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CONSERVATION
OF THE NATURAL FOOD RESOURCES
OF THE STATE OF LOUISIANA.



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Conservation
OF THE
Natural Food Resources
OF THE
State of Louisiana

*Board of commissioners for the
protection of birds, game and fish.*

SH 11
.L 85

PRESS OF
DAMERON-FIERSON CO., LTD.
NEW ORLEANS

add, Feb. 1913

Report
OF THE
Board of Commissioners
FOR THE
Protection of Birds, Game and Fish
State of Louisiana
1912

MEMBERS

FRANK M. MILLER, PRESIDENT, NEW ORLEANS
Appointed by the Governor

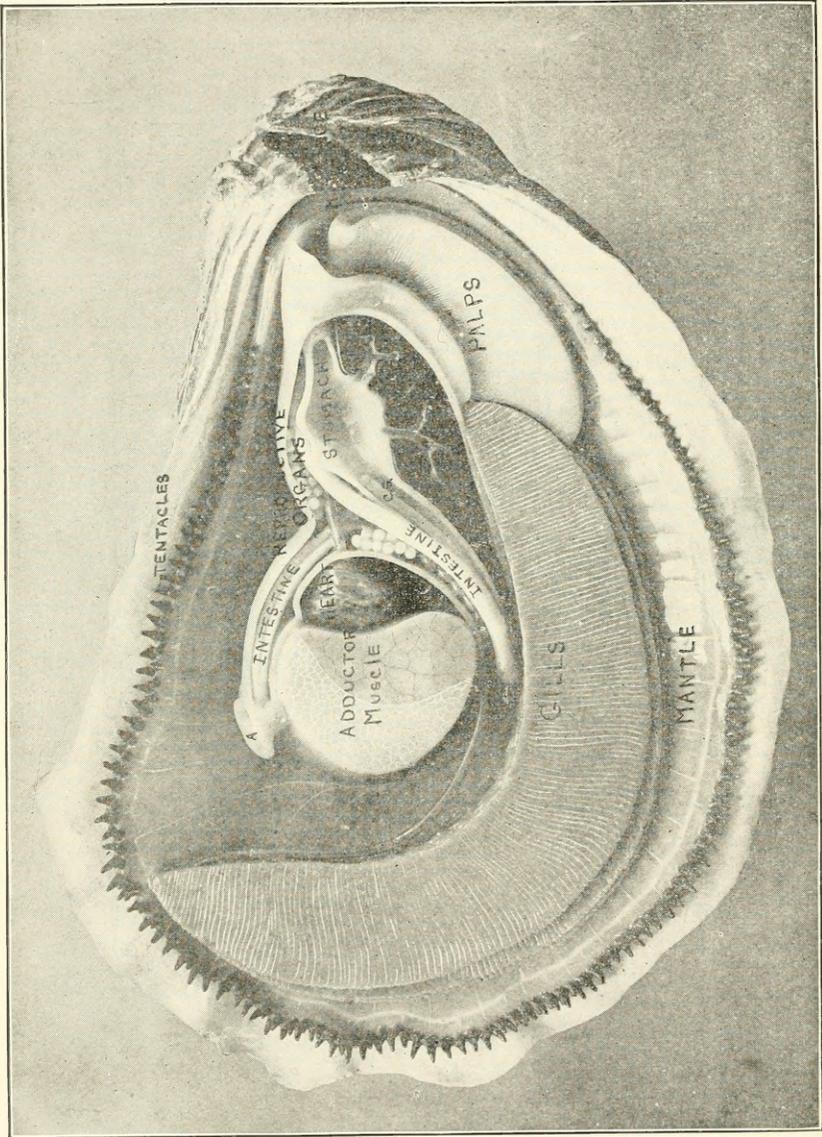
FRED. J. GRACE, EX-OFFICIO - PLAQUEMINE
Register State Land Office

PROF. W. R. DODSON, EX-OFFICIO, BATON ROUGE
Director State Experiment Stations

D. OF C.
JAN 14 1933



ALMOST every one admits the necessity of laws for the Conservation of our Natural Resources in the way of Game, Fish, Oysters, Shrimp and Water Sites. It is conceded that our present laws are not perfect, but this Board believes that the very best of foundations were laid down by the last General Assembly in collaboration with your Excellency, and we trust the work will be permitted to go on and be improved, until Louisiana shows to all the States of the Union the best system whereby the many problems connected with this new and almost unknown feature of our body politic are solved to the uplift of the State and her sovereign people.



ANATOMY OF THE OYSTER

FROM A MODEL IN THE AMERICAN MUSEUM OF NATURAL HISTORY

NO EQUAL AREA

exists on the earth comparable to Louisiana in the productiveness of her lands or the wealth in her waters. We have over 534,700 acres of the finest oyster bottoms in this or any other country. Past General Assemblies have enacted laws for the conservation of this resource which in the main have been good, but only relatively so. It was the opinion of the members of the various sessions of that body that it would be better to go slow and sure, rather than enact radical laws which might be antagonistic to the development of the business on safe lines.

During the past year, the citizens engaged in this business marketed approximately eight hundred thousand barrels of oysters, of an approximate value of one million dollars to the fishermen. This is about the maximum production of our bottoms under the present system permitted by our laws. No great increase can be counted on until the General Assembly enacts a law giving our Board authority to adjudicate the trust in the several parishes *as local conditions determine*, or decide to pass a general law forcing a more general adoption of the renting system. The former would be the most logical. The latter system is a *sine quo non* to the solution of the problem and sooner or later will be incorporated in the law as the policy of the State.

Another feature sacramental to the continued existence of the resource is the return of a part of the oyster shells taken from the natural reefs and unleased bottoms, to be placed on other bottoms for the upbuilding and continuance of the future supply.

The triangulation of our oyster bottoms, a most important work which has been urged upon us by the experts of the Federal Government, should be started at once. Sooner or later this work must be done. With the issuance of each new lease, the problem of keeping exact field data of all leases grows greater. If this work is not begun shortly and carried on as the income warrants, it will have to be done some day at a vast expenditure of time, trouble and labor. Attached to this report is a chart prepared by our Chief Surveyor, Frank T. Payne, showing the conditions of the oyster resource in St. Bernard Parish. There are fewer leases here than in any other parish and it is shown so as to give an idea of the vast importance of the work.

In times past it was the custom to give out statements regarding the possible vast income to be derived from the operation of the oyster resources of the State. This was unfortunate to say the least, and this present Board wants to go on record as discountenancing any plan which provides for the State to exploit this resource. We believe the business should be operated by the citizens of the various parishes, and *supervised* by the State on the most economical basis, and that all surplus funds arising therefrom should immediately be applied to the upbuilding of the resource so that each year the condition of the resource as to natural possibilities and to business outgrowing therefrom should show a most healthy development.

OUR FISHERIES

exist in embryo and yet there is no equal water area anywhere. The possibilities of our water for the production of fish are almost unbelievable and only needs scientific development to make our streams the perennial source of a vast quantity of toothsome and valuable food commodity, to be sold in the markets of the world.

The practice of dynamiting our streams was largely prevalent throughout the State before we took hold of the work, but thanks to the activity of the wardens and the stimulus of a reward of fifty dollars for evidence sufficient to convict the guilty parties, we have almost broken up this reprehensible practice.

We have planned the erection of two fish hatcheries for the production of black bass or green trout. One in the Southern the other in the Northern part of the State.

The present fish law is the beginning of the development of this resource and is only an experiment. Unfortunately, the class of citizens which it seeks to control is the most independent and the most improvident of all citizens. After one hundred years of effort they have nothing to show for all their labor but the direst poverty, for the simple reason that the State has neglected them and the marvelous possibilities of the food supply they handle.

We would arouse the people to the importance of this question, believing the time has come when the antiquated methods of the present should give way and the business placed on a firm and enduring basis whereby it could grow and expand into the magnitude to which it is entitled. In fact, the General Assembly must either do this, or abandon the resource altogether and allow it to be dissipated through the neglect of those who hitherto have almost destroyed it through their ignorance of and indifference to its wonderful value.

We wish it were possible to begin an immediate development of the resource. Before doing so, however, two grave problems intimately connected therewith must be settled. The first relates to the destruction of the water hyacinth, which in some parts of the State has taken complete possession of the streams. The Federal Government is working on the problem and after seeing what they can do, or rather what they cannot do towards the eradication of the pest, we are conscious that the State has a stupendous undertaking on its hands.

The second obstacle is the enormous increase of gar fish inhabiting our streams with the result of destroying the game fish therein at such an alarming rate that something must be done and done soon to stop a threatened disaster. After a thorough investigation by Prof. Beyer of Tulane University, we believe the most essential thing to prevent this is the re-establishment of the alligators in our streams. Formerly they were plentiful, but in recent years the hide dealers have practically exterminated them with the result of taking away the check which nature had placed against the undue increase of the gar fish. A State law for the protection of alligators must first be enacted by the General Assembly ere any amelioration or improvement of the present condition of our streams can be expected.

Commercial fisheries on a vast scale are the possibilities of our unrivalled water area. The Federal Government has proposed the establishment of a great fish hatchery on the Atchafalaya River for the propagation of cat fish. It is needless however, to expect the inauguration of any such work as long as the State has no settled policy regarding the conservation of her resources.

In order to determine what was a right policy, we solicited the Federal Bureau of Fisheries to find us a first class fish culturist, and later on they recommended E. A. Talian, lately Fish Commissioner of the Argentine Republic.

The most painstaking investigations of the streams of the State were made by him and we are now fully conscious of the State's needs and only await the approval of the General Assembly to begin active work on the solution of the various problems. The State stands at the parting of the ways and a most momentous question will have to be settled by the next General Assembly. Either this vast resource must be conserved on lines already laid down, or be allowed to die through want of proper care.

THE LAST GENERAL ASSEMBLY

enacted a law for the protection of Salt Water Shrimp. No sooner did we attempt to enforce it than an injunction was taken out against us in the Federal District Court by *Two Chinamen* who had for years benefited by the States hospitality and indifference to the worth of the resource. We defeated them in that Court, whereupon they took an appeal to the Supreme Court of the United States, thereby putting the State to great expense and trouble, in addition to having set aside the plain mandate of the last General Assembly.

Under these circumstances, your Board believes the time has come when the resource could more profitably be handled by citizens of our own State and placed upon the market as a Louisiana product, which we regret to say the citizens of another State who have hitherto handled the commodity, have failed to do.

Due to the fact that the various interests have never been able to agree on any measure of conservation for this resource, no laws for the protection of lake shrimp (pencaus setipherous) were enacted by the General Assembly previous to the last one. In consequence of this neglect the annual catch has dropped down to ten million pounds of an annual value of three hundred thousand dollars (\$300,000.00) and it will be many years ere the resource can be brought to its maximum annual production of, we believe, one hundred million pounds of edible food.

THE QUESTION OF

Game Preserves has received considerable attention by the sportsmen of our own and other States since the last General Assembly set aside and placed under the control of our Board some State lands located in Caldwell and Plaquemines Parishes. Edward Avery McIlhenny of Avery Island and Charles Willis Ward, late of Michigan, have given to the State under our control 13,000 acres of the finest marsh lands located in Vermilion Parish. Louisiana, the winter home of the migratory ducks and geese, thus leads the way to a better safe-guarding for all future time of these winter habitants, and sportsmen everywhere have hailed this donation and the work of your Board as one of the greatest features of game conservation in this country.

GAME PROTECTION.

We now take up for consideration the most important work we have been engaged in, to-wit: the preservation of the game animals of the State and the inauguration of a paid game warden service.

The history of game protection in this State, until recent years, has been one long series of failures. In the year 1857, the first law for the

protection of game birds was passed by the General Assembly. In it the control of the game in St. Bernard Parish was given to the Police Jury of that Parish.

Twenty years afterwards, in the year 1877, the General Assembly delegated to the Police Juries of all the parishes the same right.

As far as we can learn, no parish took advantage of this permission and in consequence, the State escaped the unfortunate experience of some of the other States in having a multiplicity of local ordinances.

Five years afterwards, in the year 1882, the General Assembly re-enacted the Act of 1877. But still no Police Jury of any Parish would take advantage of the permission so given.

In the year 1896, after thirty-nine years of failure, the General Assembly of that year enacted a most sweeping act, granting to the Police Juries of the several parishes of the State, authority to pass such ordinances "AS THEY MAY DEEM PROPER for the preservation of wild game and game fish."

EVEN THIS SWEEPING LAW

was not sufficient. It was found that while the General Assembly could enact laws giving absolute power to the Police Juries to protect game and fish, the parish boards either would not enact suitable ordinances or had no means to enforce them if they did so. The result being an absolute and disheartening failure and in all attempts at the solution of the problem this experience of the State with the Police Juries should never be lost sight of.

In the year 1898, the General Assembly began to experiment with State control, and in the year 1900 re-enacted the same kind of law.

The State, however, could do no better than the Parish Police Juries for the reason that there was no agency, nor no money to pay an agency to enforce the law. So in 1902, the General Assembly went back to the Police Jury idea, giving them power "to appoint Game Wardens, to define their duties and to provide for their compensation."

Anyone familiar with the pressing demands for money to carry on the necessary work of the various parishes might have known that this experiment was doomed to failure, but such thoughts were not considered, it being conceded that paid Game Wardens to enforce the Game Laws were as necessary as the Game Laws themselves. Thus after forty-five years struggling with Game Laws, the General Assembly at last reached the conclusion that it was futile to enact more laws until they had first provided some paid agency to enforce what laws they created.

Just at this time when game production had sunk to the lowest state of public indifference, the Audubon Society, composed of citizens of the State was inaugurated and began a campaign of education on the value of insectivorous birds to the agricultural interests of the State. They showed by indisputable evidence the tremendous losses and waste of resources that had been suffered by the people of the State. To clinch the argument and just at this moment, the boll weevil made its appearance with the result that our cotton planters and allied business interests were almost ruined. This was an object lesson in bird destruction which could not be ignored, and sentiment for the protection of insectivorous birds as well as game birds began to rapidly manifest itself all over the State.

In the years 1904 and 1906, the General Assembly was engaged in trying to solve the problem and at last, in the year 1908, after fifty-one years of experimentation, they created the Board of Commissioners for

the Protection of Birds, Game and Fish, with authority to appoint the Game Wardens which they knew were absolutely essential in the solution of the problem, and making it compulsory on everyone who killed game either for pleasure or for profit, to pay an annual license to defray the cost of this paid Warden service.

Since that day, the Board of Commissioners has been engaged in trying to solve the innumerable problems connected with the conservation of these Natural Resources.

THE WARDEN SERVICE

always has been and probably always will be subject to criticism. One man only can be appointed in the large majority of the parishes. All the other applicants (and there are very many) at once feel aggrieved and it is but natural to expect them to vent their disappointment in fault-finding.

A feature in line with this fault-finding by the disappointed office seekers, is the way in which the Warden service has been condemned by those who do not hunt or pay for a hunting license. This is a never ending source of surprise to the members of your Board. This whole movement for the conservation of game was started by the sportsmen who earlier than the members of the General Assembly, realized that without a paid Warden service there never could be enforcement of the game laws and who willingly assess themselves this tax to carry on the work and thus save the State from appropriating from the General Fund a sum of money sufficient to pay for same. We therefore respectfully urge upon the members of the General Assembly the reasonableness of ignoring the criticisms of those who are not financially interested in the problem.

The Warden service is also condemned in parishes where the game has disappeared, and yet there is no other way that can be imagined than to rigidly enforce the game laws during the breeding season so as to aid nature in her effort to bring back the former plenty, and this is impossible of accomplishment without a paid service. The fact of the matter is that game preservation without a paid warden service is an absolute impossibility.

Such being the case the most important question is how to get the best service, for the sportsmen who pay for the service want the best to be had.

We have listened to every manner of suggestion as to the improvement of the warden service. After weighing the merits of each, we take the liberty of suggesting the following plan which seems to meet many of the objections urged against the present system. All applicants to register themselves with the Board, to submit themselves for competitive examination as to their mental, moral and physical fitness and the one securing the highest percentage to be appointed. With competitive examinations and close supervision to maintain efficiency, we believe the State can give the sportsmen what they want and pay for.

IN LOOKING BACK

over the four years of the existence of the Commission and the Warden Service, the members of the Board are amazed at the changes which have taken place. Before we began work, the shipment of wild ducks to the Northern markets during the hunting season had assumed colossal proportions. This has been broken up and only a few birds are now surreptitiously shipped out of the State.

New York bird dealers were responsible for an annual loss to the State of probably 25,000 mocking birds. This has been broken up and

everyone, from one end of the State to the other, has noticed how the mocking birds have increased.

One of the singular results of the activities of the Wardens has been the disappearance of the "pot-hunter" throughout the State. Formerly he killed everything that flew, both in and out of season. Now in many instances, he does not even carry a gun.

The most astonishing thing, however, is the unprecedented increase of our stock of quail or bob white, and doves, due altogether to the fact that our wardens have kept the hunters out of the fields during the breeding season, and if the General Assembly would enact a State dog license law which would result in getting rid of the vast horde of cur dogs, the result would be such an increase of quail that they would become a common article of diet.

NATURE IS SO WONDERFULLY

prolific within the bounds of our State, that if only the General Assembly would decide to place this Board on the same plane of responsibility that it has placed many other Boards, such as the State Board of Health, the Levee Boards, the Prison Board, and the Railroad Commission, and allow it to solve within constitutional limitations, the innumerable problems connected with game preservation as they arise, Louisiana could be made the greatest game area within the Union.

For instance we intend to ask the General Assembly to take the time to pass an Act for the protection of rabbits. No one particularly cares to have rabbits protected, yet we are forced to ask this for the reason that in some parishes where objection to the game law exists, due to the fact that there is no game there, the hunters have been told to tell our wardens that they are out hunting rabbits and need no license. Thereby breaking the spirit of the law while acknowledging the force of the letter.

Seventy-five thousand sportsmen find pleasure in hunting while about 600 market hunters supply the tables of those of our citizens who do not hunt and the vast number of strangers who visit our restaurants and hotels during the season when game may be sold. Under our present law a most unjust arrangement prevails with the market hunter and should be corrected. A heavy tax falls on him, while the people who buy game in the markets, hotels and restaurants do not contribute one penny to the support of the Commission and its various activities. We are therefore asking the General Assembly to make a change in the present law by permitting the market hunter to hunt under a dollar license and making the retailer place on each dead bird a license tag, the cost of which he will proceed to collect from the consumer who by right should pay the tax and who cannot legitimately complain of such action.

VALUE OF GAME KILLED.

The question naturally presents itself as to what these 75,000 sportsmen receive in return for their dollar permit to hunt and kill the game which by legislative enactment and decree of the United States Supreme Court belongs unconditionally to the State. Probably no two answers would agree and ours is only an approximate one, but after painstaking investigations we believe irrespective of all other considerations other than the monetary one, that the total kill of game birds and animals and fur-bearing animals has a net annual value of considerably more than two million dollars with a constantly increasing annual value due to the supervision of the warden service during the breeding season. The pleasure which the sportsmen derive from the pursuit of game, we admit is the main factor in the sale of the

licenses, yet nevertheless the monetary aspect is there and should be considered when the subject is before the people for discussion.

One feature of game protection will have to be seriously considered by the next General Assembly. The amateur sportsmen, who support the Commission and its warden service by means of their dollar license, are going to demand the enactment of a law prohibiting the sale of game animals and game birds, except ducks. Many States of the Union have already adopted this *proviso* and it is a serious question whether Louisiana shall fall in line or not. The sportsmen themselves will present this question to the General Assembly on its merits.

The trust committed to the care of your Board is of such immense value and importance to the people of the State, that it is difficult to compress a report on same within reasonable readable limits, or not to speak of it in terms of great enthusiasm.

Innumerable details connected with its development must be worked out, but with care and patience and time, we believe it is possible to do this and make the work a grand success. It is necessary, however, that the General Assembly should decide upon some fixed policy to Conserve our Great Natural Resources, so that the work could be laid out on a comprehensive plan and be carried out as income and opportunity warrants.

Forty-two States of the Union have a similar system or parts of it which the last General Assembly enacted into law in the belief that they were solving the Conservation problems confronting us in this State, and it is earnestly hoped that this great and grand work shall not fail of final and complete accomplishment.

The gross annual value of the resources controlled by this Board are stupendous in their present aggregate. But more surprising than the present is the prospective value of this natural food supply. It now has an annual value of approximately three million, eight hundred and seventy thousand dollars (\$3,870,000.00). Under wise conservation plans these resources irrespective of the oyster resource may be largely increased. In the oyster resource, the State has an asset more valuable than any gold mine, for the reason that it is capable of unlimited development and unlike any gold mine, may be made more valuable each year.

More laws have been enacted and more work done for the Conservation of these great resources during the Administration of your Excellency than was done in the whole previous history of the State. The result is that Louisiana, in this respect, leads every other State of the Union. Such pre-eminence is dangerous in the extreme in that a reactionary wave of sentiment may occur in which this pre-eminence may be endangered. We therefore urge with all our might the necessity of great caution in making changes in the system of handling these vast sources of natural wealth which by legislative enactment have been declared to be the property of the people of the State. By the singular bounty of the Providence of God, Louisiana stands pre-eminent in her wealth of natural food supply, that she may remain so is the earnest desire of

Yours very respectfully,

BOARD OF COMMISSIONERS FOR THE
PROTECTION OF BIRDS, GAME AND FISH.

FRANK M. MILLER,
President.

TO HIS EXCELLENCY, JARED YOUNG SANDERS,
GOVERNOR OF THE STATE OF LOUISIANA.

The following list shows the present manner in which the preservation and protection of game is taken care of in the various States of the Union:

SUPERVISION UNDER A STATE GAME COMMISSION OR BOARD—18.

Arizona	New Jersey
California	New York
Connecticut	North Carolina
Delaware	North Dakota
Louisiana	Ohio
Maine	Oregon
Massachusetts	Pennsylvania
Minnesota	Rhode Island
New Hampshire	Wyoming

SUPERVISION UNDER A STATE GAME COMMISSIONER OR WARDEN—24.

Alabama	Nebraska
Colorado	New Mexico
Georgia	Oklahoma
Idaho	South Carolina
Illinois	South Dakota
Indiana	Tennessee
Iowa	Texas
Kansas	Utah
Maryland	Vermont
Michigan	Washington
Missouri	West Virginia
Montana	Wisconsin

STATES HAVING LOCAL OR COUNTY SUPERVISION—6.

Arkansas	Mississippi
Florida	Nevada
Kentucky	Virginia

In most all the States in the first two classifications, the head of the department is appointed by the Governor of the State. In Alabama alone, he is elected by the people. The salaries vary from \$1,000.00 in New Hampshire to \$10,000.00 in New York. The terms of office run from two years in Idaho, Maryland, Nebraska, New Mexico, Texas, Utah, Vermont and Wisconsin, to six years in New York and eight years in Tennessee, the usual term being four years.

THE WARDEN SERVICE

in the various States is subject to changes, but our latest advices are as follows:

ALABAMA

Appointed by the Commissioner; fee that of a constable, one-half the fines, and \$3.00 per day when serving under special instructions.

CALIFORNIA

Appointed by the Board of Supervisors; salary \$50.00 to \$125.00 per month, according to the population of the County; allowance for traveling expenses, \$25.00 per month. This system is in effect in only about one-third of the Counties. In addition the Board of Fish and Game Commis-

sioners appoints a number of deputies at \$75.00 per month, but this compensation is regulated by the Board and not by the statute.

CONNECTICUT

Appointed by Commissioners; fee of \$10.00 in case of conviction.

FLORIDA

Appointed by the Governor on recommendation of County Commissioners (on request of 75 free holders); salary not exceeding \$60.00 a month.

GEORGIA

Appointed by Commissioners; compensation \$3.00 per day during time of actual service, payable from the game protection fund. The County Wardens, in addition to receiving a per diem, are entitled to three-fourths of the fine where they make the arrest and furnish all the evidence, and one-fourth of the fines where they do not furnish the evidence necessary to convict.

ILLINOIS

One for each County, appointed by the Commissioner; compensation not exceeding \$2.00 per day, necessary traveling expenses and one-half of all fines in cases where they file complaints. In addition to its County Wardens, Illinois has 16 State or District Wardens under salaries of \$900.00 per annum and necessary expenses. It also provides for the appointment of special wardens who receive half the fines in cases in which they file complaints.

KANSAS

Appointed by State Warden on request of 10 resident tax payers; fee of \$10.00 collected as costs of defendant in case of conviction.

KENTUCKY

Appointed by the County Judges; compensation residue of all fines in cases prosecuted by them after the payment of costs.

MICHIGAN

Appointed by the State Warden; compensation such as County Supervisors provide. This State has 10 deputy Game, Fish and Forestry Wardens at \$1,000.00 per annum and traveling expenses, and a Chief Deputy at a salary of \$1,800.00 per annum and traveling expenses of \$1,200.00. Other deputies receive \$3.00 per day and traveling expenses.

MISSISSIPPI

Appointed by Board of Supervisors on recommendation of 10 or more citizens; compensation fixed by Board of Supervisors, paid from County forest and game protective fund made up of all license fees.

NEVADA

Appointed by Board of County Commissioners on petition of 20 resident tax payers; salary \$20.00 to \$100.00 per month, payable from the Fish and Game Preservation Fund, but in case of deficiency, from the General Fund of the County.

NEW MEXICO

Appointed by Territorial Warden; compensation one-half of fines in cases prosecuted or instituted by them.

NORTH CAROLINA

Various provisions in the different Counties.

SOUTH CAROLINA

The Chief Warden is authorized to appoint deputies at a salary of not to exceed \$1,200.00 and expenses of \$600.00 per annum.

TENNESSEE

Appointed by State Warden; compensation all fines, etc., in cases prosecuted by them.

VERMONT

Appointed by the Commissioner; compensation not exceeding \$75.00 a month or \$3.00 per day and actual expenses. In addition to County Wardens, Deputy Wardens may be appointed at \$2.00 per day and necessary expenses.

VIRGINIA

Magisterial District Warden appointed by the Circuit Judge on application of five resident freeholders; compensation, \$2.50 assessed against defendants in each conviction.

WASHINGTON

Appointed by County Commissioners (upon application of 100 tax payers); salary, \$25.00 to \$100.00 per month, paid from the game protection fund of the county.

WISCONSIN

Selected by Board of Appointment (consisting of the County Judge, District Attorney and County Clerk) and appointed by State Warden; compensation fixed by appointing Board and paid from the County Treasury. The State has a regular force of not to exceed 60 Deputy Game Wardens, one from each Senatorial District and half appointed from the State at large. The salaries are fixed by the State Warden. The salaries are now graded according to character of work and vary from \$2.50 to \$4.00 per day.

WYOMING

One or more for each County, appointed by State Game Warden (subject to approval of State Game Commission); compensation, \$3.00 per day during time of actual service.

Financial Statement of the Board of Commissioners for the Protection of Birds, Game and Fish, from August, 1910, date of incorporation, to June 30, 1911, inclusive.

RECEIPTS

Sale of Hunting Licenses.....	\$ 55,857.50
Sale of Fishing Licenses.....	5,630.00
Sale of Shrimping Licenses.....	1,683.00
Sale of Oystering Operations.....	6,459.50
Sale of Oyster Rentals.....	12,814.10
Tax of 3 cts. per hbl., Oysters.....	19,682.24
Balance from Old Board of Commissioners.....	2,648.56
Miscellaneous	4,306.90
	<hr/>
Total.....	\$129,081.86

EXPENDITURES

Wardens Salaries.....	\$ 53,450.41
Oyster Inspectors Salaries.....	7,419.10
Launch Salaries and Supplies.....	11,374.08
Oyster Department Salaries.....	7,749.90
Office Salaries.....	10,791.66
Fisheries Department Salaries.....	1,572.20
Office Expenses.....	3,603.49
Upkeep of Launches.....	5,928.07
Printing and Stationery.....	1,802.78
Conservation Work.....	3,561.10
Bird and Fish Exhibit.....	842.16
Postage	441.58
Commissioners Expenses	484.00
Building Account	562.06
Surveys of Oyster Reefs.....	2,198.46
Bills of Old Oyster Commission.....	14,785.06
	<hr/>
Balance in Bank.....	\$126,626.71
	2,455.15
	<hr/>
	\$129,081.86

Financial Statement of the Board of Commissioners for the Protection of Birds, Game and Fish, from July 1st, 1911, to December 31st, 1911.

RECEPITS

Sale of Hunting Licenses and Other Receipts in	
Game Department.....	\$39,275.32
Oyster Department.....	26,270.23
Fresh Water Department.....	3,652.50
Salt Water Department.....	2,046.00
	<hr/>
	71,244.05
Balance in Bank July 1st.....	2,455.15
	<hr/>
	\$73,699.20

EXPENDITURES

Wardens Salaries and Expenses.....	\$33,185.77
Oyster Department Salaries.....	9,883.13
Launch Salaries and Upkeep.....	13,598.97
Office Salaries	8,176.63
Office Expenses	6,077.28
Fish Department Salaries and Expenses.....	2,949.98
Game Conservation.....	959.66
Fish Conservation.....	327.77
	<hr/>
	75,159.19
Excess	1,459.99
	<hr/>
	\$73,699.20

Since the organization of the Oyster Commission in 1902, and the Board of Commissioners for the Protection of Birds, Game and Fish in 1908, there have been taken from the funds of these two Boards and paid into the State Treasury, a total amount of \$90,632.99, out of which the General Assembly made appropriations as follows:

FROM THE OYSTER COMMISSION:

1906	Court Costs in Boundary Suit (Approximately).....	\$12,000.00
1907	Deposited with the State Treasurer for credit of the Good Roads and School Fund.....	10,057.51
1907	Paid Special Attorneys, Dymond & Zaeherie, in Boundary Suit as per Act 143 of 1906.....	30,000.00
1908	Paid to the State Board of Engineers in part pay- ment of buoys marking the boundary line between the States of Louisiana and Mississippi.....	3,000.00

FROM THE BOARD OF COMMISSIONERS FOR THE
PROTECTION OF BIRDS, GAME AND FISH:

1909	Deposited with the State Treasurer to the credit of the General Fund by Act of the Legislature of 1909,	30,000.00
1910	Paid Douillet & Williams, Contractors, balance due on construction of buoys marking the Mississippi- Louisiana boundary line.....	5,575.48
Total.....		<u>\$90,632.99</u>

Act 265 of 1910 creating this Board, stipulated that we should prepare a printed annual report, the same to include an estimate of proposed expenditures and expenses for the two ensuing years. We therefore beg to state that in order to develop the natural resources of the State committed to our care on a scale commensurate with their importance we will need the following sums of money:

Two Fish Hatcheries.....	\$ 25,000.00	
One Biologic Station.....	5,000.00	
Triangulation Work, at least.....	25,000.00	
One Large Power Boat.....	11,000.00	
One Small Power Boat.....	3,000.00	
Rebuilding Stations.....	3,000.00	
Capt. Doullut's Bill.....	2,000.00	
Work in Plaquemines Parish on Oyster Resource.....	75,000.00	
		—\$149,000.00

ANNUAL WAGES EXPENDITURES

Office Department.....	\$ 19,880.00	
Game Department.....	68,400.00	
Oyster Department.....	16,680.00	
Fish Department.....	3,700.00	
Boat Department.....	18,520.00	
		—\$256,360.00
Total for One Year.....	\$128,180.00	
Total for Two Years.....		—\$256,360.00

OTHER EXPENDITURES

Upkeep of Boats.....	\$ 7,000.00	
Office Expenses.....	8,000.00	
Printing, Stationery and Postage.....	3,000.00	
Commissioners Expenses.....	500.00	
Sundries.....	1,000.00	
		—\$ 39,000.00
Total for One Year.....	\$19,500.00	
Total for Two Years.....		—\$ 39,000.00
Estimated Expenditure for Two Years.....		\$444,360.00

ESTIMATED VALUE OF ASSETS

OYSTER RESOURCES

AREA OF GOOD BOTTOMS SUSCEPTIBLE OF CULTURE.

St. Bernard.....	146,500	Acres
Plaquemines	171,000	"
Jefferson	28,000	"
Lafourche	3,000	"
Terrebonne	122,000	"
St. Mary	40	"
Iberia	21	"
Vermilion	900	"
Cameron	500	"
	<hr/>	
	471,961	Acres @ \$1.00=\$471,961.00

AREA OF NATURAL REEFS.

St Bernard	3,040	Acres
Plaquemines	6,000	"
Terrebonne	3,200	"
Cameron	500	"
Point-au-Fer	50,000	"
	<hr/>	
	62,720	Acres @ \$3.00=\$188,220.00
		<hr/>
		\$660,181.00

GAME PRESERVES

13,000 Acres Vermilion Parish @ \$5.00.....	\$65,000.00
30,000 Acres Plaquemines Parish @ 3.00.....	90,000.00
6,000 Acres Caldwell Parish @ 5.00.....	30,000.00
	<hr/>
	—\$185,000.00

HOUSES, ETC.

Cameron, 1 Station, 1 House.....	No Value
Chef Menteur, 1 House.....	\$1,200.00
Rigolets, 1 House.....	500.00
Dunbar, 1 House.....	300.00
Office Furniture.....	2,100.00
Exhibit	2,500.00
	<hr/>
	—\$ 6,600.00

BOATS

16 Boats of Various Sizes.....	17,870.00
	<hr/>
Grand Total Estimated Value of Assets.....	\$869,651.00

CHIEF SURVEYOR'S REPORT

TO THE HONORABLE BOARD OF COMMISSIONERS FOR
THE PROTECTION OF BIRDS, GAME AND FISH.

Gentlemen:

In accordance with your instructions, I have the honor to submit the following report:

By virtue of Act 189 of 1910, the Oyster Commission of Louisiana was consolidated with the Board of Commissioners for the Protection of Birds, Game and Fish, and new officers were appointed to administer its affairs.

The present Commission, immediately after its appointment and organization, set about to make a thorough investigation of the Oyster industry of the State, and to inaugurate a new system of management.

The industry has, in the past two years, shown a consistent and satisfactory growth. 4,451.38 acres of new bottoms were leased and 1,432,205 barrels of oysters were gathered. The crop of 1911 being 661,094 barrels and that of 1912, 771,111 barrels—showing an increase of 110,017 barrels.

FACTORIES AND SHUCKING PLANTS

CANNING FACTORIES IN OPERATION.

	No. Factories	Oysters Canned
1911	5	308,313 barrels
1912	6	413,963 barrels

SHUCKING PLANTS OR RAW SHOPS.

	...Number	Oysters shucked and shipped
1911	51	352,781 barrels
1912	57	357,148 barrels

The shucking or opening of raw oysters for shipment out of the State has developed and increased rapidly and is now a most important branch of the industry.

PATROL BOATS

The boats "Louisiana", "Royal Tern", "Opelousas" and "Baton Rouge" have rendered active and efficient service in patrolling the waters of Lake Borgne and Mississippi Sound.

SURVEY OF NATURAL REEFS

A survey was made of the natural reefs in the State during September, October and November, 1910, and, in conformity with Section 6 of the foregoing Act, the following reefs were set aside for public fishing and seed purposes:

St. Bernard Parish—Grand Pass, Creole Gap and Cabbage Reefs	3,040 Acres
Plaquemines Parish—Quarantine and California Bays.....	6,000 Acres
Terrebonne Parish—Point-au-Fer, Bay Junop and South and East part of Sister Lake.....	53,200 Acres
Cameron Parish—Mouth of Calcasieu River.....	500 Acres
Total.....	62,740 Acres

HISTORY OF THE OYSTER LAWS OF STATE

The earliest white settlers of Louisiana found oysters growing naturally on the reefs and these were gathered for local consumption. Gradually these persons, in answer to commercial demands, began to supply the New Orleans market and those living too far from the reefs to personally fish their own supply.

As the population increased and the demand grew larger, more people engaged in the industry. It was soon learned, however, owing to the most crude and wasteful manner of fishing and culling, that the supply was gradually becoming exhausted and the reefs exterminated.

This created dissatisfaction and engendered discussion. Legal restrictions must be applied to save the industry, was the consensus of opinion.

Accordingly, for the first time in the history of the State, the Legislature was appealed to and in 1870 it passed Act No. 18, which made a close season from April 1st to September 15th, and provided penalties for the taking or fishing of oysters during this time.

In 1871, by Act No. 91, the close season was made from May 1st to September 15th.

The law embodied in these Acts was never enforced, and the depletion and destruction of the reefs continued rapidly.

So in 1886, the Legislature was again applied to for relief and Act No. 106 of that year was passed.

This Act authorized the leasing of water bottoms, not to exceed three acres to any one person or corporation, the imposing of licenses and taxes on boats and tongmen (one-half of the net amount derived from these rents, licenses and taxes to be equally divided between the parishes and the State) and placing the oyster industry of each parish in the absolute control of the Police Jury of that parish.

This law was detrimental to the industry. The oysters within the confines of a parish were considered the exclusive property of that parish and could be fished only by her own people, consequently frequent clashes occurred between citizens of one parish entering that of another in search of marketable oysters and seed for bedding purposes.

In 1892, this Act was superseded by Act No. 110 of that year which made no change beyond increasing the area subject to lease from three (3) to ten (10) acres.

This Act was superseded by Act 121 of 1896. The only material change made was to relieve from taxation oysters bedded on leased bottoms.

All of these laws were disregarded and fell into contempt. In the meantime, the supply fell short of the demand as the natural reefs (the only source of supply) were being depleted and destroyed.

New legislation was imperative, consequently the matter was discussed in the Legislature during the sessions of 1900 and a Committee (three (3) from the House and two (2) from the Senate) was appointed to examine into the oyster industry of the State and to formulate a bill for its improvement and present same at the next session of the General Assembly.

The General Assembly which convened in 1902 received the report of the Committee appointed in 1900. This report, coupled with recommendations made by Mr. H. F. Moore of the United States Fish Commission, was the basis of a general oyster law. The law was materially amended in 1904, 1906 and 1910, and as it now stands on the statute books.

Messrs. H. F. Moore and T. E. B. Pope of the United States Bureau of Fisheries make the following comment on the present law in their "Oyster Culture and Experiments and Investigations in Louisiana."

"The fundamental feature of the new law was the creation of a State Oyster Commission having sole jurisdiction, in oysters and cognate matters, over the entire coast, insuring consistency and uniformity of administration, and endowed with ample police powers to enforce the laws which under the old regime were disregarded with impunity."

The effects of the law were almost immediately apparent in the growth of the oyster industry.

Prior to its passage jurisdiction over the oyster bottoms was, as noted above, lodged solely in the Police Juries of the several coastal parishes, with the result that the administration of the laws was contradictory and ineffective. The potential wealth lying concealed beneath the tide waters of the State was not appreciated and the oyster industry was neither protected nor fostered.

Partly on account of the unusually favorable natural conditions under which the oyster industry is conducted in Louisiana, but largely by reason of the protection which the laws accord to the natural beds and the encouragement which they extend to oyster culture, the oyster fishing of the State has made extraordinary progress since the establishment of the Commission.

In the five years preceding the enactment of the first oyster law, the increase in the production, which was mainly from natural beds, was 20 per cent., while in the first five years following the passage of the act, *the increase was 154 per cent.*

The natural beds of the State are now producing about two-fifths of the output, while the remaining three-fifths are taken from planted beds.

The increase in the area of the bottoms leased since the enactment of the present laws has been astonishing.

From 1885 to 1902, under parish administration, 521 leases, covering 2,820 acres had been executed, a great many of which had lapsed.

To-day there are 1,762 leases covering 17,072.94 acres.

Nature has been more bountiful to us in our water wealth than to any State in the Union. Greater possibilities are here offered, in the oyster industry, than elsewhere, but it will require persistent labor, intelligence, and capital to properly develop this industry, and, more than all, proper laws judiciously administered.

OYSTER CONDITIONS OF TO-DAY

The coast line of Louisiana, bordering on the Gulf of Mexico, comprises the following oyster producing parishes: St. Bernard, Plaquemines, Jefferson, Lafourche, Terrebonne, St. Mary, Iberia, Vermilion and Cameron. Their shores are largely indented with bays, lakes and bayous, where the tide ebbs and flows daily, mixing the salt waters of the Gulf of Mexico with the fresh waters of the Mississippi River, its tributaries, and other streams, thus producing ideal conditions for oyster life and culture.

ST. BERNARD PARISH

This is the most easterly of the oyster producing parishes. It has an area of 146,500 acres of oyster producing bottoms susceptible of oyster culture—extending from the Mississippi boundary line on the North to Plaquemines Parish on the South, and from the Chandeleur Sound on the East to the zone where the water becomes too fresh to support oyster life.

This region is known as the "Louisiana Marsh."

The largest natural reefs in the State, from a commercial viewpoint, are located in this parish and are known as Creole Gap, Grand Pass and Cabbage Reefs. These reefs, in the past, and are now supplying the stock for the steam packing plants at Dunbar and Violet, also oysters for the raw trade shipments.

Continual dredging and the lax enforcement of the culling laws has, however, materially affected the output of these reefs.

The remaining beds in this parish, especially those in Bay Boudreau and adjacent waters have, up to the past two years, yielded large quantities of oysters, principally for the raw trade and for the New Orleans market. These beds have been overworked and are now practically depleted.

Large areas were formerly leased in this section—several 1,000 acres each—but have since been abandoned by the lessees. Only a small portion remains under cultivation and lease as shown by the following:

Number of acres under lease at present time.....	588.82
Number of active leases at present time.....	17
Average size of lease in acres.....	34.63

Conditions are now changed. We have a liberal leasing law coupled with the fact that the natural beds are becoming depleted and are unable to supply the demand—hence the oystermen will be compelled to lease and cultivate his own stock.

The waters of St. Bernard Parish offer excellent opportunities for the cultivation of oysters on a large scale, especially for the steam packing trade. The depleted reefs are now subject to lease and can, with care and cultivation, be made to yield large returns.

PLAQUEMINES PARISH

The water bottoms embraced in the area of this parish extend from St. Bernard on the East to the East shore of Barataria Bay on the West and on each side of the Mississippi River to its mouth, and contains 171,000 acres of oyster bottoms capable of producing oysters.

The natural reefs in this parish are located in Quarantine and California Bays. The oysters on these reefs are of no commercial value, owing to their dense growth, and can only be used when broken up and transplanted to bottoms more favorable for their development.

The following shows the amount of bottoms now under lease in Plaquemines Parish:

Number of acres under lease at present time.....	6,404.08
Number of active leases at present time.....	1,038
Average size of lease in acres.....	6.17

Here we find that the rentals have been paid promptly and a large percentage of leases are retained and worked. This is due:

- 1st. To the absence of any public reefs of commercial value—thus forcing cultivation on leased beds, thereby producing a superior quality of oyster.
- 2nd. An active demand, with good prices, for oysters from this territory by the New Orleans market.

The oyster industry in this parish is carried on more systematically than in any other part of the State. A great many naturalized Austrians are engaged in the business who devote their entire time to planting and gathering oysters. Most of them live with their families in substantial houses which they have built in close proximity to their bedding grounds.

JEFFERSON PARISH

This parish includes within its limits Barataria Bay (Grand Lake) and adjacent waters extending to the West shore of Bay Tambour and Bay des Islettes and contain 28,000 acres of oyster bottoms.

Natural Reefs—There are no natural reefs in this parish.

Barataria Bay (Grand Lake), Bay des Islettes and Bay Tambour at one time contained large natural reefs, but these are now extinct.

The cause of destruction of these reefs appears to have been overfishing probably by the Booth Company, who operated a cannery at Bayou Brulot, some eighteen years ago, and the increased salinity of the water, due to the improvement of the levee system which has decreased the volume of fresh water flowing into the bay.

From observation, it is found that the water favorable for oyster life and culture is moving inland along the coast line of the Parishes of Jefferson, Lafourche and Terrebonne. This is due to artificial changes in the drainage system, levee improvements, closure of Bayou Lafourche and the washing away of the chain of outlying islands extending from Grand Island to Last Island. Oysters are now growing and leases have been made in waters of Lafourche and Terrebonne which, six years ago, carried fresh water at all times.

Up to 1906, no oysters were planted or cultivated in Jefferson Parish, due to the foregoing conditions. In 1906, under the direction of Messrs. Moore and Pope, Assistants, United States Bureau of Fisheries, who were making experiments and investigations of the oyster bottoms of Louisiana, the Oyster Commission of Louisiana planted 60 barrels of unculled oysters at the upper end of Barataria Bay (Grand Lake) and Bayou St. Denis.

The planting of these oysters has resulted in the rehabilitation of the oyster industry in that parish.

The upper part of Barataria Bay, North of Bayou du Fon, and adjacent waters offers exceptional opportunities for oyster culture. Lying South of Bayou du Fon, and extending to the Gulf, the water has become so salty and is so infested with the very destructive enemy of the oyster, the snail or borer, *Purpura*, that the fishermen have abandoned all of their claims in this area.

In order to rehabilitate this area, which is now barren, it will be necessary to reduce the salinity or density of the water by fresh water from the Mississippi River. This can be accomplished by building a lock at some favorable point on the river.

The expense of such an undertaking would be amply repaid in making productive a very large area of the finest bottoms in the State.

Water bottoms under lease and cultivation in Jefferson Parish:

Number of acres under lease at present time.....	527.42
Number of active leases at present time.....	59
Average size of lease in acres.....	8.97

The planting of shells for cultch is carried on in this parish more extensively than in any other part of the State. The fishermen, from interviews with them, state that the cost of bedding shells is much less than that of transplanting oysters and the results are far more satisfactory.

LAFOURCHE PARISH

The oyster regions of Lafourche includes part of Caminada Bay, Lake Raccourci and Timbalier Bay.

Natural Reefs—There are no natural reefs in this parish.

The beds at one time existing in Caminada Bay are now extinct and in the same condition as those in the waters of Jefferson Parish.

The reefs in Timbalier, which at one time furnished employment for a large number of fishermen and supplied oysters for transplanting on the leased beds in Plaquemines and Lafourche Parishes, are now practically extinct. These reefs were destroyed by overfishing and the removal and transplanting of uncultured oysters to private beds, also by the ravages of the snail or borer, due to the closure of Bayou Lafourche.

The closure of Bayou Lafourche has destroyed a large area of oyster producing bottoms in this region. It had hitherto supplied the fresh water that sustained oyster life, but since its closure the water in Timbalier Bay has become so densely saline as to inhibit the growth of young oysters.

Lafourche Parish has 3,000 acres of oyster bottoms susceptible of oyster culture.

The following shows leases made and acreage now under cultivation in Lafourche:

Number of acres under lease at the present time.....	397.01
Number of active leases at present time.....	32
Average size of lease in acres.....	13.10

The principal leases and beds are now located in Lake Raccourci, which six years ago was fresh water, and the West shore of Timbalier Bay.

Lafourche Parish was at one time a large oyster producing parish, but at the present time very few oysters are cultivated there and the outlook for an increased output is not very encouraging unless fresh water through Bayou Lafourche can be secured.

TERREBONNE PARISH

The oyster producing bottoms of Terrebonne extend from the West shore of Timbalier Bay on the East to the Atchafalaya Bay on the West, including Point-au-Fer Reef, and contains 122,000 acres of oyster reefs and oyster bottoms susceptible of cultivation.

Natural Reefs—The natural reefs, exclusive of Point-au-Fer, are located in Bay Junop and Sister Lake.

The oysters on these reefs are of a rather inferior quality and shape, being somewhat of a racoon type. Uncultured oysters are taken extensively from them for transplanting on private beds in Terrebonne, Jefferson and as far East as Bayou Cook in Plaquemines. They are beginning to show the effects of overfishing, and stringent measures should be taken to enforce the culling laws in order to preserve and perpetuate them.

Point-au-Fer Reef at the mouth of the Atchafalaya River is the largest natural reef in the State—containing approximately 50,000 acres. The oysters on this reef are of no commercial value due to their present crowded state and are worthless in their present condition. They never reach marketable size as they are destroyed annually by fresh water during the high stages of the Atchafalaya River.

Shells for cultch have been used to a limited extent in this parish, but the planters depend almost entirely on the natural reefs for their supply of seed, and instead of assisting in the perpetuation of the natural oyster supply they aid in its depletion and destruction.

Terrebonne offers the greatest possibilities for oyster culture. It has a large area of fine bottoms and depleted reefs, which can now be leased under the present law and built up and cultivated with young oysters taken from Point-au-Fer Reef.

The following shows leases and acreage now under cultivation in Terrebonne:

Number of acres under lease at the present time.....	9,051.05
Number of active leases at present time.....	513
Average size of lease in acres.....	17.17

ST. MARY, IBERIA, VERMILION AND CAMERON PARISHES

These parishes have been classed as oyster producing parishes, but in a true sense they are not.

Efforts have been made to cultivate oysters in St. Mary, Iberia and Vermilion, but with little success, and at the present time only Vermilion has any leased bottoms, which comprises three (3) leases aggregating 104.56 acres.

SUMMARY AND CONCLUSION

The following epitomizes the results of the foregoing:

Parish	LEASED BOTTOMS.	
	Number of Leases	Acreage
St. Bernard	17	588.82
Plaquemines	1,038	6,404.08
Jefferson	59	527.42
Lafourche	32	397.01
Terrebonne	513	9,051.05
Vermilion	3	104.56
	Total	17,072.94
	Average size of lease in acres.....	9.69

Total water bottoms, comprising leased areas, natural reefs, and bottoms susceptible of oyster culture:

Parish	Acreage
St. Bernard	116,500
Plaquemines	171,000
Jefferson	28,000
Lafourche	3,000
Terrebonne	122,000
Vermilion	962
Cameron	500
	Total.....
	471,962

62,740 acres of natural reefs are comprised in this total area (allowing 50,000 acres for Point-au-Fer). Deducting this, there remains 409,222 acres of bottoms adaptable to oyster culture. Of this area your Commission can only figure on 10 per cent., or 40,000 acres ever being leased and cultivated due to the following:

- 1st. While the water has the proper density for the propagation of oysters, the greater part of the bottoms are very soft and can only be utilized by building them up—a most expensive undertaking.
- 2nd. The insufficiency of food in the water to support oyster life on such large area.

3rd. The law of supply and demand which regulates the oyster industry as it does everything else.

While the revenues derived from the several sources of the industry are more than ample to meet all expenses attached to the policing and preserving of the reefs, the Oyster Department of your Commission can not at any time in the future yield a very large revenue to the State. The conditions do not justify it nor can you expect it.

The indirect benefits derived from this industry, however, will be enormous.

It will give employment and livelihood to a large number of our people.

It will bring into the State, from the sale of its products, several million dollars annually, which will circulate through the channels of trade—thus benefiting every citizen of the State.

FRANK T. PAYNE,

Chief Surveyor.

L. J. DOSSMANN, SUPT. OYSTER DEPT.

C. S. E. BABINGTON - SECRETARY.

AMOS L. PONDER - - ATTORNEY.

FRANK T. PAYNE, CHIEF SURVEYOR.

HENRY JACOBS, IN CHARGE OF EXHIBIT

LIST OF GAME AND FISH WARDENS

Acadia.....	Church Point.....	Maurice Barousse.
Ascension.....	Hope Villa.....	W. P. Dixon.
Assumption.....	Belle Rose.....	Chas. Alonzo.
Avoyelles.....	Long Bridge.....	E. M. Bordelon.
Bienville.....	Arcadia.....	J. W. Allen.
Bossier.....	Plain Dealing.....	J. B. Johnston.
	R. F. D. 2, Box 53.	
Caddo.....	Blanchard.....	Chas. W. Wasson.
	Shreveport.....	Wm. E. Monkhouse.
Calcasieu.....	Lake Charles.....	Sam'l E. Spence.
	Lake Arthur.....	T. Landry.
	Vinton.....	Jerry Corethers.
	DeRidder.....	M. Jones.
Caldwell.....	Columbia.....	W. A. Davis.
Cameron.....	Cameron.....	M. W. McCall.
	Cameron.....	A. P. Welch.
	Johnson's Bayou.....	J. B. Erbeiding.
Catahoula.....	Sicily Island P. O.....	H. J. Disch.
Claiborne.....	Athens.....	J. E. Gandy.
Concordia.....	Monterey.....	Walter S. Burley.
DeSota.....	Cook.....	T. S. Bates.
East Baton Rouge.....	Baton Rouge.....	A. D. Bryan.
	Baton Rouge.....	J. D. Garig.
East Carroll.....	Lake Providence.....	G. R. Newman.
East Feliciana.....	Gurley.....	Thos. S. Reily.
Evangeline.....	Ville Platte.....	Yorick Vidrine.
Franklin.....	Crowville.....	W. I. Hair.
Grant.....	Selma.....	T. C. Linceum.
Iberia.....	New Iberia, Box 203.....	Eraste C. LeBlanc.
Iberville.....	St. Gabriel.....	A. D. Gueymard.
Jackson.....	Vernon.....	J. T. McDowell.
Jefferson.....	Westwego.....	Henry Gardey.
LaSalle.....	Nebo.....	J. D. Bradford.
Lafayette.....	Carencro.....	Maurice Francez.
Lafourche.....	Thibodaux.....	O. Angelloz.
Livingston.....	Denham Springs.....	J. D. Barnett.
Lincoln.....	Ruston.....	H. O. Warren.
Madison.....	Delhi.....	A. N. Andrews.
	Tallulah.....	Chas. Coltharp.
Morehouse.....	Bonita.....	A. B. Calhoun.
Natchitoches.....	Natchitoches.....	P. C. Rogers.
	Goldonna.....	Jas. H. Weaver.
Orleans.....	1615 Crete St.....	Chas. H. Audler.
	641 France St.....	Andrew Decosas.
	746 Louisiana Ave.....	Jno. L. Hubert.
	Chef Menteur.....	Jos. Schaneville.
Ouachita.....	Sterlington.....	W. C. Steele.
Plaquemines.....	Venice.....	G. T. Smith.
Pointe Coupee.....	New Roads.....	Jules Patin.
Rapides.....	Alexandria, Route No. 2.....	W. L. Duncan, Jr.
	Boyce.....	J. E. Ray.
Red River.....	Coushatta.....	W. H. Walmsley.

Richland.....	Rayville.....	M. H. Stevenson.
Sabine.....	Zwolle.....	L. B. Gay.
St. Bernard.....	Estopinal.....	Ferdinand Bel.
St. Charles.....	Boutte.....	Wm. Cadow.
St. Helena.....	Greensburg.....	Amos Addison.
St. James.....	Paulina.....	Morgan Roussel, Sr.
	Vacherie.....	Cyriaque Granier.
St. John the Baptist.....	Edgard P. O.....	Miles Chauvin.
St. Landry.....	Whiteville.....	M. P. Stagg.
St. Martin.....	St. Martinville.....	E. A. Davis.
St. Mary.....	Berwick.....	A. Gilmore.
St. Tammany.....	Covington.....	Anatole P. Beaucoudray.
Tangipahoa.....	Amite.....	Vic Spring.
Tensas.....	St. Joseph.....	Chas. Johnston.
Terrebonne.....	Houma.....	G. A. Breaux.
Union.....	Marion.....	G. W. Cox.
Vermilion.....	Abbeville.....	Otis Hoffpauir.
	Esther P. O.....	J. S. White.
Vernon.....	Leesville.....	D. H. Turner.
Washington.....	Franklinton.....	E. L. Magee.
Webster.....	Minden.....	Connel Fort.
West Baton Rouge.....	Mark P. O.....	Allen Mouch.
West Carroll.....	Oak Grove.....	G. A. Schrock.
West Feliciana.....	Free Land.....	C. L. Lloyd.
Winn.....	Montgomery.....	John H. Neal.

R. F. D. Box No. 72.

Miles:

3

4

5

1100 177



BOUNDARY LINE
MISSISSIPPI
LOUISIANA

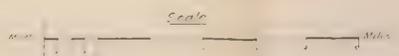
The Soundings are shown in black and are depths in feet
Depth markings of oysters are shown in red
Vertical lines are in feet

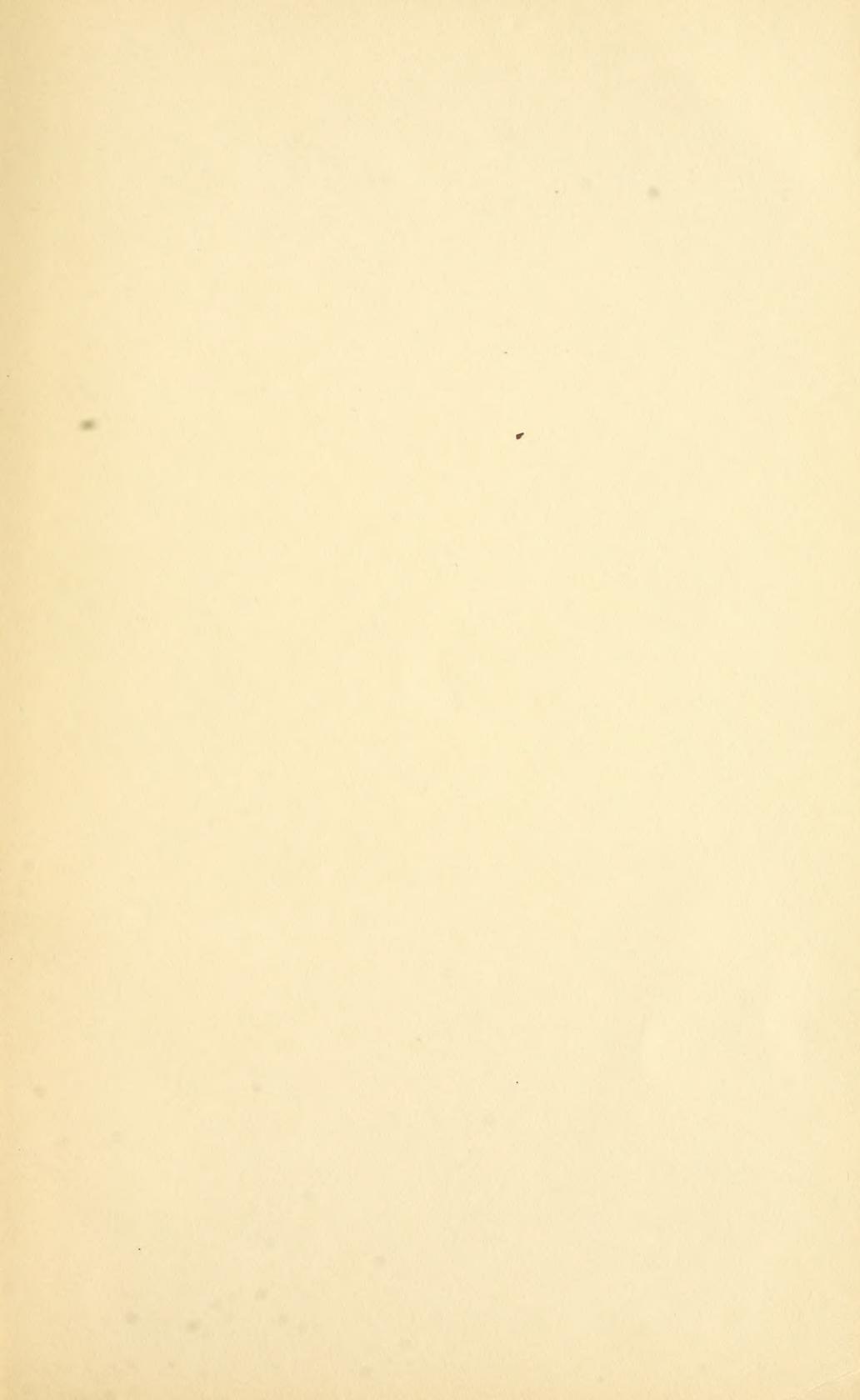
LOCATION
OF THE
OYSTER BEDS
OF
ST. BERNARD PARISH, LA.
AND THE
BOUNDARY LINE

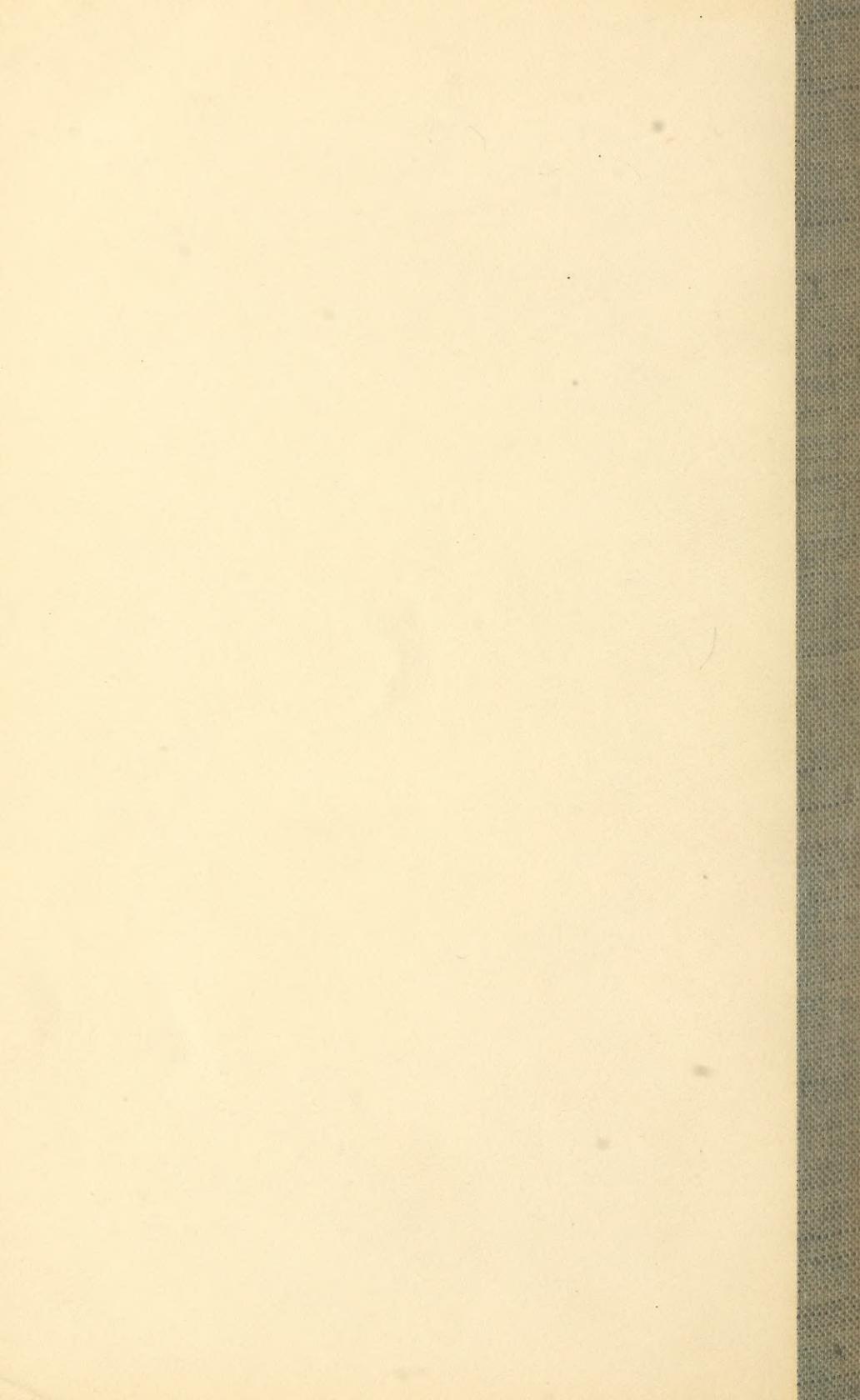
between the States of Louisiana and Mississippi
from Surveys made by the US Fish Commission
and the Commission for the Protection of Birds,
Game and Fish.

1912

Frank S. Rogers
Chief Surveyor







10021 W.F.
PAT. JAN. 21, 1908

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