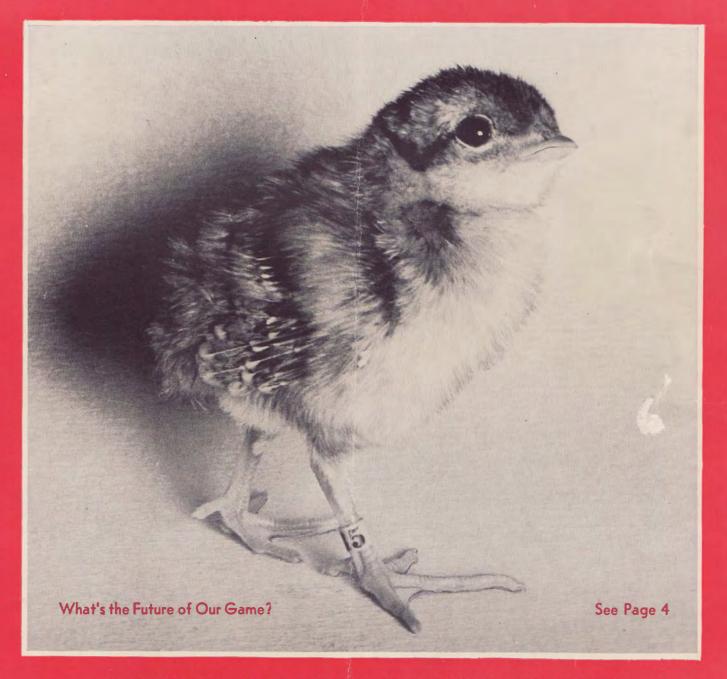
Tew York State Consolutionist Consolutionist



NEW YORK STATE CONSERVATION DEPARTMENT

February-March 1947

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THE BIGGER ISSUES

Next to teachers' salaries and the condition of New York City's subways, the hottest topic of discussion in this State today is the small game shortage.

There have been mountains of press releases written on the subject. There have been conferences, protest meetings, much indignation and marching in the streets. There have been thousands of questions and complaints—mostly with your Conservation Department on the receiving end.

We all realize that there is a currently critical shortage of small game, not only in this State, but throughout much of the country as well. Many of us realize too (when we stop to think about it) that this shortage is—of itself—only a symptom of a deeper and more serious trouble. The small game shortage can be likened to a migraine headache: it is so obvious a thing that the man it aggravates is concerned only with getting rid of it ITSELF, rather than the illness causing it.

So-the thing for all of us to do in this instance is, we believe, to visit the

doctor and face the facts.

We are devoting much of this issue to just that. Starting on Page 4 you will find a special article which we suggest you read in its entirety. And don't look for light reading; it's serious stuff. It simply tells you what the score isnot so much what's wrong with small game, but what the basic problems are.

Mark Twain once remarked that everybody complained about the weather, but that nobody ever seemed to do anything about it. We believe "Let's Face the Facts" at least shows that—in the matter of conservation—an opportunity exists for ALL of us to do something.

—Editor

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PERRY B. DURYEA, Commissioner

J. VICTOR SKIFF, Deputy Comm'r. ROBERT A. WELLS, Sec'y.

DIVISION OF CONSERVATION EDUCATION

CLAYT SEAGEARS, Director FRED EVERETT, PETE FOSBURGH Editorial BOB BUSH, Editor EARL McGUIRK, DOUG FINCH Photography

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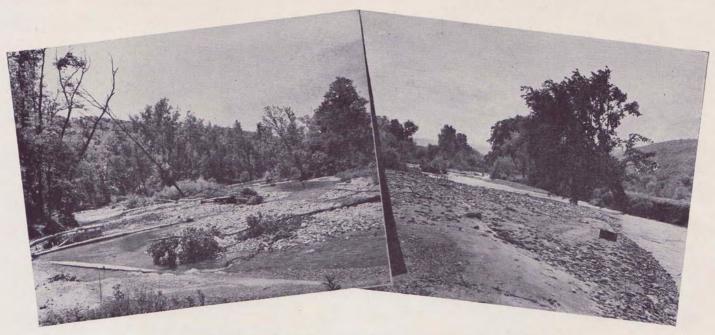
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New York State Conservationist



A NEW DEAL FOR CATHARINE

Plastic surgery for a famous rainbow stream

THE EAST COAST'S two top rainbow streams—Catharine Creek and Cold Brook, are going to have their faces lifted—and become public fishing waters in the process.

A long-anticipated improvement program to erase the scars of flood and erosion and produce permanently good fishing now appears a reality, with procurement by the Conservation Department of easements on approximately seven miles of stream already accomplished as Step 1 in the job.

This is just about half the fishable mileage of both streams. On Catharine, which flows into Seneca Lake, 4.55 of the creck's eight best fishing miles are under contract, and on the five miles of Cold Brook (Keuka Lake Inlet), approximately two miles.

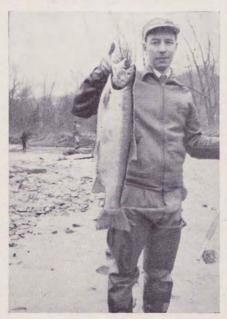
Both banks of both streams are concerned in the parcels of land for which contracts already have been signed. There remains search and transfer of titles, however, before these lands actually pass to the State, and this will take time. Only when this is accomplished will the sections of stream concerned be definite public waters.

The work of obtaining the easements has been progressing steadily for the past six months under direction of the Division of Lands & Forests. It represents the first step in a program which eventually will (1) give the Conservation Department the right and opportunity to embark on its improvement projects on both streams (2) by providing additional public fishing waters, reduce trespass and nuisance problems

between landowner and sportsman and make for better understanding between both parties.

The first feature is the more vital—not only since it concerns future fishery resources, but because it will benefit the landowners themselves. Stream-bank erosion on both streams has become progressively worse since the 1935 flood in the Southern Tier. Stream channels have changed, cutting into farm property and threatening more in the event of further deluges. In essence, the Department's improvement program represents flood control work as well.

A "fair-sized" Catharine rainbow



These projects have already been mapped in detail for Catharine Creek, where the need is greatest.

The work will start as quickly as materials and labor become available—possibly this summer. Additional help is expected from the Schuyler County Soil Conservation District, which earlier submitted Catharine to the Department as a stream where early improvement was badly needed.

The program will entail, as a long-term improvement measure, the restoration of stream-side cover by willow plantings and, it is hoped, eventual reforestation of the sharp, denuded slopes which border the stream for most of its length. Immediate measures will include installation of log or concrete cribbings, deflectors, and V dams.

Also essential is the return of Catharine to her old stream bed, which she has jumped in many places, and the removal of bars and other stream obstructions to bring her into proper alinement. Spoil from these operations will be used for diking and filling in of secondary channels

In the accompanying maps those portions of both Catharine and Cold Brook on which easements have been obtained are shown by shading. As will be noted, there remain several important gaps to be filled and, as it happens, some of them include parcels of land where the erosion problem is most acute. It is to be hoped that landowners concerned will see the wisdom behind the Department's proposed control and improvement program and extend their coopera-

By CECIL B. HEACOX

tion to insure its effectiveness throughout the lengths of both streams. Otherwise these "gaps" will continue to plague portions of the streams and lands below them.

Fisheries research men are of the opinion that the improvement program will not only facilitate the annual rainbow spawning runs in Catharine and Cold Brook, but, by turning Catharine, particularly, back to a semblance of the trout stream it was up until the early '30's, they believe that more trout can be induced to remain in the creek after spawning is completed and thus spread out the fishing pressure.

out the fishing pressure.

Before the 1935 flood Catharine had many deep pools, adequate cover along her banks and a respectable food potential. Today these material aids are largely gone.

These same deficiencies have also greatly increased the exposure of large spawning trout, encouraged piracy, and complicated the law enforcement problem. It is evident too that heavy silt deposits carried into the stream by bank erosion may be cutting down potential supplies of young trout by fouling spawning beds.

Hence, the Department's proposed remedy—which at the same time adds two of our finest streams to the growing list of public fishing waters.

THE Catharine Creek rainbow fishery is one of the most interesting in the State. There is a record of 150,000 "California trout", (probably rainbows) being planted in Seneca Lake in 1884. It was not until the turn of the century, however, that modern fish culture, as practiced by the Conservation Department, made it possible to successfully plant this West Coast species in New York. From these plantings have come the famous rainbow runs which make Catharine tops in the East.

These rainbows are the "steelhead" type. Of course, the only true steelheads are residents of streams tributary

to the Pacific. Steelheads have a tendency to migrate to larger bodies of water in contrast to the non-migratory rainbow, which stays put in its watery home. Seneca Lake is big enough to hold down the natural wanderlust of these finny Marco Polos. Cold Brook and Keuka Lake and the other Finger Lakes and their inlet streams present a similar picture.

Even before the ice goes out in Catharine, the shadowy forms of these great fish can be seen moving upstream to their favorite spawning grounds—to the gravel bars of the big stream, to Chequaga, to Deckertown, to Havana Glen, to the Sleeper and other tributaries. At distances from one to three miles from the main stream these feeders have precipitous falls which prevent further upstream migration.

From the viewpoint of a fish manager this situation provides an ideal set-up: Seneca Lake, Catharine Creek and its tributaries up to the falls form a well-defined "management unit." To such a unit, the task of applying sounder fish management is made easier as research and study provide information for improvement.

Research helps to answer many questions. One frequently asked question is: "Why is fishing permitted for rainbows during the spawning season?"

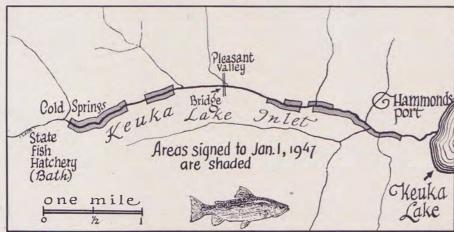
bows during the spawning season?"

It is true that the rainbow is the only New York State game fish which is not protected through at least a part of the spawning season. In Catharine Creek, investigations over a period of years show that natural reproduction is adequate to insure a good annual crop. Manmade regulations in the form of special creel limits, restriction of night fishing, etc., provide additional insurance.

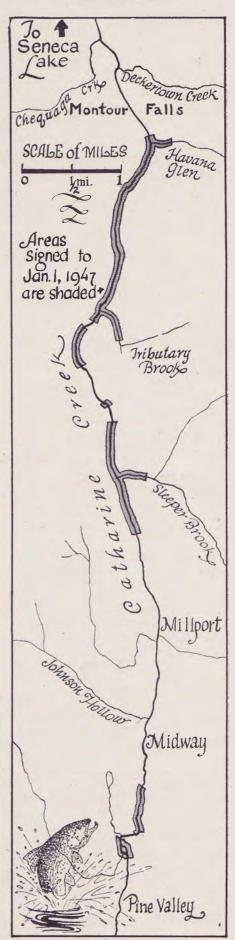
And so do vagaries of the weather. During the past three seasons, due to unusually warm weather in March, the run was practically over by the time the fishing season opened. In other words, most of the fish had come up

(Continued on Page 28)

Cold Brook (Keuka Lake Inlet)



Catharine Creek





RECENTLY, a letter we received from an old and respected hunter reflected the thoughts of hundreds of thousands of other veteran outdoorsmen across the land. This man had hunted in New York State for half a century. He had been moved to write by the current general shortages of most small game and by the mounting realization that hunting isn't what it was in 1896 when first he went afield. He said his hunting days were over but, on behalf of the youth of today and tomorrow, he begged the Conservation Department to bring back the kind of hunting he used to know.

If it were possible to wave a magic wand to restore that kind of hunting, conservation department workers throughout the nation would become

heroes over night.

Even before waving the wand, we'd have to roll back the virtually incredible changes that have occurred in agriculture, in our entire economy and way of living. In our State, we'd have to get more than a half-million hunters to hang up their guns; we'd have to shrink back our cities and our industries, give up our cars, our highway networks and our planes; hand in our repeating arms, and go back to working through the daylight hours six days a week.

It is impossible to foresee that the kind of hunting we had 50 years ago ever will return. In fact it is questionable if many of our present generation of hunters would be any happier with that kind of sport. There were no pheasants in those days, relatively few deer, and the comparatively few upland bird hunters, usually equipped with a good dog, depended on the rocketing ruffed grouse, woodcock and, in some places, scattered coveys of quail. What we need

is good hunting in terms of today's general kind of hunter. Only by giant enterprise can there ever be good hunting to fit that need.

It is high time to quit thinking wishfully that, somehow, a sick land can produce larger wildlife crops. It is time we quit thinking muzzle-loader thoughts in an age of automatics. Let's face the facts. In those fifty years, or less:

- 1. New York State's population has increased by more than 7,476,000 since 1900 (125 percent). We now have over 10 percent of the nation's population and only 1½ percent of its land area! If our present population was spread evenly over the State, nobody would be out of earshot!
- 2. The number of hunters in this State has increased nearly 500 percent since 1900. Even since 1930

the number of licensed deer hunters increased from 68,000 to 290,000 in 1946. If more game were available, the increase would be even greater.

- 3. Five million acres of farm lands have been abandoned and have become worthless for farm game (pheasants and cottontails). Our cropping methods have changed to the disadvantage of game.
- 4. We've lost nearly half our fertile top soil, of which game is definitely a by-product.
- 5. Automobiles and 60,000 miles of surfaced roads have shrunk the State to 1/10 its former size. We have 350 airports. The forty-hour week and paid vacations have increased potential hunting hours per man by at least 20 percent.
- 6. Guns, ammunition and all sport-

I BELIEVE the time has come to mobilize every force in this State in an unprecedented effort to save our public hunting and fishing. The current shortage of small game, in this and other states, not only threatens the healthful outdoor recreation so highly prized by millions of our people—it also threatens to make great inroads on an incredibly valuable economic asset. It forcibly directs our attention to the question: "Where do we go from here in wildlife conservation?"

Can satisfactory hunting be maintained in the face of ever-increasing hunting pressure? What can we do? Who can help? And how? I am convinced that no one has all the answers, but someone must take the

initiative to find them.

I have, therefore, had this series of articles prepared in the hope that we can suggest some of the answers and more important that they will stimulate all who have an interest in our wildlife problems to join with us in finding the rest. Read them, and let us know your own conclusions.

Pung B. Dung ea

- ing equipment are, in general, twice as efficient as before.
- 7. The number of dogs has increased 400 percent since 1900 and most of them run at large. Such dogs may be considered a major predator of most game species. The increase of cats and their part in harvesting what man himself would reap must be considered enormous.
- 8. A vast part of New York State's best marsh areas has been drained.
- The withdrawal of millions of acres from hunters, by posting and by local ordinance, obviously has intensified the pressure on other available land.
- 10. Other than the gun, mandeveloped mechanical hazards have become ever-increasing factors in the decimation of wildlife. These hazards include automobiles, telephone and power lines, poison chemicals and the like.

Merely in view of this partial list of adverse factors, it is little short of miraculous that game has been able to survive at all and that we have been able to maintain so much of our American system of public hunting.

But before conceding that game and hunting are doomed, let's consider our

assets:

1. A modern Conservation Law. (Deer, beaver, fisher and marten have been restored from virtual extinction in our day through regulating the take.)

The 5,000,000 acres lost to farming and farm game are being reclaimed by forest and woodlot game, including deer and grouse.

3. The State has already acquired three million acres of land on which the public has permanent

hunting rights.

4. In 1900 the pheasant had not yet been introduced to New York State. In 1946 we stocked more than 100,000 of these birds. We have reason to believe that this artificial aid, plus normal help from Nature itself (good weather during breeding seasons, etc.) could produce a harvestable surplus of at least a half-million cock birds a year.

In addition to these assets, which are direct contributions to our game picture, we have other recently acquired assets which are equally important and which hold much promise.

 For the first time we now have trained game managers in every region to work with some 700 clubs and federations and the Statewide Conservation Council, in a gigantic team effort which hasn't yet really gotten under way.

2. During the past five years, 33 counties have organized as Soil Conservation Districts to improve lands for farming and consequently for farm game and fish.

3. In the past year, 43 counties have named delegates to Forest Practice Boards recently designed to improve forest and woodlot conditions for the production of wood products—and consequently for forest and woodlot game.

4. As quickly as materials become available and contractors are willing to submit bids, New York will have the world's largest system of game farms to give Nature the greatest possible help within existing revenues.

 We have a half-million dollar game management project under way, including a large nursery for the production of shrubs for wildlife.

6. Some of the necessarily long-term programs of research are beginning to show productive methods of maintaining species abundance by game management in the field.

7. For the first time a State program in conservation education has been launched in an effort, eventually, to guide a whole new generation to proper thought and action.

What does the score sheet add up to? Obviously, nobody can assess the trends accurately. However, if we are to be honest, certain conclusions must be reached—and faced:

 It is not possible to supply a million hunters in this State with the unlimited hunting grandfather enjoyed.

2. It is not possible to maintain free public hunting, even on a modest scale, near centers of large population unless we do so on an artificial basis. Everything we get must be paid for, including the land on which to hunt.

3. We still have a lot of potentially good farmland on which Nature alone will bring about at least a partial recovery of small game populations from today's general low. History repeatedly has demonstrated this.

- 4. Hunting pressure, even at present record heights, may be expected to rise substantially higher. As the opportunity to hunt becomes more precious, we must pay more in terms of time, money and effort to retain it.
- 5. Hunting and fishing, plus the biproducts of outdoors recreation, have become an enormous business worth a minimum of \$100,000,000

to the people of the State each year. It is worth so much, in fact, that a leading Legislator (who happens to be a hard-boiled banker) recently told Commissioner Duryea that it was his sincere belief that an annual expenditure of \$5,000,000 to \$10,000,000 would be justified to maintain this source of possible income.

Unpleasant as it is, we should all realize that public hunting and fishing have reached the crossroads. The demand has exceeded the supply. It is essential that we face the facts and raise our sights at once to a new horizon

-more money, more effort.

This is a job for all, particularly the Conservation Department, the land-owner and the sportsman. A brief attempt to outline this job follows. It is urged that the suggestions be read carefully; that they be critisized, and that suggestions be sent the Conservationist. If there is to be a crusade, there is no better time to start than now.

THE DEPARTMENT'S OWN JOB

THE Conservation Department is one of the State's 18 Executive Departments charged with carrying out those laws passed by the Legislature and, within the framework of those laws, the broad administrative policies of the Governor.

Its particular responsibility is the management of the State's natural resources and the care and custody of State lands which have been placed under its jurisdiction.

In discharging this over-all responsibility, the Department does so according to many specific mandates from the people through their Legislature—in the form of laws and specific appropriations. It has to rely on the people, too, for cooperation in much of its work.

In doing its job it serves in several important roles which form a natural basis for discussion. It is a Landowner as the custodian for certain State lands. It is a Producer of certain kinds of wildlife because of its game farms and hatcheries. It is a Regulator by virtue of certain authority delegated to it by the Legislature. It is a Policeman by virtue of its game protectors. It is a Cooperator because of its various field services in fish and game management. It is a Fact Finder because of its fish and wildlife investigations. And it is an Educator because of the services of its Division of Conservation Education.

Following is a brief discussion, of each of these fundamental roles:

As a Landowner it has in its custody some 80,000 acres of game management areas acquired and operated specifically for game and for public hunting. (It also owns 573 miles of fishing rights not discussed here.) What is it doing to make these lands produce? Crews are now at work on virtually all of these game management areas, carrying out the most ambitious postwar project of its kind to be undertaken by any state. It calls for the expenditure of \$1,500,000 over a period of years. Of the total, \$500,000 already has been appropriated for the current year. By planting, improvement cutting, and other means, this land will be put in top shape for wildlife production and public hunting. As an owner of game lands the Department has recognized its responsibilities and is attempting to do a major job.

Equally important is the current improvement of some half-million acres of State reforestation land, also open to public hunting. As for the 2,500,000 acres of additional State land which comprise the Adirondack and Catskill Forest Preserve, the Constitution prevents cutting and hence rules out such game management practices as are being put to work

on other State lands.

The Department can buy more property. During the current fiscal year it is buying \$160,000 worth for reforestation (and public hunting). The Baldwinsville military area near Syracuse is already under contract and game managers keep an eye out for particularly desirable properties having special values for game. But the large-scale purchase of game lands is not good business financially or practically. The old saying, "It isn't the cost, it's the upkeep", was never more true than here. Taxes, maintenance and administration constitute a severe and perpetual drain on the Conservation (Fish and Game) Fund and if too much game land is acquired might eventually break it.

Practically, such a drain cannot be justified by results. The Department could purchase an abandoned farm, and for a very few years it might furnish farm game hunting without effort or expense other than taxes. But farm game is a product of active farming and, if the Department wished to maintain a supply of such game on the land, it would have to go into the farming business-which, obviously, it can't do. Therefore, the Department's future land acquisition program logically seems limited to the purchase of upland areas, marshes and submarginal lands near farms where they are most needed to provide public hunting. Another important limitation is that, under the law, the Department cannot make permanent improvements on private lands.

As a Producer: The supply of pheasants has been the most prominent and most controversial aspect of the small game shortage. The pheasant is one bird almost anybody can hunt-and hit. It can, therefore, supply the kind of hunting which today's kind of hunter would seem to need. The Department has attempted to meet this problem directly, by stocking to the limit of its ability and funds. In 1946, for example, its seven game farm units set a new production record. In addition, State postwar construction of new and expanded game farm facilities is aimed at doubling the output. If increased license fees become available, large purchases from commercial pheasant breeders are planned to augment game farm production.

But it's time to re-examine this policy. Two fundamental questions must be answered: (1) what kind of pheasant hunting is possible in this State? (2) is the Department justified in attempt-

ing to provide such hunting?



If we are justified in providing what sportsmen would term good pheasant hunting, we have reached the point in many areas where pheasants must be supplied directly for the gun without relying on natural production. If we are to embark on such a wholesale program as this, we must make expenditures of money unthought of in years gone by.

In answering these questions, the following facts apply: (1) The pheasant is not native to this State. It was introduced. (2) Only small areas of the State afford suitable natural habitat for pheasants. (3) Pheasants can be raised in quantity in captivity. (4) The cost necessarily is high. It would still be high if pheasants could be raised as readily as chickens. One pheasant at today's average commercial price is worth \$3.75.

As a Regulator: The Department's role is secondary to the Legislature, which regulates the taking of all but a few species of wildlife. The Department has direct power to regulate the take of beaver, otter, pheasants and grouse only. Its authority for pheasants will have expired January 1, unless it is renewed at the present Legislative session. It can recommend changes in the law for other species, however. Thus its responsibility is not strictly limited to its specific regulatory powers.

Its present pheasant regulations, for example, are based on intensive surveys of abundance by its field men, game managers, game protectors, farmer observers and hundreds of sportsmen. It is a difficult and, in times of scarcity, a thankless job. But it is being done.

As a Policeman: During 1946 the Department conducted the most extensive law enforcement drive in its history. Nearly 4,000 violators were apprehended, and a total of \$85,000 was collected in fines. The drive continues unabated. It is being conducted with the fullest possible publicity in order to

arouse public opinion.

This campaign is just a start. We need more protectors. More protectors mean more money. Better protectors call for higher pay, higher standards. The needed school for game protectors means still more money. Current recommendations of the N. Y. S. Conservation Council call for increases in pay and travel allowance amounting to \$81,000 each year. But how far can we afford to go in this over-all direction?

As a Cooperator: This is probably the most important role of the Department—if not now, certainly in the future. In this field is the greatest opportunity for

expanded effort.

The Department at present is working with hundreds of landowners, farmers and farm organizations, sportsmen and their clubs, businessmen, civic groups, youth organizations and others. Herein lies the potential manpower which must be brought to bear on the problem. In the following article specific examples of cooperative programs are discussed.

As a Fact Finder: The Department can and must carry on the investigations of immediate and pressing game problems. It has an exceptional group of trained men, now back from the war, to do this job. In doing it, however, the staff often is forced to do a large amount of basic, or preliminary, research in order to come out with the final answer. This takes time. Therefore, the Department believes that universities and other institutions should pick up the load of long-term problems in basic research and enhance the Department's efforts. Research is a means to an end, not an end in itself.

As an Educator: The Department has been inexcusably slow in organizing a program of conservation education and thus fulfilling its great and longneglected responsibility to the people. Left at the post by some other states, we are now off to a late but strong start. This magazine, special bulletins, motion pictures, effective exhibits and other forms of so-called publicity represent things the Department can do. What it cannot do is give a new generation the opportunity to study conservation in public schools. The Department can be of direct help in rounding out a program of conservation fundamentals which should be taught, but the training of teachers and the putting of conservation into the classroom is up to the State Education Department.

WHAT THE LANDOWNER CAN DO

THE private landowners of this State own and operate by far the largest part of our outdoor wildlife factory. True, it is a factory which they are operating primarily for farm crops and timber production—but some kind of a wildlife crop is an inevitable by-product. To get this simple fact firmly in mind is to grasp the greatest single fundamental for a wildlife conservation program in this State. Before considering some of the things which landowners could do—by means of standard farm practices—to increase wildlife production, we should know something about the physical make-up of the wildlife factory.

New York State consists of 29,674,000 acres of land. This is the total landed acreage of the State, exclusive of 1,000,000 acres in cities and villages. Private landowners control 90% of it.

There are 153,000 farms which include 7,500,000 acres of crop land; 2,800,000 acres of cleared and plowable pasture land; 3,000,000 acres of woodland; 3,700,000 unused or miscellaneous acres. Total: 17,000,000 acres of farmland, or farm-game factory.

Within the Adirondack Park 2,500,000 acres of forest game lands are privately owned. There is a total of 5,000,000 acres of abandoned farm and forest land, still in private hands. The balance of the State is made up of State land and a small amount of Federal property.

There you have the physical composition of the State wildlife factory, exclusive of waterfowl. To complete the picture, the following important facts must be noted:

1. The way in which all these lands are managed and operated determines more than anything else within Man's influence what our potential wildlife crop can be. Although this truth is obvious, its full force can be understood when we consider that if every acre was to be cleared and the State were to become one vast billiard table top, wildlife as we know it would become extinct.

2. Since game is a crop of the land, like farm produce or timber, the basic fertility of the soil is the primary factor in wildlife production. This does not mean that wildlife cannot survive on poor lands, but simply that more game can be produced on good land.

3. The best lands of the State, the rich river bottoms and the fertile valleys (the "honey spots" for wildlife in frontier days), have been permanently taken over by agriculture and henceforth will be available only for the cottontail, which migrated in from the South, and

the pheasant, which was imported from abroad. Therefore, generally speaking, our native wildlife has been forced back onto poorer lands.

Because farm land represents the biggest single chunk, let us look at that part of the factory first. It is the one which produces our farm game (pheasants and the bulk of our cottontail rabbits). Fortunately good farm practice is also good for wildlife—of itself an additional crop which the farmer can harvest. Here are examples of what the farmer can do:

On Crop Land: "Clean farming", when it involves the elimination of hedgerows, is disastrous. For the farmer, hedgerows provide wind-break, erosion control, and a haven for insect eating birds. For game, they provide food and shelter.

"Tilling on the level" (by following contours), "strip cropping" (alternate clean-tilled and close-growing crops), terracing, and use of diversion ditches are all practices recommended by the Soil Conservation Service to conserve soil and water. Many of them, like strip cropping, greatly improve conditions for small game.

On Pasture Land: Around the edges, the encouragement of trees and shrubs will provide food and cover. Along brooks and in wet spots, alders and willows—if not cut—provide ideal game cover.

Gullies and Odd Corners: These should be planted or allowed to grow up for the dual purpose of arresting erosion and creating cover for wildlife.

In the Woodlots: Probably the simplest and most important single item is to fence out the cattle. Anyone who has compared grazed and ungrazed woodlots knows at once how harmful grazing is to the growth of a luxuriant forest floor and, conversely, how much that rich forest floor means to various forms of wildlife. Beyond that, the management of the woodlot on "a sustained yield basis" through the application of modern forestry, will tend to keep the stand in a healthy condition. In selective cutting operations some concession should be made to wildlife by leaving den trees and others which are valuable as fruit producers.

Steep Open Slopes: Those too steep for permanent pasturage should be reforested in order to protect the soil. Well placed clumps of conifers in such situations help to overcome a very com-

mon deficiency in winter shelter for both birds and rabbits. Such planting will provide the farmer with a crop of Christmas trees and a future source of marketable saw logs.

Stream Banks: These should be fenced so that they cannot be grazed to the edges. Willows should be planted, or existing brush encouraged, so as to prevent bank erosion and maintain a year-round water supply. A well-grown water course affords ideal habitat for game.

Farm Ponds: These can be built cheaply at springholes and other natural sites. They provide water for stock, fire-fighting, and game. The pond itself atfords fishing, and living space for muskrats and waterfowl.

It will be seen that virtually all these operations, which will benefit wildlife, can be largely justified from the landowner's point of view as part of good farming. Nevertheless, because they are also good for wildlife, anything which can be done to help the farmer bring them about is of universal benefit. Your State and Federal governments already have a number of types of assistance available to the farmer as follows:

1. By signing up with his local Soil Conservation District, he can obtain a complete conservation plan for his property. This will include special features for wildlife if the farmer is willing to have such features encouraged. Through this and other State and Federal farm programs, the farmer can obtain direct assistance, sometimes financial.

2. By signing up with his local Forest Practice Standards District, he can obtain a complete woodland survey from a State Forester, as well as a forest management plan. At the same time he can obtain advice on how to carry out the plan, and help in marketing his timber.

3. His District Game Manager is ready and willing to assist the farmer in working out special features for the benefit of wildlife which will fit in with his general farm plans.

4. As indicated in the following section of this article, a few pioneering and far-sighted sportsmen's clubs have already undertaken to help the farmer in rehabilitating his land, with all expenses paid by sportsmen.

How can a large number of farmers be influenced to bring conservation to their farms?

The answer appears to lie in a tremendous educational effort, in which everyone interested in conservation should participate. The lead has been taken by the Extension Service and the State College at Cornell. It is a long-term proposition, but because its benefits are certain, it is worthy of every effort.

WHAT THE SPORTSMAN CAN DO

ODAY an army actually exceeding a million persons is on the harvesting end of the fish and game production line in New York State! The number is rising steadily each year.

If the production line is to produce increasing yields, this army will have to go to work on the production line itself

-directly or indirectly.

This giant reserve of manpower, while capable of doing great things for conservation, has never been used to anything like its full capacity. That is because (1) the reserve has been, and continues to be, incompletely organized, and (2) until recently the Department has not had a field force of trained fish and game men available to guide and cooperate with existing organizations.

The essential contribution of the individual sportsman to the cause of conservation is his sportsmanship. Without it any conservation program for fish and game is hollow and meaningless, built on sand, and for that reason sportsmanship is discussed at some length in the concluding section of this article.

But, although there is much the individual sportsman can accomplish in the field of conservation, the real hope for the future lies in sportsmen's communal activities. A good organizational setup already exists. There are 700 local sportsmen's clubs, well distributed throughout the State. These are represented in county groups, usually called federations. Most, but not all, of the counties are in turn affiliated with the New York Conservation Council, a State-wide organization.

In spite of this setup, the vast reserve of sportsman manpower remains 90 percent unorganized. Actual conservation practices are carried out on the local level, but only 10 percent of the licensed hunters and fishermen in the State belong to their local sportsmen's club.

In suggesting specific activities for the local sportsmen's club, our first suggestion is therefore aimed at the fullest possible utilization of the manpower re-

1. Membership drive.

2. Improving food and cover for wildlife: This is the most fundamentally sound approach to greater wildlife production. It is, however, an activity in which only a handful of local clubs have even made a start, largely because they simply do not know how to go about it. Through its District Game Managers, this Department can now help them.

Last fall, the Fayetteville-Manlius Rod and Gun Club voted \$1,000 to launch a long-term tree planting and game habitat improvement program on the Limestone Creek watershed. This was a revolutionary move. The improvements, including tree and shrub planting, fencing of woodlands, stream bank planting, and other crosion control measures, are all to be made on privately owned farms. Club members will pay all expenses—but they will receive no special hunting or fishing privileges in return.

The entire project is geared to sound farm economy. It has been developed jointly by the Soil Conservation District and the District Game Manager, and

rearing stations or State game farms, with distribution of cost among all hunters. The Department recommends this because there are certain other jobs which only the local group can do well, and which in the long run will be more important and more permanent in their effect.

The Department does suggest, however, the establishment of covered holding pens in good pheasant territory, to receive central rearing station birds for

hardening and release.

4. Violators: Set up a club committee to combat lawlessness. Some clubs are now expelling members convicted of game law violations. It is possible that this Department should appoint more Special Game Protectors from the memberships of those clubs which really mean business along these lines.

5. Education: Take an active part in creating a better public understanding of the reasoning behind seasons and bag limits. "Boy's Nights" and the establishment of junior clubs are particularly valuable as part of a conservation educa-

tion program.

6. Game Surveys: Promote an appraisal of game territories in your county on which to base stocking allocations.

7. Predators: Conduct contests to encourage predator control, with prizes for the taking of foxes, weasels, crows, horned owls, etc. Organize fox hunts and crow shoots.

8. Live trapping: Cooperate in supervised trapping and transferring of surplus game populations from public areas

closed to hunting.

9. Willow planting: Cut bundles of willow canes. Shove them deep in the soil along eroded or coverless stream banks. They'll sprout. A century ago, a law compelled every taxpayer to do

10. Moral support: Endorse, and if possible participate in, every local program which has some benefit to conservation. Soil Conservation Districts, for example, were set up throughout the State with little if any support from game clubs, yet this agency's program is vital to the production of wildlife in every sense of the word.

Finally, the sportsmen's club has a general responsibility. The word "sportsman" is a convenient term to designate one who hunts or fishes, but unfortunately not all those who hunt or fish are sportsmen. A good place to consider this problem is the sportsman's club.

STOCKED **ADIRONDACK**

OBEY THE GAME LAWS

RESPECT THE RIGHTS OF PROPERTY OWNERS. REPORT ALL VIOLATIONS.

PREVENT FOREST FIRES

only farms which have signed up with the Soil Conservation Service are included in the plans.

Such a project has enormous possibilities. In the article devoted to what the landowner can do, specific practices are listed which could easily be taken over by the progressive sportsmen's club. The mechanics are simple: Become acquainted with your District Game Manager; go with him to meet your County Farm Bureau Agent. If your county has a Soil Conservation District, or belongs to a Forest Practice District, meet the directors. You will not be long in finding a worthwhile project in which your club can participate.

3. Pheasants: This Department does not believe that pheasant raising is a sound project for most local clubs. Statistics prove that, with a few exceptions, the job can be done better by central

WHAT MAKES A SPORTSMAN?

OF ALL the problems confronting sportsmen today, none is more scrious than the sportsman himself. As a hunter and fisherman he can make or break his own sport, and it appears he is now hell-bent on breaking it.

He can do this directly, by disregarding the letter and spirit of conservation law and so jcopardize the supply of wild-life. Or he can do it indirectly, by resorting to conduct in the field which will prejudice the public, and particularly the landowner, against the entire hunting and fishing fraternity. Either approach is an effective means of ending virtually all public hunting and fishing.

In calling attention to this situation, the Conservationist does not mean to lecture sportsmen generally, or to wash its hands of an ugly development. But it would be absurd to hide our heads, ostrich fashion, and deny that sportsmanship, at the very time it is most needed, has gone into a radical decline. This is your problem. Conservation law can regulate sport, but not sportsmanship, and the time has now come when one cannot exist without the other.

THAT word "sportsmanship", so often repeated here, is the key. Webster defined it as "conduct becoming to a sportsman, involving honest rivalry and graceful acceptance of results", and there is no need for a new definition. There is, however, positive and immediate need for reaffirming the old one. The simple fact is that we have too few men in the field who practice honest rivalry, or whose conduct makes them a welcome guest on a farmer's land, and still fewer individuals who gracefully accept results.

The most conspicuous offender is the violator. He and the unprecedented wave of lawlessness of which he is the focal point were discussed in the last issue of the Conservationist, but it would be misleading if any discussion of sportsmanship were to stop there. There is ample evidence on every hand of a wholesale short-selling of sporting principles and morals—a laughing, shrugging, cynical indifference—not confined to the deliberate violator or to any particular class or age group. We are confronted with a widely prevalent philosophy of devil-take-the-hindmost; get while the getting is good; the future can take care of itself.

The hunter and fisherman with this philosophy is a more subtle enemy than



the outright violator, and therefore in the long run more dangerous. It is more difficult to lay hands on him. He is inclined to regard conservation law as an infringement on his native rights, or at least as an unreasonable damper on his pleasures, but his activities remain largely within the letter of the law.

He is the "sportsman" of yesterday, either unwilling or unable to adjust himself to changing times. He dreams of big kills and virgin territory, and if there isn't enough game to satisfy him, all hell breaks loose. Didn't he buy a license? Well, what for? He is the pothunter, the killer, the waster, the gamehog who hunts and fishes to get as much as he can before somebody else gets it.

His conduct has become a byword. It is conditioned by the feeling that he probably won't be back next year anyway, and if any trouble develops, he can always go somewhere else. He can talk sportsmanship, but to practice it would interfere with his sport. In the field he is known for his roughshod tactics and aggressive approach, and above all for his noisy and flagrant lack of courtesy. He is the hunter so many regard as a dreaded, seasonal disturbance. He is the fisherman the farmer recognizes, and bars, on second sight. The countryside is not the same when this man is abroad, and the marks of his passing remain long after he has gone home.

You know this man. Or you know a man who is at least partly this man. What makes it difficult is that you may also like him. In his defense you say that he is a good fellow, but that he has never grown up and just doesn't understand sportsmanship. But whatever his character in other respects and whatever his defense, as a hunter and fisherman this is the man who is killing his own sport, and yours.

In addition to the immediate damage he has done in his reckless raids on the wildlife treasury, in his wake this man has left a mounting tide of resentment. His behavior in the field has promoted the feeling that hunters and fishermen in general are uncouth intruders and a disruptive element in the countryside. Among farmers, landowners, and groups of people who have little in common except a love of Nature and a sense of propricty, this man has planted the seed

of a popular revolt against the entire hunting and fishing fraternity.

This is serious. Although the revolt is still largely a frame of mind, the resentment on which it is founded has in many cases already crystalized into action. For the first time, this Department has run into extensive areas of remote, backwoods land which have been posted solely because of a lack of sportsmanship on the part of hunters and fishermen from the outside. Property damage and just plain bad manners brought swift and effective retaliation.

It will be seen then, that although sportsmanship is an end in itself, this is not purely an academic discussion. Sportsmanship opens gates. Bad manners close them. The farmer-landowner is long suffering and normally generous, but there is an end to his patience. It should be remembered that he controls the gates to 90 percent of our sport.

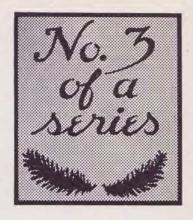
IN THIS connection, it might help to point out a few facts concerning the relationship between the farmerlandowner and the visiting hunter or fisherman. This relationship has been clouded by a fundamental misconception as to just who is the conservationist here. A conservationist is by definition a producer and builder, a preserver and protector, a restorer; the farmer-landowner fits this description every day in the year, or he goes out of business.

But what about the hunter and fisherman? He is inclined to regard himself as a conservationist, with conservation his own particular province and his Conservation Department answerable to him. In other activities he may answer the definition, but the simple fact is that as a hunter or fisherman he is not a conservationist, but a harvester, and nine-tenths of the time he is out to harvest a crop that has been produced by somebody else.

We who like to hunt and fish had better remember this. We had better remember, too, that the way we hunt and fish now will determine whether or not we will hunt and fish at all in the future. We had better grow up. We are skating on thin ice.

But it is not enough just to admit all this, with a sad nod. Now is the time for an all-out crusade in support of law and sportsmanship, with no shirkers, no protests of more pressing business elsewhere, and no holds barred.

-Pete Fosburgh



INSIDE YOUR DEPARTMENT

By E. W. LITTLEFIELD, Superintendent, Bureau of Forest Investigations

Division of Lands & Forests

Guardian of New York's timber resources

IN THIS issue we take up another major branch of the Conservation Department—the Division of Lands and Forests, whose responsibilities to the public are perhaps more varied than those of any other unit of State government. Custodian of three million acres of State forests; protector of the woods against the demon fire; destroyer of tree-eating bugs; producer of 25 million seedling trees a year; builder of mountain trails—these are only a few of the roles that the Division of Lands and Forests is called upon to play.

Is your woodlot ready for timbering? The District Forester or his assistant will be on hand to help you decide. Are you uncertain about burning brush this week-end? Call up the Forest Ranger; if the weather is right, he'll give you a permit. Did your chum get off the beam on that last drive and fail to make camp? The Rangers will be out looking for him. What about those trees you were going to plant on that side hill? Get your order in early, friend, for the nursery inventory is running

rather low.

Services like these aren't created overnight. They are built up, one after the other, in response to specific public needs and demands. It's a far cry from the original Forestry Commission back in 1885 to the highly organized, streamlined aggregation of 1947. As we look back over the years, it is easy to pick out the high spots in the march of forest conservation toward the position it now holds in New York.

Let's start with 1894, when the Constitutional Convention put the Forest Preserve Law of 1885 into the State Constitution as Article VII Section 7 (now Article XIV Section 1). Without going into details of this highly controversial provision, which was discussed in a special article "Your Forest Preserve" in the previous "Conservationist", it is enough to point out that by this action the State found itself permanently standing guard over 800,000 acres in the Adirondacks and 50,000 more in the Catskills, which areas have now been increased to the impressive figures of 2,171,538 and 232,422 acres respectively. Of the later additions,

673,000 acres were acquired through the bond issues of 1916 and 1926. The intricate details of these projects, involving a large amount of very difficult field work, were carried out with a high degree of efficiency by Art Hopkins, now Assistant Director of the Division. These areas, it should be pointed out, are not all in one or two big pieces, but in hundreds of parcels scattered over 16 counties. This job alone, with miles of boundary to survey and the protective measures and recreational development that go with it, is a man-sized proposition, bigger than some foresters in other states have in their whole bailiwick. But for New York that's just a starter.

The next mile-post we see along the road is a period of three years from 1899



to 1902, when reforestation was getting under way, first as an activity of the old Cornell School of Forestry-then, in 1902, as a job for what was then the Forest, Fish and Game Commission. That was the year the first State tree nursery was established, setting in motion a vast program for the reforestation of old burns and other waste lands in the Adirondacks and Catskills. Many a forester now getting gray around the ears remembers his first meeting, as a cub just out of school, with the man who engineered this program from its puny beginning to the greatest massproduction of trees in history. That was "Cliff" Pettis, Superintendent of Lands and Forests from 1910 to 1927, whose dynamic energy, picturesque speech and lively personal traits were to become legendary. A pioneer in many aspects of forest conservation, reforestation was always closest to his heart, and the thousands of planted pine forests up and down the State stand as his enduring monument.

The year 1909 was noteworthy, mainly because it occurred right after 1908, the year of the great fires. For the second time in five years a disastrous

conflagration had swept over the Adirondacks and this time the people decided to do something about it. So, in 1909, the forest fire-fighting organization was born, with Bill Howard, now Director of Lands and Forests, placed in charge soon after. Today, the roster of this organization includes 113 rangers, 94 observers who watch from their towers on mountain tops during the fire season; an airplane pilot, locomotive inspectors, and more than 5,000 civilian wardens who are on call when a fire breaks out. Once the firefighter's best friends were a broom and a bog-hoe. Listen to the gadgets they fight fire with today: 61 fire trucks (19 of them equipped with radio), 100 power pumps, 1,400 knapsack pumps, an airplane and walkie-talkies!

But it wasn't all good news in 1909. A sinister shadow fell across the forest landscape that year, with the discovery that white pine Blister Rust, a European tree disease, had gotten a foothold in North America and was already "boring from within" in our State nursery at Lake Clear. Were the foresters discouraged? No. They set to work getting rid of the carrier plantsfor Blister Rust can't live without currants and gooseberries any more than yellow fever or malaria can keep on spreading without mosquitoes. And it's a satisfaction to report, 40 years later, that the white pines in New York and elsewhere in the East haven't disappeared, as was once predicted. Instead, white pine is still reproducing on field and pasture and cut-over, secure under a program of control maintenance that costs only a few cents per acre.

In 1923 New York decided it didn't want the Gipsy Moth to get west of New England, where it had become Public Nuisance Number 1. With the cooperation of the Federal government, the so-called Barrier Zone was set up, from the Canadian border to Long Island. Colonies of Gipsy Moth which drifted into this zone from the east were promptly scouted out and exterminated by an ever-watchful patrol. About 1939, a tremendous influx of these bugs, coming at a time when funds for this work were hard to obtain, gave the forestry organization plenty to worry about, and the Barrier Zone was breached in a number of places.

Then, over the horizon appeared DDT, the answer to the bug man's

prayer. Hooked up with one of the Department's specially equipped planes, DDT will knock out the Gipsy Moth from 600 acres in one day. (We used to do 300 acres in a whole season by ground spraying. Last year we covered 25,000 acres by plane). Best of all, the experts have learned that they can apply DDT in diluted quantities, and at a time of year which practically eliminates danger to song-birds and other wildlife.

Twenty years ago, in 1927, the Division of Lands and Forests underwent its first streamlining, with the grouping together in bureaus of different lines of work, such as Forest Fire Control, Forest Pest Control, Reforestation, etc., with a responsible, trained forester in charge of each. For the reorganization and the increased efficiency in public service which it brought about, credit goes again to Mr. Howard, who, on assuming charge of the Division, conceived and carried out this over-all plan.

Two years later, in 1929, the Enlarged Reforestation Program was inaugurated, calling for the acquisition and reforestation of abandoned and sub-marginal farm lands outside the Adirondack and Catskill Parks. While the Department did not get legislative or executive support in the next few years to proceed with this program as fast as had been anticipated, an unlooked-for development took place in 1933 which was to accelerate all the work of the Department for a period of seven or eight years. This was the advent of the Civilian Conservation Corps or "CCC" with its 67 camps in New York, where as many as 10,000 boys in a single year were given constructive out-door employment in the State forests.

S A RESULT, nearly half a million A acres were planted in 337 units, now called State Production Forests, to distinguish them from the State Forest Preserve. Today on these State Production Forests, forest management plans prepared by District Foresters are being carried out under the \$11,000,000 allocation from the Postwar Planning Fund These plans call for thinning of the plantations and improvement cuttings and timber sales in natural woodlands. The wood removed in these operations is being sold in the open market as sawlogs, pulp and other products sorely needed to replenish the lumber stock piles and other wood reserves depleted by the country's military needs during the war.

Not to be forgotten in the "thirties" is the year 1932, when the Winter Olympics (and the great "January Thaw") came to Lake Placid. The impetus to winter sports which this event gave the Adirondacks is reflected today

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THE EUROPEAN HARE in New York FRED STREEVER A trio of Mr. Streever's hounds and the results of a day's chase: red fox, hare and grey fox

WERE a man to tell you, in all soberness, that he had seen a rabbit in New York State as big as a fox, you would probably suggest that he visit his family physician posthaste for a thorough check-up. But, rather than being a myth, or the figment of imagination, such a "rabbit" has been a reality in New York for well over 30 years.

They call him Lipus timidus—the European hare, the same fellow who has provided sport on the Continent for untold centuries. He is as large as two or three of our big native varying hares, and is fully five times the size of our cottontail. Specimens over 15 pounds have been reported, and this, in truth, makes him "as big as a fox".

The European (or "red hare", as he is known colloquially in this State) was originally liberated as an experiment in those counties along the lower Hudson River about 1912. The animals made themselves at home and have now populated as far north as parts of Washington County, whence they will probably extend their range into the Champlain farming country, since that type of rolling terrain is to their liking. They have often been confused with the varying hare, and with the western "jacks", but they are larger and stockier than either.

These "red" hares are unprotected in New York; in fact, there is a regulation prohibiting their release and a Federal law prohibiting their importation from Europe or across interstate lines. The only reason for these regulations ever vouchsafed our inquiries is that the animal is a menace to agriculture. Yet he is quite plentiful in the Province of Ontario, in the region of the Great Lakes, and if there is any objection to him there I have never heard any Canadian farmer broach it.

As a quarry for hounds this hare has no peer. He does not possess as large a variety of tricks as does our red fox, but he makes good use of those he has acquired in the centuries during which his European forebears have been chased, trapped and shot at with everything from blunt bolts to modern firearms. On the Continent he is found

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This one weighed 18 pounds





THIRTY MILES from New York City and its teeming millions there is a gem of a lake set down in Westchester County's granite hills—a spot as wild in appearance as any North Country waters and one where the harried metropolite can find fishing—at times—nearly as good, and right in his back yard at that.

Its name is Kensico, and it is a reservoir rather than a true lake. But it lacks the "man-made" look characteristic of such impoundments and it has a varied appeal for all lovers of the outdoors.

For the historian, Kensico's high dam and the waters which lap against it bring to mind the year 1683. In November of that year, Cokenscko, a sachem of the Siwanov Indian tribe, added his mark to those of other chieftains and thereby deeded tribal lands, including the site of the present City of White Plains, to early settlers. Through the years, Co-kenseko became "Kensico," and the dam and the reservoir remain as a massive tribute to his memory. South of the Big Peninsula in Kensico Reservoir was the site of Reuben Wright's mills in Kensico Village, where George Washington made his headquarters in 1778. This is commemorated by an appropriate marker on Route 22.

For the botanist, Kensico's wooded slopes contain dogwood (Cornus sp.), pink azalea, shad bush (Amelanchier, sp.) and mountain laurel in abundance.

In isolated thickets, for a few days in the year, the yellow gold of the ladyslipper and the pink, mauve and white of the fragrant showy orchis gleam in the shadows. Maidenhair fern, maidenhair spleenwort, ebony spleenwort and other more common ferns are found around its perimeter. Spectacular conifers cover acres of its margins.

For the herpetologist, there are several places where copperheads are common, and many varieties of non-poisonous snakes are occasionally seen.

For the naturalist and the wildlife photographer its marginal lands give sanctuary to the ever-mereasing Westchester County deer herd, an occasional ruffed grouse, some mink and numerous opossums, raccoons and muskrats.

For the water supply engineer, Kensico is a milestone in supplying to the thirsty millions of the metropolitan area a pure, adequate and potable supply of water. At the turn of the century, New York City's growing population caused concern to its water supply administrators. The Croton system, started in the 1830's, was too small to take care of the probable demand. The problem was solved by bringing Catskill water to the city through the Catskill Aqueduct.

To protect consumers in the New York area against unforeseen breaks in

NEXT ISSUE: Lake George

this 75-mile lifeline, engineers dammed the valley of the Bronx River three miles north of the City of White Plains and emptied one-half billion gallons of Catskill water daily through the Aqueduct into this basin. The dam is of cyclopean masonry, contains almost a million cubic yards of stone and cement, and was built on approximately the same location as Lake Kensico Dam, which for some 30 years had provided a moderate amount of water daily for New York. The irregular lake back of it, covering 2,200 acres and containing 30 billion gallons of water, enables the Department of Water Supply to maintain an uninterrupted supply of Catskill water to consumers for two months if the Aqueduct north of Kensico may, for any reason, be out of service.

Looking north from the dam, the lake is approximately 3¾ miles long and almost a mile wide. Its maximum depth is 160 feet. Kensico's 2,200 acres are not found in one continuous body of water, but extend back in long arms and bays. To the east of Route 22 lies what is locally known as Rye Lake.

For the fisherman, Kensico is both a delight and a headache. Unlike most watershed developments, fishing is permitted by State law to citizen-residents, under reasonable regulations. Commissioner John M. Cannella of the Department of Water Supply of the City of New York has promulgated regulations

under which qualified applicants receive permits, upon filing tingerprints and photographs. Owners of rowboats may obtain boating permits, subject to strict compliance-with-sanitary regulations.

Armed with tackle and bait, licenses and permits, fishermen sally forth in vast numbers. To appreciate the difficulties which beset them, a bit of local history is important. Before the City of New York built Kensico Dam, the area covered by the reservoir contained three lakes—Lake Kensico, Rye Pond and Little Rye Pond. Uncle John Rosch of White Plains (now in his 90's), the father of Mel Rosch of the Southern New York Fish and Game Association, is the reputable historian from whom the following facts have been obtained:

He states that in 1856 Rye Pond was just another pickerel pond. In that year, Uncle Daniel Gray, a famed fisherman of this region, first introduced smallmouth bass into Big Rye. Five smallmouths were caught in Greenwood Lake and transported to Big Rye in a milk can. Their tribe flourished, and Big Rye became famous for its excellent small-mouth bass fishing.

In February of 1888 (year of the great snow), John Rosch and some of his cronies got 40 cans of lake trout (they believe from some Federal hatchery) and some 40 cans of what they thought were whitefish. These 80 cans were dumped into Old Kensico. The local assumption is that the cans which were supposed to contain whitefish contained the alewife or "sawbelly," because a year or so after their introduction these prolific forage fish first made their appearance. Since that time they have provided an unlimited food supply for game fish.

In the course of years, the City took over the entire basin, and, as the waters rose, Rye Pond, Little Rye Pond and Lake Kensico were flooded and became what is today Kensico Reservoir. For years after the flooding, bass fishing was excellent, and the alewife, except for minor cyclic fluctuations, held up equally well.

In the middle 1930's, the Southern New York Fish and Game Association got a shipment of brown trout breeders from one of the State hatcheries. These were released in Purchase Street and Louden's coves in the Rye Lake section of the Reservoir.

That same year, a native of Lake George moved to White Plains and had no difficulty in taking his limit of lake trout, a fish which up to that time had not made its appearance. Some of the old bass fishermen wrinkled their noses in disgust at the copper-line fraternity, but snapped out of it when some of the keener and more persistent fishermen

started taking enormous brown trout on the surface on streamer-flies.

In 1939 in a contest conducted by a national magazine, Kensico Reservoir took 1st, 3rd, 5th and 9th prizes in the brown trout class. The first prize went to Charles Boyce of White Plains for a 16-lb. 5-oz. fish.

Lake trout fishing has held up equally well. George Partelow of Ossining holds the record for a 20-pound, 36-inch fish taken from shore on a spoon in 1945. A fish of identical proportions was taken from the water supply screens at the end of the lake several years before that.

Since large browns and lake trout have appeared, bass fishing has been decidedly spotty. But Allen Radar took a smallmouth that weighed 6-lbs. 8-oz., and largemouth bass weighing more than 7 pounds have been taken.

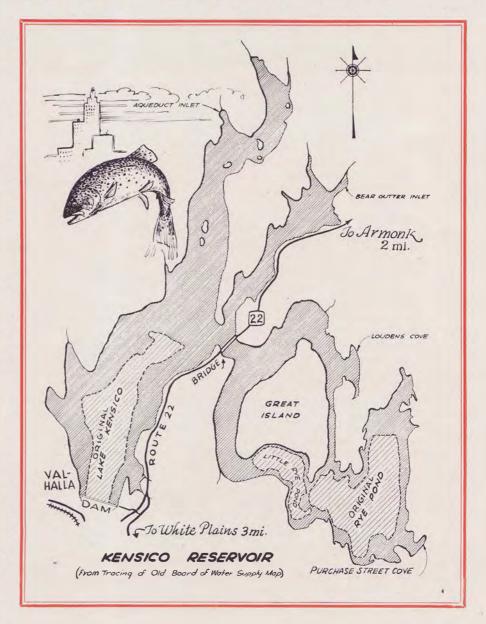
The Southern New York Fish and Game Association several years ago asked for and got additional protection orders from the Conservation Depart-

ment limiting the take of smallmouths to 12 per boat per day, reducing the individual limits from 6 to 5 fish daily, and outlawing bass under 12 inches.

During the five war years, no boats were permitted on Kensico Reservoir. This closure resulted in tremendously increased fishing pressure during the 1946 lake trout season, when lake trout were taken out by the ton. During April, lakers are found scattered along the shores of the lake and in concentrations wherever tributary streams enter into it. After about May 1 these fish go into deep water, but the fishing fraternity does not concentrate its angling in deep water areas. This abnormal concentration of fishermen along the shores has undoubtedly resulted in the destruction of many small-mouth bass nests.

Without taking sides in this controversy, it would seem that this picture presents the need for a sane and ade-

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"WERE making a low swing over the north end of Cayuga Lake, skirting the marsh for signs of ducks, when we noticed this fellow in a blind below us. We were moving at right angles to him, rather close in. Suddenly John Schempp, who was observing, saw him raise his gun and level it at us.

"John yelled a warning to me over the plane's intercom, but just then the guy in the blind let drive and a moment later we heard shot smack into the plane. We were doing about 110 MPH at the time, but his lead must have been good—there was shot scattered from the nose to the tail. One of them came through the plane door and went into my flying jacket."

The above remarks are catalogued under the heading "RISKS" in my field notes of the Conservation Department's first aerial waterfowl census, conducted last fall over the State's major flyways. They are recorded here not as another example of the depths to which "sportsmanship" has fallen in New York, but to show one of the many problems we faced in our attempts to learn the status of the State's waterfowl for the ultimate benefit of duck hunters themselves.

Waterfowl had been presenting difficult problems in terms of available ground observation methods. Various groups in the State had been agitating for a change in the dates of our open

seasons, some believing that major flights of puddle ducks had migrated south before the season opened, others arguing that the season was closing before the main migration of divers was under way.

Since these problems were Statewide in scope and personnel available for waterfowl research was limited, it was thought that the answer to these questions could be obtained only through aerial observations. During the fall of 1945 and again in the spring of 1946, Dr. H. L. Kutz, then head of the Ontario-St. Lawrence waterfowl project, had made flights over his study area, utilizing a rented plane. Al-though experimental in nature, the flights had clearly demonstrated that it was possible to locate, identify and count most ducks over a large area in a remarkably short time. With the purchase of a Department plane in 1945, the possibility became a reality and, during the fall of 1946, a State-wide aerial duck census was initiated.

Because of the need for an observational type plane, the Conservation Department had canvassed the field and decided that the Army had been using one admirably suited to Department

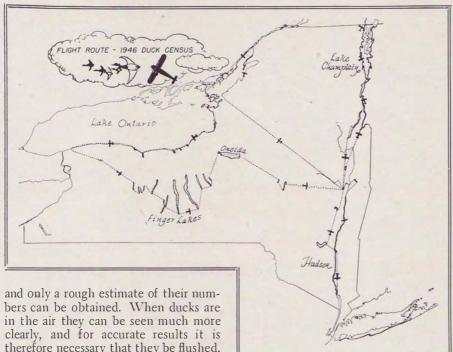
Our duck sleuths take to the air for a State-wide check on New York's waterfowl. Here's how the job was done.

needs. This plane had been designed for ground observations, such as spotting artillery fire. It was a Stinson L-5, and since locating a hidden gun emplacement could be compared with finding a raft of black ducks in a marsh, it might be said that the plane had actually been designed for game research purposes.

The L-5 is a high-winged monoplane which will cruise at 115 miles per hour and land at 50. Its safe, slow-flight speed (used when observations are made close to the ground) is about 70. The plane is equipped with two-way radio, navigation and landing lights, and it is anticipated that floats will be obtained for water operations by next fall.

There is room for one passenger in addition to the pilot. An interesting feature of the plane is that the side windows slope outward from the bottom. By leaning over, it is therefore possible to see straight down without rocking the plane, thus decreasing to a minimum the "blind" area beneath it. The plane's nose is also low in relation to the pilot's seat, enabling him to see objects close in front while in flight, a factor worth considering while flying at altitudes of 20 feet or so over a marsh.

An aerial census of ducks is basically different from a ground census. From the ground, ducks are usually identified and counted while they are on the water. From an airplane, however, ducks on the water are difficult to see,



therefore necessary that they be flushed.

Our most difficult problem last fall was presented by marshes. It was found that a flight altitude of between 10 and 30 feet was necessary before the greater portion of the ducks would take to the air. It was also necessary to watch the open water areas closely, because up until the latter part of September flightless birds were encountered. The commotion in the water made by these birds as they scurried toward cover in the vegetation was easily seen but, of course, the birds that had already taken cover were missed.

A few of the largest marshes were divided into two or more parts, each part being worked as a unit. By working smaller units (500 acres or less) it was easier to keep track of reflushes, since we could make a return flight while the birds flushed were still in the air or just making a landing.

Open water areas were more easily worked. Flight altitudes of from 100 to 200 feet were found to be most productive and a speed of 100 MPH could be maintained without loss of efficiency. Small lakes were covered by flying around them somewhere between 200 and 400 yards out from shore.

When ducks were sighted, the plane was turned toward them and flown close enough to flush, identify and count them. From higher altitudes it was possible to see even small rafts of ducks a surprising distance away on open water.

In covering wide bodies of water, such as Oneida Lake and the shore of Lake Ontario, it was found that the majority of ducks stayed within a half mile of shore. The centers of Oneida, Cayuga and Seneca lakes were flown at various times during the fall, but so few ducks were flushed it was hardly worth the effort, let alone the risk.

Accurately determining duck numbers from a plane is largely a matter of experience. After seeing a great many small groups of birds, and actually counting them, it became possible to maintain a visual image of what 25, or 50, or even 100 ducks looked like in the air. All larger flocks were estimated in terms of these units. In flocks of 350 or less it was thought that the degree of error was small, because they could be counted in more accurately recognized smaller units. A unit of 100 ducks was the largest the pilot and observer thought they could recognize with any degree of accuracy, and flocks of 400 or more were counted in 100's.

Statistics were recorded by species and numbers according to the nearest geographical point, so that a map of their actual distribution in the State could be made from the summary.

Features other than color pattern were used for identification. The fact that puddlers spring from the water, while divers run along before taking off, served to divide ducks into two groups immediately. General form, size, rate of wing-beat, form of the raft on the water, reaction toward the plane and formation of the flock in the air also aided in identification.

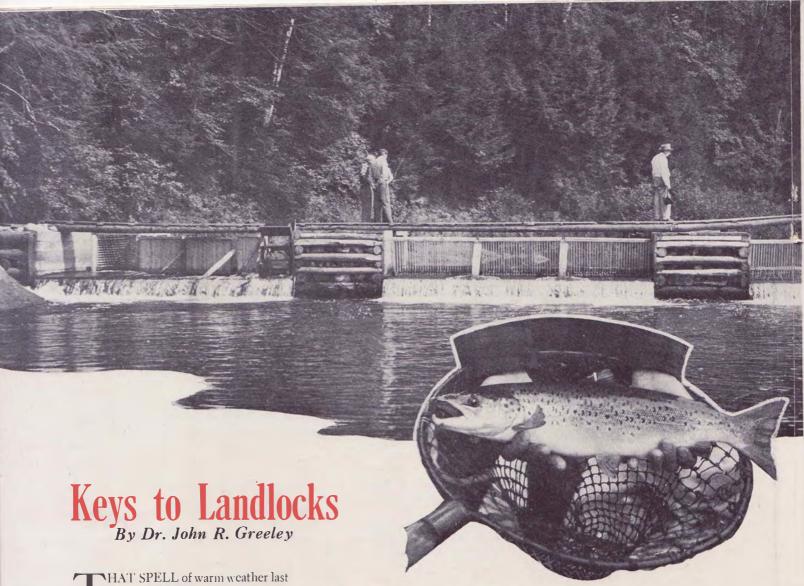
As the season progressed it became obvious that scaups (blue-bills) could not be distinguished from redheads. When viewed from above, about the only difference was the white wing stripe on the scaup, compared with the gray one on the redhead. Variations in light conditions made this feature totally unreliable. The totals for these two species were consolidated.

On open water the reaction of various species to the plane was surprisingly different. Goldeneyes invariably flushed a long way ahead and had to be chased before they could be identified. Scaup and redheads seemed to vary in their willingness to flush, although this was somewhat dependent on how the plane approached them in relation to the wind. They refused to take off downwind, and if the plane approached directly from the windward side they would not flush. Blacks and mallards sat tight, and if the plane was not headed directly toward them, many would let it pass by. If they were closely bunched they seemed much more likely to flush than when they were scattered widely.

Most geese flushed far ahead, but on several occasions flocks were encoun-(Continued on Page 29)

Where did they go from here? An aerial census sought the facts





HAT SPELL of warm weather last March took the ice out very early in the Adirondacks, but even so the first week in April seemed hopeless for fly-fishing. A cold drizzle had begun on Clear Pond soon after we pushed the boat out from shore. My fishing pal, one of those tenacious individuals who think nothing of casting a streamer fly thousands of times along miles of shore line, was still going strong, but at the end of the second hour my hopes of turning up a landlocked salmon as first fish of the season were beginning to fade.

Several hundred casts had failed to produce when, almost before I felt the strike, there was a splash, and into the air went a silvery fish. Seven times, as fast as he could hit the water and take off again, he hurled himself a good three feet upward; then, after a few submerged rushes, he paused to get his second wind, and only a lucky pass of the landing net changed his plans.

As he fought the net and protested against my efforts to unhook him I wondered how a mere stripling of a 16-inch landlock could have caused so much commotion, and in April, too,

when cold water is supposed to keep fish sluggish. Nothing I have ever caught fought faster or jumped higher in relation to its size than this slender, black-spotted fish, which was unhooked and carefully put back to "grow up."

It would probably make a better story to say that we continued catching more and bigger salmon that April clay. We didn't. This salmon fishing ran true to type for most New York lakesan appetizer with no real banquet to follow. But do not write off your own chances of catching a New York landlock. There is every reason to believe that many of our lakes, comprising a good many thousands of acres, are wellsuited to produce salmon. Today every effort is being made to unlock the secrets of the landlock to the end that a sound management program will become possible.

The "why" of salmon scarcity, and the work being done to change the picture for New York anglers, is the basic concern of this article. But first let's look at the landlock for what he is —which should give us a little better picture of what we are up against. In brief, he is a permanently fresh-water

Atlantic salmon. Although some books list him under a different species name, the lack of differences between young grown from sea-run salmon and those from lake populations doesn't support the contention that there are species differences involved. The fact that progeny of sea-run origin have been successfully landlocked indicates that these fish are particularly adaptable, though it does not omit the possibility of minor hereditary differences between different populations, many of which may have been isolated for thousands of years.

The praises of the landlocked salmon as a game fish have filled many pages. Much like the rainbow in its battling tactics, the landlock has the added advantage of being a fall spawner and not tied up in its breeding activities in early

Can salmon make a come-back in New York? Our research men think it a possibility. spring. Early or late he gives the fly fisherman every sporting chance, and he may be taken also by trolling.

His one weak point is in his reproductive capacities. Producing large eggs, about the size of a garden pea, the females annually spawn only a small number, about one to three thousand. These must be deposited in nests in suitable gravel, usually in a running stream. Moreover, young salmon, during a protracted juvenile period, require a similar environment and are not immediately suited to lake life. These little fish closely resemble small brown trout, developing red spots and dark markings. At about two years of age they reach the silver "smolt" stage, migrate to sea or into a large lake, and begin a rapid period of growth. Such fish will commonly increase from a length of about six inches at two years to at least 18 inches at three.

*HERE IS a distinction between ■ management—actually doing a job -and research, which is finding out how to do it. Present activities of the Conservation Department in embarking upon a salmon project are strictly research. This study, however, is not a "test-tube" investigation; it is proceeding in several lakes with actual live salmon. These areas include Schroon Lake, Upper Saranac Lake, Clear Pond and Eagle Lake, all told about 10,000 acres of water. Two weirs have been built, one on the Schroon River and one on a tributary of Upper Saranac Lake, to exclude undesirable fish from areas being managed for production of young salmon. From 1944 to 1946 nearly 12,-000 salmon were stocked, many of them marked by clipping of fins so that survivals can be studied.

The specific objectives of the study are (1) to develop effective methods for building up the resource and (2) to increase brood stocks for hatchery propagation. Neither of these objectives has been fully reached in three years, since salmon require four years to produce eggs. But checks show survival and good growth in all experimental waters.

For many years, when landlocks were available for widespread distribution, they were poured into a large number of New York lakes. In the main they failed to build up to an abundance necessary to provide a major angling resource. The failure of these early attempts to provide extensive salmon fishing in New York lakes emphasizes the need for more careful planning before efforts can be renewed with assurance of success. Any new management plan, to be effective, must go beyond hit-and-miss stocking. Unsuccessful results of the early trial-and-error days should not, therefore, be unduly discouraging.



Today we have considerably better facilities for climinating a large number of the obviously poor bets in the planting gamble by carefully checking biological conditions in waters before planting. We have less chips to play the game, for fish cultural supplies of landlocked salmon available for us to draw upon are much less than they were and this shortage alone would preclude any quick splurge. We can plant salmon only after every preparation has been made to insure survival.

This fact was recognized by the Legislature in wording the 1944 appropriation bill which marked the start of the present program. This act authorized the Conservation Department "to conduct a study of the practicability of establishing landlocked salmon in waters of the State.

Lakes for landlocks must be deep, with a large volume of cold water which retains maximum oxygen during summer months. Among New York's hundreds of lakes there are many meeting these requirements. Such waters frequently support, in limited numbers, game fish of warm-water types, at least in the shallow areas, and it is in these lakes that controversies as to management for fish of "warm-water" or "coldwater" types arise. The question of handling lakes for the best interests of fishing is complex, especially since the larger ones can and do produce a mixture of several different species.

So far, the lakes selected for salmon stocking have been confined to the Adirondack area. It would be unwise to branch out more rapidly than facilities of information and fish culture permit, and it would be premature to formulate plans on mere speculation. Still, it may be worth while to look at the approximate amount of potential salmon water in New York, which nature bountifully supplied with lakes of the type mentioned. The area includes Lake George, Otsego Lake, the Finger Lakes, Lake Champlain and Lake Ontario-not to mention a long list of smaller waters. In view of the fact that both Champlain and Ontario did have salmon in abundance in early times, the chance of populating very large acreages with these fine game fish is not to be dismissed as a mere dream. It will, of course, take much time and skillful management to develop salmon possibilities to full capacity, consistent with the broader objective of maintaining the supply of other suitable species of fish in the waters concerned.

Fortunately some progress has been made in actively assisting waters to produce a desired species, rather than merely taking what Nature chooses to hand out. There is reason to expect that, with progress in fields of research and management, production of any desired species will become more and more subject to control. But, if it should be found that management must dotingly help the salmon struggle against environment from the cradle to the crcel, the job would loom up as too formidable to attempt in the thousands of acres of water involved. If, on the (Continued on Page 30)

The young landlock takes it easy during his first two years. But then . . . !





Moose River Menace!

By PERRY B. DURYEA

A timely article on the threat to one of our last great wilderness areas

HORTLY after I became Conservation Commissioner I was confronted with the controversy over the proposal of the Black River Regulating Board to add to its existing impoundments by constructing a new dam on the South Branch of the Moose River in the heart of the Adirondacks.

Upon investigation I found these primary facts:

1. Out of several alternative dam sites, the Board members had evidently narrowed their choice down to two—the so-called Higley Mountain site, which would flood 3,500 acres of Forest Preserve land and engulf what is known as the "Moose River Plains," and the so-called Panther Mountain site, lower down on the river, which would flood only 600 acres of State land.

2. Preliminary plans for the Higley Mountain site had already been approved by the Water Power and Control Commission under the previous administration in 1942. This approval, I discovered through the Attorney General, was not reviewable or reversible by the present Commission. These facts were made public in a statement which I issued last December 27.

3. The Panther Mountain site was still being studied by the Army Engineers, and I was informed by the Secre-

tary of the Board that no action would be taken on Higley until this work was completed.

After studying the matter at some length I came to the conclusion that, as Conservation Commissioner and one primarily responsible to all the people of the State for the care and custody of their State Forest Preserve lands, I must oppose the Higley Mountain site. I still do, and I take this opportunity to state my reasons.

First of all, in order to narrow the question down to the real issues involved, let me make it clear that I am not opposed to the development of water power. Obviously, water power is a basic resource which must be developed not only for industrial purposes but to meet our domestic needs as well. More power should mean cheaper rates, lower costs, more production, a higher standard of living and greater comfort and convenience for all who are served.

Neither am I opposed, obviously, to flood control—a necessary and vital part of our conservation work. In fact, the limitations of the Higley Reservoir in flood control, as compared to the other site, seem a real argument against it.

For the purpose of further narrowing down this discussion, let us leave out the question of the wisdom of the Constitutional Amendment which authorizes the use of up to 3 percent of the Forest Preserve for water impoundments. Unless changed, this is the expressed will of the people, and we must

accept it as such. However, in determining how and where that 3 percent shall be used, I believe that the best interests of all the people must be carefully considered, as well as the interests of local industry and other local beneficiaries of any proposed development. After all, the people—all the people—are in effect surrendering their ownership in the land, the timber to be sacrificed, and the use of the water itself, to a somewhat

limited number of beneficiaries.

Let us also dispose of the question of the need for additional power by the industries of the Black River Valley, and perhaps some of its communities, by conceding that they could use it to advantage. Concede, for the sake of argument, that some other indirect benefits from more river regulation would accrue to those who live in the valley. If the South Branch of the Moose were the only potential source of additional power in this part of the North Country—and if this were the only dam site on this river—the Board would have a real argument for its exploitation.

ACTUALLY, the South Branch is only one small source in a territory rich in potential water power. The Black River flows into Lake Ontario and its waters subsequently reach the St. Lawrence—an untapped source of power so great that its development has become a State and national issue. If you are opposed to the development of St. Lawrence power, or believe that it will take too long, remember that the Black

River itself has major tributaries other than the South Branch of the Moose. And finally, if you insist on the South Branch, remember that Higley is only one of several sites.

Now, why am I opposed to this particular site?

It would flood an area having extraordinary wilderness values. I have flown over this area personally and can testify, as can hundreds of others, that this would take the heart out of one of the few really big chunks of wilderness left in the Adirondacks. There are no roads, railroads, airfields, settlements, summer developments or other features to mar its wilderness character. It contains a network of fine trout streams, and is dotted with unspoiled lakes and ponds. Its "Plains" (See photo opposite page) represent a unique geographic feature which is duplicated nowhere else in the State. The valley provides wintering grounds for the deer which summer in surrounding areas consisting of over 44,800 acres. This wintering ground is so important that it has been the object of Department deer studies for 16 years.

TO those who say "So what, who wants a wilderness if it's a question of more power?" let me point out that there are 14,000,000 people packed into our State—over 10 percent of the nation's population in only 1½ percent of the Nation's area! Do we want to force them to take their vacations elsewhere, or do we want to provide a touch of wilderness here at home? This isn't just an aesthetic question. It's a matter of hard cash, of keeping millions of vacation and tourist dollars here in New York. I think the answer to the skeptics is obvious.

Coming back to the question of power and flood control-a representative of the Board admitted to me that Higley is not the ideal site. It would flood a vast area, but has much less storage capacity, for example, than Panther, and collects water from a much smaller drainage area. Indisputably it will not do as big a job of flood control.

Much has been said about this flood control feature of the Higley proposal, obviously to enlist the support of suffering farmers in the Carthage-Lowville-Lyons Falls area of the project. Let's examine this further:

If anyone has been led to support this project in the belief that it will bring any substantial relief from flood damage to valley residents, he has not only been led, but has, in my opinion, been misled. On the Board's own statement, Higley can, at the most, have a 7 percent effect on flood control. If the dam were full, or largely so, this figure would obviously be greatly reduced. Moreover I doubt if any farmer, with his lands under several

1946 STATE DEER KILL UP 45 PERCENT; SULLIVAN, STEUBEN COUNTIES TOPS

New York State's 1946 deer "take" reached 15,867 head, according to latest tabulations by the Bureau of Game—an increase of 45 percent over 1945 and the second highest recorded kill (based on returned deer tags) in the history of the Department.

The 15,867 are actual reported kills only. There is an appreciable number of licensees still delinquent in returning tags, and the estimated total take is be-

lieved nearer 19,000.

Meantime, the number of licensed deer hunters in the State in 1946 reached the astronomical and almost unbelievable total of more than 290,000!

The Southern Tier (including western and central New York counties) emerged in 1946 as the outstanding deer producer, with 6,609 reported. Of these, 6,085 were bucks; the remaining 524 were antlerless deer taken during a special open season in Monroe, Niagara, Orleans and Wyoming counties. Steuben County led the Southern Tier section with 917 bucks recorded; this was second highest in the entire State, being outranked only by Sullivan County, which set an all-time high for itself of 956 bucks. A big increase in hunting

pressure from the metropolitan area is believed responsible for the heavy Sullivan County returns.

The Adirondack region was second highest contributor to the total kill, with 4,897 head. Of these, Hamilton County produced 872, maintaining its status as top producer among the northern counties. The Catskill region wound up third in the breakdown with 4,361 deer reported.

The "Big Five": Sullivan, 956; Steuben, 917; Allegany, 893; Hamilton, 872; St. Lawrence, 781. Bringer-upper of the

rear, Schenectady, with 37.

In the Adirondack counties the 1946 kill was 26 percent greater than in 1945, and in the Catskills, 37 percent. There was a much sharper increase in the Southern Tier, where the take jumped

73 percent.

Despite these reports, however, there is a substantial crop of deer left throughout the State as a whole. And, with more than a quarter-million deer hunters in the field, the 1946 kill could have been much greater had hunting conditions been more favorable for hunters themselves. During much of the season the woods were dry, with little snow.

feet of flood water, could detect the difference 7 percent would make in terms of inches.

Proof has been offered in the form of petitions signed by responsible area residents, to the effect that if flood control is the real objective, other operations some of them on existing structures should come first. On that basis as well as others, they oppose the Higley project. Moreover, the flood control effect of this project is so negligible that the Federal Government, under its flood control program, will not contribute. This contrasts with the Panther proposal, for example, where Army Engineers have been prepared to recommend a substantial financial contribution from Federal funds because of its flood control feature.

Why, then, the insistence of the Board on the immediate construction of Higley, without even waiting for a final report on Panther, as previously agreed? The Board can answer for itself but in my opinion there can be but one answer, "A bird in hand is worth two in the bush." And, to judge by statements made by local power interests, they feel that Higley would be cheaper, for them,

My answer is that because other sites

are better, and will contribute not only more power but better flood control, the Board should renew its efforts to get Federal flood control participation in a better site than Higley, and thus do the best job they know how.

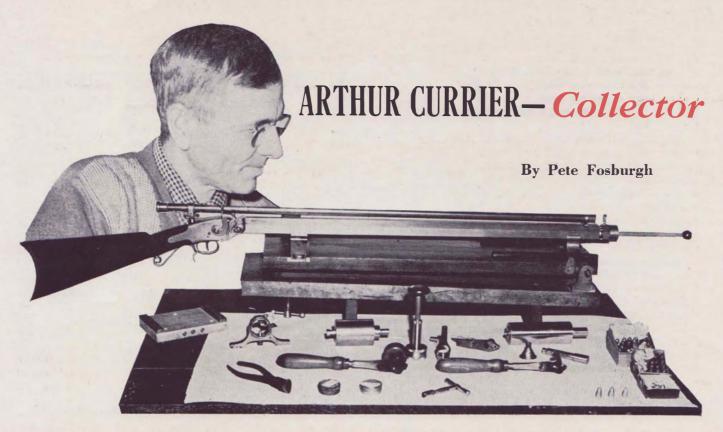
Delay? Certainly a year or two, but a mere second compared to the thousands of years it took Nature to build the valley of the South Branch of the Moose and its incomparable "Plains."

WILDLIFE WEEK

National Wildlife Restoration Week, March 16 to 22, marks its 10th anniversary and that of the National Wildlife Federation, Boston, Massachusetts, its sponsor.

This non-profit organization each year issues a sheet of wildlife poster stamps reproduced from paintings by famous American artists. The 1947 sheet has 40 studies of birds, mammals, fish, flowers and trees. Proceeds from the sale of the stamps are devoted to the Federation's program for the preservation of the Nation's natural resources.

Outstanding in its work in its first 10 years has been the Federation's championing of the Pittman-Robertson Act for improvement of wildlife habitat and for game management.



This man from Cincinnatus has an eye for firearms—200 firearms, as a matter of cold fact.

TIMOTHY MURPHY was one of the finest rifle shots ever to come out of the American backwoods. During the Battle of Saratoga he shinnied up a tree and took two shots at General Simon Fraser, who was disporting himself at what he thought was a safe distance behind the British lines. Murphy fired at a range of about 500 yards. With his first shot he knocked a ring off the general's left hand; then he quickly fired again and the General was buried with full military honors shortly thereafter.

In a way, Murphy was lucky; while most of his compatriots had to reload after each shot, he had a gun with two barrels revolving on a common axis, and all he had to do for his second shot was swivel the lower barrel into position. This was definitely a bad break for General Fraser.

There are not many rifles like Murphy's lying around these days, but there is a man in Cincinnatus, down in Cortland County, who has one. He is Mr. Arthur Currier.

Even if Cincinnatus were a big town, nearly everybody in it would know Mr. Currier. But since Cincinnatus is a small town, where even the Otselic River slows up in passing, everybody there knows and likes Mr. Currier. He

keeps a grocery store just west of the bridge in that quiet little community.

Or rather, he has such a store; it keeps itself. His customers are apt to drop in, pick out what they want, ring it up on the cash register, and leave. It seems doubtful if the store prospers under this management, but it's also doubtful if Mr. Currier cares.

While his clients are helping themselves to butter or kumquats, he is in all probability out in the back room with three setters and about 200 guns. The dogs are in a constant state of excitement because every time Mr. Currier takes a gun off the wall they suspect he might be getting ready to go hunting. He does do quite a lot of hunting, especially for grouse in the nearby Chenango Hills, but he is first and foremost a gun collector and most of his guns have been retired from active service.

It should be clearly understood that gun collectors are not ordinary people. They are subject to strange urges and inner promptings, and when in the grip of this sort of thing they are likely to get out the family car, load it up with an assortment of weapons, and start out on a protracted tour of visiting and trading with kindred souls all over the country. Mr. Currier, who has Mrs. Currier, his son, and his setters to think about, is regarded as pretty much of a homebody by his fellows, so they come to see him—from as far away as 'Frisco.

Not so long ago one of them spotted a powder horn in Mr. Currier's collection. Mr. Currier had traded a good pair of rubber boots for this powder horn and was not at all disposed to part with it, but his visitor was a sly fellow. He suspected that what money could not buy, a Kentucky rifle might. He went out to his car and got one.

This was hitting Mr. Currier where it hurt. He is addicted to Kentucky rifles. But the powder horn was a Revolutionary item and very fine, and he intended to keep it. His visitor brought in a second rifle and Mr. Currier, who was polishing a ducling pistol, winced, but continued to polish furiously. When the third rifle came in he estimated that it was made about 1740, probably in Pennsylvania, and when the fifth arrived Mr. Currier broke down and the powder horn changed hands.

Mrs. Currier, who tends the store when it really has to be tended to, feels that she ranks about third in the household. First place goes to a precision rifle made by Seth Millard of Lockport, who built it in 1870 in front of a window that looked out over the Erie Canal. The setters collectively rank second. Neither Mr. or Mrs. Currier would care to say who or what comes next, but in the running are a Pope rifle made in the '70's, Mr. Currier Jr., several sets of dueling pistols, and Mrs. Currier.

The Millard rifle (see photo above) is a prize. It's a 45-calibre target gun mounted on a machine rest and equipped with a 25-power scope. If you're a gun collector, you will not be surprised to hear that it shoots a 285-grain bullet backed up by 70 grains of Hazzard FG powder. If you know Mr. Currier, you will not be surprised to hear that he owns not only the gun, but

(Continued on Page 30)

THE INSIDE ON THE OUTDOORS

By Clayt Seagears



Department devines

ANOTHER NEAR MISS

Dick Hyde, assistant game research investigator in the Allegany District, was a liaison pilot in the Philippines during the last war, and found gunfire pretty much the order of the day. But it took a stupid hunter to give him the scare of his life during the recent deer season in his area.

Hyde was driving to his work with a revegetation crew one morning when a shot suddenly rang out off to his right,



One activity Department employees can do very well without

followed a split second later by a nasty "spang" as something tore through the front of his car.

When the Department employee dared take his foot off the accelerator he stopped the car to survey the damage (see photo) and to thank his lucky stars. The bird who fired the shot couldn't be found, but if Hyde ever does catch up with him it's going to be just too bad.

BEAVER—The game of "beaver" was a harmless little pastime in which you counted passers-by who sported beaver beards. With beards pretty much a thing of the past these days, the Bureau of Law Enforcement has brought the game up to date by substituting real beaver skins, and in a recent contest with a Hammond (St. Lawrence County) fur dealer, emerged the winner with a score of \$475 and four beaver pelts.

The Bureau received a report that the dealer had bought some illegal, untagged skins, two of which had been

secretly marked. A search failed to disclose them, but when the dealer was told that it was known he had them, he admitted it and settled for \$175, promising to return the two furs. (End of Round One.)

When the skins were returned, however, it was found that they were not the original marked hides, but two entirely different ones, also illegal. Confronted with the double evidence, the dealer gave up the original pelts and the additional skins—penalty \$300. (End of Round Two. End of beaver contest.)

SALVAGE—In reviewing the work of its two fish salvage crews during the past year, the Bureau of Inland Fisheries reports that the total poundage of fish stocked was triple that of 1945. Some 28 waters were netted, and the fish taken from them were placed in 59 lakes or streams open to public fishing. A total of 410,861 fish, of 16 different species, were so stocked by these two hard-working crews.

The fish salvage crews (a third is planned for this year) more than pay for themselves in the value of fish recovered and restocked, but they also pay off in good will. The salvage men have met with wholehearted support and cooperation in all the communities they have visited, and fishermen are particularly happy to watch fish of edible, catchable size being transferred from inaccessible or unsuitable waters to places where they can get at them.

HATCHERIES—The Bureau of Fish Culture, in its summary of fish shipped out during the past year, gives the following figures: 5,571,622 trout of all kinds, of which 398,649 were of legal size; 278,595,000 pike-perch fry; 1,900,000 whitefish fry; 80,000 small-mouth bass fry; 100,084 smallmouth fingerlings; 32,000 advanced largemouth fry; 21,440 adult calico bass; 8,170 bull-heads; 3,105,000 muskalonge fry; 5,867 muskalonge fingerlings; and 4,000 yellow perch fingerlings.

Muskalonge operations at the Chautauqua hatchery were particularly successful. The use of carp eggs as food for muskalonge fry has led to a promising experiment in breeding carp so that their eggs will be available—at the right time—for this purpose.

WILDLIFE CONFERENCE

Representatives of the Department who attended the annual National Wildlife Conference held early this month at San Antonio, Texas, returned with reports that the most discussed topic was the shortage of small game, plus an unprecedented increase in hunting pressure—in virtually all states in the Union.

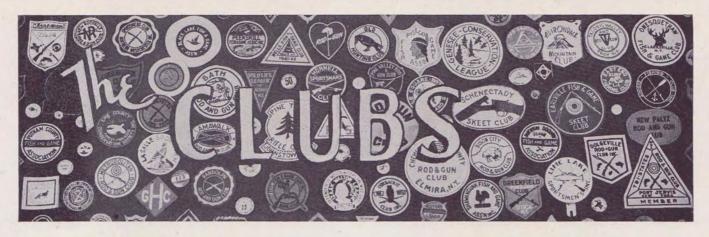
The outstanding shortages reported by the delegates were in waterfowl. Pheasants were next. The waterfowl shortage is so serious that it was the subject of a special session at which men reported from all parts of the continent—the United States, Canada and Mexico. Most reports were discouraging.

Although the series of articles contained in this issue entitled "Let's Face the Facts" were written before the opening of the Conference, the fundamental approach to our wildlife problems which they represent was in complete accord with the most advanced thinking noted among national wildlife authorities attending the Texas meeting. New York, it appears, has an excellent opportunity to lead the way to a new and broader concept of wildlife conservation.

ENFORCEMENT — Law prohibits the carrying of a loaded gun—other than a properly licensed pistol-in an automobile. While checking a car containing rabbit hunters this past season, Dwinal Kerst, Assistant District Game Protector in the Saranac Lake Division, found a pump gun with the breech open but still containing one shell in the magazine. Circumstances prompted Kerst to believe the owner's statement that he had thought the gun fully unloaded, and no action was taken. A few days later the Protector received the following letter:

Dear Mr. Kerst: Enclosing signed T9 Form (Ed.—The Department's form for settlement by stipulation) and just a line to express my appreciation for your trouble. I have had my gun checked and found that a weak magazine spring failed to eject the last shell. Your finding the shell probably avoided an accident.

R. J. B., Port Henry



GUN CLUBS HELP IN POLLUTION DRIVE

The war on pollution is not being fought single-handed by the Conservation Department. Local sportsmen's clubs, with an eye on their own lands and waters, are enlisting in the campaign with enthusiasm—and results.

The Plum Brook Fish & Game Protective Association has been striking for a clean-up job on Tenandahoe Creek, which flows through the club's home town of Mechanicville. By working through the City Council, in cooperation with the Conservation Department, the club has already secured assurance from two offenders, the Boston & Maine Railroad and the Associated Gas & Electric Company, that oil filtration plants will be installed on the stream.

The condition of the Oswego River is a matter of concern to the Pathfinder Fish & Game Club of Fulton. At a recent meeting the club named Ralph Dolbear to head up a committee which will make plans for the elimination of sewage from those waters.

A third club enlisted in the antipollution drive is a newcomer—the Ramapo Valley Rifle, Rod & Gun Club of Rockland County. Though newly organized, this club has already gotten up a good head of steam and has set an excellent example for others throughout the State. Finding waters of the Ramapo River polluted, the organization protested to the village board, a local mill was found responsible, and corrective measures were taken on the spot.

JUNIOR SPORTSMEN WAR ON FOXES

The Little Beard's Rod & Gun Club of Leicester took the bull by the horns this winter in the matter of fox control, sponsoring a junior trapping contest in Livingston County which netted 93 pelts and created widespread interest among young sportsmen.

Working with R. B. Ace, county 4-H Club agent, the club distributed eight dozen traps for the convenience of "learners" and arranged two demonstrations by one of the Conservation Department's State trappers.

Prizes were offered for the greatest number of foxes taken, and top honors went to two brothers—George and Bob Rathbun, of Dalton. George came through with 28 pelts to lead all other contestants by a wide margin; his brother reported 19 for second place.

Other winners were Dansville contestants Bruce Acomb (6), Don Giles (5), Bud Lang (5), and Herbert Conklin of Mount Morris and John Wooster of Leicester, three each. Henry Kornbau, Geneseo, reported 10 foxes, but was not present at the check-in which closed the contest and which was attended by Bob Perry, Department district game manager.

SAUGERTIES OUSTS 3 VIOLATORS

The Saugerties Fish & Game Club believes that a sportsman's organization should be just what its name implies. Thus, when any of its members step out of line, something drastic usually happens. The annual report of the club for 1946 states that three members were given the axe last year for violations of the Conservation Law; a fourth discreetly resigned before things came to a head.

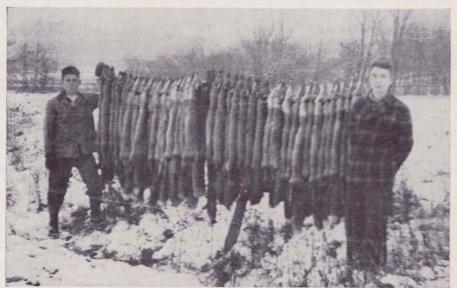
It would be interesting to know how many other clubs in the State are as deeply concerned with the quality of their memberships. Right now there is a crime wave in conservation worse than anything we have ever experienced. In addition to making serious inroads on your fish and game supply, it is giving sportsmen in general a black eye over the entire State. And if the violator is a member of a club, the club gets it too—particularly if it tolerates such goingson with a "Well, Joe ain't a bad guy..." attitude.

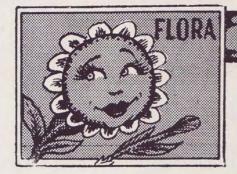
Saugerties has the right idea. It isn't afraid to clean house.

Club Hears Heacox

Cecil B. Heacox, senior aquatic biologist in the Department's Bureau of Inland Fisheries, was guest speaker at the January meeting of the Southern Dutchess and Putnam Sportsmen's Association. The get-together was devoted to junior sportsmen. Heacox spoke on "Safety and Good Sportsmanship."

The Rathbun brothers with pelts taken during the Little Beard fox contest





"Sturdy, sedate, conservative"

"S UGARING time" is just around the corner. Pancakes and syrup (or soft-sugar, if you like it better) will soon be on the breakfast table again, and perhaps a bucket or two has already been hung out to catch the first run of sap that comes with a few warm days and freezing nights. The sugarbush owner, as he watches the weather, sends up a prayer: "Please, Lord, don't send us another year with a hot March!"

The tree involved in these anticipations—and trepidations— is Acer saccharum, the sugar maple, known also as "hard" or "rock" maple—the official State tree of New York, duly elected by a vote of school children back in 1893. No better choice could have been made, for if we should set out one day to count all the trees in the State the maples would get high score.

Maple is our best shade tree, as many a village main street and State highway can attest. It is equally important as a commercial timber tree, going into such products as furniture, flooring, veneer, shoe-lasts and firewood. Sturdy, sedate and censervative for eleven months of the year, it breaks out in October into a blaze of gorgeous color—orange and

Flora



THE MAPLE: 5

gold, maroon and crimson—which orings the summer tourists back again to the hills for another look.

But, let's get back to the pleasant subject of maple syrup, and the sugar into which it can be boiled down. Of all the 115 species of maple in the world, only our own well-named sugar maple appears to have sap with a concentration of sugar high enough to make the trees worth tapping.

Sugar maple grows all the way from Minnesota east, and down to the Gulf States, but the right combination of trees and climate doesn't click until you get north of the Ohio River. In fact, when it comes to tapping trees, the greater part of it is done in an area stretching from the northeastern counties of Ohio, through New York and Vermont into southeastern Quebec. Tourists from other parts of the country seem to think they have to get across that mythical Vermont line before they can obtain the products of the maple tree; the truth is that some of the best syrup in the world is produced right here in New York. The four leading counties in production are St. Lawrence, Chautauqua, Lewis and Cattaraugus. Next in order arc Wyoming, Allegany, Franklin, Cortland, Delaware, Chenango and Jefferson. Except for the Hudson Valley, the Finger Lakes and the Ontario fruit belt, there is not a

It will also surprise some Vermonters to learn that New York, rather than the Green Mountain State, has been the leader for some 25 years in the amount of maple syrup produced each year.

county in the State but that will pro-

duce a thousand gallons a season.

In the old days, maple sugar was every-day fare on the farm, while cane sugar was a luxury. Now it's the other way around. In the same way, maple sugar was used as a "mixer" or adulterant in cane sugar, whereas the latter is now used in "blended" maple products.

Besides the sugar maple, we have five other species of maple in this State. Best known are the two so-called "soft" maples, the red and silver. Red maple, as its name suggests, is responsible for the most brilliant part of the red coloring in the fall landscape.

Silver maple grows naturally in swampy ground, but also has had quite a vogue as a fast-growing shade tree, especially in the nursery-bred "cut-leaf" form. Its disadvantages are that it

FLAPJACKS AND FURNITURE AND OUR OWN STATE TREE

breaks easily from snow and ice, and in late spring sends down bushels of seeds, which someone has to clean up.

In forest management, maple is an important tree, not only because of its commercial value, but because there is so much of it. It is nearly always a species that has to be considered in the preparation of a forest management plan. Sometimes it is the dominant tree in the forest, but often occurs as an "understory" because it will tolerate a high degree of shade.

Some people ask us: "Why don't you plant trees like maple and ash in your reforestation program, instead of just evergreens? If maples and such like will grow in the woods, why won't they grow in the fields on the next lot?"

The reason is that the best part of soil in the old fields, the humus, or organic matter, is gone—used up in cultivation, washed away in erosion. The sod which takes the place of the leaf-litter found in the forest robs the young trees of moisture and food and provides a haven for field-mice which promptly girdle the trees after the snow comes. And finally, there is no protection from the dry, freezing winds of winter and equally dry, scorching winds of summer. The result can be expressed in one word: failure. That's why you'll see thousands of acres of pine and spruce on our State forests and private plantations, but no maple or other hardwoods except those which old Mother Nature put there herself. —Ed Littlefield



NEW YORK STATE CONSERVATIONIST

Fauma

THE HORNED OWL: CERTAIN DEATH ON SOFT WINGS



Even the youngsters act tough

MANY thousands of years ago, during the Age of Reptiles, some of the better-class creatures of the day raised themselves from their prehistoric slime, got themselves wings, and took to the air to become the ancestors of our modern birds.

Among them was a critter with the jaw-breaking name of Archaeopteryx. He was half reptile, half bird, with a few feathers and a mouthful of wicked teeth (which he used to advantage on lesser animals), and he was altogether bad.

The Archaeopteryx eventually disappeared. But the seed had been sown, and in time there were true birds. Most of them were, and still are, gentle enough. There is one, however, whose disposition would indicate that he may be a throw-back to the Archaeopteryx. If anything, he may be meaner. We know him as the Great Horned Owl.

If you are not on speaking terms with this bird—whose scientific name is Bubo virginianus—the next month or so is a good time to get acquainted. Bubo is the earliest nester of any bird in this State. Right now he and his wife are hooting their courtship in our deep woods, and before the month is out their clutch of two to three eggs will be incubating, no matter what the weather.

Being an owl, Bubo is normally evasive and secretive by nature. Much of the time he is as silent as the Sphinx and is difficult to find. But from January to March, when love enters his life, he

becomes noisy and careless and more readily seen. A man good at imitations can "hoot up" a horned owl these pre-Spring nights in most any woods.

Bubo's eating habits and his position in our wildlife picture are far more important to the nature student, however, than is his voice. This bird is as vicious as he is big and a mature specimen will run from three to four pounds plus. It is safe to call him our greatest winged predator; not even such high-ranking executioners as the Cooper's hawk and goshawk can touch him as a killer.

His size (21 to 24 inches) and his wingspread (up to 55 inches) have much to do with this. His prey does not stop with the lesser folk of the field—the small rodents and birds. There are few creatures which roam the woods (particularly after dark) which are safe from his attack.

Among mammals, he will take mice, rats, rabbits, 'possums, muskrats, weasels and mink, and woodchucks. Stranger still are skunks (for which he has a special appetite) and even household cats. Among birds there are grouse, pheasants, ducks, smaller owls, hawks and crows (whose young he lifts from their nests), and any lesser species he can catch. Where he has taken up residence near a farm he becomes a downright menace to domestic fowl.

Some authorities claim that this owl can see as well in daylight as he can after dark. That is fairly understandable



when one considers that he has the largest eyes of any of our native birds—huge yellow orbs with an evil stare. You can easily identify him by these optics, by his great size, and by the two "ear" tufts which have the appearance of horns and which give him his name.

Bubo has but one real enemy and that is Man. The only other creature who gives him any trouble is the crow, and only then at a nuisance level. Knowing the owl's nightly depredations on their roosts and nests, crows make a special effort to heckle the life out of Bubo when they can catch him abroad during daylight hours. Scores of them will settle about him in a black cloud, screaming their heads off. This does no real harm save when it attracts the attention of a man with a gun.

Bubo does, perhaps, play something of a role in maintaining Nature's balance. By killing 'possums (an already important predator in New York), skunks, weasels, rats, mice, and some crows and hawks, he indirectly benefits more desirable species. But the damage he does to others outweighs the good.

But when and if you line him up in your sights, make sure he is a horned owl, not a barred. This latter owl is a protected species with a rounded head and blackish-brown eyes. —Bob Bush

Rogues' Gallery. Ten killers trapped at Sherburne State Game Farm







THIRD-PLACE HEAD

Sidney Mawson of Manlius, president of the Fayetteville-Manlius Rod & Gun Club, has for many years suspected that he had close to a record deer head. An official check has now confirmed his suspicions. Measured by Department officials according to the chart in the October Conservationist, Mawson's buck moves into third place with a total score of 187.1.

Mawson killed his buck near Cuyler, in Cortland County, on the opening day of the season in 1938. In the credit column, the head has the highest total of any so far recorded in the State, and if it were not for heavy penalties it would outrank the first-place Fort Orange Club entry.

ONEIDA MAPS AVAILABLE (FOR 50 CENTS APIECE)

We've been asked by Harry Whitford, president of the Anglers' Association of Onondaga County, to announce that those Oneida Lake fishing maps mentioned in our last issue are not "for free", as we may have implied. Single copies are available at 50 cents, while lots of 25 or more are 40 cents per each. There are plenty of them available for distribution to the boys who want their fishing grounds mapped to the nth degree. Write Robert E. Duncan, Secretary of the Association, 217 East Colvin Street, Syracuse.

ROUGH-NECK PHEASANT WHIPS A HAWK

It is a pretty well established fact that a cock pheasant is no pushover in a fair fight. He can lick the tar out of the biggest domestic rooster you can produce, and on occasions he has even been found capable of beating off marauding cats. It appears too that he can handle himself OK when it comes to some species of hawks.

For proof of that we give you the following report from George O'Dell of Carmel, assistant district game protector for the New York Division:

O'Dell was making a routine check of a marsh along the Waccabuc River some weeks ago when he noticed a big red-tailed hawk sitting on a dead tree stub. Suddenly it took off on a long glide over the marsh, circled, and then struck down at something in the heavy cover beneath it.

The "something" was a cock pheasant. Even before the hawk had reached the ground the cock flew into the air

DO YOU KNOW YOUR LAWS?

If some character tossed a spear at you, or dug a pitfall in your front lawn, or cut a hole in the roof of your house, or tried to smoke you out of your parlor, or took a poke at you with a .22 rifle -chances are you would go to the law.

Muskrats feel the same way about this sort of thing. They are, however, a little backward about going to the law, so the law has come to them. It says you can't disturb a muskrat house at any time, set a trap within five feet of house or bank den, try to smoke 'rats out of house, home, or hole, or pink one with a spear.

Rumor has it that the muskrats on Lake Champlain are planning to get the hell out of there. That's the only place in the State where it's legal to shoot them, and even there, with nothing bigger than a .22 rifle.

to meet it, and in the brief melee which followed, the hawk lost the decision.

Reluctantly it rose into the air, made another circle, and came in again for a second strafing run. Again the pheasant rose to meet it. This went on for six rounds; then the hawk went on his way, and so did the pheasant, none the worse

for his experience.

The red-tail is on the protected list of hawks in New York. Unlike the accipiters, or falcon-type hawks (goshawk, sharpshin, Cooper's), he is big, slow, and a minor menace to game. Undoubtedly he does pick up the young of game birds on occasions, but in the light of O'Dell's report he should pass up mature specimens—particularly cocks as just a waste of time.

TOO GOOD A THING

There's a certain little 'coon at the Department's Delmar Game Farm who is either awfully dumb or very, very smart—depending on how 'coons feel about the relative merits of freedom in a raw wilderness and solid comfort behind bars.

This little 'coon was one of three confiscated last year by Game Protector Mike Rodak of Peekskill. The trio was too young to be liberated, so Rodak took over the job of nurse-maid and reared them on a bottle. When the time came for their ultimate release two of them said "Okay, thanks," and took off into the woods. But the third little 'coon wouldn't revert to type. He followed Rodak around like a dog and refused to be emancipated.

Rodak tried unsuccessfully to shake him off, and, being too busy for further nurse-maiding, turned him over to the Farm. The little 'coon is there today, eating well, sleeping well, and indulging his peculiar passion for all mankind.

SECOND NEGRO CLUB

A second all-Negro sportsman's organization has been formed in the State, this time at Niagara Falls under the name of the Community Center Sportsmen's Club. The unit has applied for a State charter, and will affiliate with the Niagara County Federation. William Wright, 12-B Center Court, Niagara Falls, is club secretary.

NEW ADVISORY COMMITTEE CONVENES; OK'S EXPANDED GAME PROGRAM

Commissioner Duryea's new Advisory Committee, which for the first time provides New York with representation from the sportsmen of every geographic region of the State in the administration of fish and game, has already gone to work on its 1947 program.

Appointed January 17, in accordance with the plan he announced before the State Conservation Council last December, the 18-member committee was called to its first meeting by the Commissioner January 25. Frank discussion of serious conservation problems and of proposals to meet pressing needs was the order of the day. Among them were the State Conservation Council's proposal for a higher hunting and fishing license fee schedule; the need for this additional revenue to meet increased costs of present operations and maintenance charges for expanded facilities being provided through the Postwar Fund, and the need for additional services to keep New York's conservation efforts apace with the mounting pressure put on our wildlife resources.

Specific proposals for extra fish and game services, when additional money is available, were studied carefully. The following new services were approved in

broad form:

Annual purchase of 50,000 additional full-winged pheasants to augment State

game farm production.

Annual purchase (for at least three years) of 75,000 cottontail rabbits to be ear-tagged and liberated to determine whether the importation of Western cottontails will help New York's native stock.

Production of 20,000 ducks for a cooperative rearing program to improve waterfowl hunting in New York and lessen gunning pressure on other smallgame species.

Annual purchase of 7,500 acres of

public shooting lands.

Maintenance of three additional fish salvage crews to remove fish from waters closed to public angling and to stock them where they can be utilized.

Full attention was also given the problem of increasing lawlessness and the need to enlarge protective efforts along with the educational campaign.

The next meeting of the fish and game advisors, scheduled April 5, will consider the policy of land acquisition as it relates to the needs of dense population areas. Revision of the game distribution policy, gearing it to climatic conditions and hunting pressure, is to be a subject for future consideration by this newly-created organization.

Commissioner Duryea emphasized at the meeting that the committee representatives of the sportsmen of New York were now a part of the administration of the Department in its fish and game activities and announced that, in addition to regular central meetings, regional meetings open to all sportsmen would be held. Committee members are:

REPRESENTATIVES BY REGIONS: Western District, John Reimann, Buffalo; Southwestern, C. H. Tam, Hornell; West Central, Don Tobey, Victor; South Central, Frank Dolan, Binghamton; Central, Harry Whitford, Syracuse; East Central, Robert Otty, Albany; Catskills, Arthur Flick, Westkill; Lower Hudson, Harold Kimball, Yonkers; Metropolitan, Michael Nadel, Brooklyn; Ontario-St. Lawrence, Earl Brown, Canton; Adirondacks, Dr. A. M. Beckary, Indian Lake.

SPECIAL GROUP REPRESENTA-TIVES: National Wildlife Federation and American Game Association, Karl T. Frederick, New York; N. Y. S. Conservation Council, Herman Forster, president, and Dr. William Fruden, vice-president; Salt Water Anglers, Everett Brown, Riverhead; Houndsmen, Fred Streever, Bolton Landing; Bird Dog Men, Frank Ash, Fulton; Trappers, Ives Turner, Saranac Lake.

DELHI BENCH-WINNER

Part of the annual field trials of the New York State Foxhunters' Association, held this past fall at Delhi, was a bench show for participants. The entry pictured below with her owner, Reed R. Wilkins, of Canisteo, won first prize. She is "Miss Dinah Blake," #27612, and her owner claims that she's as good in the field as on the bench.





Claude Treadway and record pelt

CATCHING ON QUICK

Up until this past November, l'armer Claude Treadway of Black Creek had never trapped a fox in his life. But he and his poultry were having plenty of trouble with them, so he sent out an urgent SOS.

It was answered by Eugene Frost, one of the State district trappers, who spent two days at the Treadway farm, showing the complainant how to make fox sets, explaining the use of baits and scents and, incidentally, loaning Mr. Treadway five State traps when he left.

The instruction must have been good, because in the two weeks which followed Treadway caught 13 foxes, all reds, and all within sight of his house. One of them, which Treadway is displaying in the photograph, is up in the record class. It weighed over 15 pounds and measured 57 inches from tip to tip—which is a plenty big fox.

WAYWARD STURGEON

It has been known for some time that St. Lawrence River bass, tagged by the Conservation Department, frequently move into Ontario waters. But it now appears that the sturgeon is even more of an international citizen.

A number of small sturgeon (below the 42-inch legal limit) are released each year in the St. Lawrence by New York set-line fishermen, and at the suggestion of Daniel Sheets of Massena, 34 released during the 1946 season were

agged.

Sturgeon No. 1804 started out from Massena on May 24. On October 17 Gustave Prévost, Director of the Biological Bureau, Quebec Department of Fish & Game, reported that the fish had been taken near Saint Ignace de Loyole, in Berthier County, Quebec, after à journey of 120 miles.

CATHARINE CREEK

(From Page 3)

from Seneca Lake, had spawned and returned to the lake before anglers could get a crack at them. During this period, the population of big, fighting fish has been building up. It now looks as if the next time the run and the fishing season coincide, it will be a bonanza year in finny dividends. Yes, until the situation changes, these rainbow trout can be taken on their annual spawning run without undue depletion, and the improvement program discussed in the earlier part of this article is aimed at seeing that it does NOT change. Research shows that here is one conservation situation where we can have our cake and eat it too.

And what a cake! The average length of females is over 25 inches and they tip the scales around 7½ pounds! Males run slightly smaller, but the dice are always loaded in the fisherman's favor. In no other aquatic set-up can the stream angler so consistently tie into big fish.

The life cycle of Catharine Creek rainbows is especially interesting. Scale structures of these trout show periods of growth, growth cessation, age of the first and subsequent spawnings, and the story of their migratory travels. The story is of absorbing interest.

Take the age of sexual maturity, for instance. In New York State hatcheries, male rainbows become mature in the second year of life—females in the third. In Catharine Creek, however, no males were found in the run less than three years old and no females less than four. Incidentally, it is interesting to note that brood stocks of rainbows in the Conservation Department's hatcheries are fall spawners, but all rainbows in the State's open waters are spring spawners. The progeny of these fall spawners become spring spawners, and even the brood fish, when placed in wild waters, revert to spring spawning. The late Dr. George C. Embody of Cornell University, after years of study, concluded that water temperature (it's uniformly about 50°F in the hatcheries) was the governing factor in establishing the sexual cycle of rainbow trout. And the faster growth in the hatcheries probably accounts for the earlier maturity of these fish.

Not that there is anything the matter with the growth rate of these Catharine Creek fish. Strapping 12 or 14 pounders are only five or six years old. By comparison, brook trout in some small, cold, Northwoods' streams may be scarcely legal at the same age.

Interesting, too, are the migrations. Young, newly-spawned rainbows remain in the parent stream about a year. With the first spring floods, they descend to Seneca Lake. In each good pool, how-

ever, one or two fish may stay over an

All these events are recorded by the scale structure of the fish. Stream growth and lake growth have different types of scale formation. After the young fish have dropped down to the lake, they do not return to the stream the following spring but remain in Seneca one or two years, depending on their sex. Upon reaching maturity, the spawning urge sends them upstream to produce another generation of potential tackle busters—prodigious lunkers like the 17pound 6 ounce rainbow which tops the list of Catharine Creek records. These fish which come in the large economy size are among the most highly prized trophies in the angler's world.

And, best of all, the biggest one is yet to be caught.

YOUR DEPARTMENT

(From Page 11)

in the world-famous Bobsled Run, the Whiteface Mountain Ski Center now under development, 104 miles of Statemaintained ski trails and scores of smaller private centers for winter recreation. Speaking of recreational development, which provides for year-round activity, don't forget the 573 miles of foottrails, the 162 leantos and the 30 public campsites which will accommodate, at peak use, nearly three-quarters of a million campers, or a total of a million and a quarter camp days in a season. Besides these facilities, which are primarily for those who like to rough it, the Division maintains three parks of considerable historical interest and recreational use at Crown Point Reservation, Lake George Battle Park and Thacher Park in the Helderbergs near Albany.

With the advent of the Dewey administration, the prospects for forestry, which had reached low ebb from about 1938 to 1942, became brighter, even in the midst of war. Appropriations were increased, plans were assembled for postwar projects such as have just been described, and the forestry personnel of the Department participated actively in the Federally-sponsored Timber Production War Project. During this period, due to high prices being paid for stumpage, and an increasing interest among woodland owners in cutting their timber so as to leave the woods in a productive condition, many requests for assistance were received by the Department for advice in forest management and marketing problems. This was done by regular field personnel in addition to their other duties: but in 1945 the Legislature appropriated funds which enabled the Department to take over the administration of the Norris-Doxey or "Farm Forestry" program, which has been operating in the State

under the supervision of the U.S. Forest Service since 1940.

All this brings us up to another "big" year, 1946, which we think will go down with 1885, 1909 and 1929 as a year in which conservation history was made. For in 1946 the Hammond-Demo Bill was passed and became the Forest Practice Standards Act, now incorporated as Chapter 60-d of the Conservation Law. In the year that has gone by since its passage, 12 of the State's 15 forest districts, comprising 45 counties, have been organized and have recommended Forest Practice Rules for their sections of the State. The State Forest Practice Board in two recent meetings gave the "green light" to the District Boards by approving these Forest Practice Standards pending further study which may lead to a few minor changes in the interest of uniformity. More than a thousand woodland owners have received assistance from the forestry staff, which has been considerably augmented to handle these requests.

In order to keep the various activities of the Division running smoothly under this increased pressure, Bill Howard is now presiding over a second reorganization, exactly 20 years after the one from which the present bureaus were created. This time the job is one of centralizing around the District Forester—who has become the Department administrator and spokesman for his entire district—all the far-flung lines of field activity, from ski runs to fire-fighting, from tree planting to timber sales.

NEW LEGISLATION

As this issue of the Conservationist headed for the mails a joint Legislative hearing was being held on Capitol Hill here in Albany on nearly 50 new bills amending the Conservation Law.

The most important of these issues—the Higley Dam proposal—is discussed in detail in this issue by Commissioner Duryea (Page 18). Constitutional amendments affecting the State Forest Preserve (the so-called Recreation Amendments) are also on the agenda. We covered these in the last issue.

Of equal interest throughout the State is a proposal to increase sportsmen's license fees to meet rising conservation costs. Lack of space prohibits treatment of this new bill in this issue; in answer to many queries concerning it we have published a special pamphlet outlining the financial structure of the Department. Copies of this are still available on request.

Also in the legislative hopper are bills affecting deer, muskalonge, trout, reduction in the take of pheasants and quail on Long Island, veterans' fishing privileges and many others.

from the warm Mediterranean shores up to the frigid Baltic peninsula waters.

My personal acquaintance with these big bunnies began around 1930 on the east bank of the Hudson north of Troy. At that time they were in goodly numbers, as many as ten hares being bagged by a single party in a day's hunting around Rafinesque and Reed mountains. The red fox was well-nigh extinct then throughout the State (believe that or not!) so we turned our foxhounds to

chasing hares.

Unlike the snowshoe hare and the cottontail, Mr. Big Ears did not seek cover in brush or woods. Almost invariably one would make its "form" beside a fence post, a small bush, or perhaps at a boulder in an open field. Before we could rout him there would be the most difficult of cold trailing. A red fox about to lie up for the clay will cut small, interlocking circles, but a hare in like mind will build several dead-end trails, sometimes as many as 20, where he has taken his back-track for 50 to 500 yards and leaped sideways at some pre-selected spot along his route.

Our better foxhounds were repeatedly thrown for a loss by these tactics, for it is axiomatic that "you never meet a fox coming back". Not so the hare, for, whether seeking a siesta for the day, or to confuse the hounds, the animal "ruses" repeatedly as he runs the open fields. Consequently you are more likely to get a shot at a hare when your hound is driving straight away than if you were dead ahead in line of the drive. However, one thing is certain: the hare will not run straight for long, nor will he run long in cover of brush or forest.

Another of his pet tricks is running on well traveled roads or paths, and in this single respect he is like the red fox. It would be small reward to hound the European hare were it not that, instead of keeping going, he squats after a successful ruse. Thus, a backtracking, pottering hound, one that dwells on a "loss", will sooner or later rout the big hare again and probably for a sight chase. The fox, being less of an optimist, uses such saved time to put more space between himself and his pursuers.

I have a reprint of an English hunting book written about the year 1400—before the age of firearms, but when trail hounds had already been well developed and sport was the preferred occupation of the English nobility when it wasn't engaged in war. This ancient book describes nine "beastes chaseable" reserved for the better class of people in the then jolly Islands. Of these "beastes" the most highly prized was the hare.

quate fish management policy. Lake trout spawn in the fall in various parts of the take and heavy plantings of Conservation Department fish help maintain the high abundance level of this species. The Conservation Department, apparently, cannot raise smallmouth bass on an economically sound basis in sufficient numbers to eliminate the necessity for natural spawning.

Various solutions have been suggested by both the bass and the trout fisherman. Many feel that the lake should be open during the month of April for brown and lake trout, but that the present limits of three fish per person per day, with fish averaging better than four pounds, is too high. They feel that there should be a boat limit of five lake trout per boat per day and within these limitations an individual limit of two fish per day. They then recommend that the lake be closed entirely for all or parts of May and June.

For the Conservation Department this presents a genuine challenge. The admirable manner in which the Department, with sportsman and legislative cooperation, brought back the muskalonge in Chautauqua Lake has

Herman Forster, our guest for this issue, is President of the New York State Conservation Council and Deputy Commissioner of Water Supply for New York City.

made a deep impression on all thinking sportsmen. They realize that within a metropolitan area of ten million people they have a unique fishery and they will welcome the help and leadership of Department fisheries' scientists.

Lest anyone get the notion that all he has to do is to hie himself to Westchester and catch big fish, let me say this: Large fish and numerous fish are taken from time to time, but the pattern is erratic. For weeks on end fishermen report that they are unable to take a single fish, let alone a limit catch. Then, suddenly, for some mysterious reason, all the fish in the lake seem to go on a rampage and every fisherman has good sport. In this, it is not different from any number of lakes you know about, but its periods of abundance and scarcity in terms of limit catches are farther apart because of the enormous fishing pressure to which it is subjected.

A 5-pound squaretail, taken from an isolated Adirondack lake, is an unforgetable experience. It seems to us in the metropolitan area that a 16-pound brown, taken within the shadow of the Empire State Building, outrates it!

tered which, for some reason, would not flush. As the plane flew low directly overhead they separated from each other, extended their necks and turned around in circles.

Since the objectives of the census were State-wide in scope it was necessary that as many water areas be covered as time would allow. When all factors were taken into consideration, it was decided that the following regions would constitute the study area: Beginning at Watertown, the small lakes and marshy streams were worked northward as far as Ogdensburg. The St. Lawrence River was flown southwestward as far as, and including, the Thousand Islands. The shore of Lake Ontario was covered from the source of the St. Lawrence south and westward as far as Olcott (due north of Buffalo). All bays, marshes and marshy streams bordering the river and lake were thoroughly worked. From Olcott the route turned south and eastward, covering all major lakes in the central part of the State and many smaller waters.

The Champlain region was flown next, beginning with Round and Saratoga lakes, and followed by Champlain and Lake George. On Champlain itself only the shoreline was worked, leaving the large group of islands in the north-central part of the lake untouched.

The Hudson Valley was last on the list, with the river being worked as far south as Peekskill. Various reservoirs in the valley were checked on the return

flight to Albany.

Between 25 and 30 hours of actual flying were required for one complete coverage of the State. Starting the latter part of September, the route was surveyed at two-week intervals through December 20. The interval was based on ground observations made by the crew of the Ontario-St. Lawrence waterfowl project.

Results of this initial aerial survey have not been completely summarized, but it is evident that the system will help us answer many questions concerning our waterfowl in New York. By covering an area the size of the State at periodic intervals during the fall, the peak of the migration wave for individual species can be watched closely as it progresses south. A clearer picture of the effectiveness of refuges is also developing, particularly in terms of increased shooting opportunities for New York hunters.

It is to be hoped, however, that this shooting will be confined to ducks, and not directed at the boys in the Department's plane who are simply trying to do a job for the duck hunter himself.

KEYS TO LANDLOCKS

(From Page 17)

other hand, only limited help to the resource at initial stages is needed to bring results, then effective management may be carried out economically. Here the outlook is promising, for we already know that salmon of advanced size are well-suited to intensive management in

nursery streams.

A special feature of the New York salmon study is the control of fish populations in such streams. Previously many salmon had been planted in streams containing large numbers of brook trout, suckers and chubs. Competition among fish has frequently been overlooked as a factor in survival, and while complete control of stream fish is difficult, a material increase in the capacity of a stream to carry planted salmon can be obtained at moderate cost.

FOR EXAMPLE a newly-built weir on Mill Brook, tributary of Upper Saranac Lake, together with use of the electric shocker to remove a number of fish previously inhabiting this stream, is working out well. This area is successfully carrying hundreds of young salmon up to sizes where they can be expected to migrate successfully to Upper Saranac Lake, and it will be closely watched to determine if it can supply the lake with enough such young stock to keep up a favorable population. Very small salmon cost less to raise than larger ones, and there are indications that they can be effectively planted in streams. Full evaluation of planting experiments will require time, since few salmon will return at less than four years to their parent stream. An exception was an adult male recaptured in October 1946 in the Schroon River, where it had been planted. It had grown from less than five inches in May 1945 to 19 inches, presumably having made most of this growth in Schroon Lake.

Lakes which have no suitable tributary streams may require direct stocking. A survey of salmon growth rate, and subsequent progress of stocking experiments, has indicated that survival chances for salmon of advanced size (about 6-inch fish) are good when they are stocked in suitable lakes. Direct stocking of landlocks in their second year (5 to 7 inches) will produce 13½ to 16-inch fish a year later, judging by 23 recoveries of marked salmon at Clear Pond and Eagle Lake last fall.

Development of a reliable brood stock is an obviously important part of the program, for, in good-sized lakes, experiments in salmon planting require the rearing of thousands of young fish. If, on completion of the preliminary studies, broad management is to be developed, the requirements for spawners will be far greater. Trapping of wild breeders during recent years of rather low salmon populations has yielded only small numbers of eggs. The 1946 production of 11,250 eggs showed some improvement over previous years. Fortunately some of the planted salmon, known to be surviving and growing rapidly, may add to the supply in 1947, when the oldest of these will reach four years.

At the Crown Point hatchery landlocked salmon are being held over in order to determine whether or not domestication of a brood stock is worthwhile. A number of males were mature in 1946, but females were still one

year under spawning age.

As rapidly as egg production can be expanded, rearing of fingerlings and larger salmon will be undertaken to provide enough fish for management experiments. Studies since 1944 show that some hatcheries are well adapted to produce salmon and that others have less suitable water supplies. Also, requirements for successful hatches differ from those for successful rearing of yearling salmon. For example, excellent results in hatching were obtained at

Warrensburg, in spring water, but the fastest growth of yearlings as yet obtained in any of our hatcheries was at Crown Point, where a mixture of creek and spring water provided higher temperatures during the growing season.

Protection of salmon in the wilds is no less important, and the improvement of angling regulations applying to land-locks has been one result of the present study, which showed that the former size limit of 15 inches was unsound. Most 15-inch salmon in New York lakes are three years old or less and females of this size are immature. A change to a 20-inch size and a limit of two fish per day was recommended and given prompt backing by the Legislature. This law, effective in 1945, is already doing some good.

A point of great importance is the survival and growth of planted salmon, many of which are marked by removal of one or more fins. Anglers can help our current study by reporting any of these marked fish. The fins may regenerate, to some extent, so any unusual appearing fins should be reported.

The salmon study, given its original start by the special legislative appropriations of \$7,500 in 1944, is now considered a regular activity of the Conservation Department, to be continued until results are conclusive. Like other activities in fish conservation it requires time and hard work. Planting stock is barely adequate for experimental purposes and your favorite lake may not be stocked immediately. Salmon fishing, to be worthy of the name, must be more than the will-of-the-wisp represented by the few landlocks in our lakes at present. But progress to date indicates that building up an adequate resource of these fish—although sure to be a long pull is a real possibility.

OUT OF THE PAST

The State of New York has about 5,000,000 acres of abandoned farm land. In view of the farming practices of 150 years ago, it's a wonder we haven't got more. Note the (then) use of soil:

"The course of crops is as follows: first year, maize or Indian corn; second, rye or wheat, succeeded immediately by buckwheat, which stands for seed; third, flax or oats or a mixed crop; then a repetition of the same thing, as long as the land will bear anything, after which it is laid by without seed for old field.

"Or, burn the woods, (that is, clear the land from timber); then, first wheat; second, rye; then maize for four or five years, or as long as it will grow; then lay it by, and begin on fresh woodland.

"The average produce of wheat in New York has been stated to me at 12 bushels per acre; the average of Dutchess County, at 16 bushels. It will be found that the average of this State is superior to that of any in the Union."

(From a report by William Strickland to the British Board of Agriculture, 1794.)

CURRIER COLLECTION (From Page 20)

also the drills, machining equipment and tools that made it, as well as those required to load and fire it. But you probably would be surprised at the way the gun shoots.

If present plans materialize, it will be shot this spring in Syracuse. Mr. Currier is going up to the spring meeting of the Eastern Gun Collectors' Association along with Mr. Sherley Risley of Hubbardsville, who will fire the Millard. But he will have to go some to equal Millard's own record—five shots in an inch-and-three-quarters circle at 80 rods. Rods, not yards.

Mr. Currier refuses to place a value on his collection, but he thinks well enough of it to sleep with a 10-gauge

(Continued on Page 32)

What's Betin ya?

YOUR LETTER BOX

The opportunity for the reader to express his opinions—either in criticism or commendation—is something every publication must today provide. Particularly is this true of a State conservation magazine; a letter section becomes a clearing house for ironing out mutual problems and putting all the cards on the table for a look-see.

"What's Bitin' Ya" is your special department, and we want you to use it. Just address your letters—gripes, orchids, or simply ordinary question-asking — to "What's Bitin' Ya?" New York Conservationist, Conservation Department, Albany 7, New York. And please keep them as concise as you can so they can be more easily published.

Editor

A "White" White Hare

Sirs

Hunting recently in Oswego County I shot a white snowshoe hare (a small one) that had pink eyes. I believe this is a rarity and thought you might want to hear about it.

K. L., Syracuse

It's a rarity all right. You either shot yourself a bona fide albino varying hare (snowshoe) or someone's domestic albino rabbit run wild. Both albinism (lack of pigmentation) and melanism (black phase) are found in all mammals; an albino varying hare would be a "white-white" animal, white the year round, rather than brown in summer and white in winter. If the animal you shot had hind feet bigger than his ears, it was undoubtedly an albino hare. If the reverse was true, you owe someone a pet rabbit.—Editor

Of Friendlier Souls

Dear Ed:

Sorry Mr. T. V. of Hudson met up with the type hunters he did at his visit to a certain Adirondack leanto. My pal and I once came up to one occupied by two other men. When they learned we had planned to stay there they shifted the duffel so we had half the space. We all cooked on the same fire and had a darned good time. But tell me—you spoke of "maximum capacity" of a leanto. How do you measure it?

C. H. S., Scotia

The Adirondack leanto is 8 feet deep, 12 wide, inside dimensions. If the average man is 6 feet long and 25 inches wide (which he ain't), you could easily bivouac five such guys and still have a lot of head room for your gear. If your company has had any fox-hole experience you can put in 10, and let the elbows fall where they may.—Editor

Conservation or Condemnation?

Dear Sirs:

After hunting both pheasant days, 10 Saturdays for rabbits and birds, and two weekends for deer, my total bag for the season consisted of one gray squirrel. Under such conditions I don't feel the need for personal conservation. If you can put out more game, then we hunters will feel justified in buying your magazine. As it is, please cross my name off the mailing list.

A. C. M., Rensselaer

OK, but we don't follow your logic. There are plenty of fellows miffed about scarcities of small game this past year, not only in New York, but in virtually all other states as well. But a true sportsman recognizes that artificial propagation and stocking (and your State has the biggest program of this kind in the world) are only a drop in the bucket compared to what Nature, at her best, can do. However, when Nature goes sour (as she does some years) game abundance passes beyond the control of his, or any other, Conservation Department. He makes allowances accordingly. Furthermore, when his Department and fellow sportsmen are confronted with such serious conservation problems as now exist, the true sportsman OFFERS his support and encouragement instead of WITHDRAWING them. Besides, it isn't OUR magazine, it's YOURS.-Editor

The Majority's Good

Dear Sirs:

I disagree with your article "The Violator" in your December issue to this extent: You say "There is a problem too in the increasing number of youngsters found wandering through the woods and fields with guns, firing at everything that sits, walks or runs."

I have seen men with licenses doing lots worse than kids. Of all the boys I know that have guns maybe one or two are like you say. On our farm I have seen city fellows come in an army of five or six, and every

one of them has an automatic and cleans out everything there is. They don't give the game a chance. Here are my ideas for conservation: (1) Outlaw automatic firearms (2) Make everyone who buys a license take a test, including young fellows (3) Train boys in the use of firearms and teach them good conservation.

J. B. Jr., Vernon

Reporting Violations

Sirs:

Each winter I do some trapping and come across many violations of the Conservation Law, such as untagged traps, traps set in muskrat houses, stealing of traps and attempts to smoke out furbearers. I would be happy to be of service in reporting these violations when possible. I am greatly interested in conservation work; however, I am only 16 and a junior in high school. I hope that it is not necessary to be 21 to do this work.

A. R. H., Albany

A fellow can be a real conservationist whether he's 16 or 116, and heaven knows we need the help of interested young men like yourself. Report those violations pronto to your nearest game protector—and don't think you're squealing when you do it.—Editor

His Trees Paid Off

Gentlemen:

The Scotch pine I planted on the Olin farm at Horseheads back in '41 or '42 is panning out pretty good. We thinned the stand out a bit this year and sold them for Christmas trees, which netted \$75. Not bad for a day's work!

A. K., Reading Center

Wants Calendar Change

Dear Sirs:

I just picked up the last issue of the Conservationist and thought I would mention an idea I have thought of before but never written you about. Why not set the seasons up so we know what they are when we buy our licenses? One way would be to have licenses expire in August or September instead of December 31.

C. W. R., Rome

Game seasons cannot be static; they must be flexible enough to meet levels of game abundance or scarcity from year to year. Fixing license dates to match (or presuppose)

WHAT'S BITIN' YA?

(From Page 31)

open seasons would be putting the cart before the horse; it would only complicate the license structure, rather than simplify it or make it any easier for the sportsman. If we set up the hunting license dates on the basis you mention, we would have to do something similar for the fishing license, and the combination hunting and fishing license to boot—all of which would lead to mass confusion. The calendar-year schedule is the simplest and most direct.—Editor

Jigs Are Legal Gear

Gentlemen:

Is jigging legal? In other words, can a person use a spoon with or without bait on it through the ice for perch, pike and pickerel?

H. D., Chatham Center

The use of a hand line and jigging spoons in ice fishing for perch, pike, pickerel and other species, in season, is legal in those waters where ice fishing is permitted. Bait may be used in conjunction with such spoons, but if you fish Chautauqua Lake you are held to a single hook baited with worms only.— Editor

The Facts on Gun Plugs

Gentlemen:

Does the New York State law prohibiting more than three shells in the magazine and chamber combined of a shotgun apply to migratory fowl only? At a recent club meeting opinions were divided on this, but I maintained that no plug or magazine adapter was needed in a five shot auto-loading or pump action shotgun while hunting rabbits or pheasant.

G. H. E., Long Island City

The three-shell law applies only to migratory birds. But remember—no automatics at any time, and no auto-LOADERS with more than six shells.—Editor

CURRIER COLLECTION

(From Page 30)

shotgun by his bed. This particular piece is in very serviceable condition and is loaded with buckshot, but Mr. Currier is inclined to rely more upon his setters. He claims they are excellent watchdogs, although to the visitor it would appear that they are extremely friendly on those rare occasions when they are not all asleep.

The Currier gun collection has been in the making for 30 years. It all began when he inherited a Kentucky rifle, and with the virus thus planted there was no checking the disease. Friends gave him guns, he bought others, he traded for more. The Hon. I. Grant Scott, then acting governor of New Jersey, gave

PRO'S AND CON'S ON THE BUTTON QUESTION

They're For It

Editor:

No, I don't want a button, because both my son and I use a "windowpane" style pin sold in a neighboring state when we bought licenses there seven years ago. These cost 25¢ and were mandatory. They are tough—have carried our New York licenses through seven seasons in all kinds of weather. They are convenient, because they remain pinned to our shooting jackets all fall and winter, and to our fishing jackets all summer. In other words, when we dress to go out there are no mislaid licenses.

If you are not familiar with this type pin I can loan you mine for examination, and I heartily recommend its adoption. Remember that the purchaser buys it with his license and uses it from year to year. If the pin is lost, a new one must be bought with a new or renewed license.

K. D. S., West Sand Lake

Dear Sirs:

In reference to your question on Page 24, December issue, "Who Wants a Button", I suggest that the license button used before the war be used again. Then if a licensee loses either button or license while hunting or fishing, he still has one or the other to indicate that he has the right to engage in such sport even though he may have to prove to a law enforcement officer his right to hunt or fish. If the window-pane style license were lost under such circumstances the licensee might still be arrested. Furthermore, this type would be unattractive in appearance and too expensive.

D. J. M., The Bronx

They're Against It

Gentlemen:

The figures you have quoted as to the cost of a license button to the Conservation Fund should be enough argument for the sportsmen of this State to drop all thought along this line, when our game resources are at such a low ebb as at present. Before any thought is given to the issuing of license buttons, which are not of enough value in law enforcement to warrant their use, every cent should be concentrated on the State's efforts to build up our game resources and, what would also be of great value, hire a new game warden or two

To satisfy the natural desire of our club (Waterford Rod & Gun) members who wanted something to pin on their coats or hats, we purchased a supply of buttons of the medallion type showing the member's name and the year for which dues were paid. These buttons cost the individual a

nominal sum.

W. G. W., Waterford

Dear Sirs:

Your article on the license button is the reason for this letter. I believe the money that would of necessity have to be used for buttons would accomplish more good if used for restocking purposes. A button does not make a sportsman, nor should it be considered a badge of sportsmanship. Sportsmanship depends on the individual and no button will change that.

I do not believe that the true sportsman would place the convenience of owning a window-pane holder over the satisfaction of knowing that his money was being used for game.

P. A. M., Schenectady

him a first model Sharps buffalo gun, but Mr. Scott has a chance to see it every fall when he comes up to Cincinnatus to hunt grouse with the gun's

present owner.

Also in that back room hangs a Kentucky rifle made right there in Cincinnatus by Rensselaer Moore, who used to outfit sharpshooters during the Civil War. There is still another made in a place called Chenango Point, long before the town fathers got together and changed the name to Binghamton. There are pistols, stuffed grouse, old calendars, boxes of shells, fishing tackle, a stove, powder flasks, straight and split swedges; wad-cutters, moths, books, setters, and Mr. Arthur Currier.

All in Cincinnatus. All in that room behind the grocery store.

CAMERA CREDITS

First Cover—Grouse chick, Delmar Game Farm: Doug Finch.

Second Cover — Snowshoe rabbit hunter, and Page 11—Foxhounds: both by Fred Streever.

Page 12—Kensico Lake aerial and Page 14 plane photo: Doug Finch.

Pages 16 and 17—Landlocks and weir: Sumner Cowden, Dr. John Greeley.

Page 18—Moose River Plains: Paul Schaefer.

Page 20—Arthur Currier: Doug Finch.

Page 24—Maple and leaves: U. S. Forest Service.

Third and Fourth Covers: Doug Finch.



WINTER AT DUANESBURG

A Fox Takes a Walk



ARTHUR CURRIER AND COLLECTION

Two Satisfying Hobbies