46,293
Total	1,771,420	56,789	1,893,693	60,809	2,822,920	91,158	2,117,934	76,797

Species.	Hancock.				Total.			
	1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Angel-fish					23,500	\$774	29,350	\$1,019
Black bass					5,200	260	6,000	300
Bluefish	22,000	\$1,100	21,200	\$860	90,300	4,515	95,900	4,505
Bream and sunfish	23,200	928	22,500	900	85,200	3,522	89,100	3,609
Buffalo-fish					107,600	1,076	121,700	1,217
Catfish	24,500	490	25,100	502	88,450	1,687	93,400	1,794
Channel bass	40,900	1,722	43,900	1,756	184,700	8,277	201,300	8,757
Croakers					53,950	1,353	57,325	1,465
Drum, salt-water					2,500	125	3,200	160
Flounders	21,500	800	23,800	952	70,100	2,754	76,550	3,097
Mullet	63,200	632	67,700	677	450,250	4,829	305,400	3,479
Pickrel					12,300	492	14,750	590
Pinfish	11,800	354	10,800	324	54,700	1,585	55,200	1,593
Pompano	6,150	615	6,600	660	14,025	1,544	14,875	1,637
Sea bass	13,200	466	13,800	414	24,500	1,151	23,660	1,065
Sheepshead	23,500	940	28,900	1,156	155,700	6,897	173,200	7,870
Spanish mackerel	14,600	876	15,100	906	43,575	2,950	46,500	3,150
Spots	14,100	423	13,400	402	45,075	1,352	45,885	1,375
Trout	34,000	1,700	34,400	1,720	370,450	17,163	372,100	17,593
Crabs, hard	6,900	173	5,900	221	48,000	1,307	32,500	1,307
Crabs, soft	12,000	400	9,800	490	19,200	640	14,000	730
Shrimp	35,100	702	32,000	640	342,400	7,698	474,900	9,998
Oysters	787,234	21,783	845,551	23,279	3,458,658	110,154	2,884,623	97,062
Total	1,155,984	34,164	1,220,451	35,859	5,750,333	182,111	5,232,078	173,465

Fisheries by apparatus.—In the following table the quantities and values of products taken with the different means of capture are shown in detail, by counties. In the vessel fisheries the species taken are so few and the apparatus so limited that no separate exhibition of this nature is required; but in the shore fisheries it is a matter of some interest to know the actual and relative importance of the different nets used in the capture of fish and other animals.

Considering fish proper, it is seen that the largest quantities are obtained with seines, which are credited with 1,599,645 pounds, valued at \$55,087, in 1890; the total catch of fish in that year being 1,825,195 pounds, worth \$64,368. Gill nets and trammel nets, the next important apparatus, took 220,750 pounds, with a market value of \$9,185; and by means of lines only 4,800 pounds, worth \$96, were obtained. In 1889, cast nets secured 20,000 pounds of mullet, valued at \$200, but in the next year this means of capture was not employed in taking fish.

Seines are also used in the shrimp and crab fisheries, although some of the shrimp are caught in cast nets, and a small proportion of the crabs are taken with lines. Oysters, the only remaining product, are taken with tongs, which are the most productive apparatus in the State, 412,089 bushels, worth \$97,062, being obtained in this way.

50.—Table showing by apparatus and species the yield of the shore fisheries of Mississippi in 1889 and 1890.

Apparatus and species.	Jackson.				Harrison.			
	1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:								
Angel-fish.....	15,900	\$318	18,550	\$371	7,000	\$456	10,800	\$648
Bluefish.....	45,100	2,255	49,700	2,485	23,200	1,160	25,000	1,250
Bream and sunfish.....	12,700	580	13,800	552	13,500	540	12,500	500
Buffalo-fish.....	107,600	1,076	121,700	1,217	.....	.....	.....	.....
Catfish.....	40,950	737	40,300	852	18,500	370	17,200	344
Channel bass.....	75,300	3,012	78,400	2,736	56,700	3,058	68,500	3,740
Croakers.....	42,050	853	44,025	880	6,500	260	8,000	320
Flounders.....	28,400	1,056	32,750	1,310	17,200	688	16,500	660
Mullet.....	133,300	1,333	140,200	1,402	144,175	1,468	57,500	600
Pinfish.....	14,400	369	15,800	400	22,800	748	22,700	751
Pompano.....	4,700	465	4,775	477	3,175	464	3,500	500
Sea bass.....	5,800	410	5,600	441	5,500	275	4,200	210
Sheepshead.....	68,700	2,748	69,900	2,796	60,000	3,034	70,000	3,708
Spanish mackerel.....	13,975	840	15,600	876	15,000	1,240	15,800	1,368
Spots.....	17,575	527	19,985	598	13,400	402	12,500	375
Trout.....	175,000	6,906	168,900	6,756	82,500	4,700	81,700	4,735
Total.....	802,050	23,485	846,045	24,149	489,750	18,863	426,400	19,709
Trammel nets and gill nets:								
Black bass.....	.....	.....	.....	.....	5,200	260	6,000	300
Bream and sunfish.....	31,600	1,264	35,800	1,432	4,200	210	4,500	225
Channel bass.....	.....	.....	.....	.....	9,700	485	10,500	525
Croakers.....	.....	.....	.....	.....	4,800	240	5,300	265
Drum, salt-water.....	.....	.....	.....	.....	2,500	125	3,200	160
Flounders.....	.....	.....	.....	.....	3,000	150	3,500	175
Mullet.....	.....	.....	.....	.....	89,575	1,196	40,000	800
Pickrel.....	12,300	492	14,750	590	.....	.....	.....	.....
Pinfish.....	.....	.....	.....	.....	5,700	114	5,900	118
Sheepshead.....	.....	.....	.....	.....	3,500	175	4,200	210
Trout.....	70,950	3,457	77,600	3,910	8,000	400	9,500	475
Total.....	114,850	5,213	128,150	5,932	136,175	3,355	92,600	3,253
Cast nets:								
Mullet.....	.....	.....	.....	.....	20,000	200	.....	.....
Lines:								
Catfish.....	.....	.....	.....	.....	4,500	90	4,800	96
Miscellaneous:								
Crabs, hard.....	4,800	120	3,200	160	36,300	1,014	1,600	80
Crabs, soft.....	5,400	180	3,200	120	1,800	60	23,460	966
Shrimp.....	146,800	2,936	147,900	2,958	160,500	4,060	295,000	6,400
Oysters.....	697,529	24,855	765,198	27,490	1,973,895	63,516	1,273,874	46,293
Total.....	854,529	28,091	919,498	30,728	2,172,495	68,650	1,593,934	53,739
Grand total.....	1,771,429	56,789	1,893,693	60,809	2,822,920	91,158	2,117,734	76,797

50.—Table showing by apparatus and species the yield of the shore fisheries of Mississippi in 1889 and 1890—Continued.

Apparatus and species.	Hancock.				Total for State.			
	1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:								
Angel-fish.....					23,500	\$774	29,450	\$1,019
Bluefish.....	22,000	\$1,100	21,200	\$860	90,300	4,515	95,900	4,595
Bream and sunfish.....	23,200	928	22,500	900	49,400	2,048	48,800	1,952
Buffalo-fish.....					107,600	1,076	121,700	1,217
Catfish.....	24,500	490	25,100	502	83,950	1,597	88,600	1,698
Channel bass.....	43,000	1,722	43,900	1,756	175,000	7,792	190,800	8,232
Croakers.....					49,150	1,113	52,025	1,200
Flounders.....	21,500	860	23,800	952	67,100	2,604	73,050	2,922
Mullet.....	63,200	632	67,700	677	340,675	3,433	265,400	2,679
Pinfish.....	11,800	354	10,800	324	49,000	1,471	49,300	1,475
Pompano.....	6,150	615	6,600	660	14,025	1,544	14,875	1,637
Sea bass.....	13,200	466	13,800	414	24,500	1,151	23,660	1,065
Sheepshead.....	23,500	940	28,900	1,156	152,200	6,722	163,800	7,060
Spanish mackerel.....	14,600	876	15,100	906	43,575	2,956	46,500	3,150
Spots.....	14,100	423	13,400	402	45,075	1,352	45,885	1,375
Trout.....	34,000	1,700	34,400	1,720	291,500	13,306	285,000	13,211
Total.....	314,750	11,106	327,200	11,229	1,606,550	53,454	1,599,645	55,087
Trammel nets and gill nets:								
Black bass.....					5,200	260	6,000	300
Bream and sunfish.....					35,800	1,474	40,300	1,637
Channel bass.....					9,700	485	10,500	525
Croakers.....					4,800	240	5,300	265
Drum, salt-water.....					2,500	125	3,200	160
Flounders.....					3,000	150	3,500	175
Mullet.....					89,575	1,196	40,000	800
Pickercel.....					12,300	492	14,750	590
Pinfish.....					5,700	114	5,900	118
Sheepshead.....					3,500	175	4,200	210
Trout.....					78,950	3,857	87,100	4,385
Total.....					251,025	8,508	220,750	9,185
Cast nets:								
Mullet.....					20,000	200		
Lines:								
Catfish.....					4,500	90	4,800	96
Miscellaneous:								
Crabs, hard.....	6,900	173	9,800	490	48,000	1,307	14,600	730
Crabs, soft.....	12,000	400	5,900	221	19,200	640	32,560	1,307
Shrimp.....	35,100	702	32,000	640	342,400	7,698	474,900	9,998
Oysters.....	787,234	21,783	845,551	23,279	*3,458,658	110,154	†2,884,623	97,062
Total.....	841,234	23,058	893,251	24,030	3,886,258	119,799	3,406,683	109,097
Grand total.....	1,155,984	34,164	1,220,451	35,859	5,760,333	182,111	5,231,878	173,405

* 494,094 bushels.

† 412,089 bushels.

The shore industries.—Perhaps no single factor has been so potent in bringing about the recent noteworthy increase in the fisheries of this State as the establishment of extensive canning and packing houses for the utilization of large quantities of raw products that would not otherwise find a market.

Chief among the shore industries is the oyster-canning business, which is prosecuted in every county, but is especially important in Harrison County. The canning of shrimps, which is mostly engaged in at oyster-canning establishments, is also extensive. The extent of the canning business in 1889 and 1890 is shown in the following table, in which the counties are combined to prevent the exhibition of private interests. Although the number of firms engaged in the canning of fishery products is small, the number of persons employed, the capital invested, and the value of the raw and manufactured products are important. In connection with the canning of oysters, there is a small trade in raw oysters carried on; in 1889 5,600 gallons and in 1890 1,200 gallons of oysters were opened, the value of which has been included with that of the manufactured products in the table.

51.—Table showing the extent of the canning industry of Mississippi.

Designation.	1889.	1890.	Designation.	1889.	1890.
Number of firms.....	8	7	Manufactured products:		
Number of persons employed.....	748	746	Oysters, 1-pound cans..No..	1,614,132	1,872,073
Value of plant.....	\$85,642	\$75,348	Oysters, 2-pound cans..do..	882,607	1,076,816
Cash capital.....	\$190,200	\$184,200	Value.....	*\$208,707	†\$251,490
Wages paid.....	\$90,976	\$64,679	Shrimp, ½-pound cans..No..	18,960	4,416
Raw products handled:			Shrimp, 1-pound cans..do..	250,008	174,408
Oysters.....barrels..	205,573	256,848	Value.....	\$40,766	\$25,588
Value.....	\$90,892	\$115,239			
Shrimp.....pounds..	485,300	181,469			
Value.....	\$10,306	\$4,229			

* Includes \$5,600, the value of oysters sold raw.

† Includes \$1,200, the value of oysters sold raw.

The business of opening oysters and shipping them in a raw condition is now a prominent feature of the fishing industry of Mississippi and is shown in detail by counties in Table 52. In 1890 the 23 wholesale firms engaged in this branch employed 270 persons, to whom \$51,899 was paid in wages; the capital invested amounted to \$93,173; the quantity of shell oysters handled was 165,179 barrels, for which \$120,548 was paid to the fishermen; the selling value of the opened oysters was \$225,306; and the enhancement in value by process of handling was \$104,758, this sum representing the gross profits of the business.

52.—Table showing by counties the wholesale oyster-packing trade of Mississippi in 1889 and 1890.

Designation.	Jackson.		Harrison.		Hancock.		Total.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
Number of firms.....	6	6	14	14	3	3	23	23
Number of employes.....	40	55	223	207	8	8	261	270
Value of property.....	\$8,750	\$9,513	\$21,145	\$22,410	\$1,400	\$1,400	\$31,295	\$33,323
Cash capital.....	\$9,800	\$11,100	\$53,100	\$47,450	\$1,200	\$1,300	\$64,100	\$59,850
Wages paid.....	\$12,762	\$13,496	\$38,831	\$37,135	\$1,155	\$1,268	\$52,748	\$51,899
Oysters handled:								
“Reefers”.....bbls..	30,325	32,900	42,650	44,400	3,350	3,700	70,325	81,000
Value paid.....	\$18,195	\$19,660	\$21,334	\$21,900	\$1,675	\$1,850	\$41,204	\$43,410
“Selects”.....bbls..	5,085	5,175	41,378	40,254	1,200	1,125	47,663	46,554
Value paid.....	\$4,068	\$4,140	\$32,137	\$32,611	\$900	\$644	\$37,105	\$37,595
“Plants”.....bbls..	3,650	4,275	29,829	32,625	750	725	34,229	37,625
Value paid.....	\$4,402	\$5,172	\$30,712	\$33,573	\$825	\$798	\$35,939	\$39,543
Total.....bbls..	39,060	42,350	113,857	117,279	5,300	5,550	158,217	165,179
Value paid.....	\$26,665	\$28,972	\$84,183	\$88,084	\$3,400	\$3,492	\$114,248	\$120,548
Value of products as sold.....	\$46,840	\$51,947	\$157,092	\$167,467	\$5,750	\$5,892	\$209,682	\$225,306
Enhancement in value.....	\$20,175	\$22,975	\$72,909	\$79,383	\$2,350	\$2,400	\$95,434	\$104,758

The extent of the wholesale trade in fresh and salted fish is presented in a condensed form in Table 53. The figures show a decline in this business in 1890 as compared with 1889; this was due to the suspension of mullet packing at Biloxi. In 1889, 199,400 pounds of salt mullet and mullet roe were put up in packages holding 10, 15, 50, 100, and 200 pounds; the value of the pack was \$11,370.

53.—Table showing the wholesale fish trade of Mississippi in 1889 and 1890.

Designation.	1889.	1890.
Number of firms.....	9	8
Number of employes.....	26	15
Value of property.....	\$2,884	\$2,100
Cash capital.....	\$8,150	\$7,250
Wages paid.....	\$6,582	\$4,764
Fish handled.....pounds..	2,186,293	1,819,245
Value paid.....	\$58,378	\$55,778
Value received.....	\$82,785	\$73,403
Enhancement in value.....	\$24,407	\$17,625

V.—FISHERIES OF LOUISIANA.

Geographical note.—The coast line of Louisiana, including the indentations, has a length of 1,650 miles; it is much more irregular than that of any other State in this region. Beginning in the east, the principal indentations are Lakes Pontchartrain and Borgne, Chandeleur Sound, Isle au Breton Sound, Barataria Bay, Timbalier Bay, Terrebonne Bay, Atchafalaya Bay, Grand Lake, Bay St. Bernard, Cote Blanche Bay, Vermillion Bay, Calcasieu Lake, and Sabine Lake; all of these are more or less important as fishing-grounds. The coastal region is also well supplied with rivers, and an almost infinite number of large and small islands occur, the most numerous and important group being the Chandeleur Islands, off the eastern end of the State, which, in addition to others, have a bearing on the fisheries.

New Orleans is the great fishing port of the State, as it is of the entire Gulf region. The quantity of fish, oysters, etc., entering the city is large and it makes this place rank among the prominent receiving centers for fishery products in the country. The only other fishing settlement of note is Morgan City, at the outlet of Grand Lake.

The statistics herein presented cover the fisheries of the entire coast region, and, in addition, the lakes and bays already named and the Mississippi River from its mouth to New Orleans.

General character of the fisheries.—Louisiana ranks second among the Gulf States in the value of its fisheries. It is surpassed by Florida by a considerable amount, and in turn is far in advance of all the other States. There are many products in the capture of which this State leads all others, among which are oysters, crabs, shrimp, crayfish, black bass, buffalo-fish, and catfish. The specially prominent products are oysters, shrimp, catfish, trout, sheepshead, and buffalo-fish, the value of the first named being nearly one-half that of the entire fishery output of the State. In the value of trout, sheepshead, and channel bass Louisiana ranks next to Texas, and in the catch of red snappers, Spanish mackerel, and alligators it is surpassed only by Florida.

The advance in the extent and importance of the fisheries since 1880 has been marked in all branches. The percentage of increase in the items of persons and capital has been greater than in any other State except Mississippi; the actual increase in the number of persons has been larger than elsewhere, and only Florida has excelled in the numerical increase in capital invested and value of products.

As in the case of the other States of this region, Louisiana has important undeveloped fishery resources, among which the oyster is chief. The large increase in the yield of this mollusk is shown elsewhere in this paper; and there will probably be an annual augmentation of the output as the result of increased demand and attention.

General statistics.—The number of persons engaged in the fishing industry of this State in 1890 was 4,068, of whom 332 were employed in the vessel fisheries, 3,276 in the shore or boat fisheries, and 460 in connection with the shore branches. A larger number of foreigners is found in the fisheries of Louisiana than in any other of the Gulf States. In the vessel fisheries there are 95 aliens, in the shore fisheries 1,006, and in the shore industries 198, giving a total of 1,299, or 32 per cent of the entire coast

fishing population. The principal nationalities represented by this foreign element are Italian, Austrian, Malay, French, and Spanish. The number of colored American fishermen is 423, or about one-fifth the total number of citizens.

The fishery investment of this State was \$706,557 in 1889, and \$719,876 in 1890. The 119 vessels employed in 1890 were valued with their outfits at \$93,527, exclusive of apparatus of capture. The value of the 2,578 boats used in the shore fisheries was \$161,533. The seine is the principal form of apparatus; 168 seines were operated in 1890, worth \$14,600. Lines were the next valuable means of capture; these were specially important in the shore fisheries, and almost insignificant in the vessel fisheries; \$9,176 was invested in lines of various kinds. Dip nets and cast nets were extensively used, but had a less value than the tongs. The capital invested in shore property and the shore industries was \$425,678, or more than half the total amount devoted to the fisheries.

The yield of the fisheries in 1889 was 20,947,239 pounds, valued at \$621,048, and in 1890, 20,789,203 pounds, valued at \$660,134. The diminished quantity in 1890 was due to a decline in the shrimp fishery, and the increased value of products depended on an augmented yield of oysters. The most important products and their values in 1890 were as follows: Oysters, \$299,896; shrimp, \$90,519; catfish, \$54,726; trout, \$33,026; sheepshead, \$25,906; buffalo-fish, \$22,940. The alligator industry, which is not included in the tables, yielded \$20,150. Louisiana is the only Gulf State having a commercial fishery for crayfish; the value of this in 1890 was \$7,030, a sum representing 140,650 pounds of these crustaceans.

The four tables which follow contain condensed figures giving the extent of the fisheries of this State in 1889 and 1890:

54.—Table of persons employed.

How engaged.	Number.	
	1889.	1890.
In vessel fisheries	324	317
On transporting vessels.....	17	15
In shore fisheries	3,175	3,276
On shore, in fish-houses, etc.....	450	460
Total	3,966	4,068

55.—Table showing the nationality of persons engaged in the fisheries of Louisiana in 1889 and 1890.

Nationalities.	Vessel fishermen.		Shore fishermen.		Shoemen.		Total.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
Americans, white.....	228	223	1,900	1,943	171	180	2,299	2,346
Americans, colored	15	14	326	327	76	82	417	423
Spaniards.....			85	91	45	41	130	132
Italians.....	45	45	316	320	64	62	425	427
Austrians.....	32	30	200	202	22	25	254	257
French.....			78	111	27	25	105	136
Germans.....			16	12			10	12
Chinese.....					30	30	30	30
Malays.....			160	165			160	165
Others.....	21	20	100	105	15	15	136	140
Total	341	332	3,175	3,276	450	460	3,966	4,068

56.—Table of apparatus and capital.

Designation.	1889.		1890.		Designation.	1889.		1890.	
	No.	Value.	No.	Value.		No.	Value.	No.	Value.
Vessels fishing (net tonnage in 1889, 843.71; in 1890, 834.94).....	118	\$53,500	116	\$51,650	Apparatus of capture— shore fisheries:				
Outfit		20,340		19,627	Seines	143	\$13,000	145	\$12,830
Vessels transporting (net tonnage in 1889, 68.47; in 1890, 61.90).....	4	16,300	3	16,000	Cast nets	568	1,756	574	1,775
Outfit		6,355		6,250	Dip nets	3,505	2,697	4,130	2,722
Boats	2,499	161,140	2,578	161,533	Tongs	1,065	6,022	1,096	7,124
Apparatus of capture— vessel fisheries:					Small traps		1,950		1,950
Seines	21	1,620	23	1,770	Lines		8,161		9,091
Tongs	286	1,942	267	1,791	Shore property and ac- cessories		234,484		243,178
Lines		90		85	Cash capital		176,300		182,500
					Total		706,557		719,876

NOTE.—There should be added to the above figures \$6,925 in 1889 and \$7,025 in 1890, representing the value of the apparatus and outfits employed in hunting alligators.

57.—Table of products.

Species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.
Black bass	80,070	\$4,099	81,570	\$4,219
Bluefish	12,025	778	13,050	843
Bream and sunfish	261,520	15,137	270,020	15,682
Buffalo-fish	1,180,700	22,064	1,180,250	22,940
Catfish	2,437,905	47,151	2,674,007	54,726
Channel bass	313,600	10,360	339,316	11,270
Croakers	149,550	8,805	158,267	9,479
Drum, fresh-water	11,000	810	18,200	1,352
Flounders	21,450	2,145	25,625	2,407
Groupers	18,500	185	17,800	178
Mullet	283,166	7,775	287,750	8,021
Pompano	20,000	3,837	32,450	4,378
Rock bass	55,600	3,066	54,200	3,047
Sheepshead	304,150	25,022	390,817	25,906
Silver perch	135,660	5,936	140,160	6,206
Snappers, red	250,400	7,512	240,500	7,215
Spanish mackerel	133,700	13,370	144,000	14,065
Spots	30,000	1,500	30,000	1,520
Striped bass	54,000	2,940	49,850	3,050
Trout	619,250	31,441	655,670	33,026
Miscellaneous fish	153,220	9,200	161,380	9,319
Shrimp	7,238,500	95,882	6,062,050	90,519
Crayfish	138,000	6,900	140,650	7,030
Crabs, hard	842,400	13,820	850,800	12,815
Crabs, soft	147,000	7,765	129,000	6,547
Oysters	*5,848,640	269,057	†5,891,095	299,896
Turtles	84,333	2,175	90,793	2,335
Terrapins	53,000	1,388	58,333	1,543
Total	20,947,239	621,043	20,789,203	660,134

* 835,520 bushels.

† 841,585 bushels.

NOTE.—The alligator industry, which is prosecuted in 14 counties in Louisiana included in this report, resulted in 1889 in the capture of 74,240 alligators, the hides of which had a value of \$38,185; in 1890, 38,588 animals were obtained, having a value of \$21,150. These figures are not included in the table.

The fisheries by parishes.—Eighteen parishes* bordering on the coast or immediately adjacent thereto, on the bays, lakes, and rivers named, have commercial fisheries. Beginning on the east, the parishes in their order are St. Tammany, Tangipahoa, St. John Baptist, St. Charles, Jefferson, Orleans, St. Bernard, Plaquemines, Lafourche, Terrebonne, St. Mary, Assumption, Iberville, St. Martin, Iberia, Vermilion, Cameron, and Calcasieu.

* The geographical divisions generally known throughout the United States as counties are in Louisiana called parishes.

Three tables give the details of the fisheries in each of these parishes in 1889 and 1890. Additional tabular information for the parishes will be found in the paragraphs covering the vessel and shore fisheries and the catch by different kinds of apparatus.

58.—Table showing by parishes the number of persons employed in the fisheries of Louisiana in 1889 and 1890.

Counties.	On vessels fishing.		On vessels transporting.		In shore fisheries.		On boats transporting.		On shore.		Total.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
St. Tammany					45	48					45	48
Tangipahoa					35	40					35	40
St. John Baptist					55	56					55	56
St. Charles					197	201					197	201
Jefferson	20	17	6	6	494	517	150	150	33	33	703	723
Orleans	241	228	2		245	247			263	250	751	725
St. Bernard					175	177					175	177
Plaquemines	10	10	2	2	313	323	49	49			374	384
Lafourche	2	2			211	223	60	60			273	285
Terrebonne	2	7			373	393	120	121		10	495	531
St. Mary	49	53	7	7	414	426	110	110	154	107	734	763
Assumption					63	65					63	65
Iberville					6	7					6	7
St. Martin					20	21					20	21
Iberia					21	22					21	22
Vermilion					3	4					3	4
Cameron					6	6					6	6
Calcasieu					10	10					10	10
Total	324	317	17	15	2,686	2,786	489	490	450	460	3,966	4,068

59.—Table showing by parishes the apparatus and capital employed in the fisheries of Louisiana in 1889 and 1890.

Designation	St. Tammany.				Tangipahoa.				St. John Baptist.				
	1889.		1890.		1889.		1890.		1889.		1890.		
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	
Boats	5	\$910	5	\$875	4	\$685	5	\$725	49	\$905	49	\$962	
Apparatus of capture— shore fisheries:													
Seines	2	120	2	120	3	180	3	180	18	1,090	18	1,080	
Cast nets									24	72	38	87	
Dip nets	375	285	400	268	150	108	195	130	350	265	395	265	
Lines		65		65		55		55		104		104	
Total		1,380		1,328		1,028		1,090		2,436		2,498	
Designation.	St. Charles.				Jefferson.				Orleans.				
	1889.		1890.		1889.		1890.		1889.		1890.		
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	
Vessels fishing					8	\$3,250	7	\$2,025	82	\$39,950	79	\$38,150	
Outfit						943		845		15,782		15,097	
Tonnage					50.99		43.52		608.55		598.27		
Vessels transporting					1	3,500	1	3,500	1	300			
Outfit						3,500		3,500		100			
Tonnage					8.17		8.17		6.53				
Boats	141	\$2,520	147	\$2,625	477	54,655	496	54,003	65	970	68	1,095	
Apparatus of capture— vessel fisheries:													
Seines									20	1,520	21	1,585	
Tongs					20	131	17	115	210	1,409	189	1,257	
Lines										90		85	
Apparatus of capture— shore fisheries:													
Seines	6	360	6	370	41	6,910	41	6,820	23	1,380	23	1,380	
Cast nets	38	114	42	118	132	346	132	346	46	138	62	160	
Dip nets	275	206	345	230	360	351	405	360	345	260	375	250	
Tongs					280	1,830	290	1,892					
Lines		149		169		587		660		140		142	
Shore property		500		500		62,580		64,580		124,900		125,325	
Cash capital						10,000		10,000		136,300		136,500	
Total		3,849		4,012		148,583		149,246		323,239		321,126	

59.—Table showing by parishes the apparatus and capital employed in the fisheries of Louisiana in 1889 and 1890—Continued.

Designation.	St. Bernard.				Plaquemines.				Lafourche.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing					4	\$1,900	4	\$1,850	1	\$300	1	\$300
Outfit						470		473		100		86
Tonnage					25.25		25.25		5.73		5.73	
Vessels transporting					1	500	1	500				
Outfit						105		100				
Tonnage					7.41		7.41					
Boats	123	\$2,100	116	\$1,970	250	11,350	258	11,520	305	25,620	308	25,900
Apparatus of capture— vessel fisheries:												
Tongs					10	60	10	62	2	12	2	14
Apparatus of capture— shore fisheries:												
Seines	35	700	38	760					4	700	4	700
Cast nets	270	800	243	786					28	100	27	98
Dip nets	1,550	1,162	1,915	1,159	100	60	100	60	160	1,050	165	1,080
Tongs					96	640	100	670				
Small traps						1,650		1,950				
Lines		375		376		650		675		210		240
Shore property and ac- cessories						2,925		3,450		4,220		4,430
Total		5,137		5,045		20,610		21,310		32,312		32,848

Designation.	Terrebonne.				St. Mary.				Assumption.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	1	\$500	3	\$1,100	22	\$7,600	22	\$7,625				
Outfit		85		376		2,060		2,750				
Tonnage	5.54		19.74		147.65		142.43					
Vessels transporting					1	12,000	1	12,000				
Outfit						2,050		2,650				
Tonnage					46.32		46.32					
Boats	5.27	47,585	548	47,488	365	9,800	384	10,200	90	\$1,035	92	\$1,685
Apparatus of capture— vessel fisheries:												
Seines					1	100	2	185				
Tongs	2	15	7	49	42	315	42	294				
Lines												
Apparatus of capture— shore fisheries:												
Seines	3	500	3	500	8	1,060	7	920				
Cast nets	20	126	20	126	10	60	10	60				
Tongs	365	2,327	375	2,387	160	1,050	162	1,070				
Lines		225		234		2,806		3,431		1,480		1,610
Shore property and ac- cessories		4,730		4,730		33,894		39,353		285		345
Cash capital				4,000		30,000		32,000				
Total		56,093		60,990		104,295		112,538		3,400		3,640

Designation.	Iberville.				St. Martin.				Iberia.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Boats	6	\$110	7	\$130	26	\$640	26	\$640	27	\$655	28	\$675
Lines		50		55		525		525		550		555
Shore property and ac- cessories		20		25		115		120		115		120
Total		180		210		1,280		1,285		1,320		1,285

59.—Table showing by parishes the apparatus and capital employed in the fisheries of Louisiana in 1889 and 1890—Continued.

Designation.	Vermilion.				Cameron.				Calcasieu.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Boats	4	\$200	5	\$220	20	\$500	20	\$500	15	\$300	16	\$320
Tongs					4	25	4	25				
Lines		40		45		65		65		85		85
Shore property and accessories										200		200
Total		240		265		590		590		585		605

SUMMARY.

Designation.	1889.		1890.		Designation.	1889.		1890.	
	No.	Value.	No.	Value.		No.	Value.	No.	Value.
Vessels fishing	118	\$53,500	116	\$51,650	Apparatus of capture—				
Outfit		20,340		19,627	shore fisheries:				
Tonnage	843.71		834.94		Seine	143	\$13,000	145	\$12,830
Vessels transporting	4	16,300	3	16,000	Cast nets	568	1,756	574	1,775
Outfit		6,355		6,250	Dip nets	3,505	2,697	4,130	2,722
Tonnage	68.43		61.90		Tongs	1,065	6,922	1,096	7,124
Boats	2,499	161,140	2,578	161,533	Small traps		1,950		1,950
Apparatus of capture—					Lines		8,161		9,091
vessel fisheries:					Shore property and ac-				
Seine	21	1,620	23	1,770	cessories		234,484		243,178
Tongs	286	1,942	267	1,791	Cash capital		176,300		182,500
Lines		90		85	Total		706,557		719,876

60.—Table showing by parishes and species the yield of the fisheries of Louisiana in 1889 and 1890.

Species.	St. Tammany.				Tangipahoa.				St. John Baptist.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Black bass	2,800	\$224	3,000	\$240	2,100	\$168	2,200	\$176	1,300	\$104	1,500	\$120
Bream and sunfish	11,200	1,120	11,200	1,116	8,100	810	8,550	843	15,500	1,118	15,750	1,135
Buffalo-fish	8,500	170	8,700	174	15,700	314	16,500	330	140,000	2,800	130,500	2,610
Catfish	52,400	1,120	54,000	1,152	24,740	620	26,500	652	108,000	2,700	111,050	2,748
Croakers	700	70	500	50	5,500	550	3,200	320	5,550	550	5,800	580
Mullet									18,900	567	18,000	567
Rock bass	2,000	120	1,850	111	1,700	102	1,800	107	5,200	260	5,100	306
Sheepshead	3,600	360	3,600	360	3,900	390	3,900	390	18,500	1,850	18,500	1,850
Striped bass	5,200	260	5,000	300	2,700	135	3,000	180	6,900	345	6,500	390
Trout	17,000	1,216	17,000	1,222	19,100	1,388	19,200	1,395	30,800	2,186	30,950	2,197
Miscellaneous fish	7,800	634	8,300	652	8,500	680	8,875	693	9,800	784	10,290	801
Crayfish									26,200	1,300	26,500	1,325
Crabs, hard	1,000	66	1,000	67	1,500	100	1,500	100	2,000	134	1,700	113
Crabs, soft	8,000	400	7,500	375	7,600	380	7,200	360	10,000	500	9,800	490
Turtle	3,833	95	5,000	125	3,000	75	3,850	91	4,500	102	5,000	125
Total	124,033	5,855	126,650	5,944	104,140	5,712	106,275	5,637	403,150	15,300	397,840	15,367

60.—Table showing by parishes and species the yield of the fisheries of Louisiana in 1889 and 1890—Continued.

Species.	St. Charles.				Jefferson.				Orleans.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Black bass	3,400	\$272	3,500	\$280	58,870	\$2,403	58,920	\$2,407	3,500	\$280	3,850	\$308
Bluefish									12,925	776	13,050	843
Bream and sunfish	16,400	740	16,750	763	77,170	2,982	77,395	2,998	32,500	2,810	38,015	3,157
Buffalo-fish	75,500	1,510	80,500	1,610	60,800	1,216	60,200	1,204	265,200	4,558	235,600	4,582
Catfish	96,000	2,000	100,000	2,072	172,500	2,960	198,375	3,977	165,750	4,143	173,108	4,248
Channel bass					108,000	2,240	109,150	2,718	75,100	3,755	67,450	3,373
Croakers	1,800	180	1,900	190	45,900	2,050	47,200	1,897	31,050	2,995	32,900	3,290
Drum, fresh-water											6,200	452
Flounders									11,450	1,145	12,225	1,223
Groupers									18,500	185	17,800	178
Mullet	26,600	913	18,133	628	153,851	3,686	120,467	2,670	31,500	982	32,210	1,056
Pompano									14,500	1,952	16,750	2,800
Rock bass	5,000	300	4,900	294	4,000	240	3,800	228	5,700	342	10,250	520
Sheepshead	6,500	650	6,500	650	93,400	4,190	97,200	4,592	41,325	4,067	40,950	4,020
Silver perch	2,000	60	2,000	60	62,660	2,456	62,660	2,456	22,700	1,362	26,300	1,578
Snappers, red									250,400	7,512	246,500	7,215
Spanish mackerel	10,800	1,080	4,800	480	5,200	520	11,200	1,120	63,700	6,370	70,315	7,155
Striped bass	3,100	155	3,500	210	3,800	190	4,000	240	8,500	425	8,000	500
Trout	27,100	1,952	27,100	1,945	227,000	11,814	227,200	11,834	58,050	4,278	59,780	4,356
Miscellaneous fish	4,600	368	5,150	388	7,200	576	7,480	586	69,700	4,278	70,400	4,127
Shrimp					6,056,000	76,780	5,544,000	72,590	216,600	4,234	221,800	4,454
Crayfish	27,600	1,380	28,000	1,400	25,400	1,270	26,000	1,300	38,400	1,930	38,850	1,940
Crabs, hard	2,500	116	1,800	120	794,800	10,647	823,900	11,022	26,600	1,774	10,200	680
Crabs, soft	5,000	250	5,000	250	5,000	250	4,800	240	31,400	1,950	27,900	1,595
Oysters					832,881	37,801	763,280	44,713	1,996,379	64,219	2,068,617	68,991
Turtles	1,000	17	1,350	24	11,000	270	10,897	247	2,500	62	3,700	86
Terrapins	2,000	58	2,500	67	2,500	67	3,333	108				
Total	310,900	12,051	313,473	11,431	8,837,932	164,608	8,261,427	169,147	3,493,929	128,371	3,546,100	130,227

Species.	St. Bernard.				Plaquemines.				Lafourche.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Black bass	8,100	\$648	8,600	\$688								
Bream and sunfish	44,850	3,877	46,360	3,990	6,000	\$180	6,000	\$180	4,000	\$120	4,000	\$120
Buffalo-fish	355,000	7,846	405,250	8,105	150,000	3,000	150,000	3,000	5,000	75	4,000	60
Catfish	440,800	7,325	452,437	7,462	265,000	5,300	265,000	5,300	10,000	150	12,000	200
Channel bass	20,500	1,025	20,200	1,010	23,000	800	23,650	650	20,000	650	20,650	568
Croakers	9,050	910	10,000	1,000	9,000	270	9,667	367	9,000	270	10,250	390
Drum, fresh-water	11,000	810	12,000	900								
Flounders	10,000	1,000	11,000	1,100								
Mullet	52,315	1,627	94,590	2,979								
Pompano	14,500	1,885	15,700	2,078								
Rock bass	32,000	1,782	26,500	1,481								
Sheepshead	104,925	9,630	105,000	9,590	14,000	520	15,753	631	16,000	680	17,864	715
Silver perch	20,300	1,218	21,200	1,272	3,000	90	3,000	90	2,000	60	2,000	60
Spanish mackerel	54,000	5,400	57,685	5,910								
Spots	30,000	1,500	30,000	1,520								
Striped bass	23,800	1,430	19,950	1,230								
Trout	43,200	3,149	45,220	3,271	40,000	1,320	41,700	1,250	43,000	1,400	45,300	1,355
Miscellaneous fish	45,620	1,882	46,785	1,928								
Shrimp	125,900	2,518	120,500	2,410	120,000	2,700	118,750	2,225	50,000	1,200	47,000	705
Crayfish	20,400	1,020	21,300	1,065								
Crabs, hard	14,000	933	10,700	713								
Crabs, soft	80,000	4,035	67,700	3,237								
Oysters					583,765	56,400	564,886	57,035	509,600	24,870	481,684	29,919
Turtles	7,500	154	9,066	212					3,000	150	3,000	150
Total	1,567,620	61,554	1,658,343	63,151	1,213,765	70,580	1,198,406	70,728	671,600	29,625	647,748	34,233

60.—Table showing by parishes and species the yield of the fisheries of Louisiana in 1889 and 1890—Continued.

Species.	Terrebonne.				St. Mary.				Assumption.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bream and sunfish	16,000	\$480	16,000	\$480	10,000	\$300	10,000	\$300				
Buffalo-fish	40,000	575	34,000	500	65,000	900	55,000	765				
Catfish	20,000	350	23,500	375	555,680	10,363	658,127	14,800	230,640	\$2,950	274,060	\$6,110
Channel bass	50,000	1,400	50,470	1,388	17,000	490	47,746	1,563				
Croakers	18,000	540	19,250	732	14,000	420	17,600	603				
Flounders							2,400	84				
Grouper												
Mullet							3,450	121				
Sheepshead	37,000	1,410	38,500	1,540	25,000	1,275	43,050	1,568				
Silver perch	8,000	240	8,000	240	5,000	150	5,000	150				
Snappers, red												
Trout	80,000	1,580	82,125	2,215	34,000	1,160	60,025	1,986				
Miscellaneous fish							4,100	144				
Shrimp	600,000	8,000	575,000	7,670	40,000	450	35,000	465				
Oysters	1,117,200	49,200	1,133,000	60,508	777,315	35,326	848,638	39,489				
Turtles	18,000	450	18,460	462	30,000	800	30,500	813				
Terrapins					48,500	1,263	52,500	1,368				
Total	2,004,200	64,225	1,998,305	76,110	1,621,495	52,897	1,873,136	64,339	230,640	4,950	274,060	6,110

Species.	Iberville.				St. Martin.				Iberia.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Catfish	15,000	\$280	17,500	\$320	84,300	\$1,530	89,500	\$1,600	92,035	\$1,500	98,850	\$1,650

Species.	Vermilion.				Cameron.				Calcasieu.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bream and sunfish	8,000	\$240	8,000	\$240	12,000	\$360	12,000	\$360				
Catfish	25,000	400	30,000	500	35,000	600	40,000	650	45,000	\$800	50,000	\$850
Silver perch	4,000	120	4,000	120	6,000	180	6,000	180				
Oysters	6,300	250	6,300	250	25,200	1,000	25,200	1,000				
Total	43,300	1,010	48,300	1,110	78,200	2,140	83,200	2,190	45,000	800	50,000	850

SUMMARY.

Species.	1889.		1890.		Species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.		Pounds.	Value.	Pounds.	Value.
Black bass	80,070	\$4,099	81,570	\$4,219	Snappers, red	250,400	\$7,512	240,500	\$7,215
Bluefish	12,925	776	13,050	843	Spanish mackerel	133,700	13,370	144,000	14,665
Bream and sunfish	261,520	15,137	270,020	15,682	Spots	30,000	1,500	30,600	1,520
Buffalo-fish	1,180,700	22,964	1,180,250	22,940	Striped bass	54,000	2,940	49,950	3,050
Catfish	2,437,905	47,151	2,674,007	54,726	Trout	619,250	31,441	655,670	33,026
Channel bass	313,600	10,390	339,316	11,270	Miscellaneous fish	153,220	9,200	161,380	9,319
Croakers	149,550	8,805	158,267	9,479	Shrimp	7,238,500	95,882	6,662,050	90,519
Drum, fresh-water	11,000	810	18,200	1,352	Crayfish	138,000	6,900	140,650	7,030
Flounders	21,450	2,145	25,625	2,407	Crabs, hard	842,400	13,820	850,800	12,815
Grouper	18,500	185	17,800	178	Crabs, soft	147,000	7,765	129,900	6,547
Mullet	283,166	7,775	287,750	8,021	Oysters	5,848,640	269,057	5,801,095	269,896
Pompano	29,000	3,837	32,450	4,378	Turtles	84,333	2,175	90,793	2,335
Rock bass	55,000	3,096	54,200	3,047	Terrapins	53,000	1,388	53,333	1,543
Sheepshead	364,150	25,022	390,817	25,906					
Silver perch	135,660	5,936	140,160	6,206	Total	20,947,230	621,048	20,789,203	660,134

Products of the vessel and shore fisheries.—Vessels are employed in only six parishes of Louisiana, viz, Orleans, St. Mary, Jefferson, Lafourche, Terrebonne, and Plaquemines, in only the first two of which are the vessel fisheries important. Oysters are taken in all these parishes, but only in Orleans and St. Mary are fish and crustaceans obtained with vessels. The aggregate yield of the vessel fisheries in 1890 was 3,595,070 pounds, for which the fishermen received \$133,188. The quantity of products taken by vessels of Orleans Parish in 1890 was 2,765,792 pounds, valued at \$98,386, of which 2,063,017 pounds, worth \$66,991, were oysters. In the parish of St. Mary the yield was 559,638 pounds, valued at \$24,936, of which 428,638 pounds and \$20,489 represented oysters. The importance of the oysters is thus clearly shown. The most prominent fish obtained with vessels are red snappers, channel bass, trout, Spanish mackerel, croakers, and sheepshead. Compared with the yield of the shore fisheries all of these are unimportant.

The products of the shore or boat fisheries in 1890 amounted to 17,194,133 pounds, with a market value of \$526,946. From these figures it will be seen that the vessel fisheries are much less extensive than the shore fisheries, the output of the latter exceeding that of the former in the case of almost every species. The value of the oysters was \$202,550, after which the most remunerative products were shrimp, worth \$88,115; catfish, worth \$54,155; trout, worth \$29,508; sheepshead, worth \$23,728; and buffalo-fish, worth \$22,695. The shore fisheries of Jefferson Parish are the most valuable, while Orleans Parish, which ranked first in the vessel fisheries, is surpassed by the parishes of Terrebonne, Plaquemines, St. Bernard, St. Mary, and Lafourche.

The products of the vessel and shore fisheries in 1889 and 1890 are shown in detail in Tables 61 and 62, the specification being by parishes.

61.—Table showing by parishes and species the yield of the vessel fisheries of Louisiana in 1889 and 1890.

Parishes and species.	1889.		1890.		Parishes and species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.		Pounds.	Value.	Pounds.	Value.
Jefferson:					St. Mary—continued.				
Oysters	202,881	\$6,801	158,480	\$5,413	Croakers			2,100	\$74
Orleans:					Flounders			2,400	84
Bluefish	12,925	776	13,050	843	Mullet			3,450	121
Bream and sunfish ..	14,150	1,158	18,050	1,385	Sheepshead	8,000	\$355	24,800	838
Buffalo-fish	10,700	214	12,250	245	Trout	30,000	1,080	54,150	1,836
Catfish	21,750	543	22,650	571	Miscellaneous fish ..			4,100	144
Channel bass	64,900	3,245	56,450	2,825	Oysters	357,315	16,326	428,638	20,489
Croakers	24,050	2,295	20,800	2,680	Total	405,315	18,031	559,638	24,936
Flounders	6,450	645	7,025	703	Summary:				
Groupers	18,500	185	17,800	178	Bluefish	12,925	776	13,050	843
Pompano	4,850	729	5,900	885	Bream and sunfish ..	14,150	1,158	18,050	1,385
Rock bass	1,700	102	1,800	108	Buffalo-fish	10,700	214	12,250	245
Sheepshead	14,525	1,387	14,150	1,340	Catfish	21,750	543	22,650	571
Silver perch	14,500	870	16,300	978	Channel bass	74,900	3,535	96,450	4,173
Snappers, red	250,400	7,512	240,500	7,215	Croakers	24,050	2,295	28,900	2,754
Spanish mackerel	26,700	2,670	30,150	3,015	Flounders	6,450	645	9,425	787
Trout	21,750	1,716	21,700	1,682	Groupers	18,500	185	17,800	178
Miscellaneous fish ..	56,000	3,380	56,000	3,205	Mullet			3,450	121
Shrimp	117,000	2,242	121,900	2,404	Pompano	4,850	729	5,900	885
Crabs, hard	24,600	1,640	8,400	560	Rock bass	1,700	102	1,800	108
Crabs, soft	11,400	950	6,900	575	Sheepshead	22,525	1,742	38,950	2,178
Oysters	1,996,379	64,210	2,008,017	66,981	Silver perch	14,500	870	16,300	978
Total	2,713,229	96,469	2,765,792	98,386	Snappers, red	250,400	7,512	240,500	7,215
Plaquemines:					Spanish mackerel ..	26,700	2,670	30,150	3,015
Oysters	37,765	1,400	29,386	1,035	Trout	51,750	2,776	75,850	3,518
Lafourche:					Miscellaneous fish ..	56,000	3,380	90,100	3,340
Oysters	26,600	870	30,184	910	Shrimp	117,000	2,242	121,900	2,404
Terrebonne:					Crabs, hard	24,600	1,640	8,400	560
Oysters	4,200	200	51,500	2,508	Crabs, soft	11,400	950	6,900	575
St. Mary:					Oysters	2,625,140	89,807	2,766,295	97,340
Channel bass	10,000	290	40,000	1,350	Grand total	3,389,990	123,771	3,595,070	133,188

62.—Table showing by parishes and species the yield of the shore fisheries of Louisiana in 1889 and 1890.

Species.	St. Tammany.				Tangipahoa.				St. John Baptist.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Black bass.....	2,800	\$224	3,000	\$240	2,100	\$168	2,200	\$176	1,300	\$104	1,500	\$120
Bream and sunfish...	11,200	1,120	11,200	1,116	8,100	810	8,550	843	15,500	1,118	15,750	1,135
Buffalo-fish.....	8,500	170	8,700	174	15,700	314	16,500	330	140,000	2,800	130,500	2,610
Catfish.....	52,400	1,120	54,000	1,152	24,740	620	26,500	652	108,000	2,700	111,050	2,748
Croakers.....	700	70	500	50	5,500	550	3,200	320	5,550	550	5,800	580
Mullet.....									18,900	567	18,900	567
Rock bass.....	2,000	120	1,850	111	1,700	102	1,800	107	5,200	260	5,100	306
Sheepshead.....	3,600	360	3,600	360	3,900	390	3,900	390	18,500	1,850	18,500	1,850
Striped bass.....	5,200	260	5,000	300	2,700	135	3,000	180	6,900	345	6,500	390
Trout.....	17,000	1,216	17,000	1,222	19,100	1,388	19,200	1,395	30,800	2,186	30,350	2,197
Miscellaneous fish.....	7,800	634	8,300	652	8,500	680	8,875	703	9,800	784	10,290	801
Crayfish.....									26,200	1,300	26,500	1,325
Crabs, hard.....	1,000	66	1,000	67	1,500	100	1,500	100	2,000	134	1,700	113
Crabs, soft.....	8,000	400	7,500	375	7,600	380	7,200	360	10,000	500	9,800	490
Turtles.....	3,833	95	5,000	125	3,000	75	3,850	91	4,500	102	5,000	175
Total.....	124,033	5,855	126,650	5,944	104,140	5,712	106,275	5,637	403,150	15,900	397,840	15,357

Species.	St. Charles.				Jefferson.				Orleans.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Black bass.....	3,400	\$272	3,500	\$280	58,870	\$2,403	58,920	\$2,407	3,500	\$280	3,850	\$308
Bream and sunfish...	16,400	740	16,750	763	77,170	2,982	77,395	2,988	18,350	1,652	19,995	1,772
Buffalo-fish.....	75,500	1,510	80,500	1,610	60,800	1,216	60,200	1,204	254,500	4,344	223,350	4,337
Catfish.....	90,000	2,000	100,000	2,072	172,500	2,960	198,375	3,977	144,000	3,600	150,458	3,877
Channel bass.....					108,000	2,240	109,150	2,718	10,200	510	11,000	550
Croakers.....	1,800	180	1,900	190	45,900	2,050	47,200	1,897	7,000	700	6,100	610
Drum, fresh-water.....											6,200	452
Flounders.....									5,000	500	5,200	520
Mullet.....	26,600	913	18,133	625	153,851	3,086	120,467	2,670	31,500	982	32,210	1,056
Pompano.....									9,650	1,223	10,850	1,415
Rock bass.....	5,000	300	4,900	294	4,000	240	3,800	228	4,000	240	8,450	412
Sheepshead.....	6,500	650	6,500	650	93,400	4,190	97,200	4,592	26,800	2,680	26,800	2,680
Silver perch.....	2,000	60	2,000	60	62,660	2,456	62,660	2,456	8,200	492	10,000	600
Spanish mackerel.....	10,800	1,080	4,800	480	5,200	520	11,200	1,120	37,000	3,700	40,165	4,140
Striped bass.....	3,100	155	3,500	210	3,800	190	4,000	240	8,500	425	8,000	500
Trout.....	27,100	1,952	27,190	1,945	227,000	11,814	227,200	11,834	36,300	2,560	38,060	2,674
Miscellaneous fish.....	4,600	368	5,150	388	7,200	576	7,480	586	13,700	896	14,400	922
Shrimp.....					6,086,000	76,780	5,544,000	72,590	99,000	1,992	99,000	2,050
Crayfish.....	27,000	1,380	28,000	1,400	25,400	1,270	26,000	1,300	38,400	1,930	38,850	1,940
Crabs, hard.....	2,500	166	1,800	120	794,800	10,647	823,900	11,022	2,000	134	1,800	120
Crabs, soft.....	5,000	250	5,000	250	5,000	250	4,800	240	20,000	1,000	21,000	1,020
Oysters.....					630,000	31,000	604,800	39,300				
Turtles.....	1,000	17	1,350	24	11,000	270	10,867	247	2,500	62	3,700	86
Terrapins.....	2,000	58	2,500	67	2,500	67	3,333	108				
Total.....	316,900	12,051	313,473	11,431	8,635,051	157,807	8,102,947	163,734	780,700	29,902	780,308	31,841

Species.	St. Bernard.				Plaquemines.				Lafourche.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Black bass.....	8,100	\$648	8,000	\$688								
Bream and sunfish...	44,650	3,877	46,360	3,990	6,000	\$180	6,000	\$180	4,000	\$120	4,000	\$120
Buffalo-fish.....	355,000	7,846	405,250	8,105	150,000	3,000	150,000	3,000	5,000	75	4,000	60
Catfish.....	440,860	7,325	452,437	7,462	265,000	5,300	265,000	5,300	10,000	150	12,000	200
Channel bass.....	20,500	1,025	20,200	1,010	23,000	800	23,650	850	20,000	650	20,650	568
Croakers.....	9,050	910	10,000	1,000	9,000	270	9,687	367	9,000	270	10,250	390
Drum, fresh-water.....	11,000	810	12,000	900								
Flounders.....	10,000	1,000	11,000	1,100								
Mullet.....	52,315	1,627	94,590	2,979								
Pompano.....	14,500	1,885	15,700	2,078								
Rock bass.....	32,000	1,732	26,500	1,481								
Sheepshead.....	104,925	9,630	105,000	9,500	14,000	520	15,753	631	16,000	680	17,864	715
Silver perch.....	20,300	1,218	21,200	1,272	3,000	90	3,000	90	2,000	60	2,000	60
Spanish mackerel.....	54,000	5,400	57,685	5,910								
Spots.....	30,000	1,500	30,600	1,520								
Striped bass.....	23,800	1,430	19,950	1,230								
Trout.....	49,200	3,149	45,220	3,271	40,000	1,320	41,700	1,250	43,000	1,400	45,300	1,355
Miscellaneous fish.....	45,620	1,862	46,785	1,928								
Shrimp.....	125,900	2,518	120,500	2,410	120,000	2,700	118,750	2,225	50,000	1,200	47,000	705
Crayfish.....	20,400	1,020	21,300	1,065								
Crabs, hard.....	14,000	933	10,700	713								
Crabs, soft.....	80,000	4,035	67,700	3,237								
Oysters.....					546,000	55,000	535,500	56,000	483,000	24,000	451,500	20,000
Turtle.....	7,500	154	9,066	212					3,000	150	3,000	150
Total.....	1,567,620	61,554	1,658,343	63,161	1,176,000	69,180	1,160,020	69,693	645,000	28,755	617,564	33,323

62.—Table showing by parishes and species the yield of the shore fisheries of Louisiana in 1889 and 1890—
Continued.

Species.	Terrebonne.				St. Mary.				Assumption.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bream and sunfish...	16,000	\$480	16,000	\$480	10,000	\$300	10,000	\$300	.....	.....	.....	.....
Buffalo-fish.....	40,000	575	34,000	500	65,000	900	55,000	785	.....	.....	.....	.....
Catfish.....	20,000	350	23,500	375	555,680	10,963	658,127	14,860	230,640	\$4,950	274,060	\$6,110
Channel bass.....	50,000	1,400	50,470	1,388	7,000	200	7,746	213	.....	.....	.....	.....
Croakers.....	18,000	540	19,250	732	14,000	420	15,500	589	.....	.....	.....	.....
Sheepshead.....	37,000	1,410	38,500	1,540	17,000	920	18,250	730	.....	.....	.....	.....
Silver perch.....	8,000	240	8,000	240	5,000	150	5,000	150	.....	.....	.....	.....
Trout.....	80,000	1,580	82,125	2,215	4,000	100	5,875	150	.....	.....	.....	.....
Shrimp.....	600,000	8,000	575,000	7,670	40,000	450	35,000	465	.....	.....	.....	.....
Oysters.....	1,113,000	49,000	1,081,500	58,000	420,000	19,000	420,000	19,000	.....	.....	.....	.....
Turtles.....	18,000	450	18,460	462	30,000	800	30,500	813	.....	.....	.....	.....
Terrapins.....	.....	.....	.....	.....	48,500	1,263	52,500	1,368	.....	.....	.....	.....
Total.....	2,000,000	\$4,025	1,940,805	73,602	1,210,180	\$4,866	1,313,498	\$4,403	230,640	\$4,950	274,060	\$6,110

Species.	Iberville.				St. Martin.				Iberia.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Catfish.....	15,000	\$280	17,500	\$320	84,300	\$1,530	89,500	\$1,600	92,035	\$1,500	98,850	\$1,650

Species.	Vermilion.				Cameron.				Calcasieu.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bream and sunfish..	8,000	\$240	8,000	\$240	12,000	\$360	12,000	\$360	.....	.....	.....	.....
Catfish.....	25,000	400	30,000	500	35,000	600	40,000	650	45,000	\$800	50,000	\$850
Silver perch.....	4,000	120	4,000	120	6,000	180	6,000	180	.....	.....	.....	.....
Oysters.....	6,300	250	6,300	250	25,200	1,000	25,200	1,000	.....	.....	.....	.....
Total.....	43,300	\$1,010	48,300	\$1,110	78,200	\$2,140	83,200	\$2,190	45,000	\$800	50,000	\$850

SUMMARY.

Species.	1889.		1890.		Species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.		Pounds.	Value.	Pounds.	Value.
Black bass.....	80,070	\$4,099	81,570	\$4,219	Spots.....	30,000	\$1,500	30,600	\$1,520
Bream and sunfish...	247,370	13,979	251,970	14,207	Striped bass.....	54,000	2,940	49,950	3,050
Buffalo-fish.....	1,170,000	22,750	1,168,000	22,695	Trout.....	507,500	28,665	579,820	29,508
Catfish.....	2,416,155	46,608	2,651,357	54,155	Miscellaneous fish.....	97,220	5,820	101,280	5,970
Channel bass.....	238,700	6,825	242,866	7,097	Shrimp.....	7,121,500	93,640	6,540,150	88,115
Croakers.....	125,500	6,510	129,367	6,725	Crayfish.....	138,000	6,900	140,650	7,030
Drum, fresh-water.....	11,000	810	18,200	1,352	Crabs, hard.....	817,800	12,180	842,400	12,255
Flounders.....	15,000	1,500	16,200	1,620	Crabs, soft.....	185,600	6,815	123,000	5,972
Mullet.....	283,160	7,775	284,300	7,900	Oysters.....	3,223,500	179,250	3,124,800	202,550
Pompano.....	24,150	3,108	26,550	3,493	Turtles.....	84,333	2,175	90,793	2,335
Rock bass.....	53,000	2,994	52,400	2,939	Terrapins.....	53,000	1,388	58,333	1,543
Sheepshead.....	341,625	23,280	351,867	23,728	Total.....	17,557,219	497,277	17,194,133	526,946
Silver perch.....	121,100	5,066	123,860	5,228					
Spanish mackerel.....	107,000	10,700	113,850	11,650					

Fisheries by apparatus.—Tables 63 and 64 exhibit by parishes the quantities and values of products taken with each of the principal forms of apparatus employed in the vessel and shore fisheries respectively.

Considering the vessel fisheries, it is seen that seines take the largest quantities of fish and yield the greatest money returns, the principal species thus secured being channel bass, trout, Spanish mackerel, and croakers. Lines are the only other means of capture for fish, and take only two species—red snapper and grouper. The average value of these fish per pound is much less than the catch of the seines, so that the relative difference between the products of the two forms of apparatus is much less than the value of the catch. The crustaceans enumerated in the table were also taken with seines, and the oysters were obtained with tongs.

In the shore fisheries, as in the vessel fisheries, seines are the most important means of capture, the output in 1890 being about 11,000,000 pounds of fish, crustaceans, and reptiles, having a value of over \$230,000. Buffalo-fish, sheepshead, trout, catfish, and Spanish mackerel are the chief fish taken, while shrimp, crabs, terrapins, and turtles materially enhance the income of the seine fishermen. Lines are much more extensively used than in the vessel fisheries and secure a greater variety of fish, among which catfish and trout are especially important. The value of the line catch is about half that of the fish proper taken with seines. Such minor apparatus as cast nets and dip nets are mostly employed by semi-professional fishermen. The aggregate catch in 1890 was about 480,000 pounds, chiefly buffalo-fish, catfish, and trout, with a value of about \$16,000. Tongs used in the oyster fishery and small traps employed in the capture of crayfish complete the list of apparatus in the shore fisheries.

63.—Table showing by parishes and apparatus the yield of the vessel fisheries of Louisiana in 1889 and 1890.

Apparatus and species.	Jefferson.				Orleans.				Plaquemines.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Bluefish					12,925	\$776	13,050	\$843				
Bream and sunfish					14,150	1,158	18,050	1,385				
Buffalo-fish					10,700	214	12,250	245				
Catfish					21,750	543	22,050	571				
Channel bass					64,900	3,245	56,450	2,823				
Croakers					24,050	2,295	26,800	2,080				
Flounders					6,450	645	7,025	703				
Pompano					4,850	729	5,900	885				
Rock bass					1,700	102	1,800	108				
Sheepshead					14,525	1,387	14,150	1,340				
Silver perch					14,500	870	16,300	978				
Spanish mackerel					26,700	2,670	30,150	3,015				
Trout					21,750	1,716	21,700	1,682				
Miscellaneous fish					56,000	3,380	56,000	3,205				
Total					294,950	19,730	302,275	20,463				
Lines:												
Groupers					18,500	185	17,800	173				
Snappers, red					250,400	7,512	240,500	7,215				
Total					268,900	7,697	258,300	7,388				
Miscellaneous:												
Oysters	202,881	\$6,801	158,480	\$5,413	1,996,379	64,210	2,068,017	66,991	37,765	\$1,400	29,386	\$1,035
Shrimp					117,000	2,242	121,900	2,404				
Crabs, hard					24,600	1,640	8,400	560				
Crabs, soft					11,400	950	6,900	575				
Total	202,881	6,801	158,480	5,413	2,149,379	69,042	2,205,217	70,530	37,765	1,400	29,386	1,035
Grand total	202,881	6,801	158,480	5,413	2,014,329	93,072	2,683,492	96,053	37,765	1,400	29,386	1,035

63.—Table showing the yield of the vessel fisheries of Louisiana in 1889 and 1890—Continued.

Apparatus and species.	Lafourche.				Terrebonne.				St. Mary.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Channel bass									10,000	\$290	40,000	\$1,350
Croakers											2,100	74
Flounders											2,400	84
Mullet											3,450	121
Sheepshead									8,000	355	24,800	858
Trout									30,000	1,060	54,150	1,850
Miscellaneous fish											4,100	144
Total									48,000	1,705	131,000	4,447
Miscellaneous:												
Oysters	26,600	\$870	30,184	\$910	4,200	\$200	51,500	\$2,508	357,315	16,326	428,638	20,489
Grand total	26,600	870	30,184	910	4,200	200	51,500	2,508	405,815	18,031	559,638	24,936

SUMMARY.

Apparatus and species.	1889.		1890.		Apparatus and species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.		Pounds.	Value.	Pounds.	Value.
Seines:					Lines:				
Bluefish	12,925	\$776	13,050	\$843	Groupers	18,500	\$185	17,800	\$178
Bream and sunfish	14,150	1,158	18,050	1,385	Snappers, red	250,400	7,512	240,500	7,215
Buffalo-fish	10,700	214	12,250	245	Total	268,900	7,697	258,300	7,393
Catfish	21,750	543	22,050	571	Miscellaneous:				
Channel bass	74,900	3,535	96,450	4,173	Oysters	2,025,140	89,807	2,766,295	97,346
Croakers	24,050	2,295	28,900	2,754	Shrimp	117,000	2,242	121,900	2,404
Flounders	6,450	645	9,425	787	Crabs, hard	24,600	1,640	8,400	560
Mullet			3,450	121	Crabs, soft	11,400	950	6,900	575
Pompano	4,850	729	5,900	885	Total	2,778,140	94,639	2,903,495	100,885
Rock bass	1,700	102	1,800	108	Grand total	3,380,090	123,771	3,595,070	133,188
Sheepshead	22,525	1,742	38,950	2,178					
Silver perch	14,500	870	16,300	978					
Spanish mackerel	26,700	2,070	30,150	3,015					
Trout	51,750	2,776	75,850	3,518					
Miscellaneous fish	50,000	3,380	60,100	3,349					
Total	342,950	21,435	433,275	24,910					

64.—Table showing by parishes and apparatus the yield of the shore fisheries of Louisiana in 1889 and 1890.

Apparatus and species.	St. Tammany.				Tangipahoa.				St. John Baptist.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Black bass	2,800	\$224	3,000	\$240	2,100	\$168	2,200	\$176	1,800	\$104	1,500	\$120
Bream and sunfish	7,470	750	7,700	766	5,400	540	5,650	558	10,350	746	10,500	756
Buffalo-fish	8,500	170	8,700	174	15,700	314	16,500	330	140,000	2,800	130,500	2,610
Catfish	36,095	770	36,500	775	17,085	426	17,500	430	74,400	1,800	75,000	1,868
Croakers	700	70	500	50	5,500	550	3,200	320	5,550	550	5,800	580
Mullet									10,500	315	10,500	315
Rock bass	1,600	96	1,450	87	1,360	82	1,420	84	4,160	208	4,100	246
Sheepshead	2,290	229	2,290	229	2,485	249	2,485	249	11,900	1,190	11,900	1,190
Striped bass	4,100	205	3,800	228	2,125	111	2,300	198	5,500	275	5,300	318
Trout	3,200	250	3,200	256	5,100	408	5,100	408	3,000	240	3,000	240
Miscellaneous fish	5,200	422	5,500	433	5,500	440	5,700	447	6,250	500	6,500	509
Total	71,955	3,186	72,640	3,238	62,355	3,288	62,055	3,140	272,910	8,788	264,600	8,752
Lines:												
Catfish	10,480	225	11,000	237	4,000	124	5,500	140	21,000	540	22,500	560
Mullet									2,500	75	2,500	75
Rock bass	400	24	400	24	340	20	380	23	1,040	52	1,000	60
Sheepshead	1,310	131	1,310	131	1,415	141	1,415	141	6,000	600	6,000	600
Striped bass	1,100	55	1,200	72	575	24	700	42	1,400	70	1,200	72
Trout	12,075	845	12,100	847	12,250	857	12,300	861	24,325	1,703	24,450	1,712
Miscellaneous fish	600	50	650	52	750	60	825	62	850	68	940	71
Total	25,965	1,330	26,060	1,363	20,230	1,226	21,120	1,269	58,315	3,168	59,190	3,210

64.—Table showing the yield of the shore fisheries of Louisiana in 1889 and 1890—Continued.

Apparatus and species.	St. Tammany.				Tangipahoa.				St. John Baptist.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Minor apparatus:												
Bream and sunfish	3,730	\$370	3,500	\$350	2,700	\$270	2,900	\$285	5,150	\$372	5,250	\$379
Catfish	5,825	125	6,500	140	2,755	70	3,500	82	12,000	300	13,550	320
Mullet									5,900	177	5,900	177
Trout	1,725	121	1,700	119	1,750	123	1,800	126	3,475	243	3,500	245
Miscellaneous fish	2,000	162	2,150	167	2,250	180	2,350	184	2,700	216	2,850	221
Total	13,280	778	13,850	776	9,455	643	10,550	677	29,225	1,308	31,050	1,342
Miscellaneous:												
Crayfish									26,200	1,300	26,500	1,325
Crabs, hard	1,000	66	1,000	67	1,500	100	1,500	100	2,000	134	1,700	113
Crabs, soft	8,000	400	7,500	375	7,600	380	7,200	360	10,000	500	9,800	490
Turtles	3,833	95	5,000	125	3,000	75	3,850	91	4,500	102	5,000	125
Total	12,833	561	13,500	567	12,100	555	12,550	551	42,700	2,036	43,000	2,053
Grand total	124,033	5,855	126,650	5,944	104,140	5,712	106,275	5,637	403,150	15,300	397,840	15,357
	St. Charles.				Jefferson.				Orleans.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Black bass	3,400	\$272	3,500	\$280	58,870	\$2,403	58,920	\$2,407	3,500	\$280	3,850	\$308
Bream and sunfish	8,270	415	8,500	430	64,000	2,557	64,170	2,569	16,570	1,475	17,575	1,545
Buffalo-fish	75,500	1,510	80,500	1,610	60,800	1,216	60,200	1,204	254,500	4,344	223,350	4,337
Catfish	52,350	1,170	52,500	1,172	25,835	639	26,000	642	112,578	2,794	114,578	2,825
Channel bass					108,000	2,240	109,150	2,718	10,200	510	11,000	550
Croakers	1,800	180	1,900	190	45,900	2,050	47,200	1,897	7,000	700	6,100	610
Drum, fresh-water											6,200	452
Flounders									5,000	500	5,200	520
Mullet	10,333	354	10,133	339	112,000	2,385	112,200	2,400	17,500	545	17,748	569
Pompano									9,650	1,223	10,850	1,415
Rock bass	4,000	240	3,950	237	3,200	192	3,050	183	3,200	192	6,750	370
Sheepshead	4,200	420	4,200	420	91,070	3,957	94,870	4,359	17,052	1,705	17,055	1,705
Silver perch					57,660	2,306	57,660	2,306	8,200	492	10,000	600
Spanish mackerel	8,850	885	9,850	985	4,300	430	9,300	930	31,110	3,111	33,665	3,466
Striped bass	2,500	125	2,750	165	3,050	153	3,300	198	6,800	340	6,500	406
Trout	4,100	342	4,150	332	207,800	10,470	208,000	10,490	2,300	180	3,100	248
Miscellaneous fish	3,050	245	3,500	262	4,800	384	4,950	389	9,000	585	9,400	600
Total	178,353	6,158	179,433	5,822	847,285	31,382	858,970	32,692	514,160	18,976	502,921	20,526
Lines:												
Bream and sunfish	4,000	120	4,000	120	10,000	300	10,000	300				
Catfish	35,200	640	38,500	700	142,500	2,212	166,500	3,200	20,200	518	22,480	537
Mullet	5,107	174	3,000	104	13,950	434	2,167	70	4,500	140	4,662	158
Rock bass	1,000	60	950	57	800	48	750	45	800	48	1,700	42
Sheepshead	2,306	230	2,300	230	2,330	233	2,330	233	9,748	975	9,745	975
Silver perch	2,000	60	2,000	60	5,000	150	5,000	150				
Spanish mackerel	1,950	195	950	95	900	90	1,900	190	5,800	589	6,500	674
Striped bass	600	30	750	45	750	37	700	42	1,700	85	1,500	94
Trout	20,125	1,409	20,140	1,410	16,800	1,176	16,800	1,176	29,750	2,082	30,230	2,105
Miscellaneous fish	385	30	450	32	600	48	680	51	1,100	70	1,200	74
Total	72,727	2,948	73,040	2,853	193,630	4,728	206,827	5,457	73,688	4,507	78,017	4,059
Minor apparatus:												
Bream and sunfish	4,130	205	4,250	213	3,170	125	3,225	129	1,780	177	2,300	227
Catfish	8,450	190	9,000	200	4,165	109	5,875	135	11,222	288	13,400	315
Mullet	11,100	385	5,000	185	27,901	887	6,100	200	9,500	297	9,800	329
Trout	2,875	201	2,900	203	2,400	168	2,400	168	4,250	298	4,730	321
Miscellaneous fish	1,165	93	1,200	94	1,800	144	1,850	146	3,600	241	3,800	248
Total	27,720	1,074	22,350	895	39,436	1,413	19,450	778	30,352	1,301	34,120	1,440
Miscellaneous:												
Shrimp					6,086,000	76,780	5,544,000	72,590	99,600	1,992	99,900	2,050
Crayfish	27,600	1,380	28,000	1,400	25,400	1,270	26,000	1,300	38,400	1,930	38,850	1,940
Crabs, hard	2,500	166	1,800	120	794,800	10,647	823,900	11,022	2,000	134	1,800	120
Crabs, soft	5,000	250	5,000	250	5,000	250	4,800	240	20,000	1,000	21,000	1,020
Oysters					630,000	31,000	604,800	39,300				
Turtles	1,000	17	1,350	24	11,000	270	10,887	247	2,500	62	3,700	86
Terrapins	2,000	58	2,500	67	2,500	67	3,333	108				
Total	38,100	1,871	38,650	1,861	7,554,700	120,284	7,017,700	124,807	162,500	5,118	165,250	5,216
Grand total	316,900	12,051	313,473	11,431	8,635,051	157,807	8,102,947	163,734	780,700	29,902	780,308	31,841

64.—Table showing the yield of the shore fisheries of Louisiana in 1889 and 1890—Continued.

Apparatus and species.	St. Bernard.				Plaquemines.				Lafourche.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Black bass.....	8,100	\$648	8,600	\$688								
Bream and sunfish	31,170	2,068	32,635	2,705								
Buffalo-fish.....	355,000	7,846	405,250	8,105					5,000	\$75	4,000	\$60
Catfish.....	303,662	5,046	309,197	5,123								
Channel bass.....	20,500	1,025	20,200	1,010					20,000	650	20,650	568
Croakers.....	9,050	910	10,000	1,000					9,000	270	10,250	390
Drum, fresh-water	11,000	810	12,000	900								
Flounders.....	10,000	1,000	11,000	1,100								
Mullet.....	52,315	1,627	52,715	1,675								
Pompano.....	14,500	1,885	15,700	2,078								
Rock bass.....	25,600	1,385	21,200	1,144								
Sheepshead.....	66,773	6,160	66,800	6,140					16,000	680	17,864	715
Silver perch.....	20,300	1,218	21,200	1,272								
Spanish mackerel.	45,425	4,542	48,350	4,947								
Spots.....	30,000	1,500	30,600	1,520								
Striped bass.....	19,025	1,143	15,950	983								
Trout.....	2,500	200	3,550	284					43,000	1,400	45,300	1,355
Miscellaneous fish	30,412	1,254	31,102	1,285								
Total.....	1,055,362	40,867	1,116,109	42,019					93,000	3,075	98,064	3,088
Lines:												
Bream and sunfish					6,000	\$180	6,000	\$180	4,000	120	4,000	120
Catfish.....	88,220	1,465	92,390	1,505	265,000	5,300	265,000	5,300	10,000	150	12,200	200
Mullet.....			13,950	434								
Rock bass.....	6,400	347	5,300	337								
Sheepshead.....	38,152	3,470	38,200	3,450					2,000	60	2,000	60
Silver perch.....					3,000	90	3,000	90				
Spanish mackerel.	8,575	858	9,335	963								
Striped bass.....	4,775	287	4,000	247								
Trout.....	35,600	2,570	36,085	2,593								
Miscellaneous fish	3,800	157	4,000	164								
Total.....	185,522	9,163	203,260	9,693	274,000	5,570	274,000	5,570	16,000	330	18,000	380
Minor apparatus:												
Bream and sunfish	13,480	1,209	13,725	1,225								
Buffalo-fish.....					150,000	3,000	150,000	3,000				
Catfish.....	48,978	814	50,850	834								
Channel bass.....					23,000	800	23,650	650				
Croakers.....					9,000	270	9,667	367				
Mullet.....			27,925	870								
Sheepshead.....					14,000	520	15,753	631				
Trout.....	5,100	370	5,585	394	40,000	1,320	41,700	1,250				
Miscellaneous fish	11,408	471	11,623	479								
Total.....	78,966	2,864	109,708	3,802	236,000	5,910	240,770	5,898				
Miscellaneous:												
Shrimp.....	125,900	2,518	120,500	2,410	120,000	2,700	118,750	2,225	50,000	1,200	47,000	705
Crayfish.....	20,400	1,020	21,300	1,065								
Crabs, hard.....	14,000	933	10,700	713								
Crabs, soft.....	80,000	4,035	67,700	3,237								
Oysters.....					546,000	55,000	535,500	56,000	483,000	24,000	451,500	20,000
Turtles.....	7,500	154	9,066	212					3,000	150	3,000	150
Total.....	247,800	8,660	229,266	7,637	666,000	57,700	654,250	58,225	536,000	25,350	501,500	29,855
Grand total.....	1,567,620	61,554	1,658,343	63,151	1,170,000	69,180	1,169,020	69,693	645,000	28,755	617,564	33,323

Apparatus and species.	Terrebonne.				St. Mary.				Assumption.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Buffalo-fish.....	40,000	\$575	34,000	\$500	65,000	\$900	55,000	\$765				
Channel bass.....	50,000	1,400	50,470	1,388	7,000	200	7,746	213				
Croakers.....	18,000	540	19,250	732	14,000	420	15,500	589				
Sheepshead.....	37,000	1,410	38,500	1,540	17,000	920	18,250	730				
Trout.....	80,000	1,580	82,125	2,215	4,000	100	5,875	150				
Total.....	225,000	5,505	224,345	6,375	107,000	2,540	102,371	2,447				
Lines:												
Bream and sunfish	16,000	480	16,000	480	10,000	300	10,000	300				
Catfish.....	20,000	350	23,500	375	555,680	10,363	658,127	14,860	230,640	\$4,950	274,000	\$6,110
Silver perch.....	3,000	240	8,000	240	5,000	150	5,000	150				
Total.....	44,000	1,070	47,500	1,095	570,680	10,813	673,127	15,310	230,640	4,950	274,000	6,110

64.—Table showing the yield of the shore fisheries of Louisiana in 1889 and 1890—Continued.

Apparatus and species.	Terrebonne.				St. Mary.				Assumption.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Miscellaneous:												
Shrimp	600,000	\$8,000	575,000	\$7,670	40,000	\$450	35,000	\$465				
Oysters	1,113,000	49,000	1,081,500	58,000	420,000	19,000	420,000	19,000				
Turtles	18,000	450	18,460	462	30,000	800	30,500	813				
Terrapins					48,500	1,263	52,500	1,368				
Total	1,731,000	57,450	1,674,960	66,132	538,500	21,513	538,000	21,646				
Grand total	2,000,000	64,025	1,946,805	73,602	1,216,180	34,866	1,313,498	39,403	230,040	\$4,950	274,060	\$6,110

Apparatus and species.	Iberville.				St. Martin.				Iberia.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Lines:												
Catfish	15,000	\$280	17,500	\$320	84,300	\$1,530	89,500	\$1,600	92,035	\$1,560	98,850	\$1,650

Apparatus and species.	Vermilion.				Cameron.				Calcasieu.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Lines:												
Bream and sunfish	8,000	\$240	8,000	\$240	12,000	\$360	12,000	\$360				
Catfish	25,000	400	30,000	500	35,000	600	40,000	650	45,000	\$800	50,000	\$850
Silver perch	4,000	120	4,000	120	6,000	180	6,000	180				
Total	37,000	760	42,000	860	53,000	1,140	58,000	1,190	45,000	800	50,000	850
Miscellaneous:												
Oysters	6,300	250	6,300	250	25,200	1,000	25,200	1,000				
Grand total	43,300	1,010	48,300	1,110	78,200	2,140	83,200	2,190	45,000	800	50,000	850

SUMMARY.

Apparatus and species.	1889.		1890.		Apparatus and species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.		Pounds.	Value.	Pounds.	Value.
Seines:					Lines—continued:				
Black bass	80,070	\$4,099	81,570	\$4,219	Trout	150,925	\$10,651	152,105	\$10,704
Bream and sunfish	143,230	9,151	146,730	9,389	Miscellaneous fish	8,085	483	8,745	506
Buffalo-fish	1,020,000	19,750	1,018,000	19,695	Total	2,091,732	55,873	2,310,651	63,439
Catfish	622,005	12,705	631,275	12,835	Minor apparatus:				
Channel bass	215,700	6,225	219,210	6,447	Bream and sunfish	34,140	2,728	35,240	2,808
Croakers	118,500	6,240	119,700	6,358	Buffalo-fish	150,000	3,000	150,000	3,000
Drum, fresh-water	11,000	810	18,200	1,352	Catfish	93,395	1,896	102,675	2,026
Flounders	15,000	1,500	16,200	1,620	Channel bass	23,000	800	23,650	650
Mullet	202,648	5,226	203,296	5,208	Croakers	9,000	270	9,667	307
Pompano	24,150	3,108	26,550	3,493	Mullet	54,401	1,726	54,725	1,761
Rock bass	43,120	2,395	41,920	2,351	Sheepshead	14,000	520	15,758	631
Sheepshead	265,770	16,920	274,214	17,277	Trout	61,575	2,844	64,315	2,826
Silver perch	86,160	4,016	83,860	4,178	Miscellaneous fish	24,923	1,507	25,823	1,539
Spanish mackerel	89,685	8,968	95,165	9,728	Total	464,434	15,291	481,848	15,008
Spots	30,000	1,500	30,600	1,530	Miscellaneous:				
Striped bass	43,100	2,352	39,900	2,436	Shrimp	7,121,500	93,640	6,540,150	88,115
Trout	355,000	15,170	363,400	15,978	Crayfish	138,000	6,900	140,650	7,030
Miscellaneous fish	64,212	3,830	66,712	3,925	Crabs, hard	817,800	12,180	842,400	12,255
Total	3,427,350	123,765	3,481,508	128,099	Crabs, soft	135,000	6,815	123,000	5,972
Lines:					Oysters	3,225,500	179,250	3,124,800	202,550
Bream and sunfish	70,000	2,100	70,000	2,100	Turtles	84,333	2,175	90,793	2,335
Catfish	1,700,755	32,007	1,917,407	39,294	Terrapins	53,000	1,388	58,333	1,543
Mullet	26,117	823	26,279	841	Total	11,573,733	302,348	10,920,126	319,800
Rock bass	10,780	599	10,480	588	Grand total	17,557,249	497,277	17,194,133	526,940
Sheepshead	61,855	5,840	61,900	5,820					
Silver perch	35,000	1,050	35,000	1,050					
Spanish mackerel	17,315	1,732	18,685	1,922					
Striped bass	10,900	588	10,050	614					

The shore industries.—The shore fishery industries of Louisiana are extensive. They comprise the wholesale handling of fresh fish and oysters, the drying of shrimp and fish, and the canning of oysters and shrimp. In the two following tables figures for these trades are given; in order to avoid the exhibition of private business interests, it has been necessary to present the information in a more condensed form than would otherwise be done.

Table 65 shows the extent of the fresh-oyster trade and the canned oyster and shrimp industry. The twelve firms engaged in 1890 employed 335 persons, to whom \$67,900 was paid in wages. The amount invested in the business was \$212,950. The total quantity of oysters handled was 189,895 barrels, the cost price of which was \$250,701. From this amount 287,336 cans were prepared, for which \$34,699 was received, and the remaining portion was sold fresh for \$342,164, giving \$126,162 as the gross profits of the oyster trade. From the 1,153,469 pounds of shrimp handled, 447,738 cans were prepared, the difference between the buying and selling being \$42,934. The total value of the oysters and shrimp after passing through the hands of the dealers was \$454,401, which was \$169,096 in excess of the price paid, the latter sum therefore representing the gross profits.

The principal features of the wholesale trades in fish and shrimps are given in Table 66. Of the 9,592,230 pounds of products handled in 1889, 2,936,000 pounds, valued at \$23,885, were shrimps; and of the 9,847,847 pounds handled in 1890, 2,456,000 pounds, worth \$19,905, were shrimps. These were dried and sent to San Francisco for the Chinese trade. In 1889 the dried shrimp had a weight of 346,000 pounds, valued at \$73,658, and in 1890, 293,600 pounds, worth \$62,042. There is also a small business done in drying such fish as trout, redfish, sheepshead, and pompano, the quantity so utilized being 98,875 pounds in 1889 and 95,400 pounds in 1890, the cost value being \$989 and \$954, respectively. The resulting quantities of dried fish were 34,500 pounds, worth \$4,240, in 1889, and 32,160 pounds, valued at \$3,860, in 1890.

65.—Table showing the extent of the wholesale oyster trade and the canning of oysters and shrimp in Louisiana in 1889 and 1890.

Designation.	1889.	1890.	Designation.	1889.	1890.
Number of firms.....	12	12	Oysters, cans prepared.....number..	492, 102	287, 336
Number of employes.....	330	335	Value received.....	\$52, 930	\$34, 699
Value of property.....	\$104, 000	\$108, 750	Shrimp handled.....pounds..	951, 738	1, 153, 469
Cash capital.....	\$103, 000	\$104, 200	Value paid.....	\$28, 285	\$34, 604
Wages paid.....	\$74, 380	\$67, 900	Cans prepared.....number..	376, 672	447, 738
Oysters handled.....barrels..	216, 345	189, 895	Value received.....	\$65, 843	\$77, 538
Value paid.....	\$251, 323	\$250, 701	Enhancement in value of products...	\$181, 562	\$169, 096
Value of oysters sold fresh.....	\$322, 397	\$342, 164			

66.—Table showing the extent of the wholesale fresh-fish and shrimp trades of Louisiana in 1889 and 1890

Designation.	1889.	1890.
Number of firms.....	18	18
Number of employes.....	120	125
Value of property.....	\$113, 400	\$116, 325
Cash capital.....	\$73, 300	\$78, 300
Wages paid.....	\$36, 672	\$37, 264
Products handled.....pounds..	9, 592, 230	9, 847, 847
Value paid.....	\$334, 533	\$363, 626
Value received.....	\$518, 532	\$550, 591
Enhancement in value.....	\$183, 999	\$186, 965

VI.—FISHERIES OF TEXAS.

Geography of the coast.—The coast of Texas presents features differing from any other of the Gulf States. Almost throughout its entire length it is bordered by a series of low, sandy islands and peninsulas, the Gulf side of which forms a very regular shore line, which, beginning at Sabine Lake, extends in a southwesterly direction to Corpus Christi, and thence in a southerly direction to the Rio Grande. Numerous bays occur between the mainland and the islands, the most important being Galveston, Matagorda, Espiritu Santo, Aransas, Corpus Christi, and Laguna Madre. The approximate length of the coast line of the State, including the indentations, is 2,010 miles. Besides the Sabine and Rio Grande, which streams form the coastal boundaries of the State, there are other important rivers which enter the Gulf of Mexico on the shores of Texas. The largest of these are the Neches, Trinity, Brazos, Colorado, Guadalupe, and Nueces.

The principal cities and towns along the coast are Sabine City, Galveston, Matagorda, Saluria, Port Lavaca, Rockport, and Corpus Christi. The islands and peninsulas which skirt the shores are, as a rule, unpopulated, the only noticeable exceptions being Galveston Island, on which the city of Galveston is located, and Bolivar Peninsula, which contains a few hundred people. On the shores of all the bays there are a few settlements of cattle-raisers, fishermen, etc., but it is only in Galveston, Matagorda, Aransas, and Corpus Christi bays that the population is large enough and the transportation facilities sufficiently good to support important fisheries.

Importance of the Texas fisheries.—The rank of Texas among the Gulf States is fourth in the item of persons engaged, fourth in the amount of capital invested, and third in the value of the products. As shown in Section I of this report, the development of the fishing industry in this State since 1880 has been phenomenally large, the number of fishermen and shosmen having increased 112.48 per cent, the capital 652.65 per cent, and the value of the catch 143.05 per cent.

The only fishery products which are of actual or relative importance are three fish (trout, redfish, and sheepshead) and oysters, the value of which is more than four-fifths the total yield of the State. The fisheries for these and other species are capable of great development, as the natural fishery resources of the Texas coast are fully as favorable as those of any other Gulf State. The possibilities of the region for oyster-production and oyster-culture are beyond present calculation. The chief disadvantages with which the fishing interests now contend are the poor facilities for transportation.

Condensed statistics.—Four tables are first presented, which show, in a general way, the extent of the commercial fisheries of the coastal waters in 1889 and 1890.

From the first table it will be seen that 1,277 persons found employment in connection with the fisheries in 1890, of whom 84 were engaged on vessels, 1,032 in the boat or shore fisheries, and 161 in the shore industries related to or dependent on the fishing business.

The different nationalities represented in the Texas fisheries are shown in Table 68. The great preponderance of white Americans is noteworthy, and strongly contrasts with Louisiana. The number of colored fishermen is small as compared with other States of this section. The largest foreign element is from the countries of southern Europe, chiefly Italy, Spain, and Portugal.

The third table of the series gives the number and value of vessels, boats, and apparatus used, and the value of the shore property and cash capital required. Only 19 vessels were employed in 1890, a much smaller number than is found in any other Gulf State. The value of these and their outfits was \$29,710. The 814 boats engaged in fishing had a value of \$101,570; many of these are rigged craft, but, being under 5 tons burden, and not documented, are properly classed as boats. The apparatus of capture had a value of \$23,951, three-fourths of which sum was invested in seines. The shore property and cash or working capital amounted to \$163,891. The total investment in 1890 was \$319,122, an increase of \$62,691 over the previous year.

The product of the Texan fisheries in 1889 was 7,357,800 pounds, valued at \$297,258; and in 1890, 7,959,400 pounds, worth \$313,832; the increase being chiefly due to the augmented output of oysters, which are the principal object of fishery. More than two-fifths the value of the catch represented oysters. Trout, channel bass, and sheeps-head together were worth nearly as much as oysters. Over 1,000,000 pounds of each of the two first-named fish and nearly 800,000 pounds of the last were taken, the catch of these species being larger than in any other State.

67.—Table of persons employed.

How engaged.	1889.	1890.
On vessels fishing	59	73
On vessels transporting		11
In shore fisheries	1,017	1,032
On shore, in fish-houses, etc.	135	161
Total	1,211	1,277

68.—Table showing the nationality of persons engaged in the fisheries.

Nationalities.	Vessel fisher- men.		Shore fisher- men.		Shoresmen.		Total.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
American, white	49	73	880	890	124	148	1,053	1,111
American, colored			30	30			30	30
Italian, Spanish, and Portuguese	5	5	56	58	2	3	63	66
German	1	2	4	4			5	6
Mexican			13	12	3	3	16	15
Norwegian and Swedish			2	3			2	3
Others	4	4	32	35	6	7	42	46
Total	59	84	1,017	1,032	135	161	1,211	1,277

69.—Table of apparatus and capital.

Designation.	1889.		1890.		Designation.	1889.		1890.		
	No.	Value.	No.	Value.		No.	Value.	No.	Value.	
Vessels fishing	15	\$8,885	18	\$10,705	Apparatus of capture— shore fisheries:					
Tonnage	132.69		152.59			Seines	119	\$14,330	122	\$14,750
Outfit		2,400		3,005		Turtle nets	132	1,830	136	1,872
Vessels transporting			1	15,000		Cast nets	303	1,025	315	1,070
Tonnage			88.17			Lines		570		540
Outfit				1,000		Tongs	373	2,449	383	2,515
Boats	803	90,945	814	101,570		Miscellaneous		318		313
Apparatus of capture— vessel fisheries:						Shore property		82,741		110,391
Seines	11	1,650	14	2,100		Cash capital		39,500		53,500
Turtle nets	20	200	20	200						
Tongs	13	85	14	91		Total		256,431		319,122

70.—Table of products.

Species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.
Bluefish	23,950	\$1,301	25,500	\$1,327
Bream and sunfish	34,225	1,555	34,700	1,526
Buffalo-fish	15,000	750	13,800	690
Catfish	97,500	4,060	45,000	2,090
Channel bass	1,063,325	45,309	1,107,950	47,905
Crevalle	51,975	1,894	56,350	2,241
Croakers	148,450	6,257	175,950	6,730
Drum, salt-water	4,000	80	4,000	80
Flounders	120,975	5,379	130,650	5,825
Jewfish	42,035	1,655	46,000	1,874
Mullet	81,800	2,600	83,450	2,770
Pike	31,610	1,405	32,450	1,402
Pompano	2,500	675	2,000	600
Sailor's choice	26,750	1,050	25,850	1,204
Sheepshead	738,720	28,439	778,800	30,871
Shoemaker	12,265	533	12,300	513
Snappers, red	22,000	1,250	4,800	240
Spanish mackerel	16,830	942	25,000	1,313
Striped bass	9,678	436	9,000	391
Trout	1,077,102	45,963	1,120,450	47,864
Miscellaneous fish	175,100	6,530	184,000	6,744
Oysters	*2,524,200	111,400	†3,085,000	127,990
Crabs	189,400	5,030	190,800	5,095
Shrimp	241,500	7,555	175,800	5,670
Terrapins	34,710	6,045	6,200	1,532
Turtles	572,200	9,166	583,000	9,345
Total	7,357,800	297,258	7,959,400	313,832

* 360,600 bushels.

† 440,800 bushels.

Fisheries by counties.—There are ten counties in Texas, abutting on the Gulf of Mexico or on the bays or other indentations, which are interested in the commercial fisheries. These, in their geographical order, beginning on the east, are Jefferson, Chambers, Galveston, Brazoria, Matagorda, Calhoun, Refugio, Aransas, Nueces, and Cameron. In the three following tables the extent of the fishing industry in each county is shown. The prominent position occupied by Galveston, Aransas, and Nueces counties, in which are the towns of Galveston, Rockport, and Corpus Christi, is one of the most noteworthy exhibitions made by the tables. Under the heads "Fisheries by apparatus" and "The vessel and shore fisheries" additional features of the county fisheries are shown.

71.—Table showing by counties the number of persons employed in the fisheries of Texas in 1889 and 1890.

Counties.	In vessel fisheries.		In shore fisheries.		On shore.		Total.	
	1889.	1890.	1889.	1890.	1889.	1890.	1889.	1890.
Jefferson			31	34			31	34
Chambers			59	59			59	59
Galveston	7	18	450	447	66	85	523	550
Brazoria			74	74			74	74
Matagorda			63	66			63	66
Calhoun			62	65	8	8	70	73
Refugio			20	20			20	20
Aransas	19	27	119	122	37	41	175	180
Nueces	33	39	105	111	22	25	160	175
Cameron			34	34	2	2	36	36
Total	50	84	1,017	1,032	135	161	1,211	1,277

72.—Table showing by counties the apparatus and capital employed in the fisheries of Texas in 1889 and 1890.

Designation.	Jefferson.				Chambers.				Galveston.				Brazoria.			
	1889.		1890.		1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing									2	\$735	2	\$680				
Tonnage									12.93		12.93					
Outfit										330		330				
Vessels transporting											1	15,000				
Tonnage											88.17					
Outfit												1,000				
Boats	10	\$400	10	\$400	58	\$6,635	58	\$6,635	452	51,440	450	51,360	73	\$8,295	73	\$8,295
Apparatus of capture— vessel fisheries:																
Seines									2	300	2	300				
Apparatus of capture— shore fisheries:																
Seines	2	200	2	200	8	875	8	875	61	6,800	62	6,925	10	1,100	10	1,100
Cast nets	27	35	30	95	9	35	9	35	74	275	74	275	12	45	12	45
Lines		70		70		30		30		235		235		35		35
Tongs					24	160	24	160	188	1,250	186	1,240	30	202	30	200
Miscellaneous						75		75		600		600		100		100
Shore property		56								50,600		65,700				
Cash capital										20,000		30,000				
Total		811		826		7,810		7,810		132,565		173,645		9,777		9,775

Designation.	Matagorda.				Calhoun.				Refugio.				Aransas.			
	1889.		1890.		1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing													4	\$2,600	6	\$3,725
Tonnage													43.88		60.62	
Outfit														975		1,340
Boats	49	\$6,875	51	\$7,800	38	\$6,775	40	\$6,690	12	\$2,135	12	\$2,350	60	11,655	64	11,065
Apparatus of capture— vessel fisheries:																
Seines													4	600	6	900
Turtle nets													20	200	20	200
Apparatus of capture— shore fisheries:																
Seines	3	300	3	300	2	200	2	200	3	450	3	450	18	2,705	20	3,000
Turtle nets									25	250	25	250	150	1,500	155	1,550
Cast nets	15	50	15	50	15	50	15	50	7	25	8	29	38	135	42	151
Lines		5		5		5		5		10		5		50		25
Tongs	39	254	42	273	39	253	42	273	4	25	4	25	25	150	25	150
Miscellaneous, includ- ing spears										5		5		25		20
Shore property						1,050		1,050						12,910		25,440
Cash capital						1,500		1,500						6,000		10,000
Total		7,484		8,428		9,833		9,768		2,900		3,114		39,505		57,566

Designation.	Nueces.				Cameron.				Total.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Vessels fishing	9	\$5,550	10	\$6,300					15	\$8,885	18	\$10,705
Tonnage	75.88		79.04						132.09		152.59	
Outfit		1,095		1,335						2,400		3,005
Vessels transporting											1	15,000
Tonnage											88.17	
Outfit												1,000
Boats	34	4,570	39	5,830	17	\$1,165	17	\$1,145	803	99,945	814	101,570
Apparatus of capture— vessel fisheries:												
Seines	5	750	6	900					11	1,650	14	2,100
Turtle nets									20	200	20	200
Tongs	13	85	14	91					13	85	14	91
Apparatus of capture— shore fisheries:												
Seines	10	1,500	10	1,500	2	200	2	200	119	14,330	122	14,750
Turtle nets					7	80	6	72	182	1,830	186	1,872
Cast nets	85	265	90	280	21	63	20	60	303	1,028	315	1,070
Lines		30		30		100		100		670		540
Tongs	20	130	26	169	4	25	4	25	373	2,449	383	2,515
Miscellaneous, in- cluding spears		10		10		3		3		818		813
Shore property		17,610		17,620		515		520		82,741		110,391
Cash capital		12,000		12,000						39,500		53,500
Total		43,595		46,065		2,151		2,125		256,431		319,122

73.—Table showing by counties and species the yield of the fisheries of Texas in 1889 and 1890.

Species.	Jefferson.				Chambers.				Galveston.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bluefish					1,550	\$102	1,400	\$94	12,012	\$787	10,800	\$726
Bream and sunfish	1,000	\$50	1,000	\$50	2,270	116	2,150	108	17,595	904	16,663	837
Buffalo-fish	15,000	750	13,800	690								
Catfish	14,500	700	12,500	615	750	22	750	23	5,810	173	5,807	174
Channel bass	8,000	465	9,000	495	40,650	2,015	40,420	2,109	340,840	16,983	333,055	17,512
Crevalle					2,410	96	2,245	110	19,690	776	18,605	890
Croakers	2,000	100	2,000	100	6,375	318	7,060	357	48,007	2,901	56,115	2,809
Drum, salt-water					400	8	400	8	3,100	62	3,100	62
Flounders					4,700	255	4,600	260	39,100	2,025	37,975	2,075
Jewfish					750	30	650	30	5,800	232	5,035	232
Mullet					4,200	151	3,930	157	34,550	1,210	33,158	1,271
Pike	800	40	800	40	2,100	105	2,040	100	16,275	789	15,810	775
Pompano					250	67	200	60	1,950	524	1,550	465
Sailor's choice					1,835	72	1,700	85	14,215	562	13,175	659
Sheepshead	6,500	305	7,000	330	31,490	1,379	30,240	1,465	258,548	11,366	246,260	11,878
Shoemaker					890	41	780	38	6,070	322	6,045	294
Snappers, red					2,200	125	480	24	17,050	969	3,720	186
Spanish mackerel					600	42	1,000	60	4,850	325	7,750	465
Striped bass					620	31	500	25	4,605	239	3,875	193
Trout	9,700	490	10,700	540	44,900	2,320	42,735	2,282	368,943	19,153	351,046	18,827
Miscellaneous fish	11,800	505	12,200	528	5,190	234	5,300	244	41,223	1,844	42,075	1,926
Oysters					147,000	7,040	164,710	7,210	1,139,250	55,280	1,276,490	55,330
Crabs					16,500	420	16,250	420	127,900	3,250	125,937	3,255
Shrimp					20,250	634	13,800	451	156,940	4,918	106,950	3,495
Terrapins	2,450	580	2,700	650	3,120	520	240	60	24,180	4,030	1,860	465
Total	71,750	3,985	71,700	4,038	340,940	16,143	343,580	15,780	2,708,503	129,624	2,722,856	124,801

Species.	Brazoria.				Matagorda.				Calhoun.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bluefish	1,938	\$126	1,800	\$120					400	\$16	500	\$20
Bream and sunfish	2,835	145	2,687	135	330	\$10	400	\$12	670	20	800	24
Catfish	940	30	943	28								
Channel bass	50,810	2,502	50,525	2,524	9,635	350	10,715	382	19,365	700	21,435	765
Crevalle	3,000	120	2,800	140	450	15	500	16	900	25	1,000	29
Croakers	7,968	398	8,825	446	1,500	52	1,583	55	3,000	105	3,167	111
Drum, salt-water	500	10	500	10								
Flounders	6,000	340	5,125	325	1,350	55	1,983	79	2,050	105	3,967	159
Jewfish	950	38	815	38								
Mullet	5,250	189	4,862	197	2,835	83	2,890	82	5,665	167	5,670	168
Pike	2,625	156	2,550	125	300	11	335	12	600	20	665	23
Pompano	300	84	250	75								
Sailor's choice	2,300	90	2,125	106	335	14	370	15	665	26	730	29
Sheepshead	36,862	1,651	37,800	1,831	5,885	203	6,600	233	11,765	417	13,200	466
Shoemaker	1,400	52	975	48								
Snappers, red	2,750	156	600	30								
Spanish mackerel	750	53	1,250	75	270	16	330	18	530	30	670	37
Striped bass	775	40	625	32								
Trout	56,157	2,900	53,419	2,854	11,550	419	13,065	472	23,150	843	26,135	945
Miscellaneous fish	6,487	293	6,625	305	3,025	91	3,400	103	6,975	187	6,700	208
Oysters	183,750	8,080	205,900	9,600	307,300	13,200	510,300	19,470	153,650	6,600	255,150	9,730
Crabs	20,600	530	20,313	525								
Shrimps	25,310	793	17,250	564	340	10	340	10	660	20	660	20
Terrapins	3,900	650	300	75								
Total	424,157	19,426	428,864	20,208	345,105	14,529	552,751	20,959	229,645	9,281	340,449	12,734

73.—Table showing by counties and species the yield of the fisheries of Texas in 1889 and 1890—Continued.

Species.	Refugio.				Aransas.				Nueces.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bluefish	643	\$20	786	\$26	5,357	\$168	7,214	\$236	2,050	\$82	3,000	\$105
Bream and sunfish	514	18	575	20	4,286	150	5,425	190	3,725	112	4,000	120
Catfish	7,430	280			44,570	1,680						
Channel bass	41,715	1,598	42,142	1,618	321,285	12,300	362,858	13,732	221,025	7,996	227,800	8,403
Crevalle	1,043	57	2,000	70	13,457	469	18,000	630	9,425	296	10,000	320
Croakers	4,286	126	5,286	157	35,314	1,062	47,714	1,403	38,000	1,125	42,000	1,215
Flounders	6,710	263	7,374	287	42,190	1,636	50,626	1,910	15,275	610	16,000	640
Jewfish	3,872	153	4,690	182	23,788	946	28,870	1,182	6,875	256	7,000	260
Mullet	1,086	46	1,856	50	11,314	298	13,144	340	12,300	338	14,000	385
Pike	428	15	485	17	3,532	120	4,515	153	4,150	125	4,500	135
Sailor's choice									6,650	265	7,000	280
Sheepshead	26,803	881	28,557	969	205,317	6,750	245,443	8,083	148,550	5,207	157,200	5,956
Shoemaker	300	9	300	9	2,240	66	2,700	79	1,425	43	1,500	45
Spanish mackerel	714	29	900	35	5,966	237	8,100	323	3,350	210	5,000	300
Striped bass	285	10	300	10	2,255	78	2,700	93	898	38	1,000	38
Trout	39,370	1,357	40,588	1,390	297,070	10,534	344,912	12,168	212,262	7,412	223,750	7,858
Miscellaneous fish	4,429	136	4,750	147	31,971	1,007	37,250	1,108	46,000	1,523	45,200	1,415
Oysters	26,400	943	26,550	943	158,400	5,657	159,300	5,657	379,050	12,900	457,800	18,350
Crabs	1,714	57	1,886	63	10,286	343	11,314	377	9,400	380	11,800	400
Terrapins	126	31	114	29	934	294	986	253				
Turtles	62,771	1,045	64,571	1,078	450,429	7,681	470,429	7,857				
Total	231,839	7,074	233,650	7,100	1,678,901	51,416	1,821,500	55,722	1,120,450	38,916	1,238,550	45,625

Species.	Cameron.				Total for the State.			
	1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bluefish					23,950	\$1,301	25,500	\$1,327
Bream and sunfish	1,000	\$30	1,000	\$30	34,225	1,555	34,700	1,526
Buffalo-fish					15,000	750	13,800	690
Catfish	23,500	1,175	25,000	1,250	97,500	4,060	45,000	2,090
Channel bass	10,000	400	9,000	365	1,063,325	45,309	1,107,950	47,905
Crevalle	1,000	30	1,200	36	51,975	1,884	56,350	2,241
Croakers	2,000	70	2,200	77	148,450	6,257	175,950	6,730
Drum, salt-water					4,000	80	4,000	80
Flounders	3,000	90	3,000	90	120,975	5,379	130,650	5,825
Jewfish					42,035	1,655	46,000	1,874
Mullet	4,000	120	4,000	120	81,800	2,600	83,450	2,770
Pike	800	24	750	22	31,610	1,405	32,450	1,402
Pompano					2,500	675	2,000	600
Sailor's choice	750	30	750	30	26,750	1,059	25,850	1,204
Sheepshead	7,000	280	6,500	260	738,720	28,439	778,800	30,871
Shoemaker					12,265	533	12,300	513
Snappers, red					22,000	1,250	2,300	240
Spanish mackerel					16,830	942	25,000	1,313
Striped bass					9,678	436	9,000	391
Trout	14,000	535	14,100	530	1,077,102	45,963	1,120,450	47,804
Miscellaneous fish	19,000	710	20,500	760	175,100	6,530	184,000	6,744
Oysters	29,400	1,700	29,400	1,700	2,524,200	111,400	3,085,600	127,990
Crabs	3,000	50	3,300	55	189,400	5,080	190,800	5,095
Shrimp	38,000	1,180	36,800	1,130	241,500	7,555	175,800	5,670
Terrapins					34,710	6,045	6,200	1,532
Turtles	50,000	440	48,000	410	572,200	9,166	583,000	9,345
Total	206,450	6,864	205,500	6,865	7,357,800	297,258	7,959,400	313,832

The vessel and shore fisheries.—The number of vessels employed in the fisheries of Texas is much less than in any other Gulf State, as shown in Table 2, although in 1890 the value of the products of the vessel fisheries surpassed that of Alabama. In the following table the yield by vessels is given; in 1890 this amounted to 984,100 pounds, valued at \$34,227, consisting chiefly of channel bass, sheepshead, trout, and oysters, the first-named species being the most important single product.

The value of the shore fisheries is about eight times that of the vessel fisheries. The most important objects of capture are trout, channel bass, sheepshead, and oysters, the last being by far the most valuable.

The men and property devoted to the vessel and shore fisheries have been shown separately in previous tables; the exposition of the extent of each of these branches is therefore made complete by the presentation of Tables 74 and 75, which relate to the products. Under the caption "Fisheries by apparatus," certain other data are also given for the vessel and shore fisheries.

74.—Table showing by counties and species the yield of the vessel fisheries of Texas in 1889 and 1890.

Species.	Galveston.				Aransas.				Nueces.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bluefish					1,500	\$48	2,500	\$80	800	\$32	1,400	\$49
Bream and sunfish					1,200	42	2,000	70	1,425	43	1,000	57
Channel bass	20,000	\$1,000	19,800	\$1,055	71,000	2,608	110,000	4,025	75,325	2,796	103,500	3,903
Crevalle	1,000	30	1,200	40	3,600	120	8,000	210	3,375	110	4,500	155
Croakers	1,000	30	1,400	40	9,600	288	16,000	460	15,000	435	20,000	580
Flounders	2,600	60	1,700	60	3,900	140	6,500	220	4,125	165	5,500	220
Jewfish					650	24	1,100	30	675	20	900	27
Mullet	2,000	40	2,650	53	1,200	24	2,000	40	1,650	16	1,400	21
Pike					960	30	1,600	50	1,650	50	2,200	66
Sailor's choice									2,250	90	3,000	120
Sheepshead	12,000	600	11,900	521	44,400	1,461	74,000	2,267	57,150	1,947	76,200	2,506
Shoemaker					640	15	900	25	525	16	700	21
Spanish mackerel					1,680	66	2,800	110	1,000	60	2,400	144
Striped bass					540	18	900	30	348	14	450	18
Trout	21,000	1,170	19,850	1,123	60,840	2,361	101,400	3,818	78,512	2,737	104,950	3,648
Miscellaneous fish	1,000	30	1,000	35	5,400	190	9,000	245	12,000	338	16,000	450
Oysters									145,950	5,425	159,600	6,080
Terrapins					180	45	300	75				
Turtles					82,800	1,409	83,000	1,390				
Total	60,600	2,960	59,500	2,927	290,000	9,015	420,000	13,145	400,950	14,300	504,600	18,155

SUMMARY.

Species.	1889.		1890.		Species.	1889.		1890.	
	Pounds.	Value.	Pounds.	Value.		Pounds.	Value.	Pounds.	Value.
Bluefish	2,300	\$80	3,900	\$129	Shoemaker	1,065	\$31	1,600	\$46
Bream and sunfish	2,625	85	3,900	127	Spanish mackerel	2,680	126	5,200	254
Channel bass	166,125	6,494	233,300	8,983	Striped bass	878	32	1,350	48
Crevalle	7,975	272	11,700	405	Trout	160,352	6,298	226,200	8,589
Croakers	25,600	753	37,400	1,080	Miscellaneous fish	18,400	558	26,000	730
Flounders	10,625	365	13,700	507	Oysters	145,950	5,425	159,600	6,080
Jewfish	1,335	44	2,000	57	Terrapins	180	45	300	75
Mullet	4,250	80	6,050	114	Turtles	82,800	1,409	83,000	1,390
Pike	2,610	80	3,800	116					
Sailor's choice	2,250	90	3,000	120	Total	751,550	26,275	984,100	34,227
Sheepshead	113,550	4,008	162,100	5,384					

75.—Table showing by counties and species the yield of the shore fisheries of Texas in 1889 and 1890.

Species.	Jefferson.				Chambers.				Galveston.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bluefish					1,550	\$102	1,400	\$94	12,012	\$787	10,800	\$726
Bream and sunfish	1,000	\$50	1,000	\$50	2,270	116	2,150	108	17,595	904	16,063	837
Buffalo-fish	15,000	750	13,800	690								
Catfish	14,500	700	12,500	615	750	22	750	23	5,810	173	5,807	174
Channel bass	8,000	465	9,000	495	40,650	2,015	40,420	2,109	320,840	15,983	313,255	16,457
Crovalle					2,410	96	2,245	110	18,690	748	17,405	850
Croakers	2,000	100	2,000	100	6,375	318	7,000	357	47,007	2,871	54,715	2,769
Drum, salt-water					400	8	400	8	3,100	62	3,100	62
Flounders					4,700	255	4,600	260	36,500	1,965	36,275	2,015
Jewfish					750	30	650	30	5,800	232	5,035	232
Mullet					4,200	151	3,930	157	32,550	1,170	30,508	1,218
Pike	800	40	800	40	2,100	105	2,040	100	16,275	789	15,810	778
Pompano					250	67	200	60	1,960	524	1,550	465
Sailor's choice					1,835	72	1,700	85	14,215	582	13,175	659
Sheepshead	6,500	305	7,000	330	31,490	1,379	30,240	1,405	246,548	10,766	234,360	11,357
Shoemaker					830	41	780	38	6,070	322	6,045	294
Snappers, red					2,200	125	480	24	17,050	969	3,720	186
Spanish mackerel					600	42	1,000	60	4,650	325	7,750	465
Striped bass					620	31	500	25	4,805	239	3,875	193
Trout	9,700	490	10,700	540	44,900	2,320	42,735	2,282	347,943	17,983	331,196	17,704
Miscellaneous fish	11,800	505	12,200	528	5,190	234	5,300	244	40,223	1,814	41,075	1,891
Oysters					147,000	7,040	164,710	7,210	1,139,250	55,280	1,276,490	55,330
Crabs					16,500	420	16,250	420	127,900	3,250	125,937	3,255
Shrimp					20,250	634	13,800	451	156,940	4,918	100,950	3,495
Terrapins	2,450	580	2,700	650	3,120	520	240	60	24,180	4,030	1,860	465
Turtles												
Total	71,750	3,985	71,700	4,038	340,940	16,143	343,580	15,780	2,047,903	126,664	2,668,356	121,874

Species.	Brazoria.				Matagorda.				Calhoun.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bluefish	1,938	\$126	1,800	\$120					400	\$16	500	\$20
Bream and sunfish	2,835	145	2,687	135	330	\$10	400	\$12	670	20	800	24
Catfish	940	30	943	28								
Channel bass	50,810	2,502	50,525	2,524	9,635	350	10,715	382	19,365	700	21,435	765
Crovalle	3,000	120	2,800	140	450	15	500	16	900	25	1,000	29
Croakers	7,968	398	8,825	448	1,500	52	1,583	55	3,000	105	3,167	111
Drum, salt-water	500	10	500	10								
Flounders	6,000	340	5,125	325	1,350	65	1,983	79	2,650	105	3,967	159
Jewfish	950	38	815	38								
Mullet	5,250	189	4,862	197	2,885	83	2,830	82	5,665	167	5,670	168
Pike	2,625	156	2,550	125	300	11	335	12	600	20	605	23
Pompano	300	84	250	75								
Sailor's choice	2,300	90	2,125	106	335	14	370	15	665	26	730	29
Sheepshead	36,862	1,651	37,800	1,831	5,885	203	6,600	233	11,765	417	13,200	466
Shoemaker	1,400	52	975	48								
Snappers, red	2,750	156	600	30								
Spanish mackerel	750	53	1,250	75	270	16	380	18	530	30	670	37
Striped bass	775	40	625	32								
Trout	56,157	2,900	53,410	2,854	11,550	419	13,065	472	23,150	843	26,135	945
Miscellaneous fish	6,487	293	6,625	305	3,025	91	3,400	103	6,975	187	6,700	208
Oysters	183,750	8,080	205,900	9,600	307,300	13,200	510,300	19,470	153,650	6,600	255,150	9,730
Crabs	20,600	530	20,313	525								
Shrimp	25,310	793	17,250	564	340	10	340	10	660	20	660	20
Terrapins	3,900	650	300	75								
Turtles												
Total	424,157	19,426	428,864	20,208	345,105	14,529	552,751	20,959	229,645	9,281	340,449	12,734

75.—Table showing by counties and species the yield of the shore fisheries of Texas in 1889 and 1890—Continued.

Species.	Refugio.				Aransas.				Nueces.			
	1889.		1890.		1880.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bluefish	643	\$20	786	\$26	3,857	\$120	4,714	\$156	1,250	\$50	1,600	\$56
Bream and sunfish	514	18	575	20	3,086	108	3,425	120	2,300	69	2,100	63
Catfish	7,430	280			44,570	1,680						
Channel bass	41,715	1,598	42,142	1,618	250,285	9,602	252,858	9,707	145,900	5,200	124,300	4,500
Crevalle	1,643	57	2,000	70	9,857	343	12,000	420	6,050	180	5,500	165
Croakers	4,286	126	5,286	157	25,714	774	31,714	943	23,000	690	22,000	635
Flounders	6,710	263	7,374	287	38,290	1,496	44,126	1,690	11,150	445	10,500	420
Jewfish	3,872	153	4,630	182	23,128	922	27,770	1,102	6,200	236	6,100	233
Mullet	1,686	46	1,856	50	10,114	274	11,144	300	11,250	320	12,600	364
Pike	428	15	485	17	2,572	90	2,915	103	2,500	75	2,300	69
Sheepshead									4,400	175	4,000	160
Shoemaker	26,803	881	28,557	969	160,917	5,289	171,443	5,816	91,400	3,260	81,000	2,760
Spanish mackerel	300	9	300	9	1,700	51	1,800	54	900	27	800	24
Striped bass	714	29	900	35	4,286	171	5,300	213	2,350	150	2,600	156
Trout	285	10	300	10	1,715	60	1,800	63	600	24	550	20
Miscellaneous fish	39,370	1,357	40,588	1,390	236,230	8,143	243,512	8,348	133,750	4,675	118,800	4,210
Oysters	4,429	136	4,750	147	26,571	817	28,250	863	34,000	1,185	29,200	965
Crabs	26,400	943	26,550	943	158,400	5,657	159,300	5,657	233,100	7,475	298,200	12,270
Shrimp	1,714	57	1,886	63	10,286	343	11,314	377	9,400	380	11,800	400
Terrapins	126	31	114	29	754	189	686	178				
Turtles	62,771	1,045	64,571	1,078	376,629	6,272	387,429	6,467				
Total	231,839	7,074	233,650	7,100	1,388,961	42,401	1,401,600	42,577	719,500	24,616	733,950	27,470

Species.	Cameron.				Total.			
	1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Bluefish					21,650	\$1,221	21,600	\$1,198
Bream and sunfish	1,000	\$30	1,000	\$30	31,600	1,470	30,800	1,399
Buffalo-fish					15,000	750	13,800	690
Catfish	23,500	1,175	25,000	1,250	97,500	4,060	45,000	2,090
Channel bass	10,000	400	9,000	365	897,200	38,815	874,650	38,922
Crevalle	1,000	30	1,200	36	44,000	1,612	44,650	1,826
Croakers	2,000	70	2,200	77	122,850	5,504	138,550	5,650
Drum, salt-water					4,000	80	4,000	80
Flounders	3,000	90	3,000	90	110,350	5,014	116,950	5,325
Jewfish					40,700	1,611	44,000	1,817
Mullet	4,000	120	4,000	120	77,550	2,520	77,400	2,656
Pike	800	24	750	22	29,000	1,325	28,650	1,286
Pompano					2,500	675	2,000	600
Sailor's choice	750	30	750	30	24,500	969	22,850	1,084
Sheepshead	7,000	280	6,500	260	625,170	24,431	616,700	25,487
Shoemaker					11,200	502	10,700	467
Snappers, red					22,000	1,250	4,800	240
Spanish mackerel					14,150	816	19,800	1,059
Striped bass					8,800	404	7,650	343
Trout	14,000	535	14,100	530	916,750	39,665	894,250	39,275
Miscellaneous fish	19,000	710	20,500	760	156,700	5,972	158,000	6,014
Oysters	29,400	1,700	29,400	1,700	2,378,250	105,975	2,926,000	121,910
Crabs	3,000	50	3,300	55	189,400	5,030	190,800	5,095
Shrimp	38,000	1,180	38,800	1,130	241,500	7,555	175,800	5,670
Terrapins					34,530	6,000	5,900	1,457
Turtles					489,400	7,757	500,000	7,955
Total	206,450	6,864	205,500	6,865	6,606,250	270,983	6,975,300	279,605

The fisheries by apparatus.—In the vessel fisheries of Texas, the only kind of apparatus used in taking fish is the haul seine, which is also employed, in a modified form, in the capture of turtles. The only remaining product, the oyster, is obtained with tongs.

In the shore fisheries there is a greater variety of devices of capture, and the following tabular presentation, showing the importance of the different appliances,

2,818,900 pounds of fish, worth \$122,293, were obtained in this way, besides shrimps, crabs, terrapins, and turtles. The principal species of fish caught are trout, channel bass, and sheepshead. Lines, in 1890, took 202,400 pounds of fish, valued at \$8,595, besides a portion of the yield of crabs. The fish caught in largest quantities in this way were catfish, jewfish, channel bass, trout, and sheepshead. Cast nets are sparingly employed in the capture of shrimps and a limited number of species of fish, the most important of which is mullet. The aggregate yield of fish by this means in 1890 was only 88,500 pounds, having a value of \$3,430. Spears are employed in a number of counties in obtaining flounders, of which 67,000 pounds were taken in 1890, for which the fishermen received \$3,200.

76.—Table showing by counties and apparatus the yield of the shore fisheries of Texas in 1889 and 1890.

Apparatus and species.	Jefferson.				Chambers.				Galveston.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Bluefish					750	\$38	600	\$30	5,812	\$291	4,650	\$232
Bream and sunfish.	1,000	\$50	1,000	\$50	1,970	98	1,850	90	15,270	764	14,338	698
Buffalo-fish	15,000	750	13,800	690								
Catfish	6,000	300	5,500	275								
Channel bass	5,500	340	6,500	370								
Crevalle					40,650	2,015	40,420	2,109	320,840	15,983	313,255	16,457
Croakers	2,000	100	2,000	100	2,410	96	2,245	110	18,690	746	17,405	850
Flounders					6,375	318	7,060	357	47,007	2,871	54,715	2,769
Jewfish					2,000	100	1,900	100	15,700	780	14,725	775
Mullet					500	20	400	20	3,870	155	3,100	155
Pike	800	40	800	40	1,700	51	1,430	57	13,175	395	11,088	444
Pompano					250	67	200	60	1,950	524	1,550	465
Sailor's choice					1,835	72	1,700	85	14,215	502	13,175	459
Sheepshead	4,500	225	5,000	250	31,000	1,355	29,500	1,431	242,750	10,575	228,025	11,089
Shoemaker					830	41	780	38	6,070	322	6,045	294
Spanish mackerel.					600	42	1,000	60	4,650	325	7,750	465
Striped bass					620	31	500	25	4,805	239	3,875	193
Trout	6,500	330	7,500	380	44,000	2,299	42,435	2,202	345,618	17,820	328,871	17,540
Miscellaneous fish.	2,000	80	2,200	88	5,190	234	5,300	244	40,223	1,814	41,075	1,891
Total	43,300	2,215	44,300	2,243	143,380	6,982	139,360	7,178	1,116,920	54,935	1,080,047	55,761
Cast nets:												
Bream and sunfish.					300	18	300	18	2,325	140	2,325	139
Mullet					2,500	100	2,500	100	19,375	775	19,425	774
Miscellaneous fish.	2,800	175	3,000	190								
Total	2,800	175	3,000	190	2,800	118	2,800	118	21,700	915	21,750	913
Lines:												
Bluefish					800	64	800	64	6,200	496	6,150	494
Catfish	8,500	400	7,000	340	750	22	750	23	5,810	173	5,807	174
Channel bass	2,500	125	2,500	125								
Drum, salt-water					400	8	400	8	3,100	62	3,100	62
Jewfish					250	10	250	10	1,930	77	1,935	77
Sheepshead	2,000	80	2,000	80	490	24	740	34	3,798	191	5,735	268
Snappers, red					2,200	125	480	24	17,050	969	3,720	186
Trout	3,200	160	3,200	160	300	21	300	20	2,325	163	2,325	164
Miscellaneous fish.	7,000	250	7,000	250								
Total	23,200	1,015	21,700	955	5,190	274	3,720	183	40,213	2,131	28,772	1,425
Spears:												
Flounders					2,700	155	2,700	160	20,800	1,205	21,550	1,240
Miscellaneous:												
Oysters					147,000	7,040	164,710	7,210	1,139,250	55,280	1,276,490	55,330
Crabs					16,500	420	16,250	420	127,900	3,250	125,937	3,255
Shrimp					20,250	634	13,800	451	156,940	4,913	106,950	3,495
Terrapins	2,450	580	2,700	650	3,120	520	240	60	24,180	4,030	1,860	465
Turtles												
Total	2,450	580	2,700	650	186,870	8,014	195,000	8,141	1,448,270	67,478	1,511,237	62,545
Grand total	71,750	3,985	71,700	4,038	340,940	16,143	343,580	15,780	2,647,903	126,064	2,663,356	121,874

76.—Table showing by counties and apparatus the yield of the shore fisheries of Texas in 1889 and 1890—Cont'd.

Apparatus and species.	Brazoria.				Matagorda.				Calhoun.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seines:												
Bluefish	938	\$46	750	\$38					400	\$16	500	\$20
Bream and sunfish.	2,460	123	2,312	112	330	\$10	400	\$12	670	20	800	24
Channel bass	50,810	2,502	50,525	2,524	8,300	292	9,500	327	16,700	583	19,000	655
Creville	3,000	120	2,800	140	450	15	500	16	900	25	1,000	29
Croakers	7,968	398	8,825	446	1,500	52	1,583	55	3,000	105	3,167	111
Flounders	2,506	150	2,375	125	1,350	55	1,983	79	2,650	105	3,967	159
Jewfish	630	25	500	25								
Mullet	2,125	64	1,787	71	335	8	330	7	665	17	670	18
Pike	2,625	156	2,550	125	300	11	335	12	600	20	665	23
Pompano	300	84	250	75								
Sailor's choice	2,300	90	2,125	106	335	14	370	15	665	26	730	29
Sheepshead	36,250	1,621	36,875	1,788	5,385	183	6,150	215	10,765	377	12,300	430
Shoemaker	1,400	52	975	48								
Spanish mackerel.	750	53	1,250	75	270	16	330	18	530	30	670	37
Striped bass	775	40	625	32								
Trout	55,782	2,874	53,044	2,828	9,000	346	11,265	394	19,800	694	22,535	788
Miscellaneous fish.	6,487	293	6,625	305	1,000	30	1,335	40	2,000	60	2,665	80
Total	177,100	8,691	174,193	8,863	29,455	1,032	34,081	1,190	59,345	2,078	68,069	2,403
Cast nets:												
Bream and sunfish.	375	22	375	23								
Mullet	3,125	125	3,075	126	2,500	75	2,500	75	5,000	150	5,000	150
Trout					1,000	43	1,000	43	2,000	87	2,000	87
Miscellaneous fish.					1,200	38	1,200	38	2,300	77	2,300	77
Total	3,500	147	3,450	149	4,700	156	4,700	156	9,300	314	9,300	314
Lines:												
Bluefish	1,000	80	1,050	82								
Catfish	940	30	943	28								
Channel bass					1,335	58	1,215	55	2,665	117	2,435	110
Drum, salt-water.	500	10	500	10								
Jewfish	320	13	315	13								
Sheepshead	612	30	925	43	500	20	450	18	1,000	40	900	36
Snappers, red	2,750	158	600	30								
Trout	375	26	375	26	650	30	800	35	1,350	62	1,600	70
Miscellaneous fish.					825	23	865	25	1,675	50	1,735	51
Total	6,497	345	4,708	232	3,310	131	3,330	133	6,690	269	6,670	267
Spears:												
Flounders	3,500	190	2,750	200								
Miscellaneous:												
Oysters	183,750	8,080	205,900	9,600	307,300	13,200	510,300	19,470	153,650	6,600	255,150	9,730
Crabs	20,600	530	20,813	525								
Shrimp	25,310	793	17,250	564	340	10	340	10	660	20	660	20
Terrapins	3,900	650	300	75								
Total	233,560	10,053	243,763	10,764	307,640	13,210	510,640	19,480	154,310	6,620	255,810	9,750
Grand total	424,157	19,426	428,804	20,208	345,105	14,529	552,751	20,959	229,645	9,281	340,449	12,734

76.—Table showing by counties and apparatus the yield of the shore fisheries of Texas in 1889 and 1890—Cont'd.

Apparatus and species.	Refugio.				Aransas.				Nueces.			
	1889.		1890.		1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seine:												
Bluefish	643	\$20	786	\$26	3,857	\$120	4,714	\$156	1,250	\$50	1,600	\$56
Bream and sunfish	514	18	575	20	3,086	108	3,425	120	2,300	69	2,100	63
Channel bass	39,715	1,528	39,857	1,536	238,285	9,172	239,143	9,214	137,900	4,880	116,300	4,180
Crevalle	1,643	57	2,000	70	9,857	343	12,000	420	6,050	180	5,500	165
Croakers	4,286	126	5,286	157	25,714	774	31,714	943	23,000	690	22,000	635
Flounders	1,710	63	2,214	77	10,290	376	13,286	460	7,150	285	6,500	200
Jewfish	300	10	345	12	1,700	65	2,055	72	1,200	36	1,100	33
Mullet	486	10	570	11	2,914	58	3,430	69	1,750	35	1,600	24
Pike	428	15	485	17	2,572	90	2,915	103	2,500	75	2,300	69
Sailor's choice									4,400	175	4,000	160
Sheepshead	20,103	856	27,700	937	156,617	5,134	166,300	5,623	88,400	3,140	78,000	2,640
Shoemaker	300	9	300	9	1,700	51	1,800	54	900	27	800	24
Spanish mackerel	714	29	900	35	4,286	171	5,300	213	2,350	150	2,000	156
Striped bass	285	10	300	10	1,715	60	1,800	63	600	24	550	20
Trout	37,715	1,289	38,728	1,312	226,285	7,736	232,372	7,876	127,250	4,380	112,000	3,900
Miscellaneous fish	2,857	86	3,000	90	17,143	514	16,000	540	23,000	730	18,000	505
Total	117,699	4,126	123,046	4,319	706,021	24,772	738,254	25,926	430,000	14,926	374,950	12,890
Cast nets:												
Mullet	1,200	36	1,286	39	7,200	216	7,714	231	9,500	285	11,000	340
Trout	370	18	430	21	2,230	107	2,570	129	3,500	175	3,900	190
Miscellaneous fish	572	26	600	27	3,428	157	3,400	153	5,000	215	5,200	220
Total	2,142	80	2,316	87	12,858	480	13,684	513	18,000	675	20,000	750
Lines:												
Catfish	7,430	280			44,570	1,680						
Channel bass	2,000	70	2,285	82	12,000	430	13,715	493	8,000	320	8,000	320
Jewfish	3,572	143	4,285	170	21,428	857	25,715	1,030	5,000	200	5,000	200
Sheepshead	700	25	857	32	4,300	155	5,143	193	3,000	120	3,000	120
Trout	1,285	50	1,430	57	7,715	300	8,570	343	3,000	120	3,000	120
Miscellaneous fish	1,000	24	1,150	30	6,000	146	6,850	170	6,000	240	6,000	240
Total	15,987	592	10,007	371	96,013	3,568	59,993	2,229	25,000	1,000	25,000	1,000
Spears:												
Flounders	5,000	200	5,160	210	28,000	1,120	30,840	1,230	4,000	160	4,000	160
Miscellaneous:												
Oysters	26,400	943	26,550	943	158,400	5,657	159,300	5,657	233,100	7,475	298,300	12,270
Crabs	1,714	57	1,886	63	10,286	343	11,314	377	9,400	380	11,800	400
Terrapins	126	31	114	29	754	189	686	178				
Turtles	62,771	1,045	64,571	1,078	376,629	6,272	387,429	6,467				
Total	91,011	2,076	93,121	2,113	546,069	12,401	568,720	12,679	242,500	7,855	310,000	12,070
Grand total	231,839	7,074	233,650	7,100	1,388,961	42,401	1,401,500	42,577	719,500	24,616	733,950	27,470

Apparatus and species.	Cameron.				Total.			
	1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Seine:								
Bluefish					13,650	\$581	13,600	\$558
Bream and sunfish	1,000	\$30	1,000	\$30	28,600	1,290	27,800	1,219
Buffalo-fish					15,000	750	13,800	690
Catfish					6,000	300	5,500	275
Channel bass	10,000	400	9,000	365	868,700	37,695	843,500	37,737
Crevalle	1,000	30	1,200	36	44,000	1,612	44,050	1,636
Croakers	2,000	70	2,200	77	122,850	5,504	138,550	5,650
Flounders	3,000	90	3,000	90	46,350	1,984	49,050	2,125
Jewfish					8,200	311	7,500	317
Mullet					23,150	638	20,900	701
Pike	800	24	750	22	29,000	1,325	28,050	1,286
Pompano					2,500	675	2,000	600
Sailor's choice	750	30	750	30	24,500	909	22,850	1,084
Sheepshead	7,000	280	6,500	260	608,770	23,746	596,650	24,663
Shoemaker					11,200	502	10,700	467
Spanish mackerel					14,150	816	19,800	1,059
Striped bass					8,800	404	7,650	343
Trout	12,500	475	12,600	470	885,950	38,243	801,350	37,750
Miscellaneous fish	5,000	150	5,000	150	104,900	3,991	103,200	3,933
Total	43,050	1,579	42,000	1,530	2,866,270	121,336	2,818,900	122,293

76.—Table showing by counties and apparatus the yield of the shore fisheries of Texas in 1889 and 1890—Cont'd.

Apparatus and species.	Cameron.				Total.			
	1889.		1890.		1889.		1890.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Cast nets:								
Bream and sunfish.....					3,000	\$180	3,000	\$180
Mullet.....	4,000	\$120	4,000	\$120	54,400	1,882	56,500	1,955
Trout.....	1,500	60	1,500	60	10,600	490	11,300	530
Miscellaneous fish.....	2,000	60	2,000	60	17,300	748	17,700	765
Total.....	7,500	240	7,500	240	85,300	3,300	88,500	3,430
Lines:								
Bluefish.....					8,000	640	8,000	640
Catfish.....	23,500	1,175	25,000	1,250	91,500	3,760	39,500	1,815
Channel bass.....					28,500	1,120	31,150	1,185
Drum, salt-water.....					4,000	80	4,000	80
Jewish.....					32,500	1,300	36,500	1,500
Sheepshead.....					16,400	685	19,750	824
Snappers, red.....					22,000	1,250	4,800	240
Trout.....					20,200	982	21,000	995
Miscellaneous fish.....	12,000	500	13,500	550	34,500	1,233	37,100	1,316
Total.....	35,500	1,675	38,500	1,800	257,600	11,000	202,400	8,595
Spears:								
Flounders.....					64,000	3,030	67,000	3,200
Miscellaneous:								
Oysters.....	29,400	1,700	20,400	1,700	2,378,250	105,975	2,926,000	121,910
Crabs.....	3,000	50	3,300	55	189,400	5,030	190,800	5,095
Shrimp.....	38,000	1,180	36,800	1,130	241,500	7,555	175,800	5,670
Terrapins.....					34,530	6,000	5,900	1,457
Turtles.....	50,000	440	48,000	410	489,400	7,757	500,000	7,955
Total.....	120,400	3,370	117,500	3,205	3,333,080	132,317	3,798,500	142,087
Grand total.....	206,450	6,864	205,500	6,865	6,606,250	270,983	6,975,300	279,605

The shore fishing industries.—The extent of the wholesale fish and oyster trades and of the turtle-canning industry of Texas is shown in Table 77. Thirteen firms, located at Galveston, Matagorda, Corpus Christi, Lavaca, Aransas, and Point Isabel, were engaged in 1890; these employed 161 persons, had shore property and cash capital worth \$161,000, and paid \$32,200 in wages. The products handled cost \$260,705 and when sold brought \$426,050, the enhancement in value being \$165,345, a sum representing the gross profits of the trades.

77.—Table showing the wholesale oyster and fish trades and turtle canning of Texas in 1889 and 1890.

Designation.	1889.	1890.
Number of firms.....	11	13
Number of employes.....	135	161
Value of property.....	\$78,500	\$107,500
Cash capital.....	\$39,500	\$53,500
Wages paid.....	\$28,700	\$32,200
Oysters handled..... barrels..	118,650	130,900
Value paid.....	\$106,840	\$118,600
Value received.....	\$177,975	\$106,350
Fish handled..... pounds..	3,030,000	3,320,000
Value paid.....	\$126,680	\$137,650
Value received.....	\$195,850	\$216,800
Turtles handled..... pounds..	210,000	243,000
Value paid.....	\$3,800	\$4,455
Cans prepared: 2-pound meats..... number..	35,000	40,000
2-pound soups..... number..	3,000	3,600
3-pound soups..... number..	5,400	6,000
Value received.....	\$10,900	\$12,900
Enhancement in value of products.....	\$147,005	\$165,345