

ANNUAL REPORT

OF THE

Board of Fish and Game
Commissioners

FOR THE

Year Ending October 31st,
1915.

RAHWAY, N. J.
REFORMATORY PRINT

1916

LIST OF FISH AND GAME COMMISSIONERS

Holding Office at the Date of this Report

ERNEST NAPIER, *President*,.....East Orange, N. J.
WILLIAM A. LOGUE, *Treasurer*,.....Bridgeton, N. J.
WILLIAM A. FAUNCE,.....Atlantic City, N. J.
BERNARD M. SHANLEY, JR.,.....Newark, N. J.
WALTER H. FELL, *Secretary*,

Office of the Board, State House, Trenton, N. J.

List of Fish and Game Wardens Holding Commissions at the Date of this Report

STRATTON, JAMES M., *Protector*,North Long Branch
MATHIS, HOWARD, *Assistant Protector*,New Gretna
CUDNEY, HARRY E., *Assistant Protector*,Washington

AVIS, JOHN H.,Woodbury
CONNER, FRED S.,Bridgeton
DAVIS, EDWARD R., (removed December, 1915).....Salem
EVERNHAM, JAMES H.,Bayville
FOLKER, CHARLES W.,Camden
HALL, FRED J.,Bloomfield
HILLIARD, PHINEAS K.,Manahawkin
HOBLITZELL, WILLIAM,Rahway
KLEIN, WILLIAM C.,Clifton
LODER, WILLIAM B.,Egg Harbor City
LOVELESS, HARRY M.,Trenton
MORTON, CHARLES C.,Mount Holly
PARK, JOHN J.,White House Station
PHIFER, GEORGE W.,Ormond
RIDER, ANSON J.,Tuckerton
ROE, JACOB D.,Newton
SMALL, OTIS C.,Hammonton
SMALL, WILLIAM HENRY,Englewood
STEEL, WILLIAM,Cape May Court House
STEUERWALD, CHARLES,South Amboy
WELSH, CHARLES E.,East Millstone
WHITE, HARRY W. D.,Pennsville
YOUNG, WILLIAM E.,Chester

LETTER OF TRANSMITTAL

*To His Excellency, James F. Fielder, Governor, and to
the Members of the Senate and General Assembly of
the State of New Jersey:*

As required by law, we submit herewith the annual report of the work of the Board of Fish and Game Commissioners for the year ending October 31st, 1915.

Very respectfully,

ERNEST NAPIER,
WM. A. LOGUE,
B. M. SHANLEY, JR.,
W. A. FAUNCE,
Commissioners.

ANNUAL REPORT.

In presenting our annual report and in reviewing the year, we confidently believe that our efforts will not only meet with your approval, but that you will note that progress has been made in the work we have been doing for the increase and protection of fish and game. Our duties have been made easier by the unmistakable fact that the public is alert to the necessity for an effective administration of our laws, and by the growing education of the people to the importance of conserving the life of our land and waters. We appreciate also most fully the great assistance given us by his Excellency, James F. Fielder, Governor, and the Legislature, whose co-operation has been most valuable and effective.

We are bringing to completion the establishment of the Game Farm, at Forked River, and the Hatchery, at Hackettstown. We are satisfied that these two institutions will very shortly give to our State a very creditable supply of fish and game, and this in the face of a rapidly multiplying population and various modern successful methods in seeking out and taking our wild life. At this point we have in mind the great breeding grounds for ducks, geese and brant, found on our eastern coast, in the chain of bays and thoroughfares, including Barnegat Bay, the protection of which is simply one feature of our work, but which with proper supervision becomes an asset of great value to the State. In connection with this we quote the following from an interesting bulletin, issued by the United

States Department of Agriculture in September, 1915, which shows in part in very few plain words the magnitude and importance of the work in which we are engaged.

"The State of Maine estimates the annual income from its game resources at \$13,000,000, of which about five per cent, or \$650,000, can safely be allotted to the returns from migratory wild fowl. Oregon values the annual returns from its game resources at \$5,000,000. Of this amount about \$1,000,000 may be attributed to migratory wild fowl. It is evident that the actual annual returns from this source in the several States reach a very large amount, and the value of this resource to the nation amounts to hundreds of millions of dollars.

"The benefits of the migratory bird law in conserving and increasing the wild life of the country is not confined solely to the game birds. This law also protects at all times throughout the United States our insectivorous birds which inhabit every State. The Bureau of Entomology has estimated that insects injure agriculture and farm products to the amount of \$652,000,000 annually. When it is considered that insectivorous birds constantly prey upon and devour myriads of injurious insects throughout the country, the benefit of these birds in maintaining the balance of nature and in limiting the increase of our insect enemies is of untold value."

Receipts, Fines, Etc.—The amount received by the State Treasurer during the year on account of the Resident License act of April 21st, 1909, was \$62,345.15, which act is now superseded by the Hunters' and Anglers' License act of April 9th, 1914, on account of which there has been received from January 1st, 1915, to October 31st, 1915, \$38,254.70, which latter amount includes fees for non-residents and unnaturalized hunting and fishing licenses which were formerly kept separate. The resident hunters' licenses issued from January 1st, 1914, to December 31st, 1914, as reported by the County Clerks, were 72,590.

The aggregate of fines collected for violations of the fish and game laws amounted this year to \$8,045.79.

For licenses to steamers and sailing vessels to take menhaden with purse nets within the three-mile limit of our coast, there were received \$6,300. At the date of this report there are 40 steamers and 28 sailing vessels holding licenses to take menhaden. The fees for steamers range from \$100 to \$200, according to tonnage, while the flat rate for sailing vessels is \$25.

The fees received for unnaturalized, foreign-born resident licenses were \$440. These fees were credited by law to an account known as the State Game Protection Fund, which fund no longer exists, the new Hunters' and Anglers' License law now covering all licenses for hunting and fishing, from January 1st, 1915.

The receipts for non-resident licenses were \$2,520. This account was closed January 1st, 1915, by reason of the new license law.

On account of licenses for the operation of fish pounds in the Atlantic Ocean and Sandy Hook and Raritan Bay the receipts during the fiscal year were \$5,600. For the calendar year for which licenses were issued there were 147 licenses granted, 102 for the Atlantic Ocean, and 45 for the above-mentioned bay.

Under the law which allows a citizen above the age of 10 years and below the age of 14 years to hunt when provided with a special license, and accompanied by a holder of a regular license above the age of 21 years, 18 licenses were issued from January 1st, 1915, to October 31st, 1915, the fee being \$1 each.

An act was passed last winter making it unlawful for an unnaturalized, foreign-born person to own or possess a shotgun or rifle, and authorizing the seizure of such guns by the Board of Fish and Game Commissioners. From the date of the passage of the act of October 31st, 12 guns were confiscated which will be disposed of at the discretion of the Board.

Prosecutions for the Year.—There was a grand total of 435 prosecutions for the year ending October 31st, 419 convictions, 15 acquittals, and one case still pending; 26 defendants were committed to the County Jail, 28 cases appealed, and in 29 cases sentences were suspended on the payment of costs; 8 cases discontinued by advice of the Attorney General or the Commission; 14 hunters' licenses were revoked, and 12 guns were confiscated for violation of the act which prohibits aliens owning or possessing firearms

The number of prosecutions is 141 less than last year, but as the wardens seem to be active and on the watch for violations, we cannot attribute this falling off in prosecutions to any other reason than that the law is better observed.

No Judicial Powers.—We think it well to state again that under the laws the Board has no power to review judicial proceedings. After convictions persons have applied to the Board to have the fines remitted or modified. All such applicants are informed that the Board is without pardoning power and that if the higher courts do not provide a remedy for their grievance they should make application to the State Board of Pardons or the Legislature. During the past eight years only one conviction was brought to the attention of the State Board of Pardons.

Organization.—At the organization meeting of the Board Commissioner Ernest Napier, of East Orange, was re-elected President, and Commissioner William A. Logue, of Bridgeton, was re-elected Treasurer. At this meeting Commissioner Bernard M.

Shanley, Jr., of Newark, who had been filling the unexpired term of Hon. Percival Chrystie, and who had been appointed for a full term of four years to commence November 25th, 1914, entered upon the duties of his full term.

Monthly and several special meetings at the office of the Board and conferences at the Game Farm and Fish Hatchery, and various conferences with members of the Legislature and citizens at the office of the Board were held during the year. The Board also met with members of the Legislature in a body both at the Hatchery and Game Farm. Commissioner B. M. Shanley, Jr., was Acting President of the Board during President Napier's absence in the south in the early spring.

Commissioner Shanley, Protector Stratton and Superintendent Duncan Dunn, of the Game Farm, represented the Board at a meeting of the National Game Breeders' Association, held at the Waldorf-Astoria, New York City, in March.

During the year President Napier acted as Secretary of the National Association of Game and Fish Commissioners, of which association Hon. George H. Graham, of Springfield, Mass., is President. It was the intention of President Napier to attend the annual meeting which was held in the fall at San Francisco, but he was prevented from attending the session. Our President is also a member of the National Association of Conservation Commissioners, of which Hon. George W. Fields, of Massachusetts, is President.

Hunters' and Anglers' Law.—January 1st, 1915, there went into effect a new license law providing for licenses for hunting and fishing, the law as to fishing applying only to fresh waters of the State. This act was passed April 9th, 1914, but in 1915 the Legislature passed two acts which modified the law. First, an act of April 14th, 1915, providing that the Board may in its discretion issue a license to hunt to persons who are citizens of the United States, above the age of ten and below the age of 14, when applied for by a parent or legal guardian, but such persons may only hunt when accompanied by a holder of a regular residents' or non-residents' license, who shall be above the age of 21, the license to cost \$1. Second, an act providing that it shall be unlawful for any unnaturalized, foreign-born person to hunt for or capture, or kill in this State, any wild bird or animal, either game or otherwise, of any description, excepting in defense of person or property; and to that end it shall be unlawful for any unnaturalized, foreign-born person within this State to either own or be possessed of a shotgun or rifle of any make; * * * provided, however, that this act shall not apply to any unnaturalized, foreign-born person who is the owner of real estate in this State to the value of \$2,000 above all encumbrances.

Licenses issued under the new Hunters' and Anglers' act are good for one year from January 1st to December 31st, and while a complete survey of the effect of the law cannot be given at the writing of this report, yet enough is known to indicate that the new regulations have been successful, and that the law has been effectively administered.

The Board holds that the act of 1914 applies only to fresh waters as to fishing; that it does not apply to the tide waters, nor to the Delaware river proper throughout its entire length, but it does apply to the waters of tributaries at points above the ebb and flow of tide.

The Board also holds that licenses are required from all persons, except those exempt in the Hunters' and Anglers' act of 1914, in order to fish in private waters, said private waters being described as all ponds, lakes and waters created by, or under the exclusive control of individuals or associations, stocked and maintained at the sole expense of such individuals or associations, and not runways for migratory fish.

The Board holds that it has no authority to give persons the right to trespass on private property whether the same be streams or ponds or lands abutting the same, and that it is against the policy of the Board to stock waters from which the public are excluded. However, the Board has control of fishing in fresh waters of the State and can regulate the manner of fishing whether the water has or has not been stocked by the State.

Early in the year a circular letter was sent to County Clerks who have charge of the actual distribution of licenses to municipal clerks and wardens in their respective counties requesting them to notify the Board promptly in case any agent did not turn over the first Tuesday of each month the receipts for licenses, etc., etc., as required by law.

The Board made provisions for the sale of fishing licenses only by agencies outside of the State. Several sporting goods stores in New York, Philadelphia and Reading, took advantage of the opportunity. Our wardens were active in seeing that persons desiring licenses at the more popular fishing points were accommodated. There are upwards of 550 agencies where licenses are obtainable, and it is believed that the number is sufficient.

In the first days in which the law became effective our wardens were requested to exercise special care and moderation in the matter of prosecutions under the act for the first offense, inasmuch as it was possible that law abiding citizens might violate the act through innocent ignorance of a law which made a radical change in the matter of angling. The wardens found, however, that fishermen were generally acquainted with the law, and that those who

did not know of its provisions cheerfully conformed to the same upon notification.

The wardens have been active in enforcing the act which prohibits unnaturalized foreign-born persons from owning or possessing firearms. Particular attention was paid to Italian settlements near cranberry bogs in Atlantic and Camden counties. In one visit, 100 rooms where Italian cranberry pickers were living were searched. Four arrests for the possession of firearms were made, and the defendant in each case was convicted, and the penalty was paid. In this raid four guns and one rifle were confiscated.

Jurisdiction of Justices of the Peace.—In anticipation of a possible adverse decision by the Supreme Court in the case of the State, Rayner, Prosecutor vs. Benjamin, the case involving the jurisdiction of a Justice of the Peace residing within the limits of a city or judicial district where a District Court is established to hear cases arising under the fish and game laws, a bill was introduced in the Legislature to remedy the situation, but it did not become a law. Since the writing of this report was commenced the Supreme Court announced its decision sustaining the judgment of the Common Pleas Court dismissing the action. As a Board we believe it desirable to resume the trial of cases before Justices of the Peace in cities and judicial districts, and therefore we recommend the passage of an act to that end.

Publications.—The Board published 15,000 fish and game law books, 5,000 copies in pamphlet form of the new hunting and fishing license law, 2,000 large English charts showing the seasons, etc., 35,000 small English charts, 2,000 small Hungarian charts, and 2,000 small Italian charts.

Immediately after the session of the Legislature the Board issued 2,500 bulletins showing the changes made in the seasons by the Legislature, etc., etc. Besides the foregoing there were published 3,000 annual reports of the Board, the hunting and fishing licenses, several circular letters and various forms for office use.

The Board also issued several bulletins containing carefully prepared articles on fish and game matters, which were sent to the newspapers of the State, with the request that they reproduce such articles in their news columns. We are pleased to say that the press of the State heartily co-operated with us in this matter, and there is no doubt but that the articles in question were of great value and interest not only to hunters and fishermen, but to the general public.

Fox Permits.—During the year there were 1,601 permits issued to hunt foxes. It was found after investigation by Commissioner W. A. Faunce, of Atlantic City, that under the old system of issuing permits abuses had crept in. Before a permit is

now issued to an applicant the Board requires him to take an affidavit that in case a permit is issued he will obey all the laws of the State relating to fish and game, and to sign a statement in the application blank agreeing for a revocation of the permit for any violation of the laws at the discretion of the Board.

Letter to Deputies.—Before the opening of the gunning season a circular letter was sent to 376 commissioned deputies urging them to be active in their duties, and supplying them with a synopsis of laws affecting the seasons. Among other things the circular said "This Commission must feel that we are receiving your assistance. If you feel that you cannot work with us we shall expect, without further request, to receive your badge and commission."

Warden Service.—It is a pleasure for the Board to report excellent co-operation on the part of the wardens, with an exception or two. They have executed their trust with energy and intelligence, and, following instructions from their superior officers, have done much in their communities for the cause which they represent.

Harry E. Cudney, of Warren county, one of our wardens, was elected temporary Assistant Protector, the appointment being made by virtue of Chapter 71, Laws of 1915. Later the Civil Service Commission held an examination for the purpose of filling the position permanently. Mr. Cudney took the examination and following his certification to the Board as the highest on the list of eligibles, he received the permanent appointment August 10th.

The Board accepted the resignation of Elvin C. Burtis, warden of Monmouth county, which took effect August 15th, and requested the Civil Service Commission for a list of eligibles for the position.

Our wardens who operate motorcycles are Wardens Phineas K. Hilliard, Manahawkin, Ocean county; William Steel, Cape May Court House, Cape May county; William C. Klein, Clifton, Passaic county; Edward R. Davis, Salem, Salem county; Fred J. Hall, Bloomfield, Essex county; Charles E. Welsh, East Millstone, Somerset county; Charles C. Morton, Mount Holly, Burlington county; Harry E. Cudney, Washington, Warren county; James H. Evernham, Bayville, Ocean county. These motorcycles belong to the State.

Our wardens who operate small boats for patrolling shallow waters and streams are Wardens Fred S. Conner, Bridgeton, Cumberland county; Charles W. Folker, Camden, Camden county; William C. Klein, Clifton, Passaic county, each of whom personally owns his boat; Phineas K. Hilliard, Manahawkin, Ocean county; William Steel, Cape May Court House, Cape May county; Anson J. Rider, Tuckerton, Ocean county; William B. Loder, Egg Harbor City, Atlantic county; William E. Young, Chester, Morris county; Wm. H. Small, Englewood, Bergen county; Jacob D. Roe, Newton,

Sussex county, the last seven mentioned boats being owned by the State.

The "New Jersey" and "Adelaide."—In March the launch "New Jersey" was ready for patrolling, having been painted, varnished, and her engines put in a first class condition. She was taken to the Delaware river and bay and patrolled these waters from Camden to Cape May to look after the shad and sturgeon industry. Warden Folker patrolled that part of the river from Camden to the Burlington line and Wardens Morton and Loveless looked after the section in Burlington and Mercer counties.

There were less violations than usual, which was due no doubt to the fact that the shad were so scarce that a fisherman did not care to risk being subjected to a fine and possible confiscation of his boat and nets.

After the shad season the "New Jersey" patrolled the Atlantic Ocean, Sandy Hook and Raritan Bay, for inspection of the fish pound nets, to be on the lookout for vessels that might attempt to take menhaden with purse nets without licenses or to take food fish with such nets, and to enforce the lobster law.

The "Adelaide" did service on Mullica river, Great Egg Harbor River, and on inside waters along the coast.

Decrease in Shad.—Protector Stratton in his report to the Board for May said:

"The number of shad caught in the Delaware river and bay this season is the smallest in the recollection of any of the fishermen engaged in the business. In previous years the average catch for the long nets of 500 to 600 fathoms, which are used at Bayside, Hope Creek, Pennsville, and other places along the lower part of the river and upper end of the bay, was from 2,000 to 3,000 fish. This year the best boats did not get more than 700, and many did not get 300 the entire season. In the upper part of the river, at Camden, Burlington, Bordentown and Trenton, the decrease is still more noticeable, as the catch at these places on Mondays, after the river had been free from nets for 34 hours, was from 6 to 12 shad per net.

"Various reasons are given for the scarcity of shad in the Delaware river and bay. Some claim that the continual dredging of the river prevents the fish from coming to the head water; others attribute it to pollution; and many say the water has been too cold; but reports from the St. John's river, Florida, Charleston, South Carolina, and various places along the Chesapeake bay, show practically the same falling off in the catch.

"Warden Morton, during the season, seized four large set nets in the river between Bordentown and Florence, and neither net contained a shad. As these nets were anchored across the river, and had evi-

dently been in the water several hours, and as anchored nets will catch more fish than a drifting net or a hauling seine, this would indicate that there were very few shad in the Delaware river."

Confronted with the situation described above after the close of the season on June 10th, the Board deemed it advisable to issue permits to a number of fishermen to take shad until June 20th for the purpose of securing shad eggs and hatching the same at the Torresdale Hatchery of the Pennsylvania Fish Commission for restocking the river. Fifteen permits were issued to residents of the State, but Superintendent Berkhouse of the hatchery reported that the fishermen did not obtain any eggs, and he believed that the fishermen in the 15 boats operated did not catch 25 shad during the 10 days of the extended period.

The Board has arranged for a conference with shad fishermen located in Burlington county to take up the matter of scarcity of shad, and to consider whether conditions may be bettered by legislation or otherwise.

Co-operating with U. S. Government.—During the year Warden William C. Klein, of Clifton, Passaic county, and Arthur Bratt, of Hackensack, Bergen county, were appointed additional Federal wardens to assist in the enforcement of the Federal Migratory Bird Law. The other Federal Wardens are State Wardens Charles C. Morton, Mount Holly, Burlington county; Phineas K. Hilliard, Manahawkin, Ocean county; William B. Loder, Egg Harbor City, Atlantic county; William Steel, Cape May Court House, Cape May county, and Harry W. D. White, Pennsville, Salem county. They receive no extra compensation on account of their additional duties.

The wardens co-operate with the Biological Survey of the U. S. Department of Agriculture through a Federal District Inspector, who makes frequent visits to the State, and who has succeeded in securing the co-operation of a number of persons interested in conservation. The work of the wardens has been inspected by the U. S. Government's Administrative Assistant in charge of the enforcement of the migratory bird law, who has personally visited various parts of the State and examined local conditions on several occasions.

Numerous reports of violations of the Federal law have been referred to the Department of Agriculture for prosecution, but owing to the fact that a case to test the constitutionality of the law was appealed to the Supreme Court of the United States in July, 1914, no action on these cases has been taken pending the decision of the court. The case was argued before the Supreme Court on October 18th, 1915.

Change in U. S. Law Desirable.—In certain parts of the State it has been felt that some of the regulations, particularly those

limiting the open season on shorebirds and waterfowl, might be modified to suit local conditions without materially interfering with the protection of the birds, and recommendations to this effect have been submitted from time to time to the Department of Agriculture. The department having decided that it was inadvisable to make any changes in the regulations pending a decision of the case before the Supreme Court, it proved impracticable to bring about an adjustment of these matters prior to the beginning of the open season of 1915.

In view of the several points of difference between the State law and the Federal regulations in matters of season and night shooting, the manner in which the regulations have been observed is on the whole highly gratifying. The Federal law has been generally observed by the general public.

Beneficial Effects.—The suspension of spring shooting through the two successive seasons of 1914 and 1915 has had a most beneficial effect on the birds, the Federal authorities claim, and reports from several parts of the State indicate that last spring the birds were observed in greater numbers than for some years past.

The United States authorities say that at one time the supply of migratory waterfowl appeared to be inexhaustible, but that there has been a constant decrease during the past 75 years, due to reasons apparent to any one who knows how these birds have been hunted. It is believed to be a conservative estimate that the gross number of migratory game birds of all kinds existing to-day in the United States does not exceed 10% of the number which existed here 75 years ago, and the decrease has been especially rapid during the last 25 years. During this period some species have become extinct, while others are nearly so. The United States Government has received replies as to the effect of the Federal Migratory law, which went into effect in 1913, and while reports from a small number of states have been doubtful, usually owing to lack of definite information on the subject, from forty states, extending from Maine to California, and from the Gulf states to the Canadian border, the reports show an extraordinary increase in water fowl has taken place during the short period the law has been in effect. The increase is commonly stated according to the locality to be from ten to several hundred per cent and includes such important species as mallards, black mallards, widgeon, sprigtails, blue-winged teal, green-winged teal, wood ducks, canvasbacks, Canada geese and swans.

Directions to Wardens.—The following circular was sent to our wardens by Protector Stratton in October:

“At the last session of the Legislature there was passed an act making an open season for geese, swan, brant and ducks, from October 1st to March 15th, but the provisions of the United States law, which

is recognized by this and other states as having control of the migratory birds, fixes the open season November 1st to January 31st. While you have no authority to make arrests for shooting ducks, geese, brant and swan between October 1st and March 15th, in accordance with our law, you should warn all persons that the Federal law supersedes the New Jersey laws, and report the names of all persons who kill any ducks, geese, swan or brant before November 1st, which is the opening day fixed by the Federal regulation."

Game Stocking.—The last stocking by the State with Hungarian partridges was for the fiscal year ending October 31st, 1912, during which year 1,000 pairs were distributed. For several years the Board had made distributions of this bird as had other states. The result of the stocking in this and other states did not appear to justify any further purchase of these birds. While some few remained around for a time, yet later they seemed to have disappeared entirely. While it is true that the stocking done by us did not justify the expectations, yet we have just received an interesting report from Salem county which says that there was a covey which remained about a farm for the past two years. Some were killed last year and it was supposed that all had been exterminated, but during the year it was found a pair nested in a thorn hedge and seven of them grew to maturity. The finding of several other coveys has also been reported in that county.

Our wardens, as usual, located and fed coveys of quail in bad weather, and in the southern counties our wardens captured 24 quail for breeding purposes at the Game Farm.

The Board made the usual distribution of pheasants.

We believe that there has been a large increase in the number of quail in the State the past two years, which can be accounted for in part as the result of interbreeding with quail which the Commission obtained from the west three years ago. We are making again every effort possible to obtain the quail from other states, but there are many difficulties in the way and this year they seemed insurmountable, but we have hopes of obtaining at least a few quail during the coming year.

Deer.—There was a new season for deer which included the last three Wednesdays of October of the fiscal year and the first Wednesday in November. Additional wardens were sent to Warren and Sussex counties to assist the local wardens. Atlantic, Burlington and Cumberland counties were also carefully watched.

In February the Board inserted the following advertisement in several South Jersey newspapers: "Protection of deer. Public attention is directed to the law prohibiting hunting for, killing or having in possession any deer during the close season. The penalty

is \$100 for each offense. In addition to this penalty a violator is guilty of a misdemeanor, punishable under our Crimes Act by fine or imprisonment or both. Informers get one-half of the one hundred dollar fine."

For the deer season included in the fiscal year ending October 31st, 1914, in which year the season was four days, 180 bucks were legally killed by hunters. One fawn was illegally killed in Atlantic county for which the offender paid a penalty of \$100 and costs. Two deer found dead in the woods, which had been killed only a short time when found, were sent to the insane asylum at Pleasantville and the children's home at Egg Harbor respectively; a doe killed by a Delaware, Lackawanna and Western Railroad train was sent to the hospital at Morristown.

Four deer hunters were killed, one each in Atlantic, Camden, Burlington and Morris counties; one was slightly injured in Cumberland county and two quite seriously injured in Monmouth county.

Below is a list showing the counties in which deer were killed and the number killed in each county:

Cumberland	39	bucks		
Atlantic	34	"	1 doe	1 fawn
Warren	32	"		
Burlington	24	"		
Cape May.....	17	"		
Bergen	4	"		
Morris	4	"	1 doe	
Ocean	17	"		
Salem	5	"		
Sussex	2	"		
Middlesex	1	"		
Mercer	1	"		
Total	180	bucks	2 does	1 fawn

By reason of the language of the deer act there was some question as to its exact meaning. The Board took the position in regard to the possession of deer after the days in the months of October and November on which days deer could be lawfully killed, that in case of deer found in possession other than on one of the days in either month in which deer might be killed, that the burden of proof that the deer was lawfully killed on a lawful day was upon the one having the deer in possession. The Commissioners admonished their wardens to be cautious in the matter of instituting prosecution against parties having deer in possession under the circumstances stated, until they had an opportunity to make careful inquiry, and the possessor was given an opportunity to show that the possession was lawful.

Rabbit Trapping.—From time to time the Board has reports

concerning damages done by rabbits to trees and shrubbery. The Board issued six permits in accordance with section 2 of the act approved April 14, 1903, as amended in 1912, which provides that the Board may issue a permit for the trapping of rabbits in box traps, where an affidavit is made before a Justice of the Peace that rabbits have injured fruit, vegetables or other produce. It is provided, however, that the rabbits trapped shall be turned over to the fish and game warden of the county who shall liberate the same under the direction of the Board. No person shall be permitted to barter or sell any rabbits so trapped.

In case of some complaints it has appeared that owners of lands have forbidden shooting rabbits thereon in the open season, and by such prohibition they have suffered thereby.

State Game Farm.—Duncan Dunn, Superintendent, State Game Farm, Forked River, in his third annual report to the Board of the operations of the Farm, says:

“We built two pheasant pens, one 475 ft. by 150 ft., and the other 464 ft. by 230 ft., and covered same with wire; also covered over two other pens with wire, one 30 ft. by 300 ft. and the other 150 ft. by 200 ft. Fenced in about 10 acres of ground for a new rabbit warren. Erected a new water tank to supply new bird pens, and built house for pumping engine; also dug trench and laid about 300 ft. of pipe and 800 ft. of board runs to carry water through bird pens.

“Plowed and sowed 15 acres of oats, 8 acres of wheat and 8 acres of corn. Harvested about 20 loads of oats and wheat, 150 bushels of corn, 10 loads of stalks and 15 loads of hay. Harvested 45 loads of ice, the hauling requiring a round trip of five miles. Plowed and sowed 10 acres of buckwheat for wild birds, and 5 acres of rape for rabbits. Planted trees along lane leading to farm, and shrubs around superintendent's house, gate lodge, and cottage on the farm.

“Built 25 new hatching boxes, and two pens for catching deer. Moved wire fence around duck pond to make drinking place for deer. Built 100 new rearing coops. Ran a telephone line from superintendent's house down to rearing field near the meadows. Rebuilt two chicken houses. Planted about 100 cedar trees around barn, incubator house and pump house, and also built a gravel walk out to the pump house. Carted about 100 loads of gravel to fill in around barn and chicken houses.

“Plowed up all the bird pens, limed and seeded them down in grass. Hauled 12 carloads of manure from station, and spread it on fields, a distance of three miles the round trip; also hauled carload of coal from station. Cut and hauled 20 loads of cedar brush for breeding pens a distance of four miles. Built 2 new houses for rearing field.

“We had 500 pheasants for stock birds. The beginning of the

season was very bad for the young birds with cold northeast winds and rain; therefore we lost quite a number of our early birds. I raised and put in the pens 5,300 young pheasants, all of which were over seven weeks old when put in the pens.

"We had 25 pair of quail for stock birds, and raised 350 young birds. The quail did not lay so good this year. The only reason I can give is that we mixed up some wild birds, which were caught up with the ones we had in the pens, and it was rather late in the season when we got them.

"We had 10 wild turkeys for stock, and raised 75 young; also had 10 mallard ducks for breeders and raised 60; also raised a number of golden, silver and Lady Amherst pheasants.

"The deer are doing well, although I have not seen as many fawns as last year. We can spare between 20 and 30 bucks for turning out.

"The vermin have been very troublesome during the year. I killed 170 of the big horned owls, 75 hawks (mostly the Cooper hawk), 43 wood cats, 15 weasels, 19 opossum, 7 coons and 2 mink. The big owls killed quite a number of our birds through the wire in the pens."

The Board has taken steps to acquire some odd pieces of land adjoining the Game Farm in order to straighten the lines of the farm.

Stocking Lakes and Streams.—During the year ending October 31st, 1915, there were planted by the wardens in the lakes and streams of this State the following number of fish:

FROM THE HATCHERY.

Rainbow Trout	276,260	
Brook Trout	373,500	
Yellow Perch Fry.....	7,750,000	
Land Locked Salmon.....	35,000	
Pickerel	500	
Brown Trout	500	
Total		8,435,760

FROM NEW YORK AQUARIUM:

Pike Perch Fry.....	500,000	
Total		500,000

FROM U. S. BUREAU OF FISHERIES.

Lake Trout Fry.....	20,000	
Black Bass	250	
Total		20,250

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NETTED IN THE DELAWARE AND RARITAN CANAL.

Adult Black Bass	6,438	
“ Perch	5,550	
“ Crappie	1,435	
“ Pickerel	30	
“ Catfish	250	
Small game and bait fish.....	15,000	
Total	28,703	

NETTED IN BOONTON, ORANGE, OAKRIDGE, JERSEY CITY AND PATERSON RESERVOIRS.

Adult Black Bass	411	
“ Pickerel	185	
“ Catfish	689	
“ Perch	19,101	
Small game and bait fish.....	32,136	
Total	52,522	

Grand total distributed..... 9,037,235

Fish Disease Disappearing.—The Board learns with pleasure that there is evidence that the disease which affected the fish in Culver's Lake for some years past has practically disappeared. James L. Robertson who discovered the disease five years ago and who co-operated with this Board at his own expense in a scientific investigation of the disease, writes that the trouble has to a great extent been abated. It was the consensus of opinion that a small worm had been deposited in the lake by birds and was devoured by bass only. The bass now caught in the lake are reported to be as vigorous fighters as before. For some years the Board refrained from stocking this lake on account of the disease, but in the spring some rainbow trout were planted therein.

Under the direction of the Board the Boonton, Jersey City and Orange Reservoirs and the Stoney Brook Reservoir at Paterson were netted and the catch distributed in waters in the northern part of the State.

We received from the United States Bureau of Fisheries 20,000 lake trout fry which were placed in Owassa Lake near Branchville, and 250 fingerling black bass which were planted in Hammonton Lake.

We exchanged 29 bass, 113 perch, 12 pickerel and 189 bait fish with the New York Aquarium for 500,000 pike perch, which were planted in Greenwood Lake.

Canal Fish.—The work of securing fish for stocking from the Delaware and Raritan canal near Millstone was commenced January 20th, and was continued as the weather conditions permitted. Most of these fish were taken to points in South Jersey. Fish taken

from the canal are sent to points south over one line of railroad, while those taken in waters north must go over two railroads, which means additional carfare for wardens and the expense of wagon hire from one railroad to another in a transfer from the Delaware, Lackawanna and Western or Erie Road to the Pennsylvania Road at Newark or Jersey City.

During the first ten days we succeeded in getting 3,250 black bass, 3,200 perch, 1,000 crappie and 8,500 bait fish, consisting of shiners, sunfish, etc. The bass average from one-fourth to two and one-half pounds in weight, the perch and crappie were good sized, and were planted in the lakes in the southern and middle counties of the State. A supply of bait fish was sent out with each shipment of bass, perch and crappie.

The Princeton Fish and Game Association, under the supervision of Warden Loveless, caught 793 black bass and a large number of bait fish, which were put in Carnegie Lake.

Trout.—In November we commenced a large distribution of fish from the Hatchery, shipments being made by our auto truck, in baggage cars, and by carload lots. In making the rainbow trout shipments to South Jersey the car was consigned to and placed on the siding at a central point in each county from which point motor trucks transferred the fish to the various bodies of water, which in some cases were 15 miles distant from the car. To send these fish to South Jersey the car was loaded at midnight, left Hackettstown 4 A. M., connecting with the Pennsylvania Road at Phillipsburg, at 7:44 A. M., and left Trenton, 9:40 A. M., and in no case was the car scheduled to reach its destination before 1 P. M. In making one shipment to Cumberland county the proper connection was not made at Phillipsburg, and the car arrived at Millville, at 5.10 P. M., three hours late, but notwithstanding the fact that the fish were in the cans from 12 to 17 hours, they reached their destination in good condition and with scarcely any loss.

Carload lot shipments were made as follows:

Atlantic county	3	carload shipments
Burlington county	1	" "
Camden county	1	" "
Cumberland county	2	" "
Gloucester county	2	" "
Ocean county	2	" "
Salem county	1	" "

State Hatchery.—The Board secured through condemnation proceedings, 1,413 acres adjoining the Hatchery, for which \$141 was paid.

The Board took steps toward the erection of three bass ponds at the Hatchery. In October, responsive to advertisement for bids

the Board ordered a contract awarded for the erection of the ponds to J. W. Heller, at a cost of \$3,069. It has been practically impossible to buy bass for stocking purposes. They are difficult to propagate and unlike trout they are only reared under natural conditions. In raising bass even the little bass eat one another. However, the Board has faced the problem and will make every effort to correctly solve it. Heretofore, the Board's principal supply of bass came from netting canals and reservoirs.

In October the Board responsive to advertisements for the furnishing of sheep plucks awarded the contract to Swift and Company, Dover, at 7½¢ each.

Chinook Salmon.—The Board made arrangements for a supply of Pacific salmon eyed eggs, which salmon is commonly known in the East as the Chinook salmon. We ordered 500,000 of these from the Fish and Game Commission of the State of Oregon. There are many reasons for believing that this fish will be a success in our waters. This fish has been introduced in Lake Sunapee, New Hampshire, and Lake Quinsigamond, Massachusetts, with splendid results, and the experiment has attracted the attention of fish culturists and anglers all over the country. The eggs which we bought were shipped to our Hatchery for hatching.

Hon. George H. Graham, of the Massachusetts State Game Commission, says that the fish which were planted in Lake Quinsigamond were from four to six inches long. They were planted during the fall of 1912, and during July of 1914 and within about 20 months from the time they were planted over 600 salmon were caught by the anglers, ranging from one and one-half to five pounds each. The fish were caught both by trolling and still fishing with live bait. Mr. Graham says that the lake in which the fish were put was well stocked with pickerel and perch. Mr. Graham further says:

“When it becomes known that certain lakes and ponds which are now alive with pickerel and perch can be transformed into salmon waters and that good salmon fishing can thereby be placed in reach of the man who has limited time and money to spend, the demand from the sportsmen to stock our waters with these salmon will be quite large in every state. The acme of all fishing is salmon fishing, and it is a sport that has been enjoyed by only a few people during the past 50 years. In recent years one, in order to secure any sport of this kind, had to have a fat pocketbook and lots of leisure time. Since 1873 the Government has been experimenting with these fish, but not until they were introduced in Lake Sunapee was the work successful.”

Mr. Graham adds that he believes the failures were due principally to two causes: first, the fish were planted in lakes and ponds

that were not properly screened to prevent the young fish from going down stream, and second, most of those were planted when small. He adds that it is necessary to have a body of clear cold water, and that there must be plenty of food for the salmon, as it will be readily seen that a fish which grows four to five pounds in less than two years consumes an immense amount of food.

Introduction of New Fish.—There are still some persons who are skeptical as to the success of the artificial propagation of fish and the introduction of fish from remote points to new waters. While there have been failures, yet the facts are against such belief. The small mouthed black bass, wall-eyed pike, pike-perch, carp, Atlantic salmon, brown trout, strawberry bass, crappie, many of the sunfishes, rock bass and other fishes have been introduced in the waters of this State. It is understood that former State Comptroller E. J. Anderson was responsible for the introduction of the small mouthed black bass in the waters of the Delaware river in quantities sufficient for angling, and while the pollution of the river, blasting and other causes have reduced the supply between Trenton and Easton, during the past two years, yet the river above Easton is still famous for this fish, which pound for pound is said to be the gamiest fish which swims. The introduction of striped bass and shad on the Pacific coast, where the catches exceed those of native waters, is well known to fishermen.

The original range of the brook trout was in the Eastern part of the United States and in Canada, but now it is found in the waters of the Pacific states throughout the Rocky Mountains, and also in many foreign countries. In fact, on the authority of Eben W. Cobb, Superintendent of Fisheries of Minnesota, to-day the most successful place in the country for securing spawn is Colorado, where the trout were not native, but were introduced by means of artificial propagation. A striking instance of the successful introduction of a fish is the presence of the rainbow trout in New Zealand. On the authority of a well known magazine of recent date it is stated that rainbow trout were introduced in New Zealand from California in the early eighties, and to-day New Zealand is the best trout region of all the world, the trout growing to a size greater than they did in their native waters. The article continues:

"You can get them up to twenty-five, forty and fifty pounds in New Zealand, with fine sport in bold and rushing rivers that once ran fishless to the sea. In Rotorua Lake, in the Auckland country, an average of four tons of rainbow trout a day has been taken in season. As high as fourteen tons have been taken in one day. There was not a rainbow there in 1880. The problem was perfectly simple when treated on a businesslike basis. Our own problem, also, is perfectly simple if we care to treat it on a business basis."

Hatchery.—Superintendent Charles O. Hayford, of the Hatchery, in his third annual report says:

"Inquiry has frequently been made at the Hatchery as to the difference between the rainbow trout, which we raise in large quantities, and the steelhead trout. Some scientists agree that these trout are the same, the steelhead being merely the lake run rainbows, and belong distinctively to the game fish class, as with equal distinctiveness German carp are not in such class.

"The rainbow trout which we are introducing are equally as gamey as brook trout found in our waters. To some extent the rainbow trout will drive away the brook trout from its native haunts, but it must be remembered also that the clearing away of trees, etc., along the banks of trout streams also causes the brook trout to seek other waters, being thus robbed of shade and other indispensable essentials. For food purposes rainbow trout are not regarded as good as the brook trout by some, but nevertheless they are an excellent food fish.

"The rainbow make a more rapid growth than the brook trout, as can be seen at the Hatchery. We have rainbow trout three years old which weigh four pounds, two year old rainbow trout which weigh two and one-half pounds, whereas the brook trout at three years old weigh one and three-fourths pounds, two year old brook trout one-half pound.

"Rainbow trout stand a much higher temperature of water also. As we have in the State a great deal of water that is not suited for brook trout, I believe we should continue to follow our present system of stocking with rainbow trout, especially in the southern section.

"There is no limit in the work that can be accomplished in the hatching of yellow perch. Last year we hatched six million, and nearly eight million this year, and could hatch one hundred million if we should equip for same. The yellow perch at Hatchery twenty months old are from six to eight inches long, and a finer lot of fish you could not wish to see, which is good proof we can raise many thousands in shallow ponds which can be supplied from water now going to waste from trout ponds.

"The small mouthed bass did as well as could be expected, considering the water was never above 58 F.; they should have a temperature of 70 to 80 F. in order to be sure of an abundance of aquatic life, which is essential until they reach a length of one to two inches, as you cannot feed them as young trout.

"We have had some of the best authorities on fish culture visit our Hatchery, who spent many hours in going over our future development for bass, perch and catfish, and we can see no reason why we cannot raise them with just as good success as we are now raising the various species of the salmonoid family. It is our aim to build small ponds and lakes from now on as progress demands.

"Why should we be concerned about water conservation and food

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products? Because the present high prices which all the staple kinds of meat products command make it necessary for the great mass of the working people to look not only for a cheaper meat food, but for more economic methods of producing it than have heretofore been devised. Even now men who are working in factories and elsewhere for a wage from \$1.50 to \$2 per day and have families to support can scarce afford to eat beef, pork, or mutton once a day. There is nothing better or more pleasing to the appetite than a good meal of most any kind of fish once or twice a week. So when one stops to think of the worms, minnows, frogs, insects, and mussels which are now going to waste in our streams and lakes and which could be utilized for producing fish food, he realizes something should be done. We might suggest that if the inland waters of the State could be so well stocked as to make them produce an average of one mess of fish per month for 300,000 families at 25 cents per mess, the food value would be \$900,000 annually, besides all the pleasure in the sport of catching them.

"Improvements completed and purchased during the year are as follows: 4 large retaining ponds 165 ft. long, 50 ft. wide, 4 ft. deep; 2,000 lineal ft. of concrete curbing, 12 inches high on stone foundations, 2½ ft. deep; 600 lineal ft. of retaining wall 18 inches high on stone foundations 2½ ft. deep; 3 sets of concrete steps; 1 team of young horses 5 years old; 2 one-horse dump carts; one team dump wagon; 1 freight wagon and harness for same; farming tools; set out 2 carloads of shrubbery and over 300 shade trees of different varieties.

"The following are under construction or about to be constructed: 3 bass ponds, 170 ft. long, 70 ft. wide, 1 to 6 ft. deep; 2 lakes, 500 ft long, 50 to 75 ft. wide, 5 ft. deep; 1 mile of slate road and walks from material from old slate quarry on place; 700 lineal ft. of retaining wall; grading and building lawns around buildings and ponds.

"The following varieties of fish were raised and planted:

	Raised from Nov. 1, 1914, to Oct. 31, 1915.	Estimated No. on hand Nov. 1, 1915
Yearling brook trout 7 to 10 in. long.....	25,000	5,000
Fingerling brook trout 3 to 7 in. long.....	541,000	50,000
Two-year-old brown trout 12 to 14 in. long.....	2,500	1,500
Yearling landlocked salmon 5 to 7 in. long.....	28,500
Fingerling land-locked salmon 3 to 5 in. long...	20,000	15,000
Fingerling small-mouthed black bass 3 to 4 in. long	300	300
Yearling large-mouthed black bass 4 to 8 in. long	200
Two-year-old crappies 8 to 12 in. long.....	20
Catfish 8 to 10 in. long.....	140	10
Three-year-old rainbow trout 12 to 20 in. long...	1,175	5
Two-year-old rainbow trout 10 to 14 in. long....	20,050	50
Yearling rainbow trout 7 to 10 in. long.....	165,000	29,700
Fingerling rainbow trout 2 to 7 in. long.....	1,011,400	700,000

Two-year-old steelhead trout 12 to 16 in. long...	1,500	1,500
Yearling yellow perch 8 to 10 in. long.....	1,000	1,000
Yellow perch fry.....	7,750,000
Total amounts	9,567,785	804,065

Joint Commission on Amending Delaware River and Bay Laws.—Pursuant to a concurrent resolution of the Legislature, Governor James F. Fielder appointed William A. Logue, of Bridgeton, a member of this commission; James M. Stratton, our Protector, and Firman L. Carpenter of Pennsville, a commission to act with a like commission from the State of Delaware, relative to amending the laws regulating fishing in the Delaware river and bay between the two states. The New Jersey commission had a conference at Bridgeton on the 20th of February, with some fishermen, and met with the Delaware commission in joint session in Philadelphia on the 22nd and on the 27th. On the latter date the Delaware commissioners presented a rough draft of a bill, which was not favored by the commission from this State. Some technical legal complications also came up which the commissioners deemed advisable to be taken up with the Attorney Generals of the respective states, and an adjournment was taken pending a legal opinion. In the meantime the New Jersey commission proposed a bill along the lines of the concurrent laws now in effect between the states of New Jersey and Pennsylvania.

It appeared that the Delaware legislature was nearing its sine die adjournment at the time of the conferences. There was no time available for the two commissions to agree upon a single bill. There was introduced and passed, following the conferences, in the Delaware legislature a law which to some extent follows the lines of the New Jersey law now in force, which it is believed will greatly better conditions. While the law is not concurrent yet it is a great improvement over former legislation, governing the Delaware river and bay within the jurisdiction of Delaware.

Delaware River.—From time to time the Board receives suggestions for amending the law or laws relating to the Delaware river and bay between Pennsylvania and this State. Invariably these suggestions represent merely some idea for more liberty in the taking of fish to oblige a few fishermen or a small locality, and without regard to the basic idea of general protection by a uniform concurrent law, intended to give the greatest good to the greatest number and to increase the value of the fishing industry of these waters. Persons making such suggestions appear unmindful of the fact that the boundary waters between New Jersey and Pennsylvania are governed by concurrent laws which Pennsylvania adopted, and the faith of both States is practically pledged not to amend these laws without the agreement of each. Any change

made by the New Jersey Legislature could only possibly affect the river and bay between the states to the middle of the waters, and for the state to pass such laws without providing arrangements for concurrence by Pennsylvania, in view of the facts, would not put the good faith of this State in an enviable position.

The Board, however, is always willing for advice for the betterment of fishing conditions, and has freely given its time to persons interested in the subject, and already a conference relating to the shad industry has been arranged for.

Delaware River Pollution.—Following the close of this fiscal year the Court of Errors and Appeals decided the case of the State Board of Health against the city of Phillipsburg for pollution of the Delaware river, in favor of the state. This case in one shape or another was in our courts for about nine years. It was shown in this case that dangerous discharges from the Phillipsburg sewer reached Trenton from one day and ten hours to two days and four hours. There are many who believe that the pollution of the Delaware river by city sewage and waste from mills has had much to do with the decrease in the number of fish caught in the stream by anglers, and there are many who attribute the lessening of the shad catch to these pollutions. It would seem that if this decision stands, proper co-operation of New Jersey and Pennsylvania would result shortly in cleaning up the river. It might be noted here that the State of Pennsylvania has refused to extend to Easton, Pennsylvania, any further permits to sewer into the Delaware river. The decision is also of the utmost importance in establishing a precedent for cases which may be brought for polluting the river.

The Board laid before the Attorney General a complaint concerning the pollution of the Delaware river by the American Steel and Wire Company, of Trenton. It was charged that chemicals draining from the plant into the river were detrimental to fish life. The company, through W. W. Jewett, of Pittsburg, manager of the wire mills of the American Steel and Wire Company, and H. R. Patterson, Superintendent of the Trenton plant, promised to eliminate the trouble by the building of wells and neutralizing the waste before discharging it into the river.

The Board also took steps to prevent the pollution by the Salem Glass Works, of Salem creek, which empties into the Delaware river.

Lobsters Increasing.—In the spring of 1913 the United States Government planted 200,000 fry and 200 adult lobsters in the Atlantic ocean at Cape May, and last year there was a small supplemental distribution of adult lobsters. It is believed that the lobsters are multiplying very fast. The sea bass which are caught in the vicinity of the jetties at Cold Spring Inlet, when being cleaned, are

found to contain a number of young lobsters, showing that the lobsters have propagated. It will be unlawful to take any lobsters from any of the salt waters of Cape May county, including the waters of the Atlantic ocean within three nautical miles of the coast line, until March 31st, 1918.

It is interesting to learn that the United States Government shows in a summary of the lobster fisheries of the Atlantic Coast States in 1913, that in this State, off Hudson and Monmouth counties, 227,776 lobsters were taken, which weighed 301,349 pounds and which had a value of \$54,155. There were engaged in the industry 85 persons. The total amount invested was \$31,163 outside of the cash capital. There were 44 vessels and 42 boats, 7,696 lobster pots and 88 cars used. The value of the catch, \$54,155, was the highest recorded since 1880. We have every reason to believe that the enforcement of our New Jersey laws protecting lobsters has had much to do with the above gratifying report.

Conference on Lobsters.—Governor Fielder appointed Protector Stratton, on recommendation of the Board, to attend a conference at Woods Hole, Massachusetts, which had been called at the request of Secretary Redfield, of the United States Department of Commerce, to discuss the lobster industry. Hugh M. Smith, United States Commissioner of Fisheries, presided. It was generally conceded by all present that the supply of lobsters was decreasing, and the conference discussed various plans for their protection and increase. 1913

The representatives from the State of Maine advocated a uniform National law fixing the minimum length at $4\frac{3}{4}$ inches body measure, or from the end of the bone of the nose to the rear end of the body shell. This was favored by the conference, but the obstacle seemed to be that the various States might not adopt the proposed uniform National law. Dr. Moore, of the Department of Agriculture, advocated a National law and suggested that the Interstate Commerce law be so amended as to provide for the enforcement of such an act. Commissioner George W. Fields, of the Fish and Game Commission of Massachusetts, advocated what is known as the double gauge measurement, to have each State enact a law which would prohibit the taking or possession of any lobster under 9 inches in length or over 13 inches in length, and have a regulation upon the lobster pots by having a ring in the entrance not over 3 inches in diameter, which would prevent the entrance into said pots of any lobster of a size larger than 13 inches in length, and to have the slats of said pots of such a distance apart as would permit the escape of any lobster under 9 inches in length. While this measure was not objected to by the members of the conference, it was thought it would be unpopular, as bills providing for such

legislation had already been introduced in the legislatures of Massachusetts and Rhode Island, and defeated. The persons engaged in the catching of lobsters claimed that the ring, while it prevented lobsters over a 13-inch length from entering, also would prevent many legal-sized lobsters from entering the pots; and they also stated that the lobsters under the 9-inch length, after entering the pots, would not all escape.

The theory advanced by Dr. Fields was to the effect that if the law which he proposed was enacted, it would prohibit the taking of lobsters under 9 inches in length, which would protect those which had spawned at least once, and by protecting those over 13 inches the larger lobsters would be saved, which are the greatest egg producers.

Commissioner Smith desired expressions from the members whether the United States Bureau should continue in the work. It was the opinion of each member of the conference that the Government should resume and continue on a large scale the propagation of lobsters. A committee of three was appointed to prepare a suitable resolution to forward to the Federal authorities urging their continuance in the work.

Pound Fisheries.—Following is a summary of the reports of pound fisheries for the year ending December 31st, 1914:

Approximate Value of all Pounds.....	\$497,102.71	
Proceeds Derived from Sale of Fish.....	694,515.60	
Number of Pounds of Fish Caught and Disposed of.....	33,951,040	
Licenses Issued:		
Atlantic Ocean	95	
Sandy Hook and Raritan Bay.....	49	
	—	144
Total number of pounds operated.....		141
Total number of men employed.....		786

The Legislature of 1915 appointed a committee composed of Hon. Edward Schoen, of Newark, chairman, to inquire into the pound fishing industry. This Board immediately wrote the committee offering its assistance in the matter of their inquiry, and offered the use of the State's launch "New Jersey" for inspection of the pounds. The other members of the committee are Hon. Alonzo D. Herrick, Hackettstown; Hon. Carleton Godfrey, Atlantic City; Hon. William N. Runyon, Plainfield; Hon. Bertram E. Whitman, Pleasantville, and Hon. Harry E. Johnson, of Newark.

There appeared to be some confusion in the minds of applicants for pound licenses as to their rights when given a permit by the Federal authorities for a location for a pound. The Government permit plainly states in the first paragraph that it gives no authority for the evasion of property rights or any infringement of Federal,

State or local laws or regulations, and does not obviate the necessity of obtaining State assent to the work authorized. It merely expresses the assent of the Federal Government so far as concerns the public rights of navigation.

Less Menhaden Licenses.—There was a large falling off in the number of licenses issued to vessels for the purpose of taking menhaden, due to the scarcity of the fish on our coast. The southern steamers did not come to our waters in their usual number, and many steamers holding licenses stopped fishing and laid up for the season.

Miscellaneous.—Edward Rayner, of Hoboken, was removed as a deputy, and his commission revoked, and we laid before the Attorney General complaints of serious irregularities made against him since his commission was revoked. Assistant Attorney General Stryker advised us that he deemed the matter too serious for a simple case of a charge for impersonating a warden, and he referred the matters and all the papers to the Prosecutor of Hudson County for criminal action.

The Commission took legal proceedings for the collection of fines which Justice of the Peace Henry Herscraft, of Ridgewood, and Robert Bessant, of Hudson County, failed to remit. In the case of Justice Bessant, a suit was instituted against his bondsmen, judgment secured, and it was necessary to have a Sheriff's sale to enforce the judgment. The original claim against Bessant was for \$185, but the interest and costs ran up the total amount to \$241.07. The Herscraft case is still in the hands of the Attorney General.

The State's launch "New Jersey," upon request, was entered in the naval pageant conducted by the Atlantic City Carnival committee June 25th. The Board is in receipt of a special prize cup awarded the yacht by the committee.

The Board purchased a Ford car for use at the Game Farm in the distribution of birds, and secured permission from the State House Commission to purchase without advertising an additional Garford truck at a cost of \$2,279.60. The Garford truck already in service of the Commission, which had been run 15,000 miles, was thoroughly overhauled and repaired.

We were informed by State Forester Alfred Gaskill that the State had acquired Swartswood Lake, in Sussex county, with portions of the adjacent upland. The lake itself has an area of 544 acres. The upland acquired or to be acquired covers 7 parcels aggregating about 16 acres.

A number of persons attempted to use weirs with fyke nets in Barnegat Bay, but their removal was ordered and the order was carried out. It is against the law to use weirs in connection with fykes in Barnegat Bay, but fyke nets with wings not exceeding thirty fathoms in length, including both wings, are permitted.

NEW JERSEY LEGISLATION IN 1915.

CHAPTER 53.

Makes open season for pike and pickerel from May 20th to November 30th, and from January 1st to January 20th, both dates inclusive. Permits fishing for pike and pickerel through ice with not more than ten lines by any one person at one time, and prohibits the taking of more than ten pike or pickerel in any one day between January 1st and January 20th, pike or pickerel taken through the ice not to be sold. Also prohibits taking any fish except pike or pickerel through the ice.

CHAPTER 54.

Permits fishing through the ice for pike and pickerel with not more than ten lines, between January 1st and January 20th, both dates inclusive, each line to have attached thereto not more than one hook.

CHAPTER 64.

Permits the sale of wild ducks, geese, brant, reed birds and rail birds, during the open season and for a period of 15 days thereafter.

CHAPTER 66.

Prohibits the taking in any one day more than 25 trout, 10 land-locked salmon, or 10 black bass.

CHAPTER 67.

Makes the open season for trout of all species, and land-locked salmon, from the first day of April to the fifteenth day of July, both dates inclusive.

CHAPTER 68.

Authorizes the Board of Fish and Game Commissioners to issue permits in their discretion to properly accredited person to take carp and suckers from the ponds, lakes or streams of this State at any time, by means of a net, the meshes of which shall not be less than two and one-half inches. Also, to issue permits to take suckers, catfish, carp and eels from August 15th to November 15th, both dates inclusive, by what is commonly known as a fish basket with wing walls.

CHAPTER 71.

Authorizes the Board of Fish and Game Commissioners to appoint an additional Assistant Protector.

CHAPTER 79.

Amends section five of the act regulating fishing in the Delaware river and bay between the States of New Jersey and Delaware, by providing that rock fish, commonly called striped bass, of legal size, that may become entangled in drifting shad nets between March 1st and June 10th may be retained.

CHAPTER 121.

Provides that the act regulating the length of nets in Upper Township, Cape May county, shall be enforced in accordance with the Procedure Act, the same as other fish and game laws are enforced.

CHAPTER 127.

Permits the taking of suckers through the ice in any of the streams of this State between the 1st day of December and the 1st day of March, by means of hooks directly attached to a rigid handle, said hooks not to exceed three in number.

CHAPTER 193.

Makes close season on wood ducks for three years.

CHAPTER 194.

Makes open season on geese, swan, brant and ducks from October 1st to March 15th.

CHAPTER 216.

Makes the open season for raccoons between sunset and sunrise from the 1st day of October to the 15th day of December, both dates inclusive.

CHAPTER 217.

Amends section 24 by providing that persons may hunt raccoons with dogs and firearms between sunset and sunrise from the first day of October to the 15th day of December, both dates inclusive.

CHAPTER 219.

Permits non-residents holding a non-resident's and alien's hunting and fishing license, to remove from the State in any one day 50 reed birds or rail birds, other birds to a number not exceeding 15, and rabbits to a number not exceeding 10, if said birds or rabbits are exposed to open view.

CHAPTER 247.

Makes the open season for hunting deer the last three Wednesdays in October and the first Wednesday in November, and permits the killing of does, but protects fawns.

CHAPTER 252.

Amends section 18 by permitting the sale of trapped rabbits or hare upon proof that they were not trapped in this State.

CHAPTER 320.

Allows the Board in its discretion to issue a license to hunt to persons who are citizens of the U. S. above the age of 10 and below the age of 14, when applied for by the parent or legal guardian, but such persons may only hunt when accompanied by a holder of a regular resident's or non-resident's license, who shall be above the age of 21 years.

CHAPTER 355.

Makes it unlawful for any unnaturalized foreign-born person to hunt for or capture or kill in this State any wild bird of animal, either game or otherwise, of any description, excepting in defense of person or property; and to that end it shall be unlawful for any unnaturalized foreign-born person, within this State, to either own or be possessed of a shotgun or rifle of any make.

CHAPTER 395.

Makes it lawful to set or haul any purse net, seine or gill net of any kind in the waters of the North and South Shrewsbury rivers and Sandy Hook Bay, excepting between the first day of June and the first day of November, provided, however, that nothing shall prevent the taking of mossbunkers or mullet at any time.

FISH AND GAME COMMISSION
SUPPLEMENT TO 1913-1914 REPORT.
To Conform with Requisition System.

INCOME.

Balance, as per statement in last printed report, October 31, 1914.	\$15,902.34
Receipts for October 1914—	
Act of 1908.....	\$2,155.00
Fines Account	1,072.00
	\$3,227.00
Less Lapse—	
Act of 1908.....	\$ 788.00
Fines Account	502.21
Appropriation, Annual	28.15
Appropriation, Supplemental	18.81
	1,337.17
	1,889.83
	\$17,792.17

EXPENDITURES.

Paid after November 1, on requisitions for 1913-1914—	
Resident License Fund.....	\$2,673.44
Game Protection Fund.....	104.05
Act of 1908 Account.....	4,108.67
Fines Account	1,489.43
Appropriation, Annual	6,588.57
Appropriation, Supplemental	213.00
	\$15,177.16
To balance	2,615.01
	\$17,792.17

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FISH AND GAME COMMISSION

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FINANCIAL STATEMENT.

INCOME.

Balances, November 1, 1914—

Resident License Fund.....	\$ 2,386.72	
Game Protection Fund.....	228.29	
	<u> </u>	\$ 2,615.01

Receipts—

Resident License Fund.....		62,345.15
Hunters' and Anglers' License Fund.....	\$38,259.70	
Less credited to Sundries.....	5.00	
	<u> </u>	38,254.70

Act of 1908 Account—

Mehhaden Licenses	\$6,300.00	
Pound Licenses	5,600.00	
Breeders' Licenses	270.00	
Non-resident Licenses	2,520.00	
Sundries	1,004.77	
Sales	1,268.88	
	<u> </u>	16,963.65

Fines Account		8,045.79
Game Protection Fund.....		440.00
Appropriation, Annual.....		7,500.00
Appropriation, Supplemental.....		60.00
		<u> </u>
		\$136,224.30

EXPENDITURES.

Resident License Fund.....	\$ 63,336.35
Hunters' and Anglers' License Fund.....	10,270.72
Act of 1908 Account.....	14,632.19
Fines Account	5,979.04
Game Protection Fund.....	659.70
Appropriation, Annual	7,271.60
Appropriation, Supplemental	35.95
To balance	*34,038.75
	<u> </u>
	\$136,224.30

* Cash balance subject to bills for which requisitions have been made.