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ANNUAL REPORT

OF THE

New Jersey Board of Fish and
" Game Commissioners



For the Fiscal Year
Commencing July 1, 1942 }
and Ending June 30, 1943 } ✓

THE
COMMISSIONERS
OF THE



OF THE

NEW JERSEY BOARD OF FIRE AND

OF THE

UNION OF THE

STATE OF NEW JERSEY
BOARD OF
FISH AND GAME COMMISSIONERS
TRENTON

*To His Excellency, Charles Edison, Governor, and 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 fiscal year covering the period from July 1, 1942, to June 30, 1943.

Very respectfully,

GEORGE C. WARREN, JR., *President,*
LEWIS SPINKS, *Vice-President,*
H. M. ARMSTRONG,
CHAS. F. HUNTER,
JAMES R. HENSLER,
HAROLD E. LONGSDORF,
MARVIN A. SPAULDING,
W. STEELMAN MATHIS,
HAROLD W. LAAUWE,
Commissioners.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

1950

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PHYSICS DEPARTMENT
1950

PHYSICS DEPARTMENT
1950

**LIST OF FISH AND GAME COMMISSIONERS HOLDING OFFICE
AT THE DATE OF THIS REPORT**

June 30, 1943

GEORGE C. WARREN, JR., *President*.....Summit
LEWIS SPINKS, *Vice-President*.....Nixon
HARRY M. ARMSTRONG.....Jersey City
CHARLES F. HUNTER.....Palisade
JAMES R. HENSLER.....Rumson
HAROLD E. LONGSDORF.....Mt. Holly
MARVIN A. SPAULDING.....Trenton
W. STEELMAN MATHIS.....Toms River
HAROLD W. LAAUWE.....Paterson

H. J. BURLINGTON, *Executive Secretary*

ANNE E. SULLIVAN, *Assistant Secretary*

OFFICE OF THE BOARD, *State House, Trenton, N. J.*

MALCOLM DUNN, *Superintendent of Game Farm, Forked River*

CHARLES O. HAYFORD, *Superintendent of Fish Hatchery, Hackettstown*

EDWARD H. ROTH, *Superintendent of Quail Farm, Holmansville*

L. G. MACNAMARA, *Superintendent of Game Management, Mercerville*

W. W. WOODFORD, *Confidential Agent, Liberty Corner*

**LIST OF FISH AND GAME WARDENS HOLDING COMMISSIONS
AT THE DATE OF THIS REPORT**

HARRY E. CUDNEY, *Protector*.....Hackettstown
 G. I. HALL, *Assistant Protector*.....Salem
 JAMES H. TRELOAR, *Assistant Protector*.....Newton
 CHARLES C. HILL, *Assistant Protector*.....Toms River
 JOHN R. HUGG, *Assistant Protector*.....West Caldwell

ALFRED F. BAKLEY.....Washington
 FRANK T. CLARK.....Hackettstown
 OSCAR CLARK.....Vineland
 HERBERT G. COTTRELL.....Belmar
 FREDERICK C. CRAIG.....Chester
 HAROLD M. CROWLEY.....Tuckerton
 CLIFFORD G. CUDNEY.....Hackettstown
 DAVID L. DALRYMPLE.....Metuchen
 WESLEY GIBBS.....Yardville
 JOHN W. GRAHAM.....Swedesboro
 GEORGE E. GROVES.....Bridgeton
 R. K. HALL.....Audubon
 J. LESTER HYDE.....Newton
 FRANCIS L. JONES.....Stone Harbor
 JAMES L. KILPATRICK.....Tuckerton
 NORMAN P. KRAEUTER.....Somerville
 CARL W. NEWMAN.....Dover
 THOMAS F. NOLAN.....Mercerville
 DANA J. SAXTON.....Absecon
 ANDREW SHRAW.....Springfield
 CHARLES R. SKINNER.....Mays Landing
 THOMAS L. SPENCER.....Hackensack
 GARRET WESTERVELD.....North Haledon
 ROY H. WILLIAMS.....Pompton Lakes

WARDENS IN ARMED FORCES

WILLIAM P. COFFIN	EUGENE W. O'NEILL
ALFRED S. JONES	J. HOWARD FERRY
ALFRED PERKINS	JOHN C. O'DOWD

OTHER EMPLOYEES IN ARMED FORCES

HAROLD W. McNALLY	ROBERT A. HAYFORD
JOSEPH F. BAUER	KENNETH BEAGLE
ALBERT E. HALL, JR.	CLARENCE HOPKINS
FRANK P. SHEARER	RUSSELL MERRIT
ROBERT J. LEBRECHT	GEORGE PIERCY
WILLIAM J. SULLIVAN	CLIFTON MATHIS
JOHN F. DEQUINE	KENNETH MATHIS
EDWARD LAYTON, JR.	

FOREWORD

BY

GEORGE C. WARREN, JR., *President*

Notwithstanding unusual conditions created by our participation in the War, every department has operated with splendid efficiency. There has been very little reduction in the output of game and fish, and, unless there is some unforeseen eventuality, our efforts will not be greatly handicapped.

While there has been quite a drop in our receipts since January, 1942, we have conserved our resources and expenditures have been made only after careful consideration. The result is a satisfactory cash balance in both the General and Public Shooting and Fishing Grounds Funds. We will, therefore, be able to carry on without serious adverse effects upon our conservation efforts.

Of outstanding importance is the purchase of the property owned by the Flat Brook Valley Club in Sussex County. This area comprises about 1,800 acres of the finest hunting property in the State, and includes approximately seven miles of splendid trout streams—Big and Little Flat Brook. The property has been held by the club since 1892 and in all those years has been a protected fish and game area. We had tried to acquire this property for several years but it had not been available previously. It is indeed a valuable acquisition and will prove of lasting benefit to the sportsmen of New Jersey.

Several of our employees have been inducted into the Armed Forces of our Country and we earnestly hope and pray that they may be safely returned to their families and friends and to the positions which they held in a very satisfactory manner. In the meantime, those who remain with us have accepted the added burdens with cheerfulness and a determination to do an outstanding job; to them I am grateful for their loyalty to the Commission and the sportsmen of the State.

I want again to assure our sportsmen that there will be no relaxation in our efforts to serve their needs and that, when our Armed Forces return, they will find ample supplies of game in our woods and fields and fish in our streams and lakes.

SUMMARY OF ACTIVITIES 1942-43

The following is a brief summary of conservation of wildlife and propagation and liberation of fish and game by the New Jersey Fish and Game Commission during the fiscal year beginning July 1, 1942 and ending June 30, 1943.

FISH AND GAME LIBERATION 1942-43

Pheasants, adult, 40,517; of which 32,820 were propagated and distributed from our own farms, 1,747 purchased for liberation on open lands in the State, 5,406 purchased from the Public Shooting and Fishing Grounds Fund for liberation on State-controlled areas which are open to public hunting, and 544 raised to adult stage by 4-H Club members and liberated by our Wardens.

Quail, 10,710; of which 8,601 were propagated and distributed from our own farm, 121 purchased and liberated on open lands, and 1,988 purchased and liberated on Public Shooting Grounds and State-controlled lands.

Raccoon, 45; which were purchased and liberated on open lands.

Rabbits, 3,526; which were trapped in this State under a special program inaugurated by the Commission when it was unable to purchase rabbits from the west. Approximately 600 traps were constructed and distributed by the wardens, the trapping being done in boroughs in which no hunting is permitted.

Fish, propagated and distributed from the Fish Hatcheries at Hackettstown:

Trout over seven inches, 572,169; trout under seven inches, 106,700; large mouth bass from one to five inches, 210,640; small mouth bass from one to five inches, 26,200; bluegill sunfish, 393,500; catfish, 9,000; yellow perch fry, 94,000,000; tadpoles, 7,000.

Netted from various reservoirs, etc., and distributed throughout the State:

Pickereel, 1,333; yellow perch, 70,635; white perch, 23,470; catfish, 4,845; crappie, 759; large mouth bass, 4,038; small mouth bass, 3,135; calico bass, 17,891; sunfish, 13,265; bluegill sunfish, 620; pike, 510; pike-perch, 60; shiners, 9,000; miscellaneous fish, 27,825.

* * * *

The market value of all fish and game liberated was	\$391,394.12
The receipts from resident and non-resident hunters' and anglers' licenses were	\$390,326.10

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LAW ENFORCEMENT

During the fiscal year ending June 30, there were 590 prosecutions for violation of the fish and game laws. Two of these cases were discontinued and eight dismissed by the court.

FUR-BEARING ANIMALS

A tabulation of the 1942 licenses shows that the following fur-bearing animals were taken in 1941 as compared with the average of the preceding five years:

	<i>Average</i> 1936-40	1941
Skunk	11,491	7,454
Muskrat	155,073	155,590
Mink	913	527

DEER—1942

The total number of deer taken during the four-day open season of the year 1942 was 2,532, an average of 633 per day, which is an all-time record.

PREDATORY VERMIN CONTROL

The following tabulation shows the predatory animals taken by the sportsmen as given on the license stubs of 1942, which figures do not include unprotected hawks, crows, or other vermin taken by farmers who do not need a license to trap or shoot on their own lands:

	<i>Average</i> 1936-40	1941
Cats	11,640	7,760
Weasels	5,403	3,023
Red Squirrels	2,432	2,261
Foxes	1,485	1,150

In addition to the above, there were 28,345 head of predatory birds and animals taken by our wardens, game conservators, and holders of special vermin permits.

LATEST REPORT OF FISH AND GAME TAKEN

The Commission has completed the tabulation of fish and game taken during the calendar year 1941 as shown below, the total value being \$1,696,420.00. This does not include fish and game taken by occupants of land who do not need a license to hunt and fish on their own property. Reports were made by only 49% of license holders.

A comparison of the 1941 take of fish and game against the average of the preceding five years follows:

	<i>Average</i> 1936-40	1941
*Deer	2,301	2,182
Pheasants	123,166	146,856
Quail	41,460	35,639
Rabbits	698,334	704,141
Gray Squirrels	115,515	137,873
Grouse	10,372	7,607
Woodcock	9,673	5,842
Ducks	71,390	91,852
Geese	509	491
Trout	440,655	495,827
Bass	199,458	219,844
Pickerel	183,021	174,264

* The five-year average on deer includes a five-day season, whereas 1941 was only four days.

FARMER-SPORTSMAN COOPERATIVE PLAN

The total acreage as of June 30 under the Farmer-Sportsman Cooperative Plan is approximately 120,580 acres, which shows a slight decrease from last year. Some new lands have been taken over and several areas discontinued because the owners did not live up to the regulations.

FIELD TRIALS

There were forty-six field trials held throughout the State during the past year, game being furnished by the Commission where the trials were held on open hunting grounds.

FEED PATCHES AND WINTER FEEDING

Approximately 500 food patches were planted by our Game Management Department and the sportsmen's organizations throughout the State. This work was curtailed greatly due to lack of manpower, fertilizer, etc., caused by the national emergency. The conventional No. 1 food patch mixture was used only in rare instances, the main plantings being made of soy beans.

During the past winter the Commission furnished and distributed through the Wardens' service and sportsmen's organizations 2,085 pounds of food for game. This work was also curtailed due to lack of manpower.

EDUCATIONAL PROGRAM

Thirty-eight articles on general conservation were sent to the press, and lectures were given and motion pictures shown at many places, although the activities among adult groups were hampered due to the war effort. However, this was offset to a great extent by the increasing demand for school programs.

GAME MANAGEMENT AND PUBLIC SHOOTING AND FISHING GROUNDS

The utilization of the State-owned Public Shooting Grounds by the sportsmen of New Jersey exceeded expectations.

Game Management activities were necessarily curtailed with the program being reduced to that of maintaining the advances made in past years.

PITMAN-ROBERTSON PROJECTS

This excellent conservation activity has been maintained and extended to the degree allowable under the act. Federal aid to Wildlife projects in operation or completed during the year are as follows: F. A. W. Project 11-D-2, Waterfowl, has been completed; F. A. W. Project 12-D, Restoration of Collier's Mills Lake, has been completed; and F. A. W. Project 14-R, an ecological study of southern Camden County, is in operation. Federal approval has been received for F. A. W. Project 11-D-3, Waterfowl, and F. A. W. Project 15-D, Water Impoundment in the Collier's Mills Area.

LEGISLATION

1. Adds Burlington County to the list of Counties wherein hunting is prohibited in a tracking snow.
2. Provides for reciprocal fishing rights in Greenwood Lake.
3. Prohibits the sale of rabbits killed in this State.

ORGANIZATION

At the organization meeting of the Board in December, 1942, George C. Warren, Jr., of Summit and Lewis Spinks, of Nixon, were unanimously re-elected as President and Vice-President, respectively

GENERAL

HUNTING AND FISHING CONDITIONS

A brief outline of hunting and fishing conditions throughout the State, taken from the reports of the Assistant Protectors in charge of the different districts, follows:

First District, comprising Sussex, Warren, Passaic, Morris, and Hunterdon Counties:

It is pleasing to report that we have not been compelled to curtail our activities to any great extent in the First District. The hatchery and game farm produced as usual. Our netting operations during the month of June made available to the public many thousands of fine stocking fish, marked this year by the large size of the black bass and a few hundred prize yellow perch of twelve inches and over. The Wardens report favorable trout fishing last Fall. The number of sportsmen on the trout streams for the opening of the spring season was almost normal, but, as the season progressed this number fell off because of war-time conditions and the gasoline ban. This condition was anticipated, and the stocking program was adjusted accordingly. Many fine catches were reported. A Paterson angler took a brown trout in the Stokes Forest measuring twenty-four and one-half inches and weighing six and one-half pounds. The Black Creek again produced a pair in the five-pound class.

The number of fishermen on our lakes fell off, but reports from the Wardens show some nice catches, including several two-pound calicos, a five-and-one-half-pound and a six-pound-twelve-ounce Oswego in Swartswood, and one from Culvers Lake tipping the scales at seven pounds three ounces. Pickerel fishing was markedly improved in Musconetcong and Budd Lakes.

We were unable to purchase rabbits from the midwest for stocking, but reports indicate the breeding season just past was very good in this State. Pheasant hunting was generally good throughout the district and many fine hatches of young ones were observed this spring; woodcock was only fair; squirrels, good. Grouse shooting was definitely better last season than it has been for some time, and with the many broods of young ones reported, should continue to improve. The deer hunters continued to break records in most of the counties.

The decrease in traffic and slower speeds mean less game killed on our highways.

Second District, comprising Bergen, Essex, Hudson, Middlesex, Somerset, and Union Counties:

Rabbit, squirrel and deer hunting in this district was much improved. There was a big increase in the kill of deer, many large animals with antlers of unusual size being taken. The holdover of deer and rabbits was greater than usual; consequently a very good season can be expected this fall. Pheasant hunting was not as good as last year, nor was the hunting of woodcock. The number of pheasants remaining was smaller than in previous years, except in the northern part of the district. Grouse and quail are increasing, with quail hunting improving noticeably in Middlesex County.

Although we had a severe winter, the extensive food patch planting and winter feeding program furnished plenty of food for game.

During the winter we trapped rabbits in the non-shooting areas. Over 1,800 were caught in this district and released alive on open grounds.

Due to the increased stocking of trout nearer the cities, where almost every stream and lake can be reached by train, bus, or trolley, many more persons enjoyed good fishing. Reports of daily limits being taken were not unusual. An Essex County lake produced a four-and-one-half-pound pickerel, while 1,200 calico bass were reported taken in a Middlesex County lake in one day.

Third District, comprising Mercer, Monmouth, Ocean, and Burlington Counties:

The railbird season in Burlington County was the best in years. Around New Gretna, Lower Bank, Wading River and Mullica River bag limits were common. There were plenty of mudhens along with the rail throughout the season. Delaware River and Rancocas Creek had the poorest year ever recorded, due to the lack of reed and wild rice; the birds did not stop or lay over on their line of flight in this area.

Duck shooting in Barnegat Bay and on the marshes was greatly improved over last year, a large number of ducks and some geese being killed. The oil has disappeared from the bays and marshes and ducks examined show no trace of oil. The black duck and mallard have mated early and have increased to twice the number in this district last year. The spring flight stayed longer than usual, because of the improvement in natural food conditions, especially in eelgrass, which is coming back in the bays.

Woodcock hunting was spotty, with very few persons hunting this bird in the district. Upland game hunting was very good. Rabbits were plentiful and a large number were left over, pheasants did very well, grouse are on the increase, and there was a gain in squirrels killed. The raccoon hunters enjoyed a successful season and more hunters are taking to this sport.

Quail is the outstanding game bird in this area. It was hunted more than usual this year and more were killed than in any of the last five years. It was not unusual to start from five to seven coveys a day, which condition continued throughout the season. Toward the end of the season, the birds became very wild and kept out of range. As a result, a great many birds survived the season. The mild winter, the good supply of natural food, a better spring mating season than ever before, and an ideal nesting period have already produced a great number of young birds in the coverts. With these birds and the anticipated stocking program, the hunters can look forward this fall to one of the finest quail hunting seasons, especially in Ocean and Burlington Counties.

Despite war conditions, gasoline and tire rationing, and the bitter weather, the kill of legal deer during the four-day season exceeded last year's by more than three hundred. Every deer club bagged one deer or more. Honors went to the Indian Mills Deer Club, the members killing seventeen deer on the first day and a total of twenty-seven during the season. Fewer deer hunters resulted in a decrease in illegally killed deer and other violations. The clubs and individual hunters responded to the call from the Federal Government by turning over their deer hides.

The rabbit trapping program, with several projects established in the restricted and residential shore sections, produced many rabbits which were released on open lands. Winter feeding operations and vermin control, particularly the disposal of many stray dogs, helped to improve hunting conditions.

Striped bass afforded one of the best seasons in years by coming in the bays last fall, staying all winter, and moving out along the coast in the late spring. Barnegat Bay is having the finest fishing in years; weakfish are back in good size and large schools, as are croakers. The old-timers claim this is partly due to motor boats being tied up by war restrictions.

With heavily-stocked streams, trout fishing was good and many fine catches of bass were reported. Pike fishing in the Pines was very good. By stocking with game fish, netted periodically in the Delaware River, and with fingerling bass raised at the hatchery, fresh water fishing in this district has been improved.

Fourth District, comprising Atlantic, Cape May, Camden, Cumberland, Gloucester, and Salem Counties:

The supply of rails and gallinules during the past season was average. We had the usual large flight of sora on Maurice River and lower Delaware River tributaries, although there is a gradual falling off of these birds in the marshes of upper creeks. Mudhens were numerous. Woodcock are on the increase, as evidenced by the number of local birds last season and the largest flight in many years.

Upland game is increasing, particularly rabbits and squirrels, of which a great number were left over at the end of last season. Deer are also multiplying, as proved by the larger kill of these animals, despite a reduced number of hunters in the field.

Raccoon, hunted chiefly for sport, are steadily increasing, as is the number of followers of this sport.

A poor breeding season of fur-bearing animals resulted in a slight decrease in numbers taken, but a higher price for the pelts caused trappers to realize more money for their efforts than at any time since World War I. The consumption of muskrat meat is increasing.

There are more ducks—black, pintail, teal, and wood—and geese and brant. There is an increase among all the species of shore birds, with the Delaware River marshes teeming with willets, and the coastal marsh ponds with curlew, knots and yellowlegs. The supply of reed birds is decidedly improved.

Adverse weather conditions on the opening day resulted in a decrease in the number of trout anglers and in the size of their creels in this district. There were few bass and pond fish anglers, and the supply was about normal. Some good catches of pike and pickerel were enjoyed by the few fishermen in the cranberry areas.

The coastal waters continued to produce their yield of commercial fish. There was a large increase of all species with the exception of the bluefish. Salt water terrapin are multiplying greatly.

The control of vermin is a year-round, endless task. Stray dogs and cats are becoming a problem and foxes are increasing dangerously.

We estimate an increase of 15,000 acres damaged by forest fires, causing incalculable destruction of wildlife in these areas.

Although our field force is too small to cope with all problems as effectively as might be desired, their accomplishments and activities far exceed records of some past years, and they are individually striving for the preservation of wildlife.

WARDEN SERVICE

During the past year the services of many of our employees were lost to us, necessitating the assignment of increased duties to those remaining. The services of one warden were terminated by his discharge from the department, five others entered the Armed Forces, and another, William C. Carlsake, we regret to report, died after twelve years of service as a warden.

PROSECUTIONS

During the fiscal year ending June 30, 1943, there were 590 prosecutions for violations of the fish and game laws. Of this number, there were eight acquittals and two cases withdrawn.

Sentences were suspended in 50 cases, 17 defendants committed to jail, 13 given time to raise the penalty imposed, and one placed on probation. Seven cases were appealed by the defendants and one by the Commission. Forty licenses were revoked and one gun confiscated.

The number of arrests made by each Warden, Deputy Wardens, and other complainants during the fiscal year is as follows:

Williams	83
Nolan	41
Newman	36
Groves	32
Graham	28
Craig	24
Spencer	22
Gibbs	22
Skinner	22
Westerveld	20
R. K. Hall	17
Dalrymple	16
O'Dowd	15
Shraw	15
Mathis	14
Kilpatrick	14
O. Clark	14
Saxton	14
Bakley	14
Kraeuter	12
F. Clark	10
O'Neill	8
Crowley	7
Cottrell	6
Ferry	5
G. I. Hall	4
F. Jones	4
Hyde	2
Hugg	2
Woodlin	2
Cudney	1
Carslake	1
Deputy Wardens	34
Other complainants	29

590

The number of arrests according to districts is as follows:

First District:

Sussex, Warren, Passaic, Morris, and Hunterdon Counties.. 213

Second District:

Bergen, Essex, Hudson, Middlesex, Somerset, and Union
Counties 88

Third District:

Mercer, Monmouth, Ocean, and Burlington Counties 139

Fourth District:

Camden, Cumberland, Gloucester, Salem, Cape May, and
Atlantic Counties 150

590

The following shows the various offenses for which persons were arrested during the fiscal year:

LICENSE VIOLATIONS: Fishing without license, 66; hunting without license, 53; procuring wrong license, 14; loaning, 6; false information, 20; trapping without, 6.

FIREARMS VIOLATIONS: Loaded gun in auto, 34; over two shells, 5; illegal missile, 17; alien firearms, 1; rifle, 7; illegal shotgun, 21.

HUNTING VIOLATIONS: Sunday hunting, 33; closed season, 15; lights in hunting, 17; ducks after sunset, 61; ducks before sunrise, 27; shooting from highway, 2; before 9 a. m., 10; from power boat, 1; from auto, 7; illegal removal of game, 2; deer at night, 8; excess bag limit, 5; baiting, 1; deer with dogs, 3; failure to report deer, 1; deer hide for sale, 1.

ILLEGAL KILL OR POSSESSION: Deer closed season, 18; doe deer, 10; short horn deer, 3; hen pheasant, 7; game closed season, 10; protected birds, 8; fish closed season, 19.

FISHING VIOLATIONS: Undersized fish, 24; illegal artificial bait, 8; illegal net fishing, 2; illegal fish, 2; excess bag limit, 2; set lines, 1.

TRAPPING VIOLATIONS: Closed season, 10; stealing traps, 2; illegal trapping, 3; pole traps, 1; snares, 1.

MISCELLANEOUS: Dog at large, 7; pollution, 1; disturbing muskrat lodge, 2; resisting arrest, 3; drawing off waters without permit, 1; short lobsters, 1.

PUBLIC SHOOTING AND FISHING GROUNDS

The following tracts were purchased during the fiscal year as additions to the Public Shooting and Fishing Grounds acreage, bringing the total to 33,327 acres:

Flat Brook Valley Club, located in Bevans, Sussex County, consisting of approximately 1,800 acres.

Rowand's Pond, located in Clementon, Camden County, 12.98 acres.

An additional 48 acres has been added to the Haleyville Tract in Cumberland County.

There were 247 additional acres acquired toward the Turkey Swamp Tract, in Monmouth County.

EDUCATIONAL ACTIVITIES

During the fiscal year the educational activities, so far as adult groups are concerned, were hampered by the war effort. January and February found many scheduled meetings cancelled because of O. P. A. rulings. Fifty percent of the sportsmen's clubs have discontinued meetings for the duration and the mileage of this division was reduced forty percent.

School programs are constantly increasing, although in order to reduce mileage it was difficult to make route schedules until sufficient requests permitted at least one week in a county. An aggregate of more than 26,000 students was reached with our lectures and motion pictures. New specimens were added to our visual aid material and twenty-four schools took advantage of these displays. Forums were continued with farm youths in cooperation with County Agricultural Agents and Vocational Agricultural Instructors.

The pheasant-rearing and wildlife environment project, inaugurated last year in cooperation with the Agricultural Extension Service of Rutgers University, was continued with an increased enrollment. In addition to furnishing pheasant eggs for hatching, day-old pheasant chicks were hatched at our two game farms and farmed out with members of the 4-H, Future Farmers of America, and conservation clubs. The final report showed approximately 550 birds raised and released, an increase over the previous year's project.

Only two large exhibits were made, the Trenton State Fair and the Paterson Sportsmen Show, with approximately 50,000 people viewing the display of native fish and wildlife and motion pictures.

"Rabbits and Victory Gardens," a motion picture and lecture, was prepared and delivered to 34 Civic Victory Garden and State Garden Clubs. A library of still and slide pictures was started and will be used for conservation education publicity. Several new technicolor motion pictures are in preparation, but the difficulty in procuring film will prevent completion for the duration. A thousand-foot technicolor film, "The Making of a Shooter," was shown to more than

76,000 adults and students of schools and colleges. This picture, in conjunction with the department's lecture, advocates safety in handling firearms, the companionship of father and son, the recreational appeal and character-building value of the outdoors.

In cooperation with the United States Army Second Service Command Tactical School, this division prepared charts, pictures and specimens and delivered lectures on personal camouflage, adapted from nature's perfect camouflage of insects, fish, birds, and mammals as utilized in their constant war for existence.

A collection of fresh and salt water fish and predators of fish, i. e., kingfisher, osprey, water snake, etc., is under preparation.

This division carries on a multitude of minor and miscellaneous functions and acts as a service agency for dissemination of information on hunting, fishing, and conservation.

WORK OF SPORTSMEN'S ORGANIZATIONS

The activities of sportsmen's organizations have decreased a great deal due to the national emergency. However, many organizations are continuing to cooperate with the Commission in the liberation of game purchased at their own expense, construction of shelters, and planting of food patches throughout the State.

GAME

The total liberation by the Commission was 54,798 head of game, consisting of pheasants, quail, rabbits, and raccoon.

DEER

The following is the number of deer taken in each county during the four-day open season of 1942:

<i>County</i>	<i>Number Legal Bucks</i>	<i>Illegal Bucks, Does or Fawns</i>
Atlantic	282	1
Bergen	70	5
Burlington	545	15
Camden	53	1
Cape May	25	1
Cumberland	66	3
Essex	31	2
Gloucester	11	..
Hunterdon	47	2
Mercer	23	3
Middlesex	15	4
Monmouth	50	..
Morris	313	11
Ocean	273	9
Passaic	125	..
Somerset	62	2
Sussex	265	6
Union	12	1
Warren	264	5
	2,532	71

The daily average during the 1942 season was 633 legal deer, which far exceeds any previous year, despite a reduction in the number of hunters afield.

There were 319 deer killed at other times of the year by automobiles, trains, under permits, and in various other ways, making a total of 2,922 deer reported taken during the year.

There were 630 deer hides donated by the sportsmen of the State, and the proceeds from same, amounting to \$1,004.70, were turned over to the State Treasurer to be added to our receipts.

HUNTING ACCIDENTS

There were 13 hunting accidents reported during the past year, three of which proved fatal. Four of the accidents were self-inflicted and nine were caused by other persons. Two of the accidents occurred while deer hunting, the others during the waterfowl and small game seasons.

GAME MANAGEMENT

Despite severe reductions in personnel (eight employees having entered the armed services), the accomplishments and activities of the Game Management Division during the past year have exceeded expected achievement. Benefits attained through projects of a substantial nature seeking environmental improvement were completed.

In order to insure continued benefits afforded by the Federal Aid-to-Wildlife Act, personnel of the Division were in two instances shifted from regular duties to the carrying out of the valuable conservation efforts made possible under the act. Three Federal Aid-to-Wildlife projects were operated during the year, located at Tuckahoe, Lower Camden County, and Collier's Mills.

Evaluation of the Public Shooting Grounds, from the standpoint of utilization by sportsmen and game production, was continued on three observational areas, namely, the Clinton, Haleyville, and Glassboro Public Shooting Grounds. Decreased utilization by sportsmen due to restricted travel was evident, but not to the extent anticipated. The following data, resulting from actual field checks, and compared with the results of the previous season, present an interesting and valuable cross-section of Public Shooting Ground utilization during the small game season.

Comparative Field Check of Hunters Utilizing Certain Public Shooting Grounds During the 1941 and 1942 Small Game Seasons

Season	Clinton	Glassboro	Haleyville	Total
1941	1,949	723	478	3,150
1942	1,312	425	482	2,219

The check on the above observational areas shows a reduction of 29.5% in utilization by hunters compared to the 1941 season, and a reduction of 16.4% compared to the 1940 season.

The types of hunters using southern New Jersey areas is indicated by the following observations made on the Glassboro Public Shooting Grounds:

Year	Total Hunters Checked	Number Bird Hunters	%	Number Rabbit Hunters	%	Number Misc. Hunters	%
1940	555	116	20.9	369	66.4	70	12.6
1941	723	136	19.8	504	68.2	83	12
1942	425	74	17.4	278	65.4	73	17.1

**Comparative Utilization of Two Observational
Areas As Indicated by a Car License Count by Counties**

County	Clinton Tract		Glassboro Tract	
	1941	1942	1941	1942
Bergen	42	35		
Essex	152	102	1	0
Hudson	98	70		
Hunterdon	75	40		
Mercer	19	7		
Middlesex	65	71	3	1
Morris	11	3		
Ocean	1	0		
Passaic	20	14		
Somerset	38	21		
Union	216	124	3	0
Warren	15	8		
Salem			0	1
Sussex	0	2	0	4
Gloucester			284	138
Camden			67	30
Cumberland			0	3
Cape May			0	1
Burlington			3	0
Atlantic			0	2
Pennsylvania			2	5

To maintain and improve environment for the benefit of wildlife and to stimulate future utilization of State-owned areas by improved facilities, the following activities were carried on during the past year:

Food Area Clearance	14.5	acres
Brush Removal	26.5	acres
Soil Preparation	183.4	acres
Razing Undesirable Buildings	4	
Renovation of Buildings	2	
Dike Construction	3,625	feet
Dike Repair	210	cu. yds.
Water Impoundment Completions	2	
Spillway Constructions	2	
Circulating Ditch Construction	2,530	feet
Diversion Channel Construction	350	feet
Sod Bank Construction	2,785	feet
Planting of Aquatic Vegetation	3,000	plants
Planting Trees, Shrubs and Vines	5,675	
Firebreak Maintenance	4,670	feet
Road Construction .....	.6	miles

Food patch installation on State-owned lands was varied this year to conform with the curtailment of supplies and manpower. The conventional No. 1 food patch mixture was used in only rare instances, and the main plantings were made of soybeans. In the case of the Clinton Public Shooting Grounds, considerable acreage was devoted to this crop, with the expectation that the crop will be harvested for general use. The following is a report of food patch plantings on State lands for the past fiscal year:

<i>Location</i>	<i>Number Patches</i>	<i>Acreage Planted</i>
Roy Tract	16	14.02
Hainesville Tract	15	8.5
Wallpack Tract	19	11.11
Manahawkin Tract	28	18.19
Port Republic Tract	30	14.40
Clinton Tract		67.5
Glassboro Tract	103	34.
Haleyville Tract	35	16.5
Tuckahoe Tract	11	4.2
Collier's Mills Tract	7	14.
	264	202.42

Cooperative plantings made on open lands in conjunction with sportsmen's clubs were necessarily reduced in scope. Twelve patches of one-half acre each were sponsored by the Metuchen Rod & Gun Club, six acres of rye were planted for the Elmer Deer Club, and three acres of rye and three acres of soybeans were planted for the 6666 Deer Club.

Tractor units are carrying out planting programs in Bergen, Somerset, and Ocean Counties.

Predatory birds and animals removed from the Public Shooting and Fishing Grounds were as follows: Cats, 89; weasels, 56; hawks, 183; snakes, 36; skunks, 75; dogs, 11; turtles, 2; fox, 11; opossum, 45; owls, 33; crows, 133.

A total of 19 beavers was trapped alive in locations where their presence and activities were undesirable and moved to southern New Jersey.

A total of 524 rabbits was trapped in refuge locations and liberated on open lands.

The practice of weighing, measuring, and cataloging data of deer killed during the open season was continued. Fifty deer were weighed and measured in southern New Jersey and the same number was handled from northern New Jersey. The average dressed weight of deer killed in southern New Jersey was 90.1 lbs. and the average dressed weight for northern New Jersey was 110.7 lbs.

Other activities consisted of repair and maintenance of equipment, monument production and installation, mapping newly-acquired areas, installation of two experimental areas in cooperation with the United States Soil Conservation Service, carrying out of the field trial schedule and rendering assistance and advice to interested sportsmen and sportsmen's groups on conservation details.

FEDERAL AID-TO-WILDLIFE PROJECTS

The program incorporating Federal Aid-to-Wildlife Projects under the jurisdiction of the United States Fish and Wildlife Service of the Department of the Interior has progressed very satisfactorily.

Project 12-D, making possible the restoration of Collier's Mills Lake, was completed. This excellent and historic lake has been receiving heavy utilization by the public since its restoration.

Project 11-D-2, operating on the Tuckahoe-Corbin City area, designed to improve waterfowl habitat, has produced noticeable benefits. All improvements made on the Tuckahoe Tract were made possible by this project. Increased waterfowl and muskrat populations are very evident.

Project 13-L, constituting the acquisition of additional land in the Tuckahoe-Corbin City area, was completed.

Project 14-R, comprising an ecological study in Camden County as requested by the sportsmen of Lower Camden County, is progressing in a satisfactory manner.

Project 15-D, allowing additional impoundment work for the Collier's Mills area, has received final approval.

REPORT OF FORKED RIVER AND ROCKPORT GAME FARMS

Another successful season was passed at the Game Farms and the birds liberated were all very fine.

During the year only one exhibit of live game from the farms was made, the one at the Trenton State Fair.

The following vermin was killed at the farms: 69 owls, 220 crows, 62 cats, 56 opossum, 153 hawks, 3 weasels, 40 skunks, 5 foxes, and many rats.

The pheasant records for the calendar year of 1942 are as follows:

Forked River Farm:

Breeding birds on hand January 1, 1942	1,154
Young birds on hand January 1, 1942	863
Eggs laid	39,816
Eggs set	29,305
Birds hatched	20,347
	<hr/>
Spring distribution	22,364
Fall distribution	680
Day-old chicks liberated	14,872
Breeding birds on hand December 31, 1942	50
Birds held for spring distribution	1,177
Birds died or escaped	289
	<hr/>
	5,296
	<hr/>
	22,364

Rockport Farm:

Breeding birds on hand January 1, 1942	1,197
Young birds on hand January 1, 1942	439
Eggs laid	41,711
Eggs set	25,100
Birds hatched	19,045
	<hr/>
Spring distribution	20,681
Fall distribution	465
Day-old chicks liberated	13,743
Breeding birds on hand December 31, 1942	1,730
Birds held for spring distribution	1,178
Birds died or escaped	482
	<hr/>
	3,083
	<hr/>
	20,681

REPORT OF OCEAN COUNTY QUAIL FARM

Considerable difficulty was experienced during the past year with the quail breeding operations. Egg production was extremely slow and hatchability poor. An outbreak of blackhead in the breeders further hampered egg production and a high rate of mortality resulted in the young chicks.

In view of the difficulties encountered, many changes were made in feeding and management practices. The breeding stock was fed cod liver oil all during the winter months and a new brand of feed used on both the breeding stock and young chicks. A marked improvement was seen shortly after these changes were made.

General farm work included the building of 350 rabbit traps which were distributed to wardens for use throughout the State.

The farm record for the calendar year 1942 is as follows:

Breeding birds on hand January 1, 1942	331	
Young birds on hand January 1, 1942	5,321	
Eggs laid	22,300	
Eggs set	19,785	
Birds hatched	17,507	
		<hr/>
		23,159
Breeding birds liberated	475	
Spring distribution	4,255	
Fall distribution	7,018	
Birds held for spring distribution	2,125	
Breeding birds on hand December 31, 1942	382	
Birds died or escaped	8,904	
		<hr/>
		23,159

REPORT OF FARMER-SPORTSMAN TRACTS

The total acreage as of June 30, 1943, under the Farmer-Sportsman Cooperative Plan, was 120,580 acres.

The successful operation of our plan for the past ten years definitely establishes it as the standard, and no major changes for the future will be necessary. The plan has accomplished what it was originally intended to do, namely:

1. Give to the angler and gunner more land and water for their use.
2. Give to the farmer recognition for the great contribution he makes to wildlife restoration by granting free use of his property, and permit him to regulate the number of sportsmen who should use that land.
3. Establish a definite plan of cooperation between the property owner and the sportsman.

Estimating the annual value of game produced on the Farmer-Sportsman Tracts at the low figure of twenty-five cents per acre on the 120,000 acres, we have a game value of \$30,000 which the sportsmen receive each year for an operating cost of less than five cents per acre.

It is gratifying to note that the plan has definitely brought to many sportsmen the full realization of the great value of this free use of land, and they now realize that only through cooperation with the property owners will they be permitted to continue to use the properties from which to harvest a game crop.

New Jersey is a small State. There is a heavier concentration of sportsmen in certain areas than occurs in most States. Due to this, violations of the property rights of the owners are more numerous, and constant efforts must be employed to educate every sportsman to the full realization of the individual part he must have in cooperating with the landowners to the fullest extent in order that these valuable properties be kept available for his use and the growing of a game crop.

Refuge areas of sufficient size, where no hunting is permitted, are the only low-cost insurance that will provide a sufficient carry-over of breeding stock of game birds and animals in the areas where the unregulated take of game is permitted.

The Farmer-Sportsman Cooperative Plan has given not only lands to hunt over, but lands where crops are grown which provide sufficient food for game birds and animals, and at the same time, provide for a necessary refuge area.

Speaking engagements for the past year totaled 39, with a combined attendance of 3,841. The groups were county farm organizations, State Granges, State Farm Bureau Federation, sportsmen's groups, Kiwanis Clubs, Rotary Clubs, civic and fraternal organizations, schools and different agricultural groups that meet in the New Jersey College of Agriculture.

FISH

The Hackettstown Fish Hatcheries raised and distributed 95,325,209 fish during the 1942-43 fiscal year. In addition to this, there were 177,386 pond fish netted from reservoirs closed to public fishing and distributed in open waters. The Fish and Wildlife Service of the United States distributed 39,540 pond fish in this State.

REPORT OF HATCHERY OPERATIONS

The output of the Hackettstown Hatcheries and the result of netting operations is shown by the following tabulation:

	<i>Raised July 1, 1942, to Inches June 30, 1943</i>	<i>Disposed of</i>	<i>Estimated Loss in Cloudburst</i>	<i>Estimated Number on Hand</i>
Brook Trout	2-3	18,000	18,000	.....
" "	3-4	372,500	52,500	20,000
" "	4-5	117,000	17,000	.....
" "	4-6	10,000	10,000	.....
" "	5-6	2,200	2,200	.....
" "	6-8	20,000	.....	20,000
" "	7	21,700	21,700	.....
" "	7-8	48,519	48,519	.....
" "	7-9	56,575	21,575	5,000
" "	8-10	67,656	65,656	2,000
" "	9-10	20,000	20,000	.....
" "	10-12	32,170	22,170	.....
" "	12-14	24,245	24,245	.....
Brown Trout	2-3	300,000	.....	300,000
" "	3-4	50,000	.....	50,000
" "	5-6	2,000	2,000	.....
" "	5-7	50,000	.....	50,000
" "	7	3,000	3,000	.....
" "	7-8	1,500	1,500	.....
" "	7-9	26,000	16,000	10,000
" "	8-10	55,100	45,100	10,000
" "	9-10	9,850	9,850	.....
" "	10-12	42,100	38,100	2,000
" "	12-14	2,785	1,785	1,000
" "	14-16	1,296	1,296	.....

		Raised July 1, 1942, to Inches June 30, 1943	Disposed of	Estimated Loss in Cloudburst	Estimated Number on Hand
Rainbow Trout	.....	2-3 225,000	.....	25,000	200,000
"	"	5-6 35,000	5,000	.....	30,000
"	"	6-8 40,000	.....	.....	40,000
"	"	7 6,300	6,300	.....	.....
"	"	7-9 57,575	52,575	5,000	.....
"	"	8-10 35,087	28,087	5,000	2,000
"	"	9-10 46,850	46,850	.....	.....
"	"	9-11 4,475	4,475	.....	.....
"	"	10-12 91,903	91,903	.....	.....
"	"	12-16 500	.....	500	.....
"	"	14-16 1,483	1,483	.....	.....
Large Mouth Bass	.....	1-2 420,120	120,120	.....	300,000
"	"	2-3 73,320	73,320	.....	.....
"	"	3-4 20,400	14,400	6,000	.....
"	"	4-5 2,800	2,800	.....	.....
Small Mouth Bass	.....	1-2 51,000	1,000	.....	50,000
"	"	2-3 68,600	18,600	.....	50,000
"	"	3-4 9,000	5,000	4,000	.....
"	"	4-5 1,600	1,600	.....	.....
"	"	8-10 500	.....	500	.....
Catfish	.....	3-4 9,000	9,000	.....	.....
Bluegill Sunfish	.....	Fry 200,000	.....	.....	200,000
"	"	1-2 137,500	137,500	.....	.....
"	"	2-3 252,500	252,500	.....	.....
"	"	3-5 5,000	.....	.....	5,000
"	"	6-8 450	450	.....	.....
"	"	7-8 700	700	.....	.....
"	"	6-10 2,350	2,350	.....	.....
Tadpoles	.....	7,000	7,000	.....	.....
Yellow Perch	.....	Fry 94,000,000	94,000,000	.....	.....
Various fish netted in State Reservoirs	..	97,160,209	95,325,209	136,000	1,699,000
			177,386		
					95,502,595

The trout raised during the past year were much larger than in previous years. The fish were in better condition and firmer. Due to the high cost of food, labor, etc., the output was necessarily somewhat curtailed. However, the trout raised exceeded the half million mark set by the Commission for the present war period.

Due to the gas situation, trout fishing was noticeably decreased. However, those who were able to enjoy fishing had no difficulty, in most instances, in getting their limit. The Commission is carrying over 100,000 yearling trout which should average twelve inches or better for next year's stocking program.

The June hatch of bass was the largest in the history of the hatcheries. Unfortunately, due to bad weather conditions, a great deal of trouble was encountered in maintaining adequate daphnia supplies for the tiny bass. From present indications, next year's bass output will surpass any previous record.

On August 10, 1942, there occurred the worst cloudburst and flood since the origin of the hatchery. Over one hundred ponds were over-run as one lake, resulting in an estimated loss of about 136,000 fish. In addition to the fish loss, the various sizes were badly mixed, making large scale resorting and regrading necessary. About \$3,000 worth of damage was done to the roads and pond embankments, only about half of which is repaired up to the present time.

The hatchery diseases and losses remained normal during the past year, despite the fact that operations were continuing with six men less than the number necessary to do the work efficiently. Unfortunately, however, we were unable to keep the grounds, roads, and surroundings in their usual neat condition.

Hatchery exhibits were on display at the State Fair at Trenton and the Sportsmen's Show at Paterson.

FISH DISTRIBUTED BY FEDERAL GOVERNMENT

The following tabulation shows the fish distributed in New Jersey by the Fish and Wildlife Service of the United States Department of the Interior:

Black Bass (large mouth)	6,670
Sunfish	24,830
Catfish	1,520
Yellow Perch	400
Black Bass (small mouth)	660
Brook Trout	1,800
Brown Trout	1,260
Rainbow Trout	2,400
	39,540

POUND FISHERIES SUMMARY

The following is a summary of the pound fisheries' report for the calendar year ending December, 1942:

Approximate value of all pounds	\$ 879,818.22
Proceeds derived from sale of fish	1,136,068.53
Number of pounds of fish caught and disposed of.....	36,164,277

Licenses issued:

Atlantic Ocean	133
Sandy Hook and Raritan Bay	43
	176
Number of pounds operated	157
Number of men employed	358

MENHADEN AND FOOD FISH LICENSES

There were 40 vessels licensed to take menhaden with purse or shirred nets within the three-mile limit during the calendar year of 1942, and 68 vesels licensed to take food fish. Under his war-time powers, Governor Edison issued a proclamation permitting vessels, properly licensed, to take food fish at a distance of not less than one mile from the coastline, provided that no such vessel could operate within one-half mile of any fixed pound or submarine pound, nor within one and one-half miles of the mouth of any inlet or canal.

STRIPED BASS LICENSES

During the past fiscal year there were 406 licenses issued to 153 persons for the netting of striped bass. There were 377 licenses issued for the use of gill nets and 29 for hauling seines.

SPECIAL NETTING LICENSES

Under the law authorizing the use of nets of various types in tidal waters when licensed, the following permits were issued during 1942-1943:

Drifting gill net	15
Hauling seine	34
Flounder fyke	145
Miniature fyke	682
Fyke	100
Shad net	249
Staked gill net	100
Bait seine	9

EELS

Under permits issued by the Board for eel pots and fish baskets, 2,864 pounds of eels were taken during the year 1941.

DELAWARE RIVER SHAD INDUSTRY

County	Boats		Nets		Men Engaged		Number Shad Caught		Pounds Shad Caught		Value of Shad Caught		Value of Boats & Nets	
	1942	1943	1942	1943	1942	1943	1942	1943	1942	1943	1942	1943	1942	1943
Cumberland ..	46	34	147	42	48	42	24,688	40,771	69,133	145,659	\$6,512.68	\$29,238.30	\$6,200	\$7,299
Salem	19	8	19	8	37	15	13,465	6,850	67,325	34,250	7,470.50	15,426.00	6,325	2,300
Gloucester ...	5	5	5	5	10	9	38,900	3,125	17,000	12,118	1,457.50	1,677.00	24	14
Burlington ...	5	3	5	4	10	9	325	475	.....	1,900	162.50	318.00	385	400
Mercer	5	5	6	4	16	14	293	328	970	1,225	202.67	498.75	1,058	900
Hunterdon ...	6	6	5	7	18	22	1,020	4,757	2,860	19,028	642.00	3,963.84	1,050	1,511
	86	61	187	70	139	111	78,691	56,306	157,288	270,486	\$16,447.85	\$51,121.89	\$15,042	\$12,424
Increase										113,198		\$34,674.04		
Decrease		25		117		28		22,385						\$2,618

HUDSON RIVER SHAD INDUSTRY

Boats		Nets Owned		Men Engaged		Pounds Caught		Number Caught		Value Shad Caught		Value Boats & Nets	
1942	1943	1942	1943	1942	1943	1942	1943	1942	1943	1942	1943	1942	1943
177	168	147	189	197	169	1,944,638	1,515,294	572,711	440,973	\$133,462.38	\$187,655.80	\$102,150	\$125,890

SUPPLEMENT TO 1941-42 REPORT

Income

Balance as per last printed report \$81,056.06

Expenditures

Chapter 129, Laws of 1941	6,521.28
To balance	74,534.78
	\$81,056.06

REPORT FOR 1942-43

Income

Balance July 1, 1942 \$74,534.78

Hunters' and Anglers' Licenses:
Title 23, Chapter 3:

Sec. 11-12 (Regular) ..	\$298,549.85
Sec. 3 (Juvenile)	855.00
Sec. 25 (Woodcock) ..	1,442.00
Agents' Fees	1,039.00
Duplicate Licenses	328.00
Delinquencies	43.00
Special Contribution ..	7.85
	\$302,264.70

Title 52, Chapter 18, Section 21:

Menhaden Licenses ...	\$20,260.00
Food Fish Licenses ...	2,650.00
Shad Licenses	950.00
Pound Licenses	6,500.00
Breeders' Licenses	1,404.00
Striped Bass Licenses..	692.00
Net Licenses	1,477.25
Sales and Sundries	2,937.82
Deputies Fees	334.00
Carp Permits	290.00
Map Sales	92.75
Book Sales	47.00
	\$37,634.82

Fines, Title 23, Chapter 10, Sec. 19	16,866.83
Trespass, Title 23, Chapter 7, Sec. 5	187.00
Refunds—State Treasurer Checks	301.44
Refunds on Purchasing Agent service charge	129.31
	\$357,384.10
	\$431,918.88

Expenditures

Chapter 29, Laws of 1942	*296,752.41
Cash Balance July 1, 1943	\$135,166.47
Requisitions outstanding against this balance	15,198.66
	\$119,967.81

*** Analysis of Expenditures**

Personal Administration	\$ 493.41
Wardens' Salaries	70,119.59
Wardens' Expenses	1,614.50
Stocking Expenses	8,108.16
Snagging Streams	2,159.15
Office Expenses	21,508.72
Conservation Education	1,575.00
Publicity	960.00
Printing, Stationery, etc.	2,718.69
Hunting and Fishing Licenses	1,108.00
Legal Expense	596.26
Gasoline and oil for autos	4,848.76
Tires and tubes for autos	1,052.71
Gasoline and oil for boats	1,194.11
Maintenance autos	6,794.46
Maintenance boats	8,800.93
Postage, telephone, telegraph and insurance	4,645.85
Forked River Farm, pheasant raising, food, exhibits, general upkeep	25,025.20
Rockport Farm, pheasant raising, food, exhibits, general upkeep	16,925.52
Quail Farm, quail raising, food, exhibits, general upkeep	12,510.63
Hackettstown Hatchery, fish propagation, food, exhibits, general upkeep	83,562.48
Purchase of game from outside sources	5,126.88
Miscellaneous Expenses	2,862.31
Paid to Purchasing Agent for above purchases	2,578.28
Pension payments for employees on military leave	578.81
Bonus and war adjustment payments	9,284.00
	<hr/>
	\$296,752.41

**PUBLIC SHOOTING AND FISHING GROUNDS FUND
SUPPLEMENT TO 1941-42 REPORT**

Income

Balance as per last printed report	\$43,636.39
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Expenditures

Bills paid after June 30, 1942, for		
Purchase of Land, 1941-42	\$ 780.41	
Federal Aid, 1941-42	7,321.12	
Other Bills, 1941-42	354.38	
	<hr/>	8,455.91
To Balance		35,180.48
		<hr/>
		\$43,636.39

REPORT FOR 1942-43

Income

Balance July 1, 1942	\$ 35,180.48
Receipts from Government for Federal Aid Account, 1941-42	\$ 5,289.00
Receipts from Government for Federal Aid Account, 1942-43	7,327.34
Receipts from Hunters' and Anglers' Licenses	88,058.70
Miscellaneous Receipts	3,483.79
Refund service charge	1.00
Interest	1.20
Payment to correct error in license fee .....	.45
Special contribution	2.25
	\$104,163.73
	\$139,344.21

Expenditures

Expenditures	*\$55,532.50
Cash Balance July 1, 1943	\$83,811.71
Requisitions outstanding	72,799.34
Account Balance on July 1, 1943	\$11,012.37

* Analysis of Expenditures

Purchase of Land	\$3,607.88
Expenses for Game Management	20,050.67
Expenses for Farmer-Sportsman Plan	3,881.66
Administrative	1,535.25
Game Purchased for Farmer-Sportsman Land	10,524.30
Game Purchased for Public Shooting and Fishing Grounds....	1,461.40
Expenses under Federal Aid-to-Wildlife Bill	13,721.06
Paid to Purchasing Agent for above purchases	750.28
	\$55,532.50

STOCKING OF NEW JERSEY WATERS

By the New Jersey Board of Fish and Game Commissioners
for the Fiscal Year Ending June 30, 1943

Total Number of Fish Planted from All Sources—95,502,595

KEY TO ABBREVIATIONS

Bt.	Brook Trout	Yper.	Yellow Perch
Brnt.	Brown Trout	Wper.	White Perch
Rt.	Rainbow Trout	Pw.	Pollywog
Lmb.	Large Mouth Bass	Pic.	Pickerel
Smb.	Small Mouth Bass	S.	Sunfish
Bs.	Bluegill Sunfish	C.	Catfish
Cb.	Calico Bass	P.	Pike
Cr.	Crappie	Misc.	Miscellaneous
Sh.	Shiner	Pp.	Pike Perch

Size

a.	Adult
fg.	Fingerling
f.	Fry

ATLANTIC COUNTY

(Great Egg Harbor System)

Abel's Run—Absecon—150 Bta, 100 Rta.
Bargaintown Lake—Bargaintown—10 Lmba, 450 Lmbfg, 50 Bsa, 100
Ypera, 50 Wpera, 4 Pica, 700 Cba.
English Creek—Pleasantville—150 Bta, 100 Rta.
Makepiece Reservoir—Mays Landing—3000 Bsfg.
Mays Landing Clay Hole—Mays Landing—150 Bta, 100 Rta.
Pleasant Mills Lake—Pleasant Mills—750 Lmbfg, 2500 Bsfg.

(Maurice River System)

Mantico Creek—Buena—200 Bta, 800 Rta.

(Mullica River System)

Hammonton Lake—Hammonton—500 Brnta, 2650 Rta, 1050 Lmbfg, 2500
Bsfg.
Northfield Clay Hole—Northfield—150 Bta, 100 Rta.

BERGEN COUNTY

(Hackensack River System)

Bear Brook—Oakland—150 Bta, 30 Brnta, 100 Rta.
Boiling Spring Brook—Old Tappan—175 Bta, 175 Rta.
Budd Lake—South Hackensack—700 Ypera, 500 Wpera, 100 Cra.
Electric Light Pond—Montvale—950 Brnta, 600 Rta.
Hackensack Clay Pit—South Hackensack—300 Lmba, 100 Cra.
Hackensack River—Oradell—100 Bta, 550 Brnta, 1500 Rta.

Morrow Lake—Englewood—350 Brnta, 1100 Rta.
Nehroff Lake—Little Ferry—75 Bta, 4150 Ypera, 1250 Wpera, 375 Cra.
Passaic River—East Paterson—16 Lmba, 1800 Ypera, 300 Ca, 750 Wpera,
184 Cra.
Pascack Creek—Montvale—1200 Bta, 850 Brnta, 550 Rta.
Rockleigh Brook—Rockleigh—300 Bta, 30 Brnta.
Tenekill Creek—Closter—325 Bta, 350 Brnta, 375 Rta.
Waldwick Pond—Waldwick—400 Ypera, 50 Wpera, 9 Pica.
Washington Spring Brook—Paramus—200 Rta.
Willow Lake—Little Ferry—1400 Brnta, 2000 Rta.

(Passaic River System)

Longmark Brook—Allendale—125 Bta, 575 Rta.
Musquasink Creek—Westwood—40' Brnta, 350 Rta.
Ramapo River—Oakland—2400 Bta, 4441 Brnta, 4920 Rta.
Saddle River—Saddle River—1500 Bta, 580 Brnta, 2300 Rta.
Valentine Brook—Hawthorne—125 Bta, 575 Brnta.
Vanemburgh's Brook—Midland Park—500 Bta.

(Ramapo River System)

Glen Gray Boy Scout Pond—Oakland—800,000 Yperf.
Pompton Lake—West Oakland—250 Ypera, 250 Wpera.
Waw Paw Boy Scout Pond—Oakland—800,000 Yperf.

(Saddle River System)

Babbits Brook—Wyckoff—250 Bta, 20 Brnta, 650 Rta.

BURLINGTON COUNTY

(Delaware River System)

Moorestown Lake—Moorestown—3000 Lmbfg.
Sylvan Lake—Burlington—200 Bta, 100 Brnta, 1400 Rta, 1500 Lmbfg, 5000
Bsf, 800,000 Yperf.

(Mullica River System)

Atsion Lake—Atsion—2500 Bsf, 150 Ca.
Bass River Lake—State Forest—2250 Lmbfg.

(Rancocas Creek System)

Medford Lake—Medford—32 Lmba, 14 Cba.
Olympic Lake—Florence—300 Bta, 300 Brnta, 1600 Rta, 800,000 Yperf.
No. Br. Rancocas Creek—Ewansville—135 Smba, 125 Sa, 160 Cba, 55
Ypera, 35 Ca, 40 Pica.
Smithville Lake—Smithville—2250 Lmbfg.

(Toms River System)

Brindel Lake—Fort Dix—30 Smba, 70 Ypera, 40 Cba, 60 Pa.

CAMDEN COUNTY

(Cooper Creek System)

Bridgewood Lake—Gibbsboro—50 Bta, 50 Brnta, 250 Rta, 300 Lmbfg,
71 Cba.
Ellisburg Creek—Ellisburg—800 Bta, 550 Rta.
Evans Lake—Haddonfield—300 Lmbfg.
Gibbsboro Lake—Gibbsboro—300 Lmbfg.

Laurel Lake—Laurel Springs—300 Lmbfg.
Mun's Falls—Haddonfield—100 Bta, 50 Rta.
Woodcrest Creek—Woodcrest—600 Bta.

(Delaware River System)

Cooper River Park Lake—Cooper Lake—400 Rta, 1500 Lmbfg.
Hopkins Lake—Haddonfield—300 Lmbfg.

(Great Egg Harbor System)

New Brooklyn Lake—New Brooklyn—1000 Bsf.

(Mullica River System)

Atco Lake—Atco—200 Rta, 300 Lmbfg, 1500 Bsf, 206 Cba.

(Pensauken Creek System)

Columbia Lake—Maple Shade—50 Bta, 50 Brnta, 450 Rta, 300 Lmbfg.

(Big Timber Creek System)

Back Run—Berlin—150 Bta.
Bottomley's Lake—Clementon—300 Lmbfg, 1000 Bsf.
Clementon Lake—Clementon—300 Lmbfg, 1000 Bsf.
Big Lebanon Run—Turnersville—750 Bta, 100 Brnta, 100 Rta.
Pillings Lake—Clementon—300 Lmbfg, 1000 Bsf.
Rowands Pond—Clementon—800 Bta, 100 Brnta, 700 Rta.

CUMBERLAND COUNTY

(Cohansey Creek System)

Cedar Lake—Cedarville—500 Lmba, 300 Lmbfg, 5000 Ypera, 150 Sa, 1000 Wpera, 800 Cba, 75 Pa.
Clark Pond—Bridgeton—500 Lmba, 5000 Ypera, 150 Sa, 1000 Wpera, 800 Cba, 75 Pa.
East Lake—Bridgeton—50 Lmba, 300 Lmbfg, 5000 Ypera, 150 Sa, 150 Wpera, 250 Cba, 50 Pa.
Mary Elmer Lake—Bridgeton—473 Lmba, 300 Lmbfg, 2800 Ypera, 500 Sa, 800 Wpera, 950 Cba, 53 Pa.
Sunset Lake—Bridgeton—1789 Lmba, 450 Lmbfg, 70 Bsa, 7090 Ypera, 500 Sa, 1400 Wpera, 125 Pica, 3750 Cba, 250 Pa, 5000 Sh.

(Maurice River System)

Laurel Lake—Near Millville—300 Lmbfg.
Manatco Lake—East Vineland—1200 Bta, 300 Lmbfg.
Manatco Stream—Millville—250 Bta, 250 Rta.
Manaway Stream—Newfield—250 Bta, 250 Rta.
Union Lake—Millville—900 Lmbfg, 2000 Bsf.

ESSEX COUNTY

(Passaic River System)

Branch Brook Park Lake—Newark—200 Bta, 700 Brnta, 2112 Rta, 1500 Lmbfg, 2,200,000 Yperf.
Clarks Pond—Bloomfield—500 Bta, 512 Brnta, 1600 Rta, 266 Ypera, 234 Sa.
Notch Brook—Bloomfield—500 Bta, 5 Brnta.
Verona Lake—Verona—300 Bta, 1605 Brnta, 2200 Rta, 750 Lmbfg, 1,600,000 Yperf.
Weequahic Park Lake—Newark—1500 Lmbfg, 49 Smba, 2,200,000 Yperf, 1,716 Ypera, 859 Sa, 44 Pica.

(Rahway River System)

So. Mt. Reservation—South Orange—500 Bta, 1500 Rta.

GLOUCESTER COUNTY

(Delaware River System)

Bell's Lake—Woodbury—600 Lmbfg.

Woodbury Heights Lake—Woodbury Heights—1200 Bta, 600 Lmbfg.

(Maurice River System)

Iona Lake—Iona—300 Lmbfg.

Malaga Lake—Clayton—450 Lmbfg.

Oberst Lake—Gibbsboro—250 Bta, 50 Brnta, 200 Rta.

Wilson Lake—Clayton—450 Lmbfg, 2000 Bsfg.

(Raccoon Creek System)

Gilman Lake—Ewan—850 Bta, 50 Brnta, 700 Rta, 600 Lmbfg, 2000 Bsfg.

(Big Timber Creek System)

Almonesson Lake—Almonesson—1200 Lmbfg.

HUDSON COUNTY

Hudson County Park Lake—North Bergen—500 Bta, 725 Brnta, 2410 Rta.

HUNTERDON COUNTY

(Delaware River System)

Everittstown Brook—Everittstown—600 Bta.

Kingwood Creek—Kingwood—500 Btfg.

Frenchtown Creek—Frenchtown—600 Bta.

Little York Brook—Little York—450 Bta.

Lockatong Creek—Stockton—600 Bta, 20 Brnta, 400 Rta.

Milford Brook—Milford—400 Bta.

Mt. Pleasant Brook—Mt. Pleasant—300 Bta.

Musconetcong River—Penwell to Asbury—3075 Bta, 7840 Brnta, 7745 Rta.

Sweet Hollow Brook—Near Little York—150 Bta.

Wickcheoche Run—Sergeantsville—500 Bta, 1000 Btfg, 20 Brnta, 450 Rta.

(Musconetcong River System)

Beaty's Brook—Penwell—1225 Bta, 3000 Btfg, 400 Brnta, 783 Rta.

Creveling Brook—West Portal—25 Bta, 25 Brnta, 100 Rta.

West Portal Brook—West Portal—300 Bta.

(Raritan River System)

Alexauken Brook—Lambertville—800 Bta, 500 Btfg, 1100 Rta.

Assisiconk Creek—Flemington—500 Btfg.

Beaver Brook—Clinton—275 Bta, 500 Btfg, 200 Rta.

Black Brook—Near Clinton—225 Bta, 10 Brnta, 450 Rta.

Bushkill Brook—Norton—300 Bta.

Capoulin Creek—Princeton—600 Bta, 500 Btfg.

Charlestown Brook—Charlestown—300 Bta.

Clinton Pond—Clinton—700 Lmbfg, 150 Bsa, 4500 Bsfg, 2,200,000 Yperf.

Dairy Run—Changewater—400 Bta.

Jutland Brook—Grandin—350 Bta, 100 Rta.

Lingert's Pond—Clinton—50 Bta, 550 Rta.

Mulhockaway Creek—Van Syckles—588 Bta, 565 Brnta, 434 Rta.
Neshanic Brook—Flemington—1500 Btfg, 250 Bta, 250 Rta.
Norton Brook—Norton—300 Bta.
Oak Grove Brook—Oak Grove—500 Btfg.
Philhower Brook—Califon—50 Brnta, 100 Rta.
Prescott Brook—Stanton—250 Bta, 500 Btfg, 250 Rta.
South Branch Raritan River—Middle Valley to High Bridge—10,391 Bta,
5015 Brnta, 5653 Rta.
Schantz Pond—Perryville—350 Bta.
Spring Mills Brook—Spring Mills—200 Bta.
Spruce Run—Glen Gardner—4041 Bta, 7500 Btfg, 1460 Brnta, 3695 Rta.
Sydney Brook—Sydney—500 Btfg.
Tetertown Brook—Tetertown—1000 Bta, 1000 Btfg.

(Rockaway River System)

Boulder Hill Brook—Mountainville—125 Bta, 3 Brnta, 125 Rta.
Cushtunk Lake—White House—1300 Lmbfg, 150 Bsa, 4500 Bsfg, 2,200,000
Yperf.
North Branch Rockaway River—Mountainville—1750 Bta, 206 Brnta,
1050 Rta.
South Branch Rockaway River—Lebanon to White House—200 Bta,
200 Rta.
Saw Mill Brook—Mountainville—125 Bta, 3 Brnta, 125 Rta.

MERCER COUNTY

(Delaware River System)

Assunpink Creek—Lawrence Station—900 Bta, 805 Brnta, 450 Rta.
Doctor's Creek—Yardville—550 Bta, 150 Brnta, 450 Rta.
Gropp's Lake—White Horse—900 Lmbfg.
Whitehead Pond—Trenton—900 Lmbfg.

(Millstone River System)

Carnegie Lake—Princeton—2700 Lmbfg, 4,400,000 Yperf.
Etra Lake—Etra—1950 Lmbfg.
Grovers Mills Lake—Grovers Mills—1950 Lmbfg.
Peddie Lake—Hightstown—900 Lmbfg.
Stoney Brook—Woodsville—2740 Bta, 540 Brnta, 645 Rta.

MIDDLESEX COUNTY

(Lawrence River System)

Work House Brook—Middlesex—50 Brnta, 125 Rta.

(Manalapan River System)

Jamesburg Lake—Jamesburg—16 Lmba, 950 Lmbfg, 8000 Bsfg, 466 Ypera,
234 Sa, 2000 Pw, 8 Pica.
Sand Wash Pond—Jamesburg—100 Bta, 100 Rta.

(Millstone River System)

Brainards Brook—Cranbury—125 Bta, 128 Rta.
Cranbury Lake—Plainsboro—750 Lmbfg, 3000 Bsfg.
Plainsboro Lake—Plainsboro—3000 Bsfg.
Walker Gordon Pond—Near Princeton—720 Lmbfg.

(Rahway River System)

Roosevelt Park Lake—Metuchen—575 Bta, 1095 Brnta, 1705 Rta, 3000
Bsfg, 400,000 Yperf.

(Raritan River System)

Bonhampton Lake—Bonhampton—225 Bta, 250 Brnta, 330 Rta.
Camp Derrick Pond—Little Texas—125 Bta, 275 Brnta, 350 Rta.
Duhernal Lake—Spotswood—1900 Lmbfg, 450 Bsa, 9000 Bsf, 3000 Pw.
Duck Nest Pond—Parlin—100 Bta, 50 Rta.
Farrington Lake—Near New Brunswick—15 Lmba, 2000 Lmbfg, 11,000
Bsf, 2,000,000 Yperf, 866 Ypera, 800 Ca, 454 Sa, 2000 Wpera, 15 Pica.
Lawrence Brook—Milltown—75 Bta, 325 Brnta, 150 Rta.
Manalapan River—Jamesburg—125 Bta, 450 Brnta, 75 Rta.
Matchponix River—Spotswood—450 Bta, 700 Brnta, 203 Rta.
Mill Brook—Nixon—275 Bta, 100 Brnta, 175 Rta.
Oakey Brook—Milltown—175 Bta, 75 Brnta, 200 Rta.
Sayreville Pond—Sayreville—50 Bta, 25 Rta.
Silver Lake—Nixon—400 Rta.
South River—Spotswood—200 Brnta.
Spotswood Lake—Spotswood—8 Lmba, 1700 Lmbfg, 8000 Bsf, 218 Ypera,
432 Sa, 2000 Pw, 7 Pica.
Spotswood Brook—Spotswood—100 Bta, 100 Rta.
Weston's Mill Lake—Near New Brunswick—157 Smba, 800,000 Yperf, 33
Pica, 3100 Misc.

MONMOUTH COUNTY

(Atlantic Ocean System)

Como Lake—Como—1000 Lmbfg, 3000 Bsf, 800,000 Yperf.
Deal Lake—Allenhurst—2000 Lmbfg, 6000 Bsf.
Manasquan River—Ardena—100 Bta, 1100 Brnta, 1550 Rta.
Old Mill Pond—Villa Park—50 Bta, 200 Rta, 2500 Bsf.
Osborne's Pond—Baileys Corner—100 Bta, 100 Brnta, 100 Rta, 400,000
Yperf.
Rocher's Pond—Villa Park—250 Rta.
Shark River—Hamilton—825 Bta, 100 Brnta, 125 Rta.
Spring Lake—Spring Lake—25 Bta, 225 Brnta, 625 Rta, 2000 Lmbfg,
3000 Bsf.
Takanassee Lake—Long Branch—2000 Lmbfg, 2000 Bsf.
Wanamassa Lake—Wanamassa—250 Rta.
North Branch Wreck Pond—Hurleys Mills—225 Bta, 50 Brnta.
South Branch Wreck Pond—Baileys Corner—100 Bta.

(Delaware River System)

Allentown Lake—Allentown—90 Lmbfg.
Doctor's Creek—Imlaystown—50 Bta, 5 Brnta, 100 Rta.
Lahaway Creek—Prosperstown—50 Rta.

(Manalapan River System)

Gander Brook—Milhurst—25 Bta.
Matchponix Brook—Englishtown—100 Bta, 5 Brnta, 100 Rta.
McGalliard Brook—Englishtown—100 Bta, 50 Rta.
Molly Pitcher's Brook—Tennent—25 Bta.
Orr's Brook—Tennent—50 Bta, 50 Rta.
Topenemus Lake—Freehold—125 Brnta, 625 Rta, 2000 Lmbfg, 7500 Bsf.

(Manasquan River System)

Barr Brook—Buckshootem—50 Bta.
Birdsall's Brook—Farmingdale—50 Bta.
Cattail Brook—Buckshootem—50 Bta.
Manassie Brook—Oak Glen—100 Bta, 25 Brnta, 25 Rta.
Marsh Bog Brook—Farmingdale—150 Bta, 25 Brnta, 25 Rta.
Mengamhone Brook—Farmingdale—300 Bta, 5 Brnta.

Nicholas Pond—Allaire—50 Brnta, 350 Rta, 400,000 Yperf.
Passaquanaqua Creek—Adelphia—100 Bta, 5 Brnta, 100 Rta.
Squankum Brook—Squankum—100 Bta, 25 Brnta, 25 Rta.

(Metedeconk River System)

Clear Brook—North of Lakewood—50 Bta.
Hannabrand Brook—Villa Park—50 Bta, 25 Brnta, 25 Rta.
Haystack Brook—North of Lakewood—100 Bta.
North Branch Metedeconk River—North of Lakewood—600 Rta.
Muddy Fork Brook—North of Lakewood—50 Bta.

(Navesink River System)

Garvey's Pond—Navesink—100 Brnta, 350 Rta.

(Raritan River System)

Manalapan River—Milhurst—200 Bta, 5 Brnta, 100 Rta.
Millstone River—Tennent—50 Bta, 5 Brnta, 50 Rta.

(Shark River System)

L. Y. Brook—Hamilton—50 Bta.
Mason's Brook—Hurley's Corner—50 Bta.
Shadow Lake—Red Bank—2000 Lmbfg.
Tintern Manor Lake—Lyncroft—1000 Lmbfg, 2000 Bsf.

(Shrewsbury River System)

Franklin Park Lake—West Long Branch—400 Rta, 2000 Bsf.
Leffert's Lake—Matawan—2000 Bsf.
Sunrise Pond—Red Bank—125 Brnta, 625 Rta.

(Swimming River System)

Buck Mills Pond—Colts Neck—250 Rta.
Hockhocksens Brook—Tinton Falls—375 Bta, 100 Brnta, 225 Rta.
Hop Brook—Colts Neck—100 Bta.
Lewis Brook—Colts Neck—50 Bta.
Mine Brook—Colts Neck—250 Bta, 50 Brnta.
Pine Brook—Pine Brook—300 Bta, 75 Brnta, 75 Rta.
Ramenessin Brook—Holmdel—50 Bta.
Willow Brook—Holmdel—350 Bta.
Yellow Brook—Colts Neck—600 Bta, 250 Brnta, 250 Rta.

MORRIS COUNTY

(Black River System)

Chester Mine Brook—Chester—100 Brnta, 150 Rta.
Crystal Lake—Chester—125 Bta, 530 Brnta, 300 Rta.
Franz Sand Pond—Succasunna—1006 Rta.
Freund's Pond—Succasunna—225 Bta, 230 Brnta.
Mt. Arlington Pond—Mt. Arlington—500 Rta.

(Delaware River System)

Lake Hopatcong—Lake Hopatcong—24,030 Lmbfg, 191 Smba, 6000 Smbfg,
16,500 Bsf, 3,200,000 Yperf, 1800 Ypera, 500 Ca, 900 Sa, 2500 Wpera,
55 Pica, 750 Misc.
Lake Musconetcong—Netcong—12,150 Lmbfg, 750 Smbfg, 175 Bsa, 8000
Bsf, 4,200,000 Yperf, 50 Ca, 500 Wpera.
Musconetcong River—Guard Lock to Penwell—6225 Bta, 4500 Brnta,
12,925 Rta.

(Musconetcong River System)

Bungalow Brook—Schooleys Mt.—675 Bta, 10 Brnta, 650 Rta.
Mine Brook—Near Hackettstown—700 Bta, 260 Brnta, 1000 Rta.
Schooleys Mt. Brook—Schooleys Mt.—250 Bta, 250 Rta.
Stephensburg Brook—Stephensburg—1000 Btfg.
Weona Lake—Hurdton—2500 Bsfg.

(Passaic River System)

Asylum Pond—Morris Plains—1450 Bta, 1200 Brnta, 800 Rta.
Burnham Park Lake—Morristown—250 Bta, 261 Brnta, 800 Rta.
Burnett Brook—Ralston—850 Bta, 225 Brnta, 1350 Rta.
Canatta Brook—Mt. Freedom—200 Bta.
Cobb Brook—Newfoundland—1500 Btfg.
Jockey Hollow Brook—Jockey Hollow—50 Bta, 200 Rta.
Kikeout Brook—Butler—1400 Bta, 1000 Brnta, 400 Rta.
Morristown Reservoir—Brookside—1600 Smbfg, 1000 Bsfg.
Pequannock River—Butler—1200 Bta.
Primrose Brook—Morristown—250 Rta.
Reservoir Brook—Brookside—300 Bta.
Rockaway River—Boonton to Longwood—18,775 Bta, 7130 Brnta, 8954 Rta.
Speedwell Lake—Morristown—100 Brnta, 100 Rta.
Spring Brook—Pequannock—300 Bta.
Sterling Pond—Sterling—650 Brnta, 600 Rta.
Towaco Brook—Towaco—300 Bta, 256 Rta.
Troy Brook—Parsippany—250 Bta.
Washington Valley Brook—Morristown to Mendham—150 Bta, 250 Rta.
West Brook—Pequannock—300 Bta.

(Raritan River System)

Black River—Milltown to Pottersville—1300 Bta, 550 Rta, 750 Brnta.
Budd Lake Brook—Budd Lake—50 Bta, 50 Rta.
Budd Lake—Budd Lake—12,150 Lmbfg, 181 Smba, 750 Smbfg, 175 Bsa,
8000 Bsfg, 4,200,000 Yperf, 8186 Ypera, 534 Sa, 1900 Wpera, 95 Pica,
1650 Misc, 2000 Sh.
Drakes Brook—Bartley—175 Bta, 100 Brnta, 225 Rta.
Electric Brook—Schooleys Mt.—500 Bta, 130 Brnta, 100 Rta.
Flanders Brook—Flanders—200 Bta.
Indian Brook—Ironia—675 Bta, 64 Brnta, 300 Rta.
Ledgewood Brook—Ledgewood—500 Bta.
Peapack Brook—Mt. Rose to Gladstone—500 Bta, 500 Rta.
South Branch Raritan River—Budd Lake to Naughtright—10,525 Bta, 3000
Btfg, 1995 Brnta, 7808 Rta.
Turkey Brook—Mt. Olive—200 Bta.

(Rockaway River System)

Beaver Brook—Rockaway—400 Bta, 204 Rta.
Clarks Pond—Dover—500 Rta.
Crooked Brook—Montville—300 Bta.
Cooks Pond—Denville—1000 Lmbfg, 18 Smba, 175 Bsa, 5500 Bsfg, 2 Pica,
1325 Misc.
Denmark Brook—Denmark—1000 Bta, 1500 Btfg, 26 Brnta, 500 Rta.
Den Brook—Shongum—1200 Bta, 500 Btfg.
Dixon's Brook—Rockaway Valley—250 Bta, 10 Brnta.
Dolands Brook—Rockaway Valley—250 Bta.
Fayson Lake—Taylortown—126 Smba, 1232 Ypera, 618 Sa, 25 Pica, 1200
Misc.
Green Pond—Newfoundland—2100 Rta, 7500 Bsfg, 4,400,000 Yperf, 1832
Ypera, 400 Ca, 918 Sa, 1600 Wpera, 59 Pica, 65 Smba.
Green Pond Brook—Picatinny—400 Bta, 210 Brnta, 900 Rta.

Hibernia Brook—Hibernia—400 Bta, 1000 Btfg.
 Longwood Lake—Longwood—2000 Smbfg, 5000 Bsfg, 2,000,000 Yperf.
 Meriden Brook—Meriden—400 Bta, 1500 Btfg.
 Mill or Compton Brook—Millbrook—1500 Btfg, 1200 Bta.
 Moosepack Lake—Oak Ridge—2500 Bsfg, 1,000,000 Yperf.
 Mt. Hope Pond—Mt. Hope—2000 Brnta, 500 Rta, 1000 Lmbfg, 175 Bsa,
 5000 Bsfg.
 Rainbow Lake—Denville—1000 Lmbfg, 18 Smba, 5500 Bsfg, 3 Pica, 1325
 Misc.
 Rockaway Park Lake—Rockaway—142 Smba, 1366 Ypera, 684 Sa, 35 Pica.
 Stephens Brook—Berkshire—200 Bta, 1500 Btfg.
 Stickles Brook—Rockaway—250 Bta, 1500 Btfg.
 Washington Pond—Wharton—5000 Bsfg.
 White Meadow Brook—Hibernia—1500 Btfg.

OCEAN COUNTY

Barnegat Pines Lake—Forked River—1350 Lmbfg, 5000 Bsfg.
 Beaver Brook—Harrisville—125 Bta.
 Carasaljo Lake—Lakewood—1500 Lmbfg, 5000 Bsfg.
 Cold Water Run—Waretown—500 Bta.
 Crystal Lake—Pinewald—500 Bta, 55 Brnta.
 Deerhead Lake—Forked River—1200 Lmbfg, 4500 Bsfg.
 Forked River Lake—Forked River—750 Lmbfg, 3000 Bsfg.
 Harrisville Lake—Harrisville—125 Bta.
 Jackson Mills Lake—Jackson Mills—750 Lmbfg, 2500 Bsfg.
 Lakehurst Naval Station Lake—Lakehurst—900 Lmbfg.
 Manahawkin Lake—Manahawkin—900 Lmbfg, 5000 Bsfg.
 Manetta Lake—Lakewood—450 Lmbfg.
 North Branch Metedeconk River—Lakewood—900 Bta, 700 Brnta, 500 Rta.
 South Branch Metedeconk River—Above Lakewood—500 Bta, 500 Rta.
 Oswego River—Harrisville—125 Bta.
 Oswego Lake—Harrisville—125 Bta.
 Painters Brook—Lakehurst—500 Bta, 10 Brnta, 500 Rta.
 Quail Farm Pond—Holmansville—300 Lmbfg.
 North Branch Toms River—Holmansville—500 Bta, 255 Brnta, 600 Rta.
 Tuckerton Lake—Tuckerton—900 Lmbfg, 5000 Bsfg.

PASSAIC COUNTY

(Passaic River System)

Barbour's Pond—Paterson—500 Bta, 610 Brnta, 700 Rta.
 Pequannock River—Charlottesville—800 Bta, 400 Brnta, 810 Rta.
 Pompton River—Pompton Falls—3900 Bta, 1720 Brnta, 4700 Rta.
 Preakness Brook—Preakness—100 Brnta, 100 Rta.
 Singac Brook—Singac—500 Bta, 10 Brnta, 500 Rta.
 Squaw Brook—Haledon—250 Bta, 250 Rta.
 West Brook—Macopin—675 Bta, 75 Brnta, 450 Rta.

(Pequannock River System)

Star Lake—Bloomingdale—5000 Bsfg.

(Pompton River System)

Oldhams Pond—Haledon—250 Bta, 200 Brnta, 450 Rta, 30 Ypera, 600 Misc.
 Pompton Lakes—Pompton Lakes—128 Lmba, 4500 Lmbfg, 61 Smba, 10,000
 Bsfg, 4,000,000 Yperf, 1500 Ypera, 750 Sa, 500 Wpera, 165 Pica,
 2150 Misc.
 Wanaque River—Pompton Lakes—2350 Bta, 1400 Rta.

(Wanaque River System)

Belcher's Creek—West Milford—200 Bta, 500 Rta.
Cooleys Brook—Greenwood Lake—200 Bta, 500 Rta.
Goffle Brook—Hawthorne—100 Brnta, 1100 Rta.
Greenwood Lake—Greenwood Lake—53 Lmba, 4450 Lmbfg, 10,000 Bsf, 600 Ca, 1620 Wpera, 32 Pica, 1000 Misc.
Lindy Lake—Macopin—1050 Lmbfg, 164 Smba, 5000 Bsf, 3325 Ypera, 85 Pica, 350 Bta, 400 Rta.
Nosenzo Lake—Near Macopin—100 Bta, 150 Rta, 900 Lmbfg, 2500 Bsf.
Pine Lake—Near Pompton—29 Smba, 11 Pica, 2000 Misc.
Post Brook—Pompton Lakes—250 Bta, 500 Rta.
Ringwood Creek—Ringwood—1800 Bta.
Twin Lakes—Near Pompton—1050 Lmbfg, 2500 Bsf.

SALEM COUNTY

(Alloway Creek System)

Alloway Lake—Alloway—73 Lmba, 750 Lmbfg, 500 Bsa, 1500 Ypera, 50 Ca, 400 Wpera, 9250 Cba, 3 Pa.
Ballinger's Mill Lake—Aldine—450 Lmbfg.
Camp Edge Lake—Alloway—450 Lmbfg.
Camp Karney Lake—Woodstown—450 Lmbfg.
Camp Roosevelt Lake—Aldine—300 Lmbfg.
Cocked Hat Pond—Near Alloway—1350 Bta, 150 Brnta, 200 Rta.

(Maurice River System)

Elmer Lake—Elmer—300 Lmbfg.
Parvin Lake—State Park at Norma—300 Lmbfg.
Rainbow Lake—Near Norma—300 Lmbfg, 1000 Bsf.
Willow Grove Lake—Willow Grove—300 Lmbfg, 2000 Bsf.

(Oldman's Creek System)

Kamp Kimble Lake—Auburn—300 Lmbfg.

(Salem Creek System)

Memorial Lake—Woodstown—300 Lmbfg.

(Stoe Creek System)

Cedar Run—Quinton—250 Bta.
Roberts Sand Wash Pond—Pennsgrove—1100 Bta, 150 Brnta, 700 Rta, 5000 Ypera, 1000 Ca, 1250 Wpera, 900 Cba, 2000 Sh.

SOMERSET COUNTY

(Millstone River System)

Bedens Brook—Belle Meade—750 Bta, 200 Brnta, 450 Rta.

(Passaic River System)

Cory's Brook—Mt. Bethel—200 Brnta.
Harrisons Brook—Liberty Corner—100 Bta, 100 Brnta, 400 Rta.
Indian Graves Brook—Bernardsville—100 Bta, 100 Brnta.
Jockey Hollow Brook—Bernardsville—100 Bta, 100 Brnta.
Middle Brook—Bound Brook—100 Bta, 900 Rta.
Passaic River—Millington—450 Bta, 450 Brnta, 1100 Rta.

(Raritan River System)

Black River—Pottersville—2500 Bta, 2130 Brnta, 1500 Rta.
Cedar Brook—South Bound Brook—250 Rta.
Charnor Lodge Pond—Bound Brook—300 Rta.
Dock Watch Hollow Brook—Dock Watch Hollow—200 Brnta.
Green Brook—North Plainfield—200 Brnta, 400 Rta.
Gutsels Brook—South Bound Brook—300 Rta.
Lamington River—Burnt Mills—200 Brnta.
Lindaberry Pond—Bernardsville—250 Brnta, 1000 Rta.
Millstone River—Near Manville—1300 Brnta.
Mine Brook—Bernardsville—500 Bta, 500 Rta.
Peapack Brook—Gladstone—125 Bta, 125 Rta.
Peters Brook—Somerville—250 Bta, 250 Rta.
North Branch Raritan River—Far Hills—975 Bta, 1202 Brnta, 1175 Rta.
South Branch Raritan River—Far Hills—500 Bta, 900 Rta.
Stoney Brook—Watchung—200 Brnta, 400 Rta.

SUSSEX COUNTY

(Big Flat Brook System)

Acquatunk Lake—Stokes State Forest—2200 Brnta.
Aleay Brook—Stokes State Forest—2000 Btfg.
Biers Kill Brook—Shaytown—1000 Bta.
Kittatinny Brook—Culvers Lake—2000 Btfg.
Little Flat Brook—Layton—5275 Bta, 1525 Brnta, 2356 Rta.
Madeline Mulford Lake—Stokes State Forest—18 Brnta, 3000 Rta.
Parker Brook—Stokes State Forest—300 Bta, 200 Rta.
Saw Mill Pond—High Point Park—500 Bta, 900 Rta.
Skellinger Lake—Stokes State Forest—1000 Rta.
Spring Cabin Lake—Stokes State Forest—1000 Brnta, 2300 Rta.
Spring Cabin Brook—Stokes State Forest—300 Bta.
Stoney Brook—Tuttles Corner—100 Rta.
Tilman Brook—Stokes State Forest—3000 Btfg.

(Delaware River System)

Big Flat Brook, Upper—Tuttles Corner—3050 Bta, 3000 Btfg, 1020 Brnta,
1375 Rta.
Big Flat Brook, Lower—Haney's Mills—3800 Bta, 1520 Brnta, 3150 Rta.
Delaware River—Flatbrookville—1300 Lmbfg, 800 Smbfg.
Mill Brook—Montague—800 Bta.
Musconetcong River—Waterloo—450 Bta, 675 Brnta, 1100 Rta.
Paulinskill River—Lafayette to Stillwater—2300 Bta, 5060 Brnta, 6108 Rta.
Pequest River—Brighton to Springdale—1650 Bta, 4000 Btfg, 650 Brnta,
950 Rta.
Shimers Brook—Millville—100 Bta.

(Hudson River System)

Wallkill River—Ogdensburg to Franklin—1000 Rta.

(Musconetcong River System)

Bear Pond—Lake Hopatcong—2,000,000 Yperf.
Cranberry Lake—Cranberry Lake—8600 Lmbfg, 378 Smba, 750 Smbfg,
175 Bsa, 11,000 Bsf, 2,000,000 Yperf, 450 Ypera, 50 Ca, 225 Sa, 500
Wpera, 73 Pica, 475 Misc.
Forge Pond—Waterloo—2,000,000 Yperf.
Lake Hopatcong—Lake Hopatcong—2,600 Lmbfg, 8,800,000 Yperf.
Lake Lackawanna—Andover—300 Rta, 7600 Lmbfg, 70 Smba, 400 Smbfg,
175 Bsa, 10,000 Bsf, 1,200,000 Yperf, 750 Ypera, 375 Sa, 31 Pica.
Lubber's Run—Cranberry Lake—1250 Brnta.

(Paulinskill River System)

Alms House Brook—Myrtle Grove—150 Bta, 200 Rta, 1000 Btfg.
Barker Brook—Houses Corner—2000 Btfg.
Barber Pond—Near Sparta—100 Rta.
Blairs Creek—Fairview Lake—200 Brnta, 100 Rta.
Brick Kiln Brook—Ross's Corner—300 Brnta, 300 Bta.
Catfish Pond—Stillwater—3000 Btfg.
Culvers Lake—Culvers Lake—4000 Lmbfg, 177 Smba, 11,000 Bsfg, 2300
Ypera, 2,000,000 Yperf, 150 Ca, 1150 Sa, 800 Wpera, 91 Pica, 2175 Misc.
Culvers Lake Outlet—Branchville—125 Bta, 50 Rta.
Fairview Lake—Near Hardwick—1500 Smbfg, 8000 Bsfg, 2,200,000 Yperf.
Glen Brook—Glenwood—300 Bta.
Harding Lake—Harding Lake—1500 Smbfg, 200 Bsa, 4500 Bsfg.
Kemah Lake—Halsey—71 Smba, 750 Smbfg, 4500 Bsfg, 135 Ypera, 675 Sa,
12 Pica.
Long Pond—Flatbrookville—4500 Bsfg.
Morris Brook—Fredon—300 Rta.
Neldon Brook—Mt. Benevolence—250 Bta, 6 Brnta, 300 Rta.
Lake Owassa—Near Culvers Lake—4600 Lmbfg, 125 Smba, 11,000 Bsfg,
2,000,000 Yperf, 150 Ca, 800 Wpera, 10 Pica, 2600 Misc.
Pond Brook—Swartswood—300 Bta, 50 Brnta.
Quarry Hole—Newton—2000 Btfg.
Quicks Pond—North of Swartswood—750 Smbfg, 5500 Bsfg, 2,200,000
Yperf.
Roy's Spring Brook—Stillwater—50 Bta, 200 Rta.
Sparta Junction Brook—Sparta Junction—150 Bta, 3000 Btfg.
Swartswood Lake—Swartswood—21,700 Lmbfg, 467 Smba, 2250 Smbfg,
13,500 Bsfg, 4,000,000 Yperf, 2182 Ypera, 100 Ca, 1093 Sa, 1100 Wpera,
189 Pica, 2175 Misc.
Trout Brook—Middleville—700 Bta, 50 Brnta, 100 Rta.

(Pequannock River System)

Margerum Brook—Stockholm—300 Rta.
Pacock Brook—Stockholm—150 Bta.

(Pequest River System)

Andover Junction Brook—Andover Junction—425 Bta, 350 Brnta, 656 Rta.
Dragon Brook—Andover—1350 Bta, 400 Brnta, 600 Rta.
Dark Moon Brook—Fredon—625 Bta, 115 Brnta, 675 Rta.
Gardner's Lake—Andover Junction—4500 Bsfg.
Iliff Lake—Near Andover—2000 Lmbfg, 2500 Bsfg, 600,000 Yperf.
Kymers Brook—Andover—200 Bta, 150 Rta.
Lenape Lake—Andover—2000 Lmbfg, 57 Smba, 8000 Bsfg, 1,200,000 Yperf,
5 Pica, 675 Misc.
Long Pine Pond—Wallpack Township—2000 Smbfg.
Tar Hill Brook—Tar Hill—250 Bta, 150 Rta.
Wawayanda Lake—Andover Junction—4000 Lmbfg, 7000 Bsfg, 1,200,000
Yperf.

(Rockaway River System)

Aquackaquunk Lake—Edison—1200 Bta, 50 Brnta, 550 Rta.

(Wallkill River System)

Beaver Run—Beaver Run—250 Bta, 8 Brnta.
Black Brook—Beaver Mt.—300 Bta.
Clove Brook—Montague—500 Bta, 25 Brnta, 525 Rta.
Dagmar Pond—Martin Station—150 Bta, 25 Brnta, 50 Rta.
Grinnell Lake—Monroe—4600 Lmbfg, 57 Smba, 2,000,000 Yperf, 4 Pica,
675 Misc.

Owens Brook—Owens Station—150 Bta, 75 Rta.
West Branch Papakating Brook—Sussex—400 Bta.
Pochuck Creek—McAfee to Vernon—500 Bta.

UNION COUNTY

(Arthur Kill System)

Tamaques Lake—Westfield—225 Bta, 150 Brnta, 75 Rta, 400,000 Yperf,
532 Ypera, 268 Sa.

(Rahway River System)

American Felt Co. Lake—Clark Township—450 Lmbfg.
Bryant Lake—Summit—175 Bta, 175 Brnta, 285 Rta, 300 Lmbfg.
Echo Lake—Mountainside—1200 Lmbfg, 13 Smba, 150 Ca, 5 Pica, 625 Misc.
Mindowaskin Lake—Westfield—225 Bta, 150 Brnta, 125 Rta, 400,000 Yperf.
Nomehegan Park Lake—Cranford—450 Lmbfg.
Rahway River Park Lake—Rahway—450 Lmbfg.
Rahway River—Springfield to Rahway—2800 Bta, 4015 Brnta, 4860 Rta.
Surprise Lake—Summit—225 Bta, 225 Brnta, 275 Rta, 1200 Lmbfg, 13
Smba, 532 Ypera, 268 Sa, 5 Pa, 625 Misc.

(Raritan River System)

Green Brook—Scotch Plains—900 Bta, 100 Brnta.
Seeley's Pond—Scotch Plains—1200 Lmbfg, 800,000 Yperf.

WARREN COUNTY

(Delaware River System)

Buckhorn Creek—Belvidere—950 Bta, 10 Brnta, 450 Rta.
Delawanna Creek—Delaware—400 Bta.
Dunnfield Creek—Dunnfield—2590 Bta, 572 Brnta, 1700 Rta.
Lomison's Glen Brook—Lomison's Glen—50 Bta, 500 Btfg, 150 Rta.
Lopatcong Creek—Harmony—500 Btfg, 400 Rta.
Musconetcong River—Guard Lock to Penwell—8920 Bta, 4781 Brnta,
14,200 Rta.
Paulinskill River—Stillwater to Paulina—7550 Bta, 9895 Brnta, 9087 Rta.
Pequest River—Southtown to Belvidere—8150 Bta, 4775 Brnta, 8504 Rta.
Pohatcong Creek—Mt. Bethel—2475 Bta, 4200 Btfg, 2163 Brnta, 8110 Rta.
Pophandusing Creek—Belvidere—800 Bta, 5 Brnta, 405 Rta.
Quarry Brook—Hazen—500 Btfg.
Rockport Brook—Rockport—100 Bta, 100 Rta.
Sunfish Pond—Shawnee—3200 Rta.
VanCampens Brook—Millbrook—1750 Bta, 210 Brnta, 700 Rta.

(Musconetcong River System)

Allens Pond—Hackettstown—50 Brnta, 275 Rta.
Gruendykes Mill Pond—Hackettstown—10,000 Btfg, 60 Ca, 875 Misc.
Guard Lock—Saxton Falls—133 Smba, 400 Bsa, 2000 Bsfg, 4,400,000 Yperf,
750 Ypera, 300 Ca, 375 Sa, 800 Wpera, 34 Pica, 1950 Misc.
Hances Brook—Beatystown—900 Bta, 1000 Btfg, 200 Brnta, 656 Rta.
Springtown Brook—Springtown—1000 Btfg.
Vanatta Run—Penwell—1000 Btfg.

(Paulinskill River System)

Blairs Creek—Blairstown—3595 Bta, 1175 Brnta, 1912 Rta.
Catfish Pond—Blairstown—1900 Smbfg, 200 Bsa.
Ceconi Pond—Blairstown—500 Bta, 720 Brnta, 900 Rta.

Cedar Lake—Blairstown—2000 Lmbfg, 3000 Bsfg, 1,200,000 Yperf.
Columbia Dam—Columbia—2000 Lmbfg, 4000 Bsfg, 2,200,000 Yperf, 2000 Cfg.
Jacksonburg Brook—Jacksonburg—3950 Bta, 4500 Btfg, 325 Brnta, 658 Rta.
Kalarama Brook—Vail—300 Rta.
Mingles Pond—Paulina—125 Bta, 305 Brnta, 1025 Rta.
Susquehanna Lake—Blairstown—2000 Lmbfg, 6000 Bsfg, 1,000,000 Yperf, 2000 Cfg.
White Lake—Marksboro—2500 Smbfg, 200 Bsa, 8500 Bsfg, 1,000,000 Yperf.
Yards Creek—Hainesburg—650 Bta.

(Pequest River System)

Barkers Brook—Vienna—100 Bta, 4000 Btfg.
Bear Creek—Johnsonburg—6000 Btfg, 500 Rta.
Beaver Brook—Hope—3250 Bta, 1035 Brnta, 2900 Rta.
Buckaloo Swamp Brook—Mt. Herman—450 Bta, 75 Brnta, 75 Rta.
Cooks Pond—Near Hope—700 Bsfg.
County House Pond—Townsbury—50 Bta, 350 Rta.
Dark Moon Brook—Johnsonburg—1800 Btfg.
Ebenezer Brook—Ebenezer—400 Bta.
Federal Spring—Johnsonburg—1000 Btfg.
Furnace Brook—Oxford—400 Bta.
Johnsonburg Pond—Johnsonburg—1950 Lmbfg.
Mill Pond—Oxford—100 Bta, 200 Brnta, 400 Rta.
Mt. Lake—Near Buttzville—160 Smba, 6000 Bsfg, 2,200,000 Yperf, 1286 Ypera, 3000 Cfg, 644 Sa, 26 Pica, 875 Misc.
Pine Run—Quaker Settlement—600 Bta.
Silver Lake—Hope—4000 Bsfg, 1,200,000 Yperf, 2000 Cfg.
Skinner Pond—Tranquility—300 Rta.
Spring Run—Pequest—400 Bta, 3000 Btfg.

(Pohatcong Creek System)

Brass Castle Creek—Brass Castle—300 Btfg.
Lows Hollow Brook—Lows Hollow—500 Btfg.
Mill Brook—Broadway—300 Bta, 300 Btfg, 100 Brnta, 300 Rta.
Roaring Rock Brook—Brass Castle—500 Bta, 175 Brnta, 425 Rta.