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November, 1963



New Jersey *Outdoors*

By L. G. MacNamara, *Director*

New Jersey Outdoors, the official publication of the Division of Fish and Game, has been serving the sportsmen, conservationists, naturalists, other state divisions, and citizens regarding the activities of the Division of Fish and Game of the Department of Conservation and Economic Development. Over a period of 14 years this magazine has alerted the people of this state to the need for the preservation of our lands and waters for the natural resource of fish and wildlife and has spotlighted important conservation problems in a prompt and effective manner. Support for good conservation programs and accomplishments has been lauded in its pages. And, it has contributed substantially to the progress of fish and wildlife conservation in New Jersey.

The staff responsible for the editing and publishing of *New Jersey Outdoors* have been especially dedicated to their job. There has been a factual portrayal of the actions of the Fish and Game Council and the accomplishments within the Department of Conservation and Economic Development with emphasis on the progress in the many facets of resource conservation. Education in the value of the resource of fish and wildlife has been a major policy and many benefits have been derived by the readers and the Division of Fish and Game.

It must be realized that printing and operating costs of the magazine are much greater than they were 14 years ago. Materials, labor costs, and printing expenditures have increased without a corresponding increase in income from the sale of the publication. It is expected that a publication of an informational and public relation nature should operate at a deficit, but this deficit should not exceed certain limits. An evaluation of the costs of publishing *New Jersey Outdoors* has been carefully and critically reviewed by the Commissioner of Conservation and Economic Development, the New Jersey Fish and Game Council, and the administrative staff of the Division of Fish and Game. This evaluation shows that the deficit resulting from the publication of the magazine is out of line and needs correction.

Secondly, it is necessary that *New Jersey Outdoors* continue to be published. And, in keeping with the complexities that are developing, its format should be broadened in order to serve the public better and continue to carry the principles of fish and wildlife conservation to all corners of the state.

Lastly, *New Jersey Outdoors* is a publication worth much more than its present subscription price. The experience gained through 14 years of publishing, the able portrayal of the value of New Jersey's natural resource of fish and game, the need to acquaint the public with the values of conservation, and the printing of the results of fish and game research and development amply attest to this fact.

Therefore, in order to improve the financial needs pertinent to the publishing of *New Jersey Outdoors* it has been decided to increase the subscription rates to \$2.00 per year or \$5.00 for a 3-year subscription. The effective date of this action will be January 1, 1964.

We hope that present subscribers to our magazine will agree to this increase in the subscription rate in order that this valuable outdoor magazine will continue to be published.

#

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New Jersey *Outdoors*

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in the interest of conservation and restoration of wildlife and
the betterment of hunting and fishing in New Jersey.

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Cover—"The Farmer—The Sportsman"—Harry Grosch

It makes a world of difference to most farmers if a gunner requests permission to hunt his land even if it is not posted. If the land is posted, there is no question but that the hunter must seek permission before entering the property.

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New Jersey State Library

Present Activities of the Bureau of

Wildlife Management

and the Bureau's Future Plans

By George N. Alpaugh, Chief
Bureau of Wildlife Management

This summary of the activities of the Bureau of Wildlife Management is based on the author's paper presented at the Sixth Annual Conservation Convention of the New Jersey State Federation of Sportsmen's Clubs, Camp Washington, Hackettstown, May 25-26, 1963

IT WAS in 1930 that the New Jersey Fish and Game Commission and the New Jersey Conservation League were able, through the State Legislature, to increase the hunting and fishing license fees to \$3.00. One-third of each license was dedicated to acquisition, development, and maintenance of public lands for the hunter and fisherman. There have been several changes in the basic law. And, as a result, at the present time \$1.60 of each hunting license and \$0.55 of each fishing license sold is available for public hunting and fishing ground purchase and management.

Public Grounds

By 1933, a total of 5,671 acres of land had been purchased. This acreage represented both marshland and upland, thereby setting a precedent of acquisition that has been followed to the present time. Today public shooting and fishing

grounds totaling 88,103 acres have been purchased with fish and game funds and are available to the hunter and fisherman.

It is not necessary to emphasize the heavy utilization of these public shooting and fishing grounds. The conservation practices applied to the areas are broad in scope, and include the conservation and management of wildlife, soil, water, minerals, and forests.

Objectives

The objective of the Wildlife Managers of these areas is to maintain a wildlife population at as high a level as practicable which will allow recreational opportunities for a maximum number of people, including an annual hunting harvest. A continuation of developments designed to improve and maintain wildlife populations will be stressed; and to a lesser extent, consideration will be given

to those persons who seek relaxation from the rigors of present-day living by fishing, swimming, picnicking, and just plain loafing.

Cooperative Programs

Cooperative Federal Aid in Wildlife Restoration Programs are as follows:

Project No. FAW 19-D-16

Farm-Game Development Plan

The Division of Fish and Game will never be in a position to do all

This limit is called the carrying capacity of our wildlife range. Usually the limiting factor in New Jersey on any particular unit of land is food and cover.

Our Farm-Game Program is designed to help restore and improve wildlife habitat on farmland, rod and gun club areas, and other lands by planting trees, shrubs, vines, food plants, living fences, and so forth, in cooperation with the

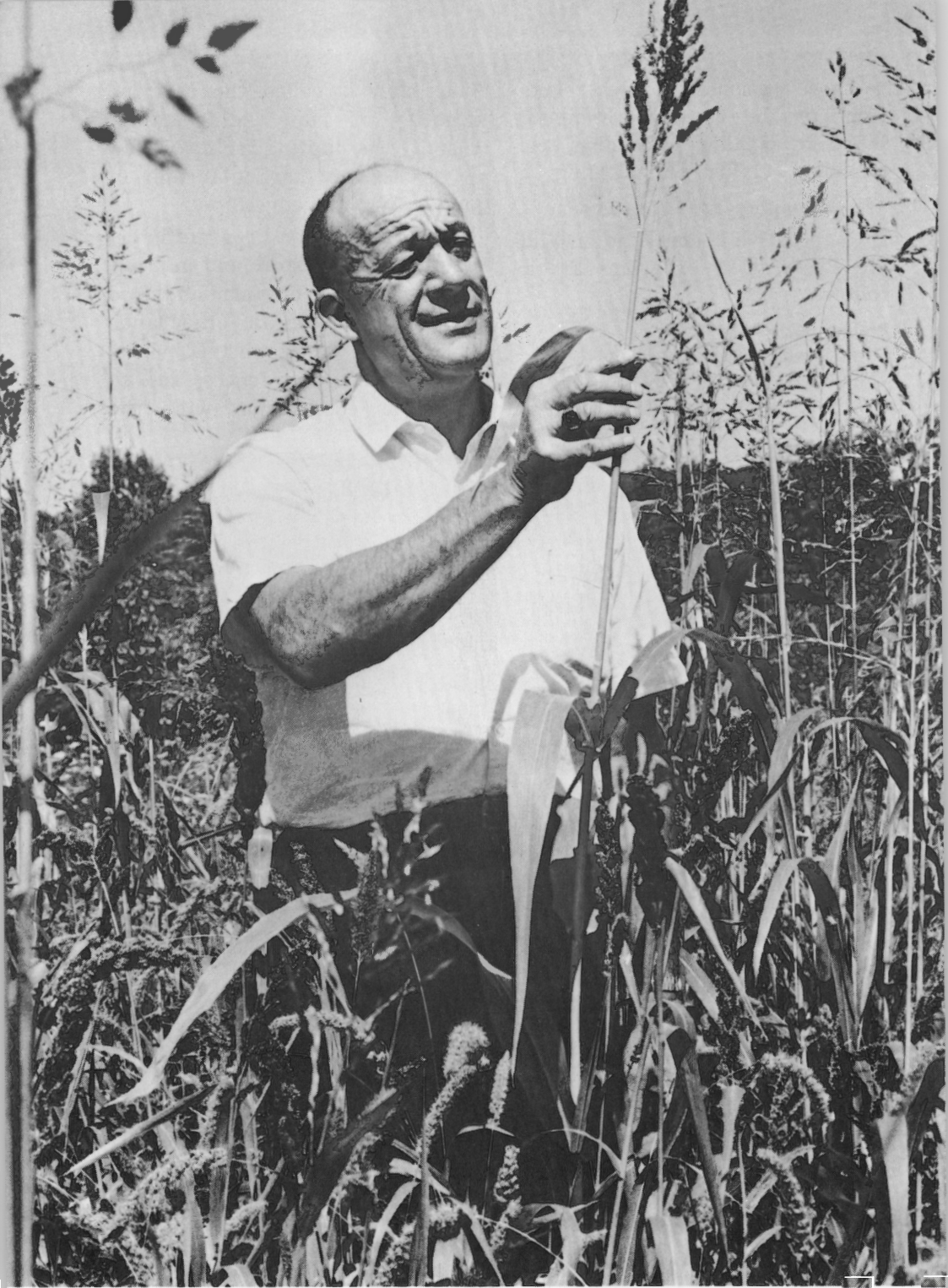
*George N. Alpaugh,
Chief of the Bureau
of Wildlife Management,
is responsible for the
planning and direction
of the Bureau's many
and varied programs*



of the work that is so badly needed to improve habitat conditions for wildlife in our state. There is a limit to how many of each species of wildlife New Jersey's habitat can support at any particular time.

farmer, the landowner, and the Soil Conservation Service.

Over a quarter of a million trees and shrubs were distributed to co-operators throughout the state this spring. A total of 448 food





. . . Wildlife Management

patches was planted last year throughout the state. In addition, over 13,000 pounds of seed were distributed to cooperators who carried out their own wildlife habitat improvement programs in cooperation with the Bureau of Wildlife Management.

Hedgerow management, consisting of 6,350 linear feet, was completed; and approximately 1,125 linear feet of woodland border were cut to a width of 30 feet. At the present time we are working with about 150 rod and gun clubs and other landowners.

Project No. FAW 30-D-11

Colliers Mills, Greenwood Forest, and Whiting Wildlife Management Areas

Under this project we plan to revegetate, increase fertility, and improve food facilities on certain portions of the area by clearing, soil preparation, and planting. We will establish and mark boundaries of the areas as time permits.

Project No. FAW 34-R-8

Ecology of Salt Marsh and Coastal Impoundments

This project deals with the evaluation of wildlife populations and mosquito production.

Investigations will be conducted on (1) the effects of mosquito larvicides on marsh organisms; (2) mosquito production on coastal wetlands; (3) annual population fluctuations and harvest of marsh

Chief Alpaugh inspecting a feed patch mix planted on the Clinton Public Shooting Grounds

. . . Wildlife Management

wildlife; and (4) factors which limit or increase wildlife usage of various marshes.

As a result of this project, recent investigations have evolved from a plan to provide a well-integrated, cooperative, and improved wetlands management program for Cumberland County. As a result of extensive mosquito dipping surveys over thousands of acres of salt marsh, it was so determined that our most troublesome marshes are those marshes diked off from tides and managed for the production of salt hay.

Progressive investigations have led to the desirability of chemical control and have resulted in the screening of numerous formulations of insecticides. Out of all the larvicides tested, only Endrin, Bayer 29493, and DDT (with a

high oil base) emerged as promising toxicants. This year's study is statistically designed to evaluate properly the effects of these insecticides on mosquito larvae, food chains, fish, waterfowl, and other important organisms of this environment. The results from 88 quarter-acre experimental plots revealed that certain granular applications of Endrin would eliminate mosquito breeding for at least 124 days. Bayer 29493 was known to be 99 to 100 percent effective for 45 days. Under controlled application conditions, no serious adverse effects could be detected on food chains, bird nesting, and various organisms.

This project will be continued.

Project No. FAW 28-R-13

An Ecological Study of Wetland and Upland Areas in Southern New Jersey

The locations of this project are: Colliers Mills-Success Lake Restoration Area; Shrewsbury River



The ecology of salt marshes and impoundments is being studied to evaluate wildlife populations and mosquito production

*Investigations are
being conducted to
develop effective
management practices
for low quality
sandy soil*



and Barnegat Bay Areas; and portions of Ocean County and Burlington County.

The problems of growing desirable food and cover plants for wildlife use on low quality, sandy soils and the improvement of acid bogs and ponds for waterfowl use are being studied to develop effective management practices. Wildlife population counts of various types are being conducted to determine the utilization of areas under study, thus measuring the effectiveness of the adopted practices. Also, a need exists for determining the value to the public of work done on this project.

Waterfowl banding will be carried out to contribute information to the flyway pattern of the Atlantic Flyway.

The objective of this project is to increase the utilization of the area by wildlife through development of effective management techniques.

The project is directed at habitat

improvement through soil research, through planting of wildlife food and cover, and through the study of vegetation in the fresh-water impoundments and elsewhere. Hunter and wildlife utilization of the area will be determined by hunter contact, traffic counter estimates, and wildlife observations.

In the Shrewsbury River and Barnegat Bay areas waterfowl banding will be carried out by conventional means.

We plan to continue this project.

Project No. FAW 38-D-7

Southern New Jersey Development Project

This is a continuation of a maintenance project in the Millville and Tuckahoe areas. This worthwhile project will be continued.

Project No. FAW 44-R-4

An Ecological Study of Shallow Saline Impoundments

A cooperative study is being conducted with various agencies and the Bureau of Sport Fisheries and Wildlife to determine the ecology of artificially constructed

. . . Wildlife Management

shallow saline impoundments, including various physical and chemical relationships and the relation to annual population fluctuation.

This has been an outstanding example of a cooperative approach to a biological and sociological problem. The project is in operation at Manahawkin and would be one worthwhile for everyone to see.

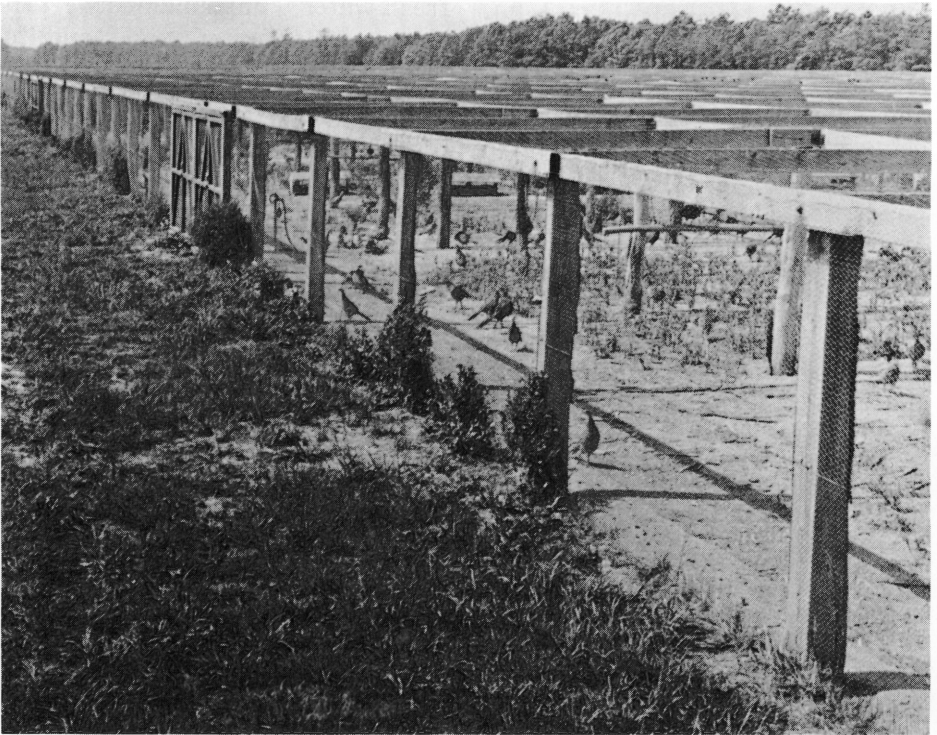
Deer Management

Our deer management program of investigation, research, development, and harvest would warrant

a paper in itself. The Bureau presented its recommendations to the Director and the Fish and Game Council for the deer seasons for this year.

Game Farms

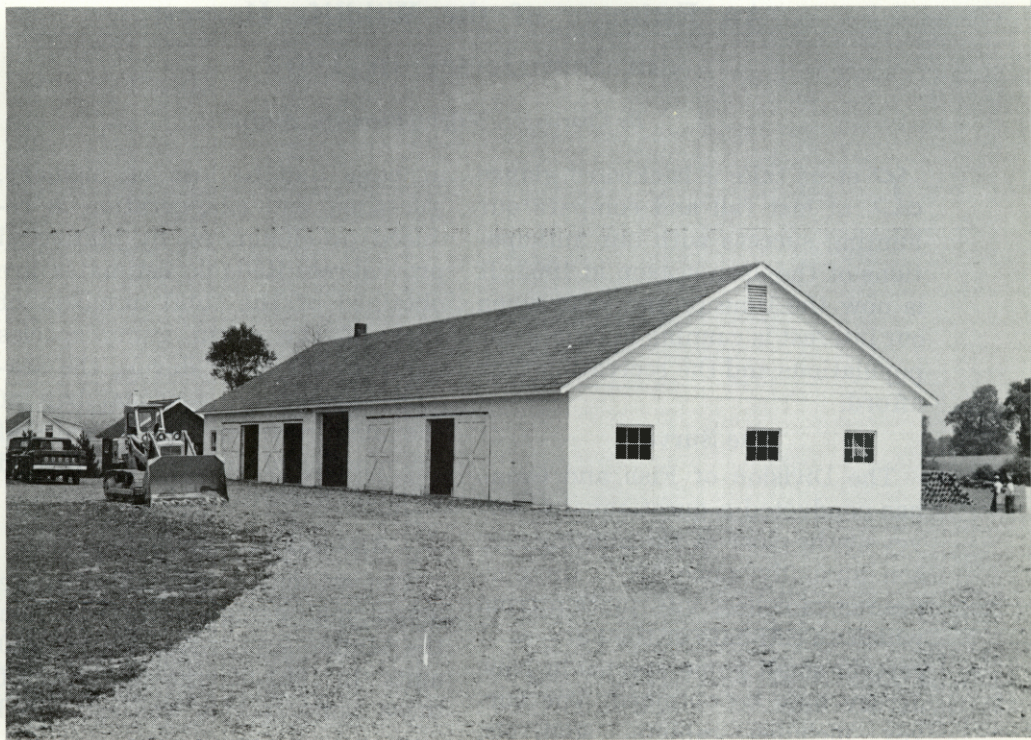
The three State Game Farms are again producing an excellent crop of pheasants and quail to help supplement "Mother Nature's" supply of birds, particularly on the Public Shooting and Fishing Grounds. In this regard, the amount of stocking that can be done is directly dependent upon how much the hunter is willing to spend for this practice.



The three state game farms produce fine crops of birds

A few of the other activities for which our personnel are responsible include the following projects: Waterfowl trapping and band-

pleted a new headquarters building at the Clinton Public Shooting and Fishing Grounds of which we are particularly proud, and we



The recently completed building at the Clinton Public Shooting Grounds

ing; censuses; clapper rail, woodcock, mourning dove, deer, rabbit, pheasant, and quail.

Our Wildlife Control Representatives answer between 500 and 1000 complaints each year.

Field trials are serviced, and Public Shooting and Fishing Ground are managed.

Many special investigations are made in connection with wildlife diseases.

Bureau personnel recently com-

would welcome your visit to this area. We have again been called upon to help out with a new building for Public Relations personnel.

We have not mentioned the 4-H chick program or our intended increase of personnel to help work on our rabbit habitat program.

Personnel from the Bureau are actively engaged in meetings representing the Division and taking part in discussions pertaining to our natural resources. #

Game Bags

An Estimate of the Wildlife Harvest in New Jersey in 1962

By Charles W. Wright, *Biometric Analyst*

Let us take a backward glance at last fall and compare our hunting success with our anticipations of the open season in 1963. It is now the time of the year when our interest is running high in game populations and the recreation they afford.

The Survey

The Division of Fish and Game has conducted a questionnaire survey at the close of the hunting season annually since 1951. Its purpose is to collect information from which an estimate of the harvest of certain small game species in New Jersey may be obtained. The survey includes rabbits, squirrels, pheasants, quail, grouse, ducks, and brant, which are the leading small game species sought by New Jersey hunters.

Mail Questionnaires

The annual information is derived from the response to questionnaires mailed by the Division to a systematic (with a random start) sample of individuals licensed to hunt with firearms in New Jersey. The survey design meets the required statistical standards to ensure validity and permits proper analysis and interpretation. Bias in reporting season-

al bags due to loss of memory, guessing, and exaggeration is reduced or eliminated by statistical procedures. Reliable estimates are obtained of the total numbers of each of the seven game species taken in the state during the season, the average seasonal bag of the hunters of those species, and the number of hunters by the kind of game hunted.

Amount of Game Bagged

The estimated harvest of these seven small game species, based on the sample survey, totaled 883,750 units. In 1961-62, the total bag of these same species was estimated



Rabbit—largest harvest of all

to have been 1,003,665 units. Rabbits made up 37 per cent of the bag, as compared with nearly 42 per cent in 1961-62, and 48 per cent in 1960-61.

The estimated total amount of each of the seven game species bagged by licensed hunters in the state on lands open to public hunting during the 1962-63 seasons, and the estimated average bags per

continued during the open season of 1962, with no significant change in the total bag from that of the previous year.

Three species, rabbit, duck, and squirrel declined in the harvest of

Table 1. Wildlife Harvest by Licensed Hunters on Lands in New Jersey open to Public Hunting

Species	Estimated Harvest		Increase	Decrease	Percent
	1962-63	1961-62			
Rabbit	327,605	417,240		89,635	21.5
Pheasant	246,815	262,225		15,410*	5.9
Squirrel	141,430	167,280		25,850	15.5
Quail	80,550	65,450	15,100		23.1
Duck	36,770	44,820		8,050	18.0
Grouse	32,380	29,670	2,710*		9.1
Brant	18,200	16,975	1,225		7.2

* Not statistically significant

hunter are presented in Table 1 and 2, respectively. Estimates of the previous season of 1961-62 are included in both tables.

The harvest of three species showed increases over those of the previous year, namely, quail, grouse, and brant. The season bag of quail and grouse increased 23

percent during the open season of 1962-63. The bag of rabbit and duck decreased about 21 percent and 18 percent, respectively. The seasonal take of squirrel dropped about 15 percent.

Harvest by Species

Ringnecks

The survey indicates that the harvest of pheasants in 1962 in

Table 2. Estimated Average Seasonal Bag per Licensed Hunter in New Jersey on Lands open to Public Hunting

Species	1962-63	1961-62	1960-61
Rabbit	3.04	4.08	4.51
Duck	2.45	2.48	2.92
Quail	2.27	1.80	2.12
Pheasant	2.25	2.56	1.87
Squirrel	2.18	2.66	3.21
Brant	2.02	1.71	3.09
Grouse	1.50	1.45	1.32

per cent and 9 per cent, respectively. The total bag of brant increased more than 7 per cent.

The high take of pheasants con-

New Jersey totaled 246,815 birds. While this total apparently is, 15,410 birds less than that of 1961, statistical tests show that this de-

. . . Game Bags

crease is not real and is due merely to the sampling process. Hence, 1962 and 1961 produced the peak harvest of this important game species in the past ten years. In fact, they probably are all-time records for this state. Optimum breeding conditions and extended game management procedures worked together in producing these expected large crops of birds. As with all our game, the Conservation Officers did an excellent job in holding the line against poachers.

The 1962 harvest was made by an estimated 109,855 hunters,



Pheasant—at an all-time high

which constitutes an increase of 7,485 over the total number in 1961. There were more licensed sportsmen who hunted pheasants last season than during any of the previous nine years. More than 76 percent of all licensed individuals who hunted with firearms sought

pheasants, as compared to 69 percent in 1961. If small game popularity can be determined by the numbers of individuals who seek a particular species, then the ring-neck now holds first place, a spot formerly held by the cottontail.

The average seasonal bag per hunter was 2.25 pheasants, which is not significantly different from the mean of 2.56 in 1961. Seventy-four percent of all those who hunted pheasants in New Jersey during the season of 1962 were successful in bagging at least one bird. *Any individual who purchased and used a firearm hunting license in 1962 had three chances in favor to one against him of bagging at least one ringneck during the open season.* Nearly 71,000 license-holders each obtained a season bag of from 1 to 5 birds (inclusive). The legal season limit of 30 pheasants was reached by a number of individuals.

Through the efforts of our State Game Farms and 4-H Club members, a total of more than 53,600 pheasants were released for the hunters in 1962, and more than 49,860 in 1961.

Bobwhite

The quail harvest is estimated to have been 80,550 birds, or an increase of about 15,100 (23 percent) over the total bag in 1961-62. The present harvest is the largest during the past ten years, and may well be a record for New Jersey. Excellent breeding conditions combined with the cumulative effect of game management practices in providing better habitat conditions produced this extraordinary crop

of birds for the sportsmen of the state.

The mean seasonal take per hunter was 2.27 quail, as compared with 1.80 birds in 1961-63.

The total number of quail hunters in the state is estimated to have been 35,510, as compared with 36,390 in the previous year. This is nearly twice as many quail hunters as there were ten years ago. Nearly 23 percent of all those individuals who purchased and used their firearm hunting licenses hunted the bobwhite. Fifty percent of those who hunted this species were successful in bagging at least one bird (and up to 60) during the season. It is estimated that 11,250 quail hunters bagged from 1 to 4 birds each, and about 4,745 bagged from 5 to 9 quail each.

Ruffed grouse

An estimated harvest of 32,380 grouse was made in 1962-63, which suggests an increase of 2,710 birds over that of the previous season, but it is not significant statistically and is believed to be due to merely the sampling process. It is evident that grouse continue to be in good supply in most of its usual habitat.

The mean seasonal take per hunter was 1.50 grouse, as compared with 1.45 birds in 1961-62, the difference not being statistically significant.

There were 21,640 licensed hunters who sought grouse, as compared with 20,475 in 1961-62. The increase of hunters of this species may be attributed to the continued

availability of good numbers of this bird in much of New Jersey, and to the better weather conditions during the past open season than in the year before.

More than 48 percent of all grouse hunters were successful in bagging at least one bird (and up to 23) during the open season, which percentage is compar-



Grouse—take increased 23 percent

able with that of the previous year. Fourteen percent of all those individuals who purchased and used their firearm hunting licenses hunted grouse in New Jersey during the past season.

Cottontail

The survey indicates that the rabbit harvest in 1962 totaled approximately 327,605 rabbits, or 89,635 less than in 1961. There have been declines in these annual harvests since 1959 when about 530,040 rabbits were taken. This pattern is not unusual in any state where the cottontail is indigenous.

The 1962 harvest was made by

. . . Game Bags

an estimated 107,685 hunters, an increase of 5,345 over 1961.

The average season bag per hunter was 3.04, as compared with 4.08 in 1961. Sixty-nine percent of the total number of all licensed firearm hunters in the state hunted this popular game species. This number was exceeded only by pheasant and deer hunters.

Seventy-one percent of all the rabbit hunters were successful in bagging at least one rabbit (and up to 75) during the open season. It is estimated that more than 6,200 rabbit hunters in the state bagged ten or more rabbits each.

Gray squirrel

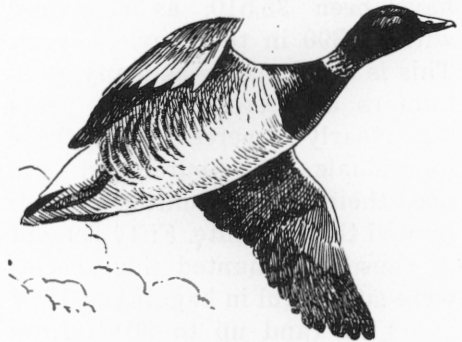
The 1962-63 squirrel harvest is estimated to have totaled 141,430 squirrels, which is 25,850 less than in 1961-62. This is the second consecutive year that squirrels showed a decline in harvest. In 1960, the total bag was 201,625. The peak year was in 1956, when 231,620 were taken. The decline in the 1962-63 season was expected, as this species fluctuates in numbers usually in accordance with the abundance of mast and other food. It is believed by some to be somewhat "cyclic" in nature, in which ups and downs in populations occur more or less periodically.

The squirrel in New Jersey has held third place in small game popularity for more than ten years despite the natural fluctuations in numbers.

The 1962-63 harvest was made by an estimated 64,805 hunters, an

increase of 1,940 (3 percent) over the total in 1961-62.

The average seasonal bag per hunter was 2.18 squirrels, as compared with 2.66 in the previous year. Nearly 42 percent of all licensed firearm hunters in the state



Brant—bag up over seven percent

hunted squirrels. Nearly 60 percent of all those who hunted squirrels were successful in bagging at least one (and up to 50) squirrel during the season. It is estimated that more than 36,000 squirrel hunters in the state each bagged up to 10 of these animals.

Duck

The duck harvest in New Jersey declined an estimated 18 percent, reaching an estimated total bag of 36,770 birds, as compared with 44,820 in 1961. This decrease may be attributed to the reduced bag limit, the shortened season, and drought on the northern breeding grounds.

The mean seasonal take per hunter was 2.45 ducks, as compared 2.48 in 1961. The difference in these annual means is not significant because of the decrease in the number of hunters in 1962.

The total number of duck hunters in the state is estimated to have been 15,000 as compared with about 18,060 in 1961, which represents a decline of 17 percent. Nearly 10 percent of all those individuals who purchased and used their firearm hunting license hunted ducks in New Jersey in 1961. This may be compared with 12 percent in 1961, and nearly 13 percent in 1960.

Brant

The survey data shows that 18,200 brant were taken during the season in 1962 in New Jersey. This represents an increase of about 1,225 birds, or 7.2 percent over the

There was an estimated total of 9,025 brant hunters in the state in 1962, as compared with 9,935 in 1961. The brant hunters in 1962 constituted 5.8 percent of all those individuals who purchased and used their firearm hunting licenses in the state. Forty-five percent of all the brant hunters were successful in bagging at least one bird during the season. Bags of as many as 60 were taken in a few instances. Nearly 2,600 hunters bagged from 1 to 5 birds each.

Hunting Licenses Purchased

Purchase of resident and non-resident firearm hunting licenses totaled 159,009 during the calendar

Table 3. Estimated Total Number of Licensed Hunters in New Jersey, by Game Species

Species	1962-62	1961-62	1960-61
Pheasant	109,855	102,370	89,300
Rabbit	107,685	102,340	112,070
Squirrel	64,805	62,865	62,775
Quail	35,510	36,390	32,015
Grouse	21,640	20,475	19,400
Duck	15,000	18,060	18,810
Brant	9,025	9,935	8,430

total harvest in 1961. This increase may be attributed to the better breeding conditions that existed in 1962.

The estimated mean seasonal take per hunter was 2.02 birds, as compared with 1.71 in 1961, and 3.09 in 1960.

year of 1962, as compared with 152,854 in 1961. This represents an increase of 6,155 (4 percent) licenses. There were an estimated 3,963 (2.5 percent) license holders who failed to use their licenses, as compared with 3,623 (2.4 percent) in 1961. #

This article is based on the technical report of the survey of the 1962-63 wild-life harvest of 7 important game species in New Jersey by Charles W. Wright, Biometric Analyst. Similar surveys have been conducted by the Division of Fish and Game since 1951. The sampling procedures and statistical treatment of the response data are treated in the technical report of which copies may be obtained from the Division. These surveys are made possible only through the excellent cooperation extended by the licensed hunters of the state in responding to the questionnaires. The results assist the Division of Fish and Game in evaluating game management practices, to estimate the relative abundance of game, to guide management plans, and to formulate hunting regulations.

State Quail Farm

The Quail Farm is located in Holmansville, a part of Jackson Township, Ocean County. The entrance is on the south of Route 528 about seven miles west of Lakewood. The farm was started in 1934 and covers 485.45 acres.

There are about 700 pairs of breeders. Each pair has its own breeding pen from which eggs are gathered daily in spring and summer. Breeding pens are built well off the ground. Watering is semi-automatic, with one spigot for each row of 100 pens.

Eggs are kept under incubation at a temperature of $99\frac{1}{2}^{\circ}$ F. for 23 days. About 4,000 are set to hatch each week starting in late May.

Baby chicks are put in the brooder houses. About 150 chicks go in each of the 18 sections in a house. Capacity of each house is 2,700, and there are four houses. The last new brooder house was completed in 1962 as part of the farm's modernization program.

The chicks are kept close to the hover light for the first week of life. They are then given more indoor space and are let into outdoor runs during the day after two weeks. After four or five weeks they are moved to rearing pens where they are raised to maturity.

Other day old chicks are distributed to 4-H youths and other young cooperators, who take full responsibility for raising the chicks to the age of 12 weeks under the careful supervision of Wildlife Managers. The quail are then sold back to the state for release. Over 10,000 quail are raised annually under the 4-H Program.

The farm itself raises some 15,000 quail each year. They are liberated on open lands and Public Shooting Grounds prior to the quail season. The Public Shooting Grounds are re-stocked several times during the season. Spring releases are made of excess birds when the best breeders are selected from the holdover stock. Some quail are released in conjunction with field trials which test the skill of dogs.

Several pens are used for experimental breeding of bamboo partridge. If the experiments succeed, the partridges can be introduced into habitat where little bird hunting is available.

Visitors are welcome at the farm from 9:00 a.m. to 4:00 p.m. daily and from 11:00 a.m. to 4:00 p.m. on weekends and holidays. #

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LANDS OPEN TO HUNTERS

The Public Hunting Grounds and the State Forests

Many sportsmen are finding that the answer to finding a place to hunt is to hunt on one of the many state-owned tracts open to hunters, fishermen, and the general public.

The Public Shooting and Fishing Grounds of the Division of Fish and Game and the State Forests of the Forests and Parks Section are open to all sportsmen licensed to hunt in New Jersey. The Division's grounds were purchased with a portion of your license dollars, the Forests from your tax money. They are your lands to use.

Most of these lands are located in the northwestern and southern part of the State away from the centers of population simply because it is chiefly in these areas that suitable land was available. However, the modern State and Authority highway systems make each area readily accessible and within reach of all sportsmen for even a day's hunt. You should be able to reach one in an hour's drive.

Because of their easy accessibility, and because of the decrease in the acreage of private lands available to hunters in general, these lands, especially the intensively managed and heavily stocked public shooting grounds, are heavily utilized by gunners. So expect plenty of company. But, you can at least count on a place to hunt.

The land map on pages 20 and 21 is presented for your convenience in locating the various tracts of state land open to hunters. The scale and outlines of the areas are merely approximate. Additional information about lands and facilities is given on the following pages.

PUBLIC HUNTING & FISHING GROUNDS

<i>Tract</i>	<i>County</i>	<i>Kind of Game</i>
1. Corbin City	Atlantic	Duck,* rabbit, quail, pheasant, rail, deer, snipe, raccoon, squirrel.
2. Medford	Burlington	Quail, pheasant, rabbit,* squirrel.
3. Winslow	Camden	Deer.*
4. Tuckahoe	Cape May	Rabbit, quail, pheasant, duck,* rail, deer, snipe, raccoon, squirrel.
5. Marmora	Cape May	Duck,* rail, geese, brant.
6. Dennis Creek	Cape May	Duck,* rail, snipe, geese.
7. Millville	Cumberland	Rabbit, quail,* raccoon, pheasant, squirrel, deer.
8. Egg Island	Cumberland	Waterfowl,* rail.
9. Heislerville	Cumberland	Waterfowl,* pheasant, quail, rail, rabbit, squirrel.
10. Peaslee	Cumberland	Deer,* quail, squirrel, raccoon, fox.
11. East Point	Cumberland	(Landing for Cadwalader and Egg Island Public Shooting and Fishing Grounds.)
12. Glassboro	Gloucester	Rabbit, quail,* raccoon, pheasant, squirrel.
13. Clinton	Hunterdon	Pheasant,* squirrel, deer, rabbit.
14. Turkey Swamp	Monmouth	Pheasant, squirrel, deer, rabbit, quail.*
15. Berkshire Valley	Morris	Pheasant,* squirrel, deer, rabbit, woodcock.
16. Manahawkin	Ocean	Waterfowl, quail,* pheasant, rabbit, raccoon, deer.
17. Greenwood Forest	Ocean	Raccoon, fox, deer,* squirrel.
18. Colliers Mills	Ocean	Waterfowl, quail,* pheasant, rabbit, raccoon, deer.
19. Whitings	Ocean	Deer,* fox, raccoon.
20. Manchester	Ocean	Deer,* fox, raccoon.
21. Pasadena	Ocean	Deer,* fox, raccoon.
22. Butterfly Pond	Ocean	Ducks.*
23. Mad Horse Creek	Salem	Ducks,* snipe, rail, geese.
24. Walpack	Sussex	Pheasant, rabbit, grouse,* woodcock, deer.
25. Roy	Sussex	Pheasant,* rabbit, grouse, woodcock, deer.
26. Hainesville	Sussex	Pheasant,* rabbit, grouse, woodcock, deer.
27. Flatbrook Valley	Sussex	Pheasant,* rabbit, grouse, woodcock, deer.
28. Hamburg Mountain	Sussex	Deer, woodcock, grouse,* squirrel.

* Most important species

Note: The Turkey Swamp, Greenwood Forest, Whitings, Manchester, Pasadena, and Hamburg Mountain Tracts are undeveloped as yet and offer only limited facilities.

Directions for Locating Public Hunting and Fishing Grounds

Public Hunting and Fishing Grounds listed below are marked by boundary signs usually metal or printed posters.

1. CORBIN CITY—

Take Route 50 from Mays Landing. Metal signs will be seen marking the tract.

2. MEDFORD—

Turn right on the macadam road from Mt. Holly to Medford at the first road south of the English Setter Club.

3. WINSLOW—

Located adjacent to the Blue Anchor-Folsom Road. Egg Harbor River borders this tract at some points.

4. TUCKAHOE—

Proceed to Tuckahoe. Go south on Route 50 and turn left on first intersection road. Area is located on the left of this road. This area adjoins the Corbin City Tract and contains stretches of the Tuckahoe and Middle Rivers.

5. MARMORA—

Access can be gained from Garden State Parkway between Marmora and Sea Isle City. Access can be gained by boat from the inland waterway.

6. DENNIS CREEK—

Turn off Route 47 to Dennis Creek landing.

7. MILLVILLE—

Located on the Millville-Newport Road. Or, cross to the west side of the Maurice River and go south to Buckshutem. Area is located west and south of this location.

8. EGG ISLAND—

Located south of Fortescue. Bounded on the west by Delaware Bay and on the east by Maurice River Cove.

9. HEISLERVILLE—

Turn off Route 47 through Heislerville.

10. PEASLEE—

North of Route 49, east of Millville near Cumberland.

11. EAST POINT—

Turn off Route 47 through Heislerville to shore of Delaware Bay.

12. GLASSBORO—

This area is located east of Route 47 between Glassboro and Clayton.

13. CLINTON—

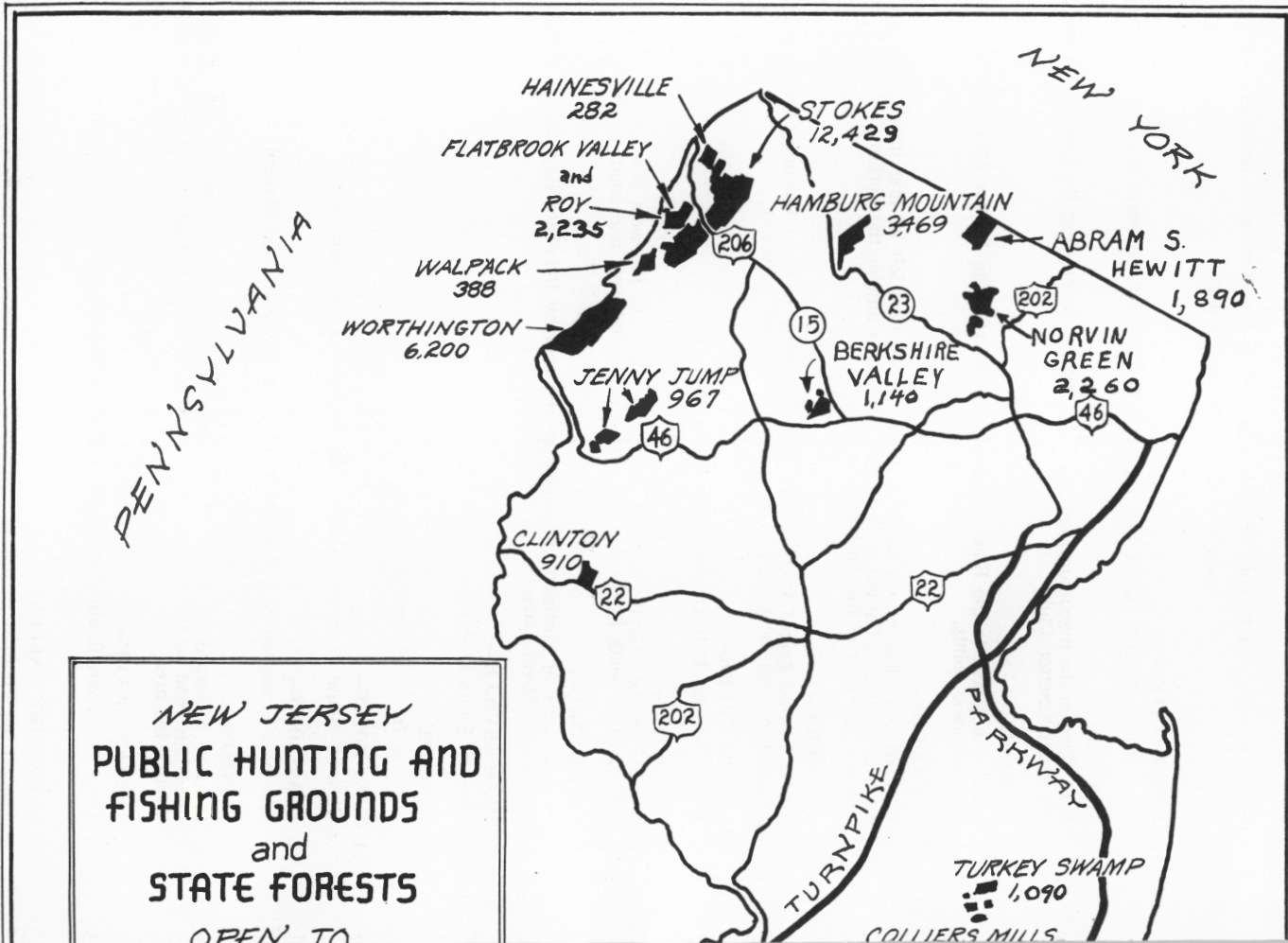
Proceed westward on Route 22 to Clinton. Pass through Clinton and take first macadam road to the right. Follow this road to first road to left, which passes through the area.

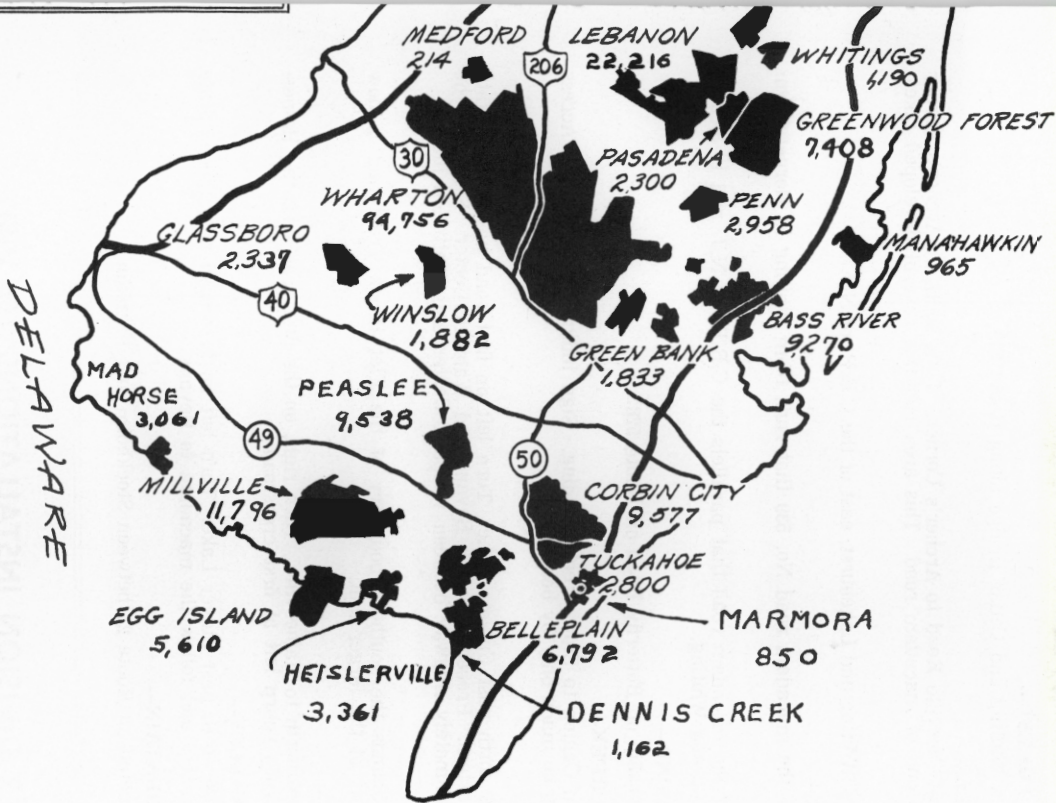
14. TURKEY SWAMP—

Turn west from Route 9 south of Freehold. This area is located south and east of Smithburg.

15. BERKSHIRE VALLEY—

Proceed on Route 46 to Dover. Turn on Route 15 to Berkshire Valley. Turn left at Berkshire Valley Hotel and proceed toward Kenvil. (Please turn to page 22.)





New Jersey Outdoors
NUMBERS INDICATE ACREAGE
EXCEPTIONS NOT SHOWN

. . . Directions for Locating Public Hunting and Fishing Grounds

16. **MANAHAWKIN**—
Area is located immediately north of Route 72 from Manahawkin to Beach Arlington.
17. **GREENWOOD FOREST**—
Located between Whiting and Cedar Bridge along Route 539.
18. **COLLIERS MILLS**—
Take New Egypt-Cassville Road to Archer's Corner. Turn south at Archer's Corner and proceed to end of macadam road. This area contains several developed lakes.
19. **WHITINGS**—
Located between Whiting and Lakehurst, east of the C.R.R. of N.J.
20. **MANCHESTER**—
Located east of the macadam road No. 539 that runs from Whiting to Hornerstown.
21. **PASADENA**—
Located east of the macadam road that parallels the C.R.R. of N.J. and is located between Route 72 and Whiting.
22. **BUTTERFLY POND**—
In Jackson Township on Butterfly Road off Route 528.
23. **MAD HORSE CREEK**—
Take road from Canton to Stow Creek Landing. Sign indicates dock area. Access to this area can be made only by boat.
24. **WALPACK**—
Take Route 206 north past Culvers Lake. Turn left on first road past Stokes State Forest Headquarters. Proceed through Bevans and Walpack Center. Signs will be observed approximately midway between Walpack Center and Flatbrookville.
25. **ROY**—
This property bounds the southern boundary of the Flat Brook Tract and is now regarded as part of the larger unit.
26. **HAINESVILLE**—
Follow Route 206 north to Hainesville. Turn right on the first road past the Hainesville Garage. Turn sharp left at first crossroad.
27. **FLATBROOK VALLEY**—
Follow Route 206 north past Culver Lake. Turn left on first road past Stokes State Forest Headquarters and follow the macadam to Bevans.
28. **HAMBURG MOUNTAIN**—
This area is located on Route 23 between Stockholm and Franklin.

OTHER DIVISION INSTALLATIONS TO VISIT

1. **CHARLES O. HAYFORD FISH HATCHERY**—interesting anytime of the year. Located west of the Hackettstown business district. Follow "Hatchery" signs.
2. **EDWARD H. ROTH GAME FARM**—a model unit where the bobwhite quail are produced. Located on Route 528 at Holmsville, south of the road.
3. **FORKED RIVER GAME FARM**—ring-necked pheasant breeding and experimental rabbit project. Located on U. S. Route 9 in Forked River, east of the road.
4. **ROCKPORT GAME FARM**—vast pheasant producing farm. Located at Rockport, southwest of Hackettstown, and northwest of Beattytown.

STATE FORESTS OPEN TO HUNTERS

<i>Forest</i>	<i>County</i>	<i>Kind of Game</i>
A. Bass River	Burlington and Ocean	Squirrel, deer,* rabbit, raccoon.
B. Belleplain	Cape May and Cumberland	Rabbit, deer,* raccoon, squirrel.
C. Green Bank	Burlington and Atlantic	Rabbit, deer, raccoon, quail.*
D. Abram Hewitt	Passaic	Grouse,* deer, rabbit, squirrel.
E. Jenny Jump	Warren	Grouse,* squirrel, deer.
F. Lebanon	Burlington and Ocean	Deer,* rabbit, fox, raccoon.
G. Norvin Green	Passaic	Grouse,* squirrel, deer.
H. Penn	Burlington	Raccoon, fox, deer,* squirrel.
I. Stokes	Sussex	Deer,* rabbit, grouse, squirrel.
J. Worthington	Warren	Deer,* grouse, squirrel, raccoon, fox.
K. Wharton	Atlantic, Burlington, Camden	Deer, rabbit, fox, raccoon, quail, woodcock, grouse.

* Most important species

DIRECTIONS FOR LOCATING STATE FORESTS

State forests are marked by boundary signs usually carved in wood or printed posters.

A. BASS RIVER STATE FOREST—

Located north and east of New Gretna between Wading River and Tuckerton. Take Route 563 Spur. U. S. 9 or Garden State Parkway.

B. BELLEPLAIN STATE FOREST—

Located west and south of Woodbine on Routes 550 and 47. Via Route 47 or 49.

C. GREEN BANK STATE FOREST—

At Greenbank and east of Lower Bank. Via Routes 542 and 563.

D. ABRAM HEWITT STATE FOREST (undeveloped)—

Lies northwest of the town of Greenwood Lake, between Greenwood Lake and Upper Greenwood Lake, via Routes 513 and 511. Inquire locally.

E. JENNY JUMP STATE FOREST—

Part situated north of Buttzville, via U. S. 46. Take road to Mountain Lake. Also part east of Hope in area north of "Land of Make Believe" via Great Meadow road.

F. LEBANON STATE FOREST—

Located east and north of the junction of Routes 70 and 72, between Red Lion and Whiting.

G. NORVIN GREEN STATE FOREST (undeveloped)—

Located north of Butler via Route 23. Take Lindy's Lake road and ask locally.

H. PENN STATE FOREST—

Situated southeast of Chatsworth between Routes 563 and 530. Take Jones Mill road off Route 563 and go southeast. Consult your map and compass.

I. STOKES STATE FOREST—

Located north and south of U. S. 206 above Culvers Lake. Take roads leading south to Tillman Ravine or roads leading north toward High Point. (Watch for High Point State Park boundary signs — No Hunting in Park).

J. WORTHINGTON—

Located northeast of Delaware Water Gap, via U. S. 46. Take river road north.

K. WHARTON—

Located north and east of Hammonton, via U. S. 206 or Routes 534, 536, 541 or 542.

WATERFOWL GUNNING POSSIBILITIES

BRIGANTINE NATIONAL WILDLIFE REFUGE

The public hunting area for waterfowl on the Brigantine National Wildlife Refuge will be open again this year for licensed hunters of New Jersey.

The use of a portion of the Brigantine National Wildlife Refuge as a public hunting ground is also a cooperative venture between the Federal Wildlife Service and the State Division of Fish and Game. Operation of the area has been carried on for several years and as a result an excellent waterfowl hunting ground has been made available to the public of New Jersey.

Cooperation between the State Division of Fish and Game and the United States Fish and Wildlife Service extends to many other conservation ventures but the multiple use that has taken place on the Brigantine National Wildlife Refuge is considered to be an outstanding piece of cooperative work with mutual benefits to all concerned.

Further information concerning the use of the Brigantine Public Hunting Area can be secured from Brigantine National Wildlife Refuge, Refuge Manager, Absecon, N. J., or the New Jersey Division of Fish and Game, P.O. Box 1809, Trenton, New Jersey 08625.

Additional State Hunting Grounds

Several additional Public Hunting and Fishing Grounds acquired by the Division of Fish and Game during the past two seasons but not shown on the map and listed include the following lands: the Dix tract of 913 acres on Delaware Bay, the Menantico tract of 195 acres west of the Peaslee Grounds, the Clarks Pond tract of 164 acres east of Maskell's Mills, and the Nantuxent tract of around 800 acres southwest of the Millville Grounds. All these newer grounds given above happen to be located in Cumberland County. Another new acquisition, the Greenwood Pond tract of 57 acres southwest of the Glassboro Grounds, is situated in Salem County. Although all of these additional Public Hunting and Fishing Grounds are not yet fully developed and improved, they are open to sportsmen this fall.

A HANDY WHERE-TO-GO-GUIDE

FOR YOUR CONVENIENCE TO TAKE ON YOUR HUNTING TRIPS, THESE EIGHT PAGES, STARTING WITH PAGE 17, MAY BE PULLED FREE OF THE MAGAZINE.

Tax-paying Green Acres

By Clifford B. Ross

Familiar New Jersey farm fields, where in the past harvested grain would leave stubble to attract and feed small game, are often today found cluttered with new houses, shopping centers, gas stations, and pizza parlors. All in one big package, surrounded by a pond of black-top.

Urbanization has closed in not only on the farmer. It has closed in on the New Jersey hunter and fisherman, too.

In the opinion of many of the state's thoughtful leaders, it is time to slow up this surge in a state where there have long been limited land resources. And, the place to start is by giving the New Jersey farmer a better chance to hold his farm. For it has been the land-owning farmer, of course, who has felt the growing pressures of changing land-use.

This November voters will have the chance of deciding if a fair way to slow down the loss of farms is through a constitutional amendment which would direct assessors to assess farmlands on the basis of their agricultural productivity rather than on the basis of some potential non-farm higher-value use.

The revision of the tax structure as proposed in this constitutional amendment is seen by many as the best way of saving some agricul-

ture in New Jersey in the long pull. It will not stop the movement of land into non-agricultural uses. But, it will make the termination more gradual and give the farmer under tax pressure a chance to continue farming.

The amendment was studied for months by a special committee appointed by the Governor. And, it has the blessing of both parties.

The amendment is not seen as causing a shift in the tax load in any critical way. For the urban communities it means not a cent to taxpayers since no farm lands exist in the cities and towns. For those fringe areas, where the urbanization process has been hurting the farmer the most, holding the line tax-wise for the farmer would have minimal effect on the rest of the community since the farmers are usually so few.

From a broad point of view, the idea is to preserve for all the citizens the benefits of keeping New Jersey green longer. In a sense, it is a tax-paying "green acres" program, making the most of the farm's own built-in environmental values.

Governor Hughes has stated it this way: "I would be very unhappy to see family farms disappear in New Jersey. I'm in favor of a constitutional amendment which would allow farmers to con-

. . . Green Acres

tinue family farms . . . Such an amendment in New Jersey will be in keeping with the public philosophy of government in New Jersey which places strong emphasis on the need for retaining open space for future generations."

Legislators of both parties agree. Already some of them, campaigning for re-election, have spoken publicly in favor of the amendment.

Let us look at the size, collectively, of the local tax bill met by the 1.2 percent farm population of the Garden State:

About \$16. million a year.

About \$1,300. average per farm tax (up from \$200. in the past 12 years).

On a per capita basis, property taxes in 1960 were \$360. for the farm population against \$138. for the total population. (In 1950 this was \$71. for the farm population against \$76. for the total population.)

Since 1950 farm taxes have increased about 450 percent, and in the last six years they have doubled.

New Jersey farmers pay real estate taxes that average \$10.35 per acre, or about ten times the national per acre average. This is the highest land tax, by far, of any state.

New Jersey still has a thriving million-dollar-a-day agriculture. But, since 1954 over 7,000 farms

have been lost to agriculture with all types affected. In the past ten years farms have been going out of operation at the rate of nearly 1,000 a year.

Other statistics which show the trend: 280,000 acres have been taken over by industry, highways, other roads, and residences since 1954. This loss in land in the past nine years is 20 percent more than the loss in farmland that occurred in the 30 years between 1925 and 1954.

Take one county for example. In Middlesex County, where 15 years ago good hunting was available in many places, 20,000 acres have gone out of farming in the past eight years. Six hundred farmers have moved from the farm.

None of this is to say that the amendment is designed to close off development. The hope, though, is to fit the remaining farms into a place in the future economies of the counties. President Carleton Heritage of the New Jersey Farm Bureau expressed it at the special Farmers Tax Convention in August, 1962, in Trenton. He said: "As farmers, we know as well as anyone that we cannot hold up progress. We know that New Jersey must continue to develop its economy. But we believe that agriculture should have a place in that development. We believe that a healthy and highly productive agriculture will be as important in the future of New Jersey as it has been in the past and is at the present time. This will not be the

case, however, if we do not find a way to stop the present trend of taxing farmers off their land."

It is hardly necessary at this late date to begin to tell hunters and fishermen how important to conservation are the farms of the state. Fields and woods provide the habitat, the cover and the food, to help support a host of wildlife.

The farms of the state are part of its natural resources. Soil is maintained in a productive capacity. Water is conserved through ground water recharge. And, the fields and woods have mitigating

effects on water runoff and aid in flood control. Farms prevent erosion and siltation of water supply reservoirs.

More and more recognized, as the population soars in the decades ahead in this affluent age, will be the potential of farms for active recreation, such as hiking, swimming, and nature study.

Farming, in short, provides the desirable balance with industry and residential development.

And, this is a point to keep in mind: with all this, farms continue to be tax-paying green acres! #

Notes on Trapping in New Jersey

More licensed New Jersey trappers sought fur-bearing animals in 1962 than in recent years. An estimated 6,695 licensees used their hunting and fishing licenses for trapping in 1962. This was 2,535 more trappers than the 1961 estimate, a 61% rise.

A rise in the price of muskrat and other pelts is the main reason for the sharp increase in utilization of the fur crop. Trappers in the spring season of 1963 continued to get a good price for their pelts. The Division is hopeful that this trend will continue in the 1963-64 season.

Musk rats are trapped throughout the state. The most popular areas are brackish portions of tidal marshes in the counties of Atlantic, Burlington, Cape May, Cumberland, Gloucester, Ocean, and Salem.

The trapping season for muskrat, mink, otter and raccoon will open, 15 days earlier this year, on November 15. Closing date will be March 15, 1964, as in previous years.

No traps may be set on Public Shooting Grounds before 6 a.m., on January 1, 1964. No cage trap, metal box trap, or diving trap is permitted on these grounds, and any trap must bear a metal tag with the owner's name and address. Raccoon may be trapped only in tidal meadows and impoundments on Public Shooting Grounds. There is no bag limit on this species.

A special beaver trapping season will be held from February 15 to March 15, 1964. A total of 100 special permits will be issued for the trapping of no more than 5 beavers by each trapper. A 1964 license will also be required to trap these valuable fur-bearers.



Pheasant Hunting

Pheasants have been the favorite game bird of most New Jersey hunters for many years. As of last hunting season, however, the ring-necked pheasant has become our number one upland game species in popularity with hunters. More gunners in our state hunted for pheasants last fall than for any other kind of upland game. And, the popularity of the pheasant as a game bird is understandable. For the past two years New Jersey hunters have bagged about a quarter of a million cock pheasants each season on lands open to public shooting. The harvests of pheasants these two seasons "probably are," as Charles W. Wright observes, "all-time records for this state."



"My nose says
he's right in
front of me!"
says Mac
the pointer

"There, now! What
did I tell you?"
as a young cock
bird flushes

November, 1963





With a clatter of wings and a derisive cackle he is on his way

. . . Pheasant

"You point the birds, Mac.

I'll point the gun.

And, maybe we'll bag

us a couple of birds."

Photographs by
Harry Grosch



Pesticides, Insecticides, and Detergents - *A Blessing or Curse?*

By Iva Sue MacLennan, Bound Brook H. S.

Everyone in our present day world has some contact with pesticides, insecticides, or detergents. Most Americans consider them a normal and necessary item to keep in the home at all times. Housewives have a huge container of some new and fantastic detergent guaranteed to wash dishes cleaner faster and, at the same time, make hands soft and younger looking. What about the wonderful insect sprays which claim to kill most insects on contact? Of course, some people refuse to use these products, but even they are affected by the wide-spread use of sprays and powders on plants that are used for food and found in any supermarkets. Just how dangerous are these products? Are they really a menace to our society?

Experts of the Department of Agriculture and the United States Public Health Service admit that some insecticides are extremely poisonous to humans. Parathion, an organic phosphate used against highly resistant pests, is so deadly that men who spray it must wear respirators and protective clothing. A few related chemicals are almost as dangerous, but they break down quickly into harmless substances and so leave no poisonous residue on fruits and vegetables or in the soil. However, they can poison farm workers who handle them carelessly. These accidents, though, are very rare compared to the number in industry caused by careless handling of such chemicals as sulfuric acid.

It has been said against spraying that DDT and its near chemical relatives are poisonous to humans, especially since they tend to accumulate in fatty tissues. While a mere trace of DDT kills insects, humans and other mammals can absorb large doses without damage. Almost every meal served in the United States probably contains a trace of DDT, but this is nothing to cause any great worry. A group of prison volunteers were fed a diet containing 200 times the normal amount of this substance. It was found that DDT accumulates in the body for about one year and after that it is excreted as fast as it arrives. The human guinea pigs felt no ill effects, and doctors pronounced them just as healthy as a control group fed the same diet without the extra DDT. No insecticide has done any appreciable damage to the United States public or is even likely to do so. In heavily sprayed cotton-growing areas of the Mississippi Delta, health is as good as in sparingly sprayed neighboring regions. The same is said to be true in California, where insecticides are heavily sprayed on orchards and fields. Spraying does little damage to most birds, and still less to wild animals. The worst effect on the birds is probably the reduction of edible insects.

Agricultural scientists try to find ways to check insect pests by tricks of cultivation. They import the ancient enemies of invading foreign insects and foster the resident enemies of native pests. They develop bacterial diseases to spread pestilence among insect populations. But these tactics alone are seldom enough to protect the tender young pests of modern high-yield farms; the use of insecticides is economically necessary. Failure to use pesticides would cause damage to a major part of many crops. Production of many kinds of fruits and vegetables would be impossible.

Chemical insecticides are now a necessary part of modern United States agriculture, whose efficiency has turned the ancient tragedy of famine into a problem of what to do with food surpluses. In earlier times, farmers raised small crops of fruits and vegetables, and his neighbor's land was a good distance away. If a certain

beetle infected one man's land, it did not necessarily spread to infect also his neighbor's crops. With modern farming methods, however, hundreds of acres of a single crop are grown in a concentrated area; an insect attacking any one part of the area can easily infect the entire crop. Without the use of pesticides, not enough food could be grown to supply our ever-increasing population. The problem of disposing of 200 million humans might become a more puzzling problem than the disposition of America's current corn, cotton, and wheat surpluses!

The new extra-sudsing detergents on the market today do have amazing cleaning powers, but they also are causing a large problem by contaminating drinking water. Bacteria in the sewage can break down normal soap and waste, and purify the water so that it is once again drinkable and can go back to the river, lake, or reservoir, and be pumped through the pipes once more. However, many of the new detergents cannot be broken down by these bacteria, and so some remain in a sudsy form and go back to the river. Over a period of time this content will accumulate, and eventually build up to a point where tap water will foam up in the glass like the head on a glass of beer. As the American population uses more detergents, this problem will be greatly intensified. Something must be done to combat it, or all the drinking water of the nation will become contaminated in this manner.

New, improved pesticides and detergents are marvelous achievements, but their use should not be abused. When using an insecticide, special care should be given to any precautions or directions as to the safe use of the product. Excessive use of detergents should be avoided. We must all decide whether the cleaning powers of new detergents should be placed above their effect on our water in importance. It would be extremely difficult to get along without the wonderful pesticides in use today, but, as the old saying goes, "Too much of a good thing . . ." #

Conservation Officer Aids Veteran

Keen memory and prompt action on the part of a New Jersey Conservation Officer came to the aid of a paralyzed veteran recently.

William R. Hutchison who patrols Camden County was liberating quail on the afternoon of August 22 when he received a radio call from Gloucester County Conservation Officer John Russack. All Officers were asked to be on the lookout for Wally Smith who had left his Morristown home on August 21 to go fishing and had not been seen since.

Officer Hutchison recalled a man answering the description had asked the way to a lake in a remote part of the Wharton Tract on the afternoon of August 21. He drove immediately to the area.

He found Mr. Smith, who is paralyzed from the waist down, pushing himself backwards about two miles from his car. The car was stuck in the sand.

Mr. Smith had found he was stuck shortly after Officer Hutchison had passed, 24 hours earlier. He had waited by the car through the night, but no one had come by along the lonely road.

Finally he attempted to crawl. He pulled his wheel chair for a mile with his foot before abandoning it.

Officer Hutchison took Mr. Smith, hungry and very exhausted to the Red Lion State Police Barracks. He returned with a State Trooper to extricate the car and pick up the wheel chair, then he completed his quail liberations.

Director Lester G. MacNamara of the Division of Fish and Game commended Officer Hutchison for his alertness. He cautioned anglers, hikers, and especially, hunters to always leave word of their planned location with a reliable person. He said, "The hazard of becoming lost or stuck will exist as long as New Jersey is blessed with open areas in which citizens can enjoy hunting, fishing, and outdoor recreation." #

Council Highlights

August Meeting

The open session of the regular monthly meeting of the Fish and Game Council was held in Trenton on August 13. In addition to the Council members and Division staff present the following persons attended: Ralph Allocca, Roy Williams, John Russack, Edmund Schuler, and Robert Vreeland.

Private Fishery Request

A letter from Louis T. O'Neill, General Manager, Lake Solitude, High Bridge, was read. Mr. O'Neill requested that the trout waters of his club, located on the South Branch of the Raritan River between the Ken Lockwood Gorge and the Taylor-Wharton Iron Works, be excluded from the "Closed Waters" regulation, that the State construct an obstruction in the water to prevent the migration of fish from the State-owned waters to the waters under the jurisdiction of his club, and that his club be permitted to erect a similar obstruction in their portion of the river to permit them to regulate the movement of fish on their property.

In accordance with policy on similar requests, the Council denied Mr. O'Neill's request.

Tocks Island Fishway

Councilman Godown urged that measures be taken to insure that fish ladders will be constructed when the Tocks Island Dam is built. Director MacNamara will take this matter up with the Delaware River Basin Commission.

Pompton Lakes Access

Chief of the Bureau of Fisheries Management Robert Hayford reported that he had contacted the president of the Pompton Lakes Board of Education concerning the possibility of securing an access site on part of their land at Pompton Lakes. He was advised that they plan to have a referendum next year on a proposal to build a new school on the area. If the referendum passes, they will then have plans drawn for the proposed school and they will not know until after this is done whether there will be any land available for our purposes. Mr. Hayford further advised that the only remaining possibilities of obtaining an access site were the property of Mrs. Terhune and the Oakland Elks property, with which no one was familiar. In the case of Mrs. Terhune, Mr. Marron had attempted to contact her but was advised that she was out of the state at the time.

Since every possibility of securing an access, which has been brought

. . . Council Highlights

to our attention has been investigated, and since these efforts were unsuccessful due to high prices or because the owners of land were not receptive to our request, this subject will not be placed on the agenda for discussion until something definite develops.

Dennisville Lake Dam

Director MacNamara reported that the Dennisville Lake Dam, which is located under the highway, has been in need of repair. The Highway Department has agreed to repair it, at their expense, providing we draw down the lake and take care of the fish. This will probably be done in September and every effort will be made to save as many fish as possible.

Anti-hunting Ordinances

Councilman Godown inquired whether any action has been taken concerning ordinances being passed by municipalities to prohibit hunting. Director MacNamara advised that this has been referred to the Attorney General for attention. Councilman Godown is to be informed of developments.

Trapping License Exception

The question of whether blind persons could be permitted to trap without a license was raised by Councilman Godown who was advised that legislation would be necessary in order to do this.

Woodcock Season Closure

Councilman Godown requested that the fact that the season on woodcock hunting will be closed on November 8 (for that one day) should be stressed, so that the public will be aware of this new regulation.

Toms River Pollution

Councilman Godown expressed concern because no one seemed to be able to determine the cause or source of flash pollution causing fish kills in the Toms River. While our biologists have been at the scene and taken samples of the water and dead fish, no concrete evidence was forthcoming. Councilman Godown cited the appalling condition of the stream where the water and banks are black and no vegetation grows. While she realized that our Pollution Unit is working on this pollution condition under a long-time project, it was her belief that something definite should be forthcoming when flash pollution occurs.

Chief Hayford cited the work being done by the Pollution Unit, as contained in the monthly report of the Fisheries Bureau for July. It was pointed out that combatting pollution of this type is a difficult problem and that securing concrete evidence of flash pollution cases

is not easy because of time involved in being informed of the incident and our personnel getting to the scene, because gulls take away the dead fish, and because of difficulty in definitely ascertaining the cause of death of fishes. However, our technicians are well qualified and are doing everything they can do to try to solve the problem.

Councilman Totten stated that there are means of attempting to control pollution. One of the paper mills on the Delaware River had been having trouble with their effluent polluting the water and they made arrangements with the landowner to construct a series of terraces over which the effluent is passed as a means of combatting pollution.

Cheesequake Park Hunting

Reports have been received by Councilman Godown that hunting of foxes and running of dogs is now prohibited in Cheesequake State Park. Director MacNamara will check this report with the Division of Resource Development.

Fisheries Report

Chief of the Bureau of Fisheries Management Robert Hayford reported that the four ponds have been completed at the Pequest Hatchery, with the exception of concrete floors. When finished, we will have six ponds 12 feet wide by 120 feet long, a flume, a spring, and facilities 200 feet long by 25 feet wide to hold fish this winter. He reported on the activities of his bureau during the month and said that work is being done with smallmouth bass in order to have a supply available for the Round Valley Reservoir.

Game Compendiums

Councilman Alampi was pleased with the early availability of the 1963-64 Game Compendiums which were distributed to license agencies. He expressed the commendations of the Council to the personnel responsible for the job well done.

Hunting Prospects

Councilman Alampi stated that at that date all indications are that hunting prospects for this year are extremely good. Game supplies seem to be in abundance in South Jersey and the hunting potential is very encouraging.

Councilman Sheppard reported that he had seen two coveys of quail in the vicinity of Spruce Run Reservoir, Hunterdon County, which is very unusual for that section of the state.

Division Public Grounds

Councilman McCloskey stated that he had recently toured some of the Division's Public Hunting and Fishing Grounds in Cumberland County and was greatly impressed with the opportunity present there

. . . Council Highlights

for the sport of hunting. He believes that many sportsmen, particularly those in the northern section of the state, do not know of the excellent facilities available to them in South Jersey. He feels that publicity should be given to the fact so that the sportsmen will be aware of them.

Law Enforcement Report

In the absence of Chief Coffin, who was on vacation, District Conservation Officer John O'Dowd reported on the activities of the Law Enforcement Unit during July. He advised that, while this is their light season as far as apprehensions in the field are concerned, there have been numerous arrests for fishing without a license. Also, his unit has received many complaints of pollution. Efforts are made to get to the scene first to secure samples for forwarding to the Fisheries Laboratory. However, two to three days, and even a week, sometimes elapse before the public informs us of the pollution. By then, unfortunately, the slug of pollution has gone. Thus, we can not get samples, and we can not obtain a conviction.

Wildlife Management Report

George Alpaugh, Chief of the Bureau of Wildlife Management, reported that the Wildlife Control Representatives have been extremely busy taking care of complaints of depredations which are more numerous this year, due probably to the drought. Wildlife seems to have moved back into the areas that were burned and the supply of game throughout the state is generally reported as being very good. The game farms have had another good year of production and 18,267 cock pheasants were on hand at the Rockport Farm ready for liberation. Distribution of quail has commenced and the first 3,400 birds were in the process of being liberated. A recent inspection of the Bamboo partridges being raised at the Quail Farm indicates that there has been some reproduction, with probably about ten birds being hatched. Rabbits produced under the project being carried on at the Rockport Farm had not been liberated at the time. They awaited examination by Dr. Shope, of the Rockefeller Institute of Medical Research, for scientific purposes. It was expected that this would be done in the near future and the rabbits would then be liberated.

Public Relations Report

Jules Marron, Supervisor of Public Relations, reported that his unit participated in the Conservation Workshop at the Trenton State Teachers College for the sixteenth year. Our display exhibited at the Cumberland County Fair was viewed by about 35,000 people. Over 60,000 people viewed our exhibit at the Sussex County Fair. At the

time his unit was working on the display for the Trenton State Fair. A diorama has been completed in cooperation with the Northeast Soil Conservation Service, with the Public Relations Unit preparing the display and the Soil Conservation Service paying for any material which had to be purchased.

Coastal Patrol Report

Newman Mathis, Chief of the Coastal Patrol, reported that constant patrolling had maintained illegal fishing at a minimum. Fish still seem to be in good supply and numerous catches of marlin had been reported, which is unusual for New Jersey.

Municipal Hunting Bans

Mr. Ralph Allocca, sportsman from Monmouth County, expressed concern over the increased number of ordinances prohibiting hunting which are being adopted by municipalities. He urged the Council to take action on this matter and be alert to any new ordinances being proposed throughout the state. A proposed ordinance, published in the Plainfield Courier, which covers part of Somerset County was brought to the Council's attention. Chairman Hart stated that the Division was not aware of this particular ordinance and that we would welcome reports from the sportsmen of the state when they hear of any such ordinances being considered. Director MacNamara advised that the matter of these ordinances has been submitted to the Attorney General for his attention. #

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Violators Roundup

July 1963

<i>Defendant</i>	<i>Offense</i>	<i>Penalty</i>
Paul Lera, 410 Montrose St., Vineland	2 trout over limit	\$40
Charles Collier, 26 S. Congress, Lakewood	Hunt no license	20
Willard Warne, Montana Rd., Broadway	Fish in closed waters	20
Willard Warne, Montana Rd., Broadway	Fish no license	20
Ferdinand Calabrese, 201-5th Ave., Mt. Ephraim	Fish no license	20
Louis Calabrese, 300 Walmer St., Hammonton	Fish no license	20
George Olak, Jr., 56 Redwood Ave., Trenton	Fish no license	20
John Szymanski, Prospect St., Pine Brook	Fish no license	20
Jesse Krum, 11 Cypress Ave., Lincoln Park	Angle closed waters	20
John J. Scalice, 104 Rockland Ave., W. Paterson	Angle closed waters	20
G. N. Johnson, 73 Bergen Ave., Haskell	Angle closed waters	20
Albert Buma, 134 E. Main St., Paterson	Angle closed waters	20
Francis Kimlicka, 2 Sunrise Terr., Parlin	Fish no license	20
Raymond Cielo, 24 Hillman St., Clifton	Angle closed waters	20
Albert Converse, 37 Riger Ave., Little Falls	Angle closed waters	20
Russell Washington, 19 Chadwick Ave., Newark	Angle closed waters	20
Robert Rosenfeld, 253 Bergen Ave., Kearny	Fish no license	20
Morton Abrams, 136 Cresthill Ave., Clifton	Angle closed waters	20
Vincent Salvato, 210 Holmes St., Belleville	Fish no license	20
George E. Clayton, 138 Marscellus Pl., Garfield	Fish no license	20
Sosio Manzo, 218 Bennett Ave., New York	Fish no license	20
John Pinczker, 246 Third St., Passaic	Fail to exhibit license	20
Charles Pallang, 43 Kulick St., Clifton	Fish no license	20
William Greco, Jr., 306 Roosevelt St., Teaneck	Fish no license	20
James Anderson, 400 First Ave., Kearny	Angle closed waters	20
James Anderson, 400 First Ave., Kearny	Fish no license	20
William Merritt, 6 Caldwell Terr., W. Orange	Illegal poss. bass	20
William Merritt, 6 Caldwell Terr., W. Orange	Illegal poss. bass	20
Thomas P. Cherry, 123 Truman Dr., Bricktown	Spinning reel in fly water	20
Richard A. Sparks, 15 Elena Pl., Belleville	Fish no license	20
Warren Caggiano, 721 Linden Ave., Rahway	Spinning reel in fly water	20
James McDowell, 126 Elm Ave., Rahway	Spinning reel in fly water	20
Warren McNee, Waterloo Rd., Saxton Falls	Fishing during closed period	20
Eugene A. Tetreault, 17 Central Ave., Troy, N. H.	Fish no license	20
Orlando Calabrese, 95 Lincoln Pl., Irvington	Illegal poss. pickerel	20
Willie Green, 171 Bank St., Newark	Illegal poss. pickerel	20
Albert Montford, 39 Howard St., Newark	Fish no license	20
Garry Gagliano, 467 Johnstone St., Perth Amboy	Hunt no license	20
Wm. Van Pfefferle, 27 W. Stiles Ave., Collingswood	Fish no license	20

<i>Defendant</i>	<i>Offense</i>	<i>Penalty</i>
Donald Bohonko, 966 S. Broad St., Trenton	Loaded gun in auto	20
Frank Jackson, 532 Kaighn Ave., Camden	Offer for sale a game bird	20
Frank Jackson, 532 Kaighn Ave., Camden	Offer for sale a game bird	20
Paul E. Johnson, 2177 Bank St., Camden	Fish no license	20
Jose Arce Valez, 214 S. Fifth St., Camden	Fish no license	20
George R. Sykes, Jr., 1301 Newton Av., W. Collingswood	Fish no license	20
Harry R. Urban, 4 Merion Ave., Woodcrest	Fail to exhibit license	20
Edward Cheslock, 146 Fifth Ave., Paterson	Angle closed waters	20
Norman Skeda, 1413 Second St., Seabrook	Fail to exhibit license	20
Graham Kintner, 8 Newbold Apts., Washington	Illegal poss. deer	100
Frank Kaler, 203 Newman St., Metuchen	Fish closed waters	20
James Corter, Wanaque Ave., Haskell	Fish closed waters	20
Jacob Corter, Painscol Dr., Lake Parsippany	Fish closed waters	20
Friddy Corter, 11 Washington St., Butler	Fish closed waters	20
Edward Brodhead, 249 S. Arlington Ave., E. Orange	Fish closed waters	20
Howard F. Lang, Rt. 130 & Browning Rd., Bordentown	Fish no license	20
Margaret M. Mirgin, Hartford Rd., Moorestown	Fish no license	20
Ralph Ferrizzi, 2700 W. Somerset St., Philadelphia, Pa.	Fish no license	20
Wm. Mickelaitis, R.D. 1, Summerlee, W. Va.	Fish no license	20
Leonard Singer, 1712 N. Peach St., Philadelphia, Pa.	Fish no license	20
Edward Belton, 167 Kirk Rd., Boothwyn, Pa.	Fish no license	20
George Donken, 1116 First St., Macon, Ga.	Fish no license	20
James L. Ross, R.D. 2, Mifflinburg, Pa.	Fish no license	20
Gary J. Nagle, 465 Oak Ave., Woodbury Heights	Fish no license	20
Wm. Felinski, Jr., 223 Park Dr., Glen Olden, Pa.	Fish no license	20
Cornell Thompson, 261 Sherman St., Newark	Hunt with rifle	20
Simmie Austin, Box 88, Broadlane Rd., Williamstown	Fish no license	20
Paul Metzger, 327 Fifth, Morris Park, Phillipsburg	Fish before hours	20
Benito D'Alessio, 2405 Beaumont Ave., Bronx	Fish no license	20
John Lawson, 65 Springbrook Rd., Springfield	Fish no license	20
Jerry Intoni, 647 Parker St., Newark	Fish no license	20
Carolyn Vile, 1531 Woodland Ave., Follcroft, Pa.	Fish no license	20
Joseph Adams, 17 Linden Ave., Trenton	Rifle no permit	20
Joseph Adams, 17 Linden Ave., Trenton	Firearm on Sunday	20
Wilbert Eck, 489 Corliss Ave., Phillipsburg	Fish closed waters	20
Jack G. Ostrander, 808 Edgemont Ave., Chester, Pa.	Fish no license	20
Wm. Nyborg, 305 Caldwell Ave., Union	Fish no license	20
Joseph Pacewicz, 915 Bergen Ave., No. Brunswick	Fish no license	20
Norman Monkiewicz, 178 Clinton Rd., W. Caldwell	Fish no license	20
Edward J. Williams, 519 Moores La., New Castle, Dela.	Fish no license	20
Elizabeth Tayler, 8520 Tolbut St., Philadelphia	Fish no license	20
Humble Oil Co., 500 N. Broad St., Elizabeth	Pollution	500
Nikola Molotschko, 1 Jeffrie Ave., So. River	Fish no license	20
William F. Elmer, 455 Palisade Ave., Jersey City	Fish no license	20
Robert Poniatowski, 1093 Ridge Ave., Lakewood	Fish no license	20
Barry Moore, Fainton, R.D. 4, Bridgeton	Loaded gun in auto	20
James W. Washington, 1319 N. 53rd St., Philadelphia	Fish no license	20
Kenneth A. Lee, 3 Jay St., Feasterville, Pa.	Fish no license	20
William P. Wilson, 168 Sanford St., E. Orange	Fish no license	20
Edward W. Pierson, 225 Himrod St., Brooklyn	Fish no license	20
Joseph Sebastiano, 835-72nd St., Brooklyn	Fish no license	20
Richard E. Bigler, 174 Tontine Ave., Lyndhurst	Illegal fishing	20
Angelo Lattiere, Jr., Rt. 206 R.D., Vincentown	Uncased weapon	100
Angelo Lattiere, Jr., Rt. 206 R.D., Vincentown	Hunt no license	20
Angelo Lattiere, Jr., Rt. 206 R.D., Vincentown	Loaded gun in auto	20
Angelo Lattiere, Jr., Rt. 206 R.D., Vincentown	Illegal missile	100
Phyllis Sinclair, 329 Oak Crest Ave., Northfield	Fish no license	20

1963 Migratory Bird Regulations

Species of Birds	Open Seasons Both Dates Incl.	Daily Bag Limit
Geese; Brant	Oct. 26 - Jan. 3	Geese 2 daily; possession 4. Brant 6 daily; possession 6.
Ducks	Split season: Oct. 26 - Nov. 16 Dec. 13 - Jan. 4	3 daily; possession 6.
Mergansers—American and redbreasted		5 singly or in aggregate; possession 10.
Scoter, eider, and old squaw		7 singly or in aggregate; possession 14.
Coot (crow duck)		8 daily; possession 16.
Wilson snipe or jacksnipe	Oct. 26 - Dec. 9	8 daily; possession 8.
Sora rail	Sep. 2 - Nov. 9	25 daily; possession 25.
Clapper rail, other rail, gallinules	Sep. 2 - Nov. 9	15 daily; possession 30.
Woodcock	Oct. 12 - Nov. 30 Except closed on Nov. 8 Reopen 9:00 a.m. Nov. 9	5 daily; possession 10.

Time of hunting migratory birds and waterfowl is sunrise to sunset (Standard Time) except time of opening on October 26 and December 13 on all species is 12 o'clock noon. Federal stamp required for ducks and geese for anyone over 16 years of age.

Unlawful to bait or shoot over baited water or land or to use live decoys.

No open season on canvasback, redhead, swan, snow goose, or doves.

Daily limit on ducks may not include more than 2 mallards or black ducks, singly or in aggregate of both kinds; 2 wood ducks or 1 hooded merganser; possession limit not to include more than 4 mallards or black ducks, singly or in aggregate of both kinds; 2 wood ducks or 2 hooded mergansers; **Bonus Bag** of 2 additional scaup ducks allowed in daily bag limit and 4 in possession limit.

Waterfowl hunting on the Delaware River is governed by state boundaries and restricted to respective seasons.

Special State License on woodcock required through November 7. Shooting hours sunrise to sunset.

**Refer to Compendium and Migratory Bird Regulations
for further details and laws in full.**

Buy your hunting license early!

and when you do remember to request
a copy of the Compendium of
New Jersey Game Laws for 1963

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