New York State Conservationist

By George Inness, courtesy of the Metropolitan Museum of Art

"Peace and Plenty"

State of New York Conservation Department

October-November, 1947

The Blackwell Place

Symbol for one-sixth of the State and for our greatest conservation problem

The story begins on page 2

Back to the Land

On the cover is "Peace and Plenty", painted by George Inness in 1865. Inness was a great painter. He was an American, a New Yorker in fact, born in Newburgh on the Hudson and painting the country around there almost until he died in 1894.

"Peace and Plenty" could go on our cover without explanation. But one reason we have it there is that it seems to suggest what farming, and farm life, can be in this State.

Then, on the opposite page, we have a photograph which for want of a better name we have called "The Blackwell Place". This was taken a few years ago by Doug Finch, our Department photographer, and it shows a house in Rensselaer County that looks deserted, but isn't. There were people living here when the picture was taken, and there still are.

This picture also seems to suggest what farming, and farm life, can be in this State.

So we have Peace and Plenty, and we have the Blackwell place, both in New York, and for that matter, not many miles apart. We have poor land and poverty on the fringes of good land and plenty.

Our problem, of course, is the poor land and poverty; how to reclaim and use wisely five million acres of land once farmed, now abandoned—one-sixth of the State; how to provide for the people who for one reason or another still live on that land.

It is a big problem. A discussion of it begins on the following page, and will be continued in future issues.—Editor

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CONTENTS

1/6th of the State

YOU take the concrete highway out of the city and drive 18 miles. This is a through highway along the river. The valley is fertile and heavily farmed, and the houses you pass are neat and well painted, the barns large and in good repair. Every four or five miles you pass a small but unworried town.

Then you turn west off the concrete. You have to slow down because you are now on an asphalt road with a good many rough spots in it, and besides that, you are climbing. As you leave the river and the bottom land and start up into the hills, you notice that a lot of the houses could do with a coat of paint. On the houses the roofs are good, but not on the barns, where shingles of various stages of newness show that the patching process has been going on for years. Still, the fences seem to be in pretty good repair, and judging by the hay sticking out of a crack near the top of the loft, at least one of the barns is full and ready for winter.

Then you turn again, this time onto a narrow dirt road. After you have gone a mile or two you realize that you have left the power lines and also the telephone poles—they followed the asphalt, and you are on dirt, with grass growing on the crown of the road. This is rough riding, and when you get a chance to look out through the bushes that crowd the road, you see that it is also rough country. You have been climbing ever since you left the river bottom, and if you had an altimeter it would show that you are now 1,500 feet above sea level. That hill, with the spruce growing on top, is at least 2,000.

You come to a house. Although it appears deserted, there are people living here. The clapboards are a weathered gray, but up under the eves there is a faded fringe of color which suggests that the house was once a nice yellow. With the paint gone, the siding is going too. A good many of the clapboards have curled up and pulled away from the studding, and even if the square, hand-wrought nails were driven back into place, they wouldn't hold. The original roof has gone too, because someone has tacked tar paper over it to keep the weather out.

The weather, apparently, is a problem here. There are boards and old two-by-four's propped against the house to shore it up where the frost has heaved the foundation, but that probably wouldn't have been necessary if the gutters and drainage ditches had been kept up. All the windows are shuttered; broken glass, of the kind they don't make any more, behind the shutters. A porch, added long after the farmer-architect had built the house, rotten and falling, the door leading off it boarded up inside against the winter wind to come. Newspapers, tacked and glued to the walls inside, and stuffed into the seams that have opened up outside. Yes, the seasons, which you can enjoy in a good house, are only a problem here.

This is the Blackwell place. There is a family named Benoit living here now, but the local people still call the farm the Blackwell place, and the valley, Blackwell Hollow. This is partly because a change of names is not quickly accepted in the country, but it is also a sort of posthumous tribute to the people who built the house and made the farm and lived on the land and off it.

The Benoits, who live here now, live here because they have no place else to go. They are an old couple who keep a cow and raise a few vegetables in a poorly fenced, poorly tended garden, but they aren't capable of doing much more. They are on relief, drawing 40 dollars a month from the town. They have two grandchildren who live with them, both pale little girls who seldom play outside and always play alone. They go to school in the town, but their marks are below average. There is no saying definitely why they live out here with their grandparents, but there is a lot of loose talk about it in the town.

Going past the house and crumbling outbuildings, you walk up to look at the property. The deed calls for 255 acres.

First, there is the big field. It is quite obvious that once upon a time this was the center of the farm and the principal unit in its economy, but now clumps of alders have crept out from the hedgerows and a single clump, well established in the center of the field, suggests what will happen in a couple of years. In the meantime steeple bush and thistles have taken over, and burdock.

The whole field slopes steeply, at least 15 degrees. But at the top of it, where the young spruce and hardwood come down to the edge, the slope is much greater, and here you find evidence of what may have been the turning point in the farm: there are furrows, ploughed probably in the fall, but never harrowed or planted. Some time between ploughing and planting, the farmer had given up.

THERE are other fields. Crossing over into an adjacent lot, you notice pieces of broken tile at the bottom of what was once a ditch that ran across the big field, just under the steepest slope at the top. It drained into the ravine at the edge. But the ditch is now filled in and grown over, and the ravine is a gully worn bare by spring freshets, with bare-rooted trees hanging at crazy angles over it.

The Benoits use one of the lesser fields for pasture—it was easier to fence than the big one. There are not so many alders here, but there are blackberry briars in profusion, and thornapple, and more steeple bush, and a good deal of gray birch coming up. Even at this dry season of the year the ground is soggy in spots because of the seepage from some spring up on the hill—once drained, probably, but not now.

Follow the old stone wall. Before the days of barbed wire, the Blackwells, or somebody, drew those stones out of the fields and laid them up in walls with a post and rail along the top. The posts were augered out to take the rails. Now there is just a long running pile of stones, but some of them are so big that only oxen could have moved them.

The wall runs to the top of the field —to the point where even the Blackwells though it best to leave off farm-

ing. From there on up to the height of land has always been woods, has always been the winter-work section of the farm as opposed to the summer-work section of fields and pasture. You pick up an old road that runs up into the woods from the house down below, and you follow it as it winds around the hill on a steady grade toward the top.

There is not much worth cutting here, but there has been plenty of wildcat cutting in the past. Many of the newest stumps, white ash, are barely 10 inches across, and the Benoits must have been hard put to it to sell such timber. But sell it they did last winter, on the stump, to a jobber who trucked it 90 miles to a mill. The year before they had sold what was left of the spruce, and the year before that, the maple and yellow birch.

So now there are stumps and tops and briars and plenty of trees either too small, too large, or too misshapen to sell. There is still a lot of beech, but with the firewood business on the down grade and choppers working for eight dollars a day, the Benoits have left this standing—and spreading overhead. In a few years there will be some white birch to cut, and in 50 years, some very good maple, and in 75 years some of the spruce now poking through the briars could go to market. At the very top of the hill there is a stand of spruce and hemlock that would make fine lumber, but last year a lumberman who knew his business sized it up, and sized up where it stood, and said he would lose money getting it out.

The deed says the property is bounded on the south by Kronk Brook, "as it winds and turns". What better or more natural boundary? The whole farm slopes steeply into Kronk Brook and ends there, and on the other side, not so well placed because it faces north and rises even more precipitously, there used to be another farm. You can tell because as you look across the narrow valley you can see against the older forest a line of second growth birch.

Kronk Brook shows signs of wear. The deed should have read "as it winds and turns and is worn", because it seems as though each spring flood must cut a new path through the valley. The brook is only a trickle now, but the Benoits will tell you they have seen boulders bigger than a bushel basket come bouncing down that stream, and heard them in the night, pounding like thunder. Then the bridge goes out, and sections of the road along the brook.

As you follow the brook back to the house you will notice a graveyard. It is in a clump of trees on a little hill behind the barn. Most of the stones—there are only a dozen or so—have fallen and are grown over with periwinkle, and those that still stand lean to the ground and won't stand much longer. Some of the early Blackwells are buried here:

Abigail Blackwell, 1769–1861
Beloved Wife of Jared Blackwell

Oh stranger, pause, as you pass by
As you are now, so once was i
As i am now, so you must be
Prepare for death and follow me

You have seen the Blackwell place; according to the deed, "255 acres, be the same more or less".

Of just this sort of land the Empire State has five million acres, be the same more or less. This is one-sixth of the State.

What to do with it?

Much of this State is no longer productive. One-sixth of the land in New York has been abandoned.

In this article we try to state the problem, and explain how it has come about. In future issues we will attempt to show how Conservation can be applied to it.

The clearing and settlement of this State's farm lands hit the peak about 1880. The census of that year showed that of the State's 30,498,560 acres, about 22,900,000 were in farms, and this was an all-time high. From 1880 to the present time the wheel has been turning the other way. The rate of abandonment has averaged about 100,000 acres a year, and now our total farm area of 18,000,000 acres—be the same more or less—is almost exactly what it was 100 years ago. So now the wheel has come full circle.

The wheel, however, continues to spin in reverse at about the same rate, and the reasons are not hard to find. There is abandoned land in almost every county of the State, but the extent of it in each county is determined by a list of definite factors that begins with poor soil, and usually a thin layer of it. Then poor drainage; rough topography; an altitude of at least 1000 feet, which makes for a short growing season (defined as the period between the last killing frost in the spring and first one in the fall); and comparative remoteness from cities and markets.

But above all there is the factor of technological progress in agriculture and marketing. As you drive back to the city you may conclude that the Blackwell place should never have been farmed, and although it's all very well to say that now, when the Blackwells settled the hollow they knew what they were doing. It was never an easy place to farm, but at that time there weren't many places that were easier. The West hadn't opened up yet. The center of the country's population was then, as it is now, along the Atlantic seaboard, but then that population was fed almost entirely by the narrow belt of land that sloped from the Apalachians to the sea. The Blackwells had a steady market near at hand, and no serious competitors. They probably never had much cash on hand, but they didn't need much. They could live—and according to the standards of their day, live pretty well—off the land.

NOW things are different. Developments in agriculture, transportation, and marketing have made farming a national, and even an international, business, and subsistence farming such as the Blackwells practiced has been largely relegated to the status of a hobby. The Blackwells had their corn ground into meal at the local grist mill. The Benoits go to a super-market and buy flour from wheat that was grown in Kansas and milled in Chicago.

Perhaps the most dangerous conclusion you could reach, as you drive back to the city, is that the Blackwells were just dumb farmers; that with modern machinery and agricultural methods you could make a going concern of that place, and put it back on its feet.

Make no mistake, the Blackwells were good farmers. If you had to drain that big field, very likely as you dug down you would come on tile, or a rock drain, that had been laid a hundred years ago. If you decided to cut the softwood on the top of the hill, you would bring it down on the log road that Jared Blackwell's father banked and graded when he wanted spruce to frame his house. If you wanted a good water system, and good water too, you could probably do no better than tap the spring the Blackwells tapped, and let it gravity-feed from the spruce hill down to the house. If you decided to survey the land, very likely your lot lines would fall within inches of those staked out by the first Blackwell. There were things

about fertilizer and seed and tilling that the Blackwells didn't know, but neither did anyone else in those days, and if you ever wanted to farm the place again it would be best to ressurect a Blackwell. They made a go of it.

As a matter of fact, they more than made a go of it. They were farmers doing a tremendous amount of work, but they also seem to have had time to be civilized. They not only built houses, but often beautiful ones, and they almost always took the trouble to place them for a view. Even under the shabby tenancy of the Benoits the good lines of the Blackwell house are still there; the slope of the roof, the undercut eaves, the Greek-Revival columns at the door. The fluted moldings were not the product of a lathe. Some Blackwell chiseled them out with a molding knife because he thought they would look nicer than a flat board.

No, the Blackwells were good farmers, and they were not country hicks. They were sound capitalists and citizens in their day, and when their day began to draw to a close they saw it coming. They sold out and moved on. Those weathered stones in the graveyard—the names on them are not often the names in the valley today.

It's extremely important to realize these things about the Blackwells, so as not to underestimate the trial they made of the land. A trial not only of the land, but of living decently on it.

Still, you may be tempted to put modern equipment and knowledge to work, and reclaim the Blackwell place for agriculture. It could be done. You could, for example, put the latest type of fertilizer on the big field, and it would greatly increase the production from that field. But—if you put the same amount of fertilizer, over the same acreage, on one of those big fields you drove past in the river bottom, the increase in yield per acre would be far greater. In other words, the competitive margin between the two fields would not even remain the same; it would increase in favor of the field that was originally better. Stated still more simply, modern agricultural methods favor the survival of the fittest land.

THIS fact has been the principal cause of land abandonment in New York. It is at the same time the principal reason why land so abandoned will never be returned to agriculture, in any appreciable quantity, so long as our present economic and political philosophies prevail.

From the point of view of agricultural economics, the abandonment of five million acres of farm land is of almost no importance. We don't need that land for farming. In spite of a 25 percent decrease in farm acreage, total agricultural production in this State is 30 percent above what it was in 1880, and production per man has almost doubled. These figures indicate an improved utilization of both land and labor which would only be disrupted by any large scale attempt to reclaim our abandoned lands for agriculture.

So the retirement of these lands from farming has been a normal and healthy process. This still leaves us, however, with the problem of what to do with one-sixth of the State now that it has been taken off the active list.

Attempts to solve this problem are almost as old as the problem itself. In the State College of Agriculture at Cornell, you will find a department which is devoted to modernizing agriculture. Then you can walk upstairs and find another department which is devoted to solving the problems created by the one downstairs—what to do with the land and people that progressive agriculture leaves behind. It is significant and encouraging that the two departments are under the same roof.

The work of the department upstairs goes back to soil surveys begun in 1901, but the first studies of our immediate problem, abandoned farm areas, began in 1923. These were followed by the land-classification surveys, begun in 1930, interrupted during the war, and now being resumed.

These land-classification surveys have had far too little publicity. It is their purpose to locate and assess—parcel by parcel and county by county—the various types of land in New York, so that each type may be put to its best use. The land classes range from I to VII. Perhaps you didn't know it at the time, but when you drove from the city to the Blackwell place you went from Land Class VII—the rich muck land along the river bottom—to the poorest we have: the Class I Blackwell farm.

This land classification is no mere scholar's pastime. It is applicable, and has been applied, to the economics of daily life, particularly in the planning of roads and public services for rural communities. It was not by chance that as you drove from the city to the Blackwell place, through the whole range of land classes, you started on concrete and ended up on a narrow dirt road. Nor was it by chance that when you turned off the asphalt you left the power and telephone lines behind. Public services in many of our communities are based on the land-classification studies.

So much—all too brief—for the research. When it comes to the actual reclamation of abandoned land, the record is not so impressive. In 1931 the State Constitution was amended so as to provide for the acquisition and reforestation, by the State, of one million acres of this land over a period of 15 years. But in 1938 this amendment was repealed, and since that time the State's land acquisition program has had to depend on annual appropriations by the Legislature. Although these have been substantially increased in the past three years, as of September 1, 1947, the State had bought or contracted for only 505,228 acres.

OBVIOUSLY, the State's program of acquisition and reclamation has fallen far short of its original goal. The slowing down of the program and its temporary stoppage were partly because of the financial condition of the Treasury. Its resumption in 1944, sought by farm leaders and conservationists alike, was a healthy sign of renewed interest in and support for this work.

It has been hoped, right from the beginning, that private enterprise and county governments would step in and buy up the Blackwell places. This hasn't happened to any appreciable degree. In fact, over the past 15 years, State, county and private acquisition has not even compensated for the annual rate of abandonment.

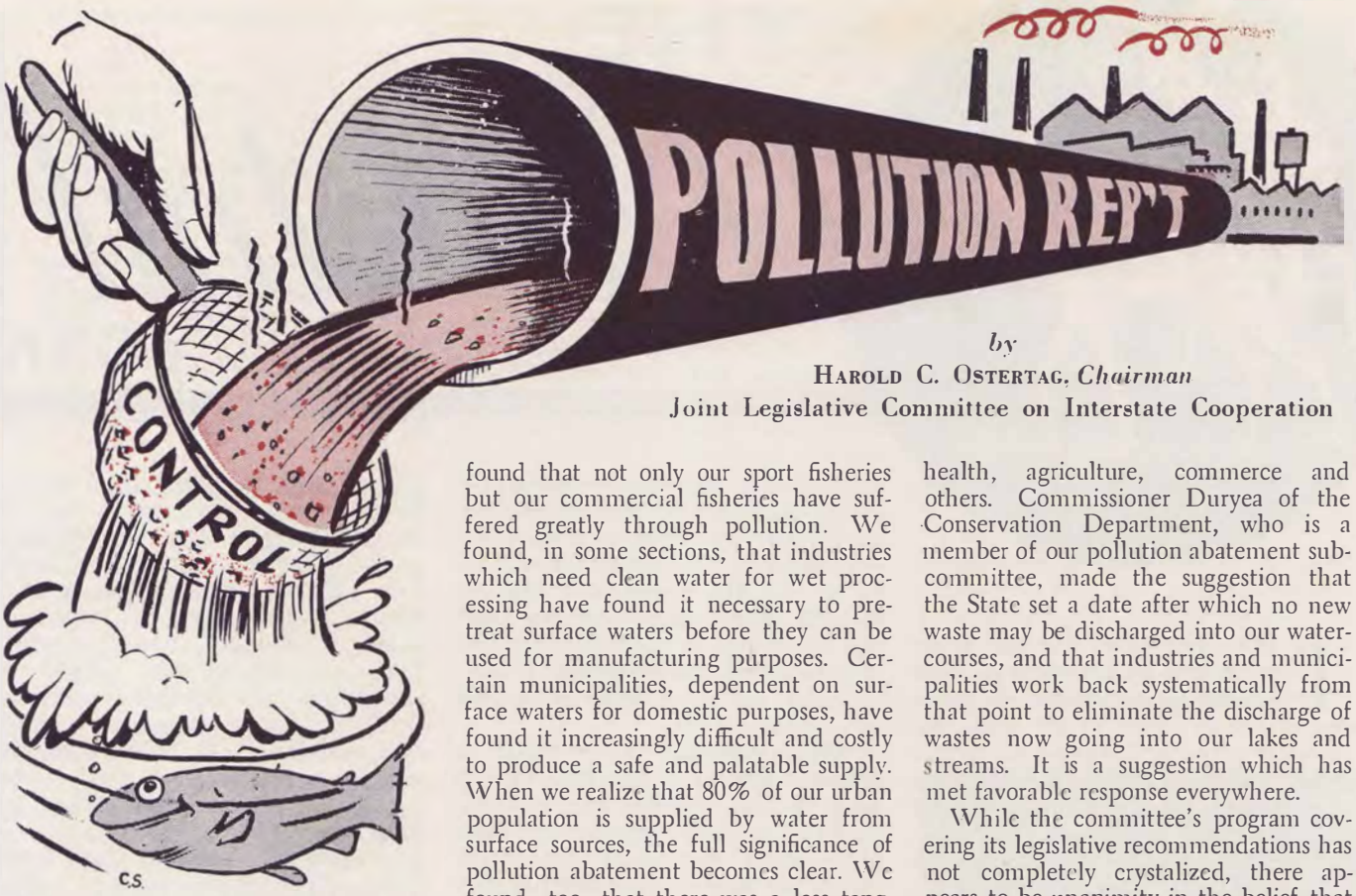
Which brings us back to our starting point. One-sixth of the State is going, going, or gone. This is a problem, yes; certainly the biggest conservation problem in the State. But it is also a challenge and an opportunity. If Conservation, which is supposed to be a practical science, is indeed practical, then there could be no better proving ground than our five million acres of abandoned land.

—P. W. FOSBURGH

Next Issue

Although the land has been abandoned, there are still people who continue to live on it.

In the December-January issue, Jared van Wagenen, Jr. will discuss this aspect of the problem.



by

HAROLD C. OSTERTAG, *Chairman*
Joint Legislative Committee on Interstate Cooperation

FOR more than a year the Joint Legislative Committee on Interstate Cooperation, of which I have the honor to be chairman, has been engaged in a study of pollution conditions in the surface waters of New York State. Our objective, under mandate from the Legislature, is to ascertain the extent of pollution and its effect on the life of the State; and to formulate a pollution abatement program which will, on a fair and equitable basis, check the progressive degradation of our great natural resources and help restore our natural waters to their best social uses. I need hardly say to conservationists that the task is gigantic and urgent.

Under this mandate our committee has carried out studies of pollution conditions in New York State which indicate the inroads of pollution into our surface waters. Our rivers and lakes are each year carrying a heavier burden of domestic and industrial wastes. Some are hardly more than open sewers. Every stream basin in the State today feels the damaging effect of pollution, and it is estimated that stream pollution is costing New York State more than $14,000,000 annually.

It will be no news to readers of the *Conservationist* that our committee found widespread and intense interest on the part of the sporting public in the pollution problems which existed in varying degrees of severity in the various watersheds of the State. We found that not only our sport fisheries but our commercial fisheries have suffered greatly through pollution. We found, in some sections, that industries which need clean water for wet processing have found it necessary to pretreat surface waters before they can be used for manufacturing purposes. Certain municipalities, dependent on surface waters for domestic purposes, have found it increasingly difficult and costly to produce a safe and palatable supply. When we realize that 80% of our urban population is supplied by water from surface sources, the full significance of pollution abatement becomes clear. We found, too, that there was a less tangible yet equally important effect of pollution in the damage that it does to New York's out-of-doors and the multimillion dollar vacation and recreation business—the largest in the nation.

In many areas of New York State much is already being done in the battle against pollution. At the present time, 290 sewage treatment plants in the State are serving 371 communities with a population of approximately 7,000,000 persons. With the aid of Postwar Planning funds, 24 municipalities having adequate sewer systems are planning new treatment works; 30 more are scheduling improvements on existing works; 42 more, now without sewer systems, are planning the construction of sewer systems and treatment works; and 22 more plan to extend present systems, with related sewage treatment plant improvements. In order to encourage this phase of pollution abatement, the 1947 Legislature continued the offer of State planning aid to communities needing sewage disposal facilities, and 15 additional communities have recently accepted this offer.

The points to be considered in solving the pollution problem are these:

It would seem that the laws dealing with pollution control need to be clarified and strengthened. Coordination of efforts and responsibility for strict adherence to the laws must be vested in a government body in which all of the interests affected by pollution problems are represented—including conservation, health, agriculture, commerce and others. Commissioner Duryea of the Conservation Department, who is a member of our pollution abatement subcommittee, made the suggestion that the State set a date after which no new waste may be discharged into our watercourses, and that industries and municipalities work back systematically from that point to eliminate the discharge of wastes now going into our lakes and streams. It is a suggestion which has met favorable response everywhere.

While the committee's program covering its legislative recommendations has not completely crystalized, there appears to be unanimity in the belief that a necessity exists for the strengthening of our pollution control laws and for a centralized enforcement authority.

OF course, such machinery and laws will not do the job alone. Public opinion in the long run will be the decisive factor in any pollution abatement program, and this is where conservationists can assume their rightful role and be most effective. Public opinion must be aroused to support the necessary pollution abatement measures. It must be articulate and it must be properly informed. It must not be aroused on a witch-hunting basis, but rather it must take into account the fact that pollution was an almost inevitable concomitant of our industrial and urbanized civilization. It must face the hard, cold fact that pollution abatement will be costly and that if we want clean streams we must pay for them. It must give encouragement to a virtually new concept of municipal and industrial management—namely, that proper disposal of wastes is an integral factor in the cost of operation.

When we have aroused public opinion to such a constructive understanding of both the dangers of stream pollution and of the cost and means of correcting it, we may look forward with confidence to the time when fish will return to our lakes and streams, bathers will return to our beaches, and man's drinking water will be unimpaired by man's own wastes.

THE Whitetail IN NEW YORK

IF YOU WANT to put your finger on the game animal which provides the most sporting thrills, the greatest economic return to the State, the greatest potential headache to agriculture, the biggest arguments in the State Legislature, the tallest tales in the drawing rooms, bar-rooms, and back-rooms, and the one which will cause an otherwise sensible man to forsake the comforts of civilization and punish himself with a heavy pack and the ordeals of bad trails, rain, ice, snow, sleet and wind—your finger will come to rest on the whitetailed deer.

Under reasonable protection he has been pretty much a match for an ever increasing army of deer hunters. Three figures tell a startling story. In just 20 years the number of deer hunters has increased by 275%—and yet, in the same period he has extended his range in New York State so that legal hunting territory has increased 88%—and the annual take 150%.

With profound admiration for the whitetail, and mindful of serious deer management problems which must be faced this year, your editors have decided to give him special treatment—in this and the next issue of the *Conservationist*. This time, with the hunting season in full swing, we will try to tell something about the old boy himself. Next time, something about him as a problem child—the problem of keeping him under control in farming areas, and as abundant as possible in wilderness areas.

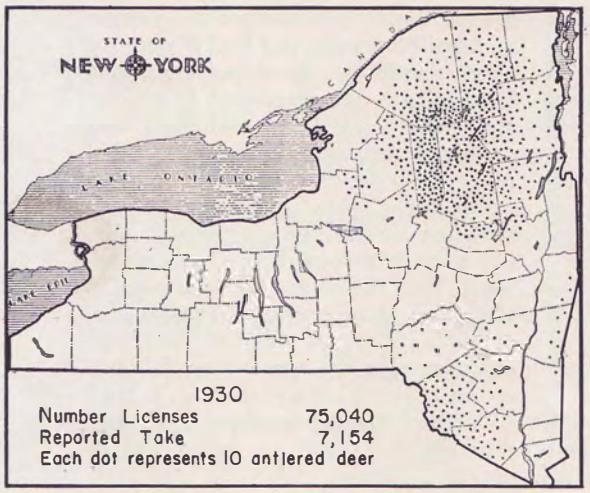
What Whitetail? Deer taken in different sections of the State vary so much in size, weight, conformation, color and antler development that there is common speculation about the "kinds" of deer we have here in New York. Our deer is simply the whitetail (*Odocoileus virginianus*). Primarily it represents the northern race (*O. v. borealis*), but in southern New York there is some adulteration (our Confederate friends will resent this) with the considerably smaller Virginia race (*O. v. virginianus*).

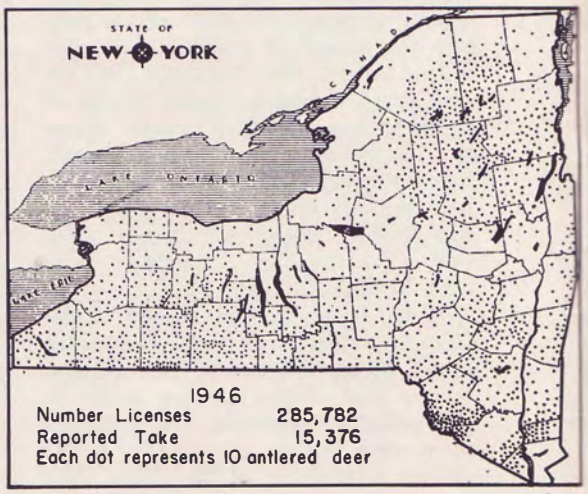
The differences noted are primarily the result of environment—principally climate, food (influenced by the mineral content of the soil in each area) and shelter. On the matter of size, while that big buck charging down the mountain looks as big as an elk, we're obliged to report that mature bucks seldom reach 3½ feet at the shoulder, and does run even smaller. The normal weight range for bucks on the hoof is 150–180 pounds; for does 110–140 pounds. Larger bucks are not uncommon. Two hundred-pound bucks are taken every year in the Adirondacks; 250-pound bucks in the Southern Tier, with an occasional 300-pounder. (For a discussion of records see article and chart in *Conservationist* for October-November 1946).

Antlers—and Age: It has now been demonstrated that antlers are not even a reasonably accurate index to age. Yearlings are usually "spikes", but may have many points. Old bucks may have merely spikes. In general, antlers are best developed when a buck is in his prime (4–5 years). The diameter of the antler base is normally larger in older deer, but even on this point the comparison of heads from different sections would be confusing. The most frequent number of points on all bucks reported is eight. Except in rare instances (a few reported each year) does have no antlers.

It is well known that antlers are shed each year after the hunting season and that new antlers begin to "bud" in late April or early May. At first they are soft, spongy, and easily injured — accounting for some of those freak heads. As fall approaches they harden and the "velvet" is rubbed off by "horning" against shrubs and small trees. Every seasoned deer hunter knows the tell-tale signs.

The most accurate index of age is dentition. By examining the teeth of your buck, the Game Research Investigators at this Department's roadside checking stations can tell you his age. Even if you're not interested, we are. Statistics collected in the past at these stations show that animals over four years old are in the minority, with the average between two and three years. *This is one of the most significant findings in recent years*, because it proves the rapid turnover of the herd, and makes it clear why, in the Adirondacks, a high winter mortality of fawns for





The whitetailed deer is unquestionably our most valuable game species, and we can afford to do our best through practical conservation in his behalf.

This is the first of two articles about him. The second, discussing aspects of deer management, will appear in the next issue.

two or three successive years can sadly deplete the total stock. It is the old wildlife principle that you have to produce a crop every year to keep up a good hunting reserve.

Breeding and the "Rut": Another comparatively recent finding of importance is that the "rutting" symptoms in the buck (swollen neck, etc.) are not the best index to breeding activity. The acceptance of the buck when the doe comes in heat is the important factor. Although a few earlier instances are on record, does do not commonly reach this condition until late October. The peak breeding period, however, is November 10–16 in the Adirondacks, and a week later in southern New York. While this period of heat lasts only a few hours, a doe will, if not bred, come into heat three or possibly four times at twenty-eight day intervals. Thus, few normal healthy does, capable of breeding, go without service. The period of gestation averages 6½ months with the majority of fawns being dropped from mid-May to mid-June. They usually stay with the mother for the first season.

Range: The usual home range of a deer is surprisingly small (five to six hundred acres), although in many localities short movements take place from summer and fall grounds to wintering areas, and vice versa. Although short, these movements are extremely important to the hunter late in the season, especially in the Adirondacks. A piece of fall range occupied by deer may be emptied from one week to the next as the animals move down into the more sheltered valleys and swamps.

Food: Deer are something like goats in their feeding habits and will eat a wide variety of things. Their chief staple is browse—the leaves, twigs, and buds of various trees and shrubs. During winter some of the preferred species are white cedar, hemlock, soft maple, moose maple and witchhopple. During the warm months they will also eat many other kinds of vegetation, including grass and aquatic plants like the pads of water lilies. In the fall they relish beechnuts and acorns when available. It is the deer as an eater which makes him not only his own worst enemy (through over-browsing his own range) but also a real problem when too numerous in agricultural areas. Over-browsing of deer range not only means that deer literally eat themselves out of house and home, but that they destroy food and cover for other game.

The avoidance of over-browsing is one of the principal aims of any good deer management plan. Classic examples of under-shooting and over-browsing are all too frequent throughout the country but in New York, through the generally judicious handling of hunting laws, it has fortunately been limited to a few local situations. Widespread deer damage to farm crops has similarly been avoided—but there are signs that deer are getting out of hand in some sections—hence a special discussion of this problem in our December-January issue.

Habits: The eyesight of a deer, except for the detection of movement, is apparently quite limited, but his hearing is most acute. His scenting ability is very keen and on a "down" wind will give the alarm at incredible distances. Good still hunters, therefore, try to hunt up-wind or at least cross-wind, keeping a constant and sharp lookout to the windward side.

Deer are immensely curious and will often stop and turn toward a strange sound or smell. Sometimes they will proceed directly toward the source. A shrill whistle will sometimes stop a fast-moving buck in his tracks—and provide a good shot, or at least more than the usual fleeting glimpse.

Because deer like to stick to their own limited territories they invariably travel in circles when being followed. Even when being driven they like to cut back through the line of drivers or secrete themselves until the drivers have passed by. For this reason experienced guides and hunters prefer a series of short drives to one or two long ones.

Early in the season, before they have started dogging the does, the bucks often lay up in the ledges or ridges, preferably on some promontory where they have a sweep of the country or at least of the approaches to their lookout. Later on they come down to travel with the does and their accompanying fawns. As the mating season comes on the bucks become combative and every now and then some lucky hunter will be privileged to see a real primitive struggle between two bucks. Occasionally the antlers will become securely locked, sealing a fate of slow death for both fighters. One hunter has reported a very simple method of hunting. He picks a good spot having plenty of deer sign, sits down in comfort and calls the bucks to him by clashing two antlers together, simulating a fight. We can't vouch for the productiveness of this, however.

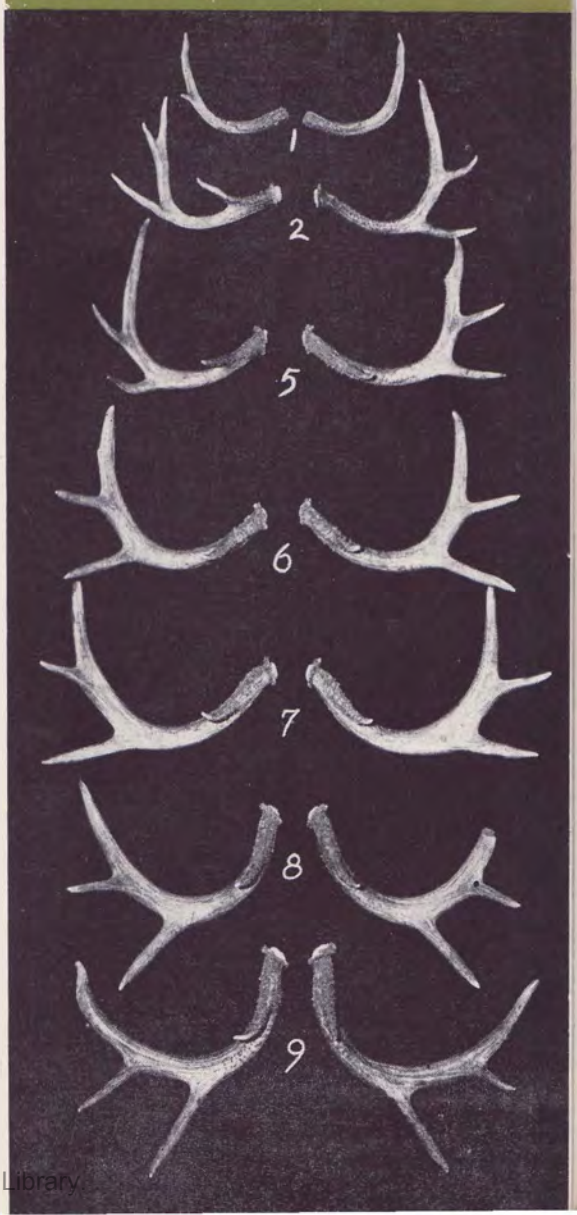
Two hunters can hunt very effectively together when there is tracking snow, by having one act as the hound and follow a buck track, while the other works to one side, slightly ahead and cutting a series of circles designed to get a glimpse of the buck which is chiefly occupied with the man on his track.

The real test of a hunter's skill is his ability to take after a particular buck and hunt him down alone. This requires a real knowledge of deer habits and usually a pretty good knowledge of the country being hunted.

But the great attraction of deer hunting is that no man, no matter how experienced, can get to know it all. There is always some old buck who is more than a match for him.

—J. V. Skiff, *Deputy Comm'r.*

Antler growth by year—same buck



Predation

IN THE EYES of most sportsmen, predation is a major cause of game scarcity. They view predators as competing directly with them for the available game. They feel that whatever is lost to predation lessens their hunting prospects by that much. By the same token, they believe that, if predators could be eliminated, the game abundance they dream of would be definitely assured.

But, while they agree on the general desirability of eliminating predators, there is much conflicting opinion regarding the species that should be so treated. The average hunter thinks of predation very largely in terms of his own favorite game. Grouse and pheasant hunters would condemn carnivorous species in general, but their views conflict with those of the fox hunter and 'coon hunter, for example. In fact, there have been instances of bird hunters who strongly denounced the fox, but who executed a complete about-face once they became fox hunting addicts. Another conflict of interest is that of the trapper regarding those species which are valuable fur bearers. What is one man's meat is another's poison.

The sportsman should realize, too, that game species are not altogether blameless. To many orchardists, the grouse is a predator. In fact in 1927-28, when many feared that this bird was approaching extermination over much of the Northeast, the State of New Hampshire paid more than $4,000 in damage claims resulting from the grouse's budding of fruit trees. Similarly, even during the past summer, there have been complaints of garden damage by pheasants. Rabbits, also, are often a nuisance to farmers.

The real problem to be considered in this article, however, is the degree to which predation actually affects game abundance, with particular reference to hunting opportunity.

As a basis for such a discussion, it must be emphasized that predation is a fundamental relationship of living organisms. An old Chinese proverb illustrates the situation:

"The large fish eat the small fish;
The small fish eat the water insects;
The water insects eat plants and mud."

Predation is not confined to the taking of species which man has seen fit to call game. As far as the animal community is concerned, the chickadee feeding on plant lice is just as much a predator as the great horned owl killing a grouse.

The basic function of predation is the elimination of population surpluses. To one who, in an all-day tramp, has started but one or two grouse or a half-dozen rabbits, it may be difficult to envision a surplus of game. Yet the potential productivity of most wildlife species is tremendous. At its average breeding rate, one pair of grouse would produce more than 33,000 birds in only six years, if no losses occurred. Similarly, one pair of deer would produce a herd of more than 3,000 in 20 years. In the case of insects, the possibilities are vastly greater. One entomolgist has calculated that, if all limiting factors were removed, the progeny of one pair of plant lice would crowd all other living things off the face of the earth in 12 years.

It is obvious that such increases cannot materialize because the ability of the range to support wildlife is limited. In some way, a balance must be struck or the plant lice, for example, after they had crowded out all other life, would all die of starvation. Accordingly, in the course of its evolution, an adjustment has developed for each species whereby various factors reduce its potential and maintain its population at a level in keeping with the quality of the environment.

THESE factors vary from range deficiency and various sources of breeding failure to direct causes of death. They exert their effect during all stages of a species' life cycle so that the total reduction of the surplus follows a staggered pattern, the final phase of which for game each year takes place during the winter. In this way game, as well as other wildlife populations, are annually reduced to a level compatible with the environment in which they are situated and, among small game, predation is the principal direct cause of death involved. Thus a breeding stock is maintained, although it may fluctuate considerably from year to year.

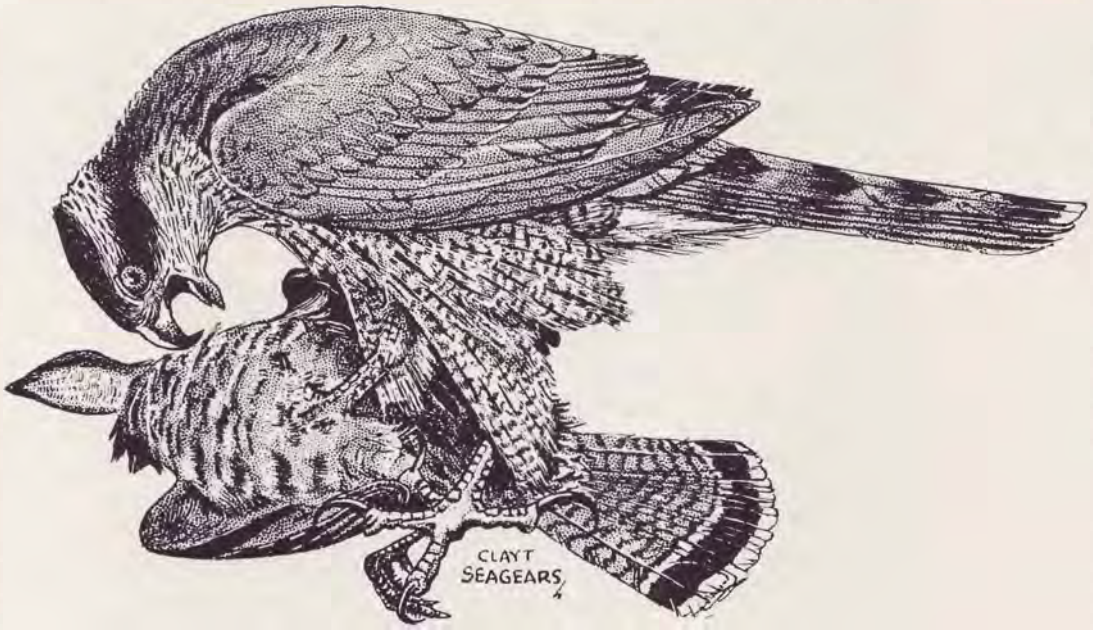
The average sportsman's reaction to this will be that such a balance of nature was all right under primitive conditions, but that now the importance of game for sport has changed the situation. Mere preservation of a breeding stock is not enough. Predation should be curtailed so that a greater abundance of game will be available.

Generally speaking, this is wishful thinking. Unquestionably, predation does destroy a large amount of potential game each year. But that any great proportion of that loss could be expected to survive and accumulate if predators were eliminated does not follow.

The key to this conclusion is the fact that the size of a game population which a unit of range can support is limited. This limit varies with different species and, for a given species, it varies according to the quality of the range. But the fact that there are such limits means that populations in excess of them will be reduced in one way or another. Perhaps the greatest stumbling-block to an understanding of the role of predation is the failure to differentiate between the fate of populations and of individuals.

Usually predation is the major factor in population reduction, but if it were removed compensatory factors would come into play to accomplish the same purpose. First, as certain predators were eliminated, the effect of others would become greater. But, if substantial surpluses continued to build up, then such factors as disease or range depletion would enter the picture, usually resulting in more severe (and often sustained) reductions of abundance.

As an example of what may happen, the trend of grouse abundance on 1050-acre Valcour Island in Lake Champlain, during a study of predator control carried on by this Department, is illustrative. Under the virtual elimination of all predators a low population of 33 birds in the fall of 1941 built up to 87 in the fall of 1943. Nevertheless, although the same intensive control of predators was continued, this population dropped from 87 to 15 between September, 1943 and April, 1944, apparently as a result of disease. The recent history of deer in Pennsylvania affords another example. In the absence of their ancestral predators, the wolf and panther, and under too great protection from hunting, they became so abundant as to over-browse their food supply and in turn actually lower the carrying capacity of their range. Still another instance, more directly involving predator control as it is usually thought of, was the severe range depletion and resultant starvation of deer in



HOW MUCH DOES IT COMPETE WITH HUNTERS?

the Kaibab National Forest in Arizona following extermination of the mountain lion—a measure originally intended to increase the deer.

But, while surpluses in excess of the carrying capacity of the range are highly vulnerable, populations below this level are relatively secure. Thus game species, unless over-shot or otherwise decimated by man, will in general maintain their abundance, especially in terms of breeding stock, in accordance with the quality of the range in spite of average numbers of predators.

Nevertheless, predators may at times become abnormally numerous. This has been true of foxes in New York during the past few years. Unusual winter influxes of goshawks appear from time to time, also. Under such circumstances, predation may take an undue toll, resulting in an abundance of game below what the habitat would ordinarily support. Right now, although other factors (mainly weather) are believed to be the primary cause of the recent decline, predation on pheasants might well be dispensed with altogether, if such a thing were possible.

BUT, granting surpluses would not accumulate and build up over a period of years, could not sport hunting be substituted for predation in eliminating them each year? Could not predator control produce an increased fall abundance and thus an even greater hunting opportunity? Theoretically—yes. Essentially this is the practice followed on the famous grouse moors of Scotland, with the important exception that where the owner and his guests do not remove enough birds, the keepers subsequently reduce them to the desired level. Few people, however, realize the intensity of the management on these Scottish preserves. In this country intensive control, by a public agency, of even the paramount predators over the small game range of a state would be prohibitively expensive. If it could be achieved, an increase in fall game abundance would be expected, although it is doubtful if the additional crop would be harvested adequately in many instances. At the same time it may be noted with respect to big game that in southern New York deer productivity is high in the absence of its principal natural enemies. Here, open seasons on antlerless deer from time to time do afford a means of preventing overpopulation and also of providing sport.

Nevertheless, the fact remains that the cost of attempting such control over small game territory in general would not be justified. For New York it would amount to more than ten million dollars a year. Furthermore, studies have shown that game populations on favorable range can produce good crops in spite of moderate predator pressure. Moreover, predation serves a useful function in culling out the unfit, as well as in keeping rodent numbers in check. Then, too, predators have a recreational value in their own right and many species are valuable as fur bearers.

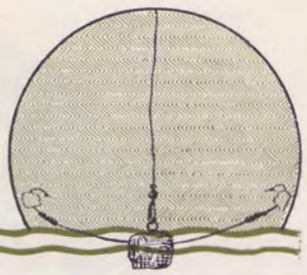
But, while efforts to eliminate predation on a broad scale are not warranted, economically sound measures to remove surpluses among predator populations and keep them from becoming over-abundant are to be recommended. Such measures include the encouragement of trapping for fur as has been done through the Department's program of distributing instruction and conducting demonstrations of fox trapping methods. Under certain circumstances they include the hiring of professional trappers by the State, as has been done during the past year to combat rabies. They do not include bounty payments. (See discussion by Dr. Hamilton—August-September issue of the *Conservationist*.)

HOWEVER, predator control may at times be employed to advantage on relatively small areas maintained primarily for the purpose of hunting and where the annual shooting pressure is great enough to utilize any additional surpluses created as well as to underwrite the cost. Usually the selective control of one or two species will be sufficient for such purposes. In the case of ruffed grouse in New York the chief nest predators, the fox and weasel, fall in this class.

To sum up, predation performs a highly necessary regulatory function in an animal community by reducing the reproductive potential of wildlife species and eliminating surplus populations which the range could not support. In the long run it competes with the sportsman much less than is commonly believed. Dissipation of over-abundance of predators is to be encouraged but more drastic reduction on a large scale by public agencies is seldom warranted. Finally, it should be emphasized that, in the last analysis, the quality of the habitat is the cornerstone of game abundance.

—R. W. DARROW,
Supervisor of Game Research

The Whitefish
In New York



AS A LUXURY item on a dinner plate, or au naturel, fresh-out-of-water whitefishes are beautiful fish deserving of our better acquaintance. This fish has an international reputation for its flavor which writers, old and modern, have described as the very finest of any fresh-water fish. Some authorities have gone even further. An English angling author a century ago termed the Otsego whitefish, or bass, "the world's greatest finned table delicacy."

Considerable difficulty with identification of whitefish is experienced because of their similarity to the cisco or lake herring and—especially the round whitefish—to the smelt. Reference to the plates on the back cover will help to clear up any such trouble. Attention to the mouth size and structure is particularly helpful for recognition. The whitefishes have small mouths, placed low, about where the chin should be, as an adaptation for bottom feeding. Both the cisco and smelt have the conventional, so-called terminal mouth adapted for grabbing food in the open water. In addition the smelt has strong, sharp teeth which are lacking, or nearly lacking, in the whitefishes.

Confusion with the shad or mooneye should never be encountered, for these fish lack the small fatty appendage in front of the tail called the adipose fin.

Separation of the whitefishes themselves is not so easy, but usually the round whitefish may be recognized by its small size, slender body and by its parr markings (meaning blotches along the sides, not a golf term). The native round whitefish is still present in several of the Adirondack lakes but is seldom taken by fishermen. It is an excellent food fish but its present value is primarily as food for other fishes.

The Gulliver Lake whitefish and two (possibly more) subspecies of Coregonus clupeaformis are usually grouped as the "common whitefish." Paradoxically, the Adirondack or Labrador whitefish is the fish commonly distributed and caught by anglers, although the Gulliver Lake whitefish appears to be the native form in the Adirondack area. Hereafter in this article the term whitefish will mean Adirondack or Labrador whitefish.

In its feeding habits the whitefish is an inoffensive, rather bovine character, grazing on small organisms on or near the bottom. Favorities are snails and crustaceans but the variety is considerable. Although unusual, several instances of whitefish taking considerable numbers of small fish are on record.

It is notable that in spite of its comparatively inoffensive habits and meek nature, the whitefish has demonstrated ability to tolerate successfully conditions ruinous to the carnivorous, comparatively aggressive lake trout. The ability to live on small, bottom organisms appears to be a critical advantage in competition with the fish-eaters.

The whitefish is a fall spawner, depositing its eggs over stony shoal areas similar to those selected by lake trout. Indeed, spawning of these two species sometimes takes place at the same time on the same shoal, and developing eggs of the two species have been found together under the same stone.

Artificial propagation of whitefish in this country was successfully accomplished early, in 1858, and has been carried on regularly in New York hatcheries since 1890. Introductions into lakes with deep, well-aerated water have been generally successful. All stocking has been done with eyed eggs or fry, for rearing these fish to fingerling size in hatcheries has not been feasible. Efficient harvesting of this species by angling is difficult however, and fry stocking to supplement natural production has proven adequate to maintain the fishing in favorable waters.

While not invariable practice, whitefish are usually taken by anglers over baited areas, usually baited buoys. Bait commonly consists of corn, rice or oatmeal, scattered near a buoy anchored to mark the spot and to which the fisherman may anchor his boat. Hooks are customarily baited with small sections of cut fish.

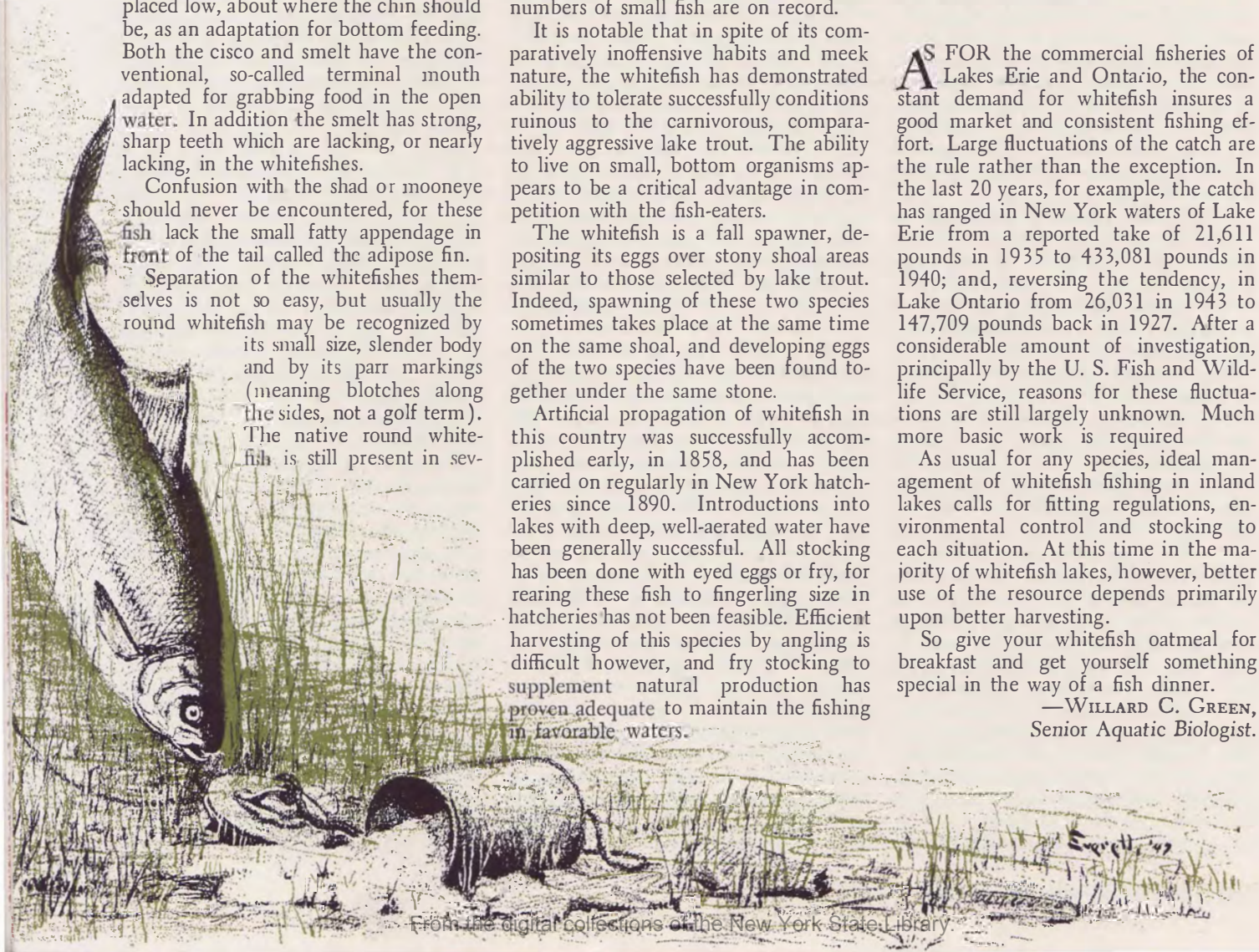
The whitefish occurs in at least 48 of our lakes, including lakes Erie and Ontario, but compared with the size of the resource, the take is probably small. Successful whitefish anglers are specialists and, comparatively speaking, few and far between. Further, the whitefish always has an initial advantage because of its small, soft mouth. Many fish are hooked and lost. In most of the inland lakes the catch probably represents only a small fraction of the available populations. Nevertheless, in total, yield to the angler is considerable.

AS FOR the commercial fisheries of Lakes Erie and Ontario, the constant demand for whitefish insures a good market and consistent fishing effort. Large fluctuations of the catch are the rule rather than the exception. In the last 20 years, for example, the catch has ranged in New York waters of Lake Erie from a reported take of 21,611 pounds in 1935 to 433,081 pounds in 1940; and, reversing the tendency, in Lake Ontario from 26,031 in 1943 to 147,709 pounds back in 1927. After a considerable amount of investigation, principally by the U. S. Fish and Wildlife Service, reasons for these fluctuations are still largely unknown. Much more basic work is required

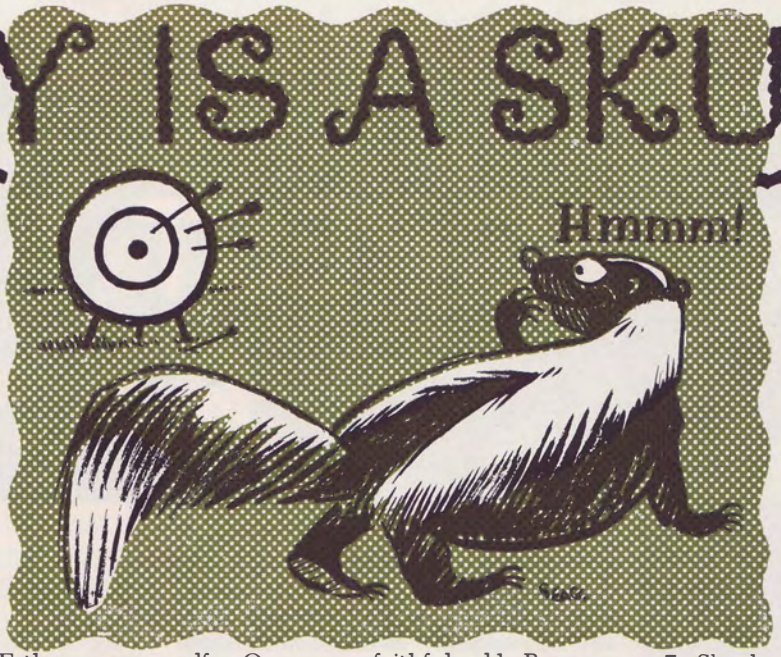
As usual for any species, ideal management of whitefish fishing in inland lakes calls for fitting regulations, environmental control and stocking to each situation. At this time in the majority of whitefish lakes, however, better use of the resource depends primarily upon better harvesting.

So give your whitefish oatmeal for breakfast and get yourself something special in the way of a fish dinner.

—Willard C. Green,
Senior Aquatic Biologist.



WHY IS A SKUNK?



Our Skunks are no better than Chicago Skunks.

If this be treason, make the most of it

ONCE UPON A TIME there was a tiny li'l skunk who didn't live in New York, although he used to go round telling people he had relatives there. No doubt he had. The reason he didn't live in New York was that he lived in Chicago, which means "Skunkland" in the Ojibway language.

Well, there was one other thing wrong with this li'l skunk, which was that he couldn't make a smell. His mother used to say that this itty bitty skunk's father, who had died as the result of a horned owl, had cut off the li'l skunk without a scent. This mother skunk was a card all right, but all the time she was laughing through her tears because she was utterly mortified, and worried too, that her son couldn't be as disgusting as other skunks.

Now this itty bitty skunk had been nursing a grudge ever since it could remember, although its mother was too dumb to know this. Also the li'l skunk was too dumb to know what it had been nursing a grudge about. But anyway, one night this li'l two-pound skunk and his three sisters and two brothers and his mother all got dressed up in their two-dollar furs and went out to have a wasp dinner.

But just then who should come round the corner but Boozer the Hound, going sniff sniff, zoople zoople, in the manner of his species. Oh boy! The li'l skunk suddenly remembered that he didn't care for hounds because they are all the time going round poking their snoots into other peoples' business. So the itty bitty skunk hoisted up his tail, all but the tip of it.

Boozer didn't know it, but his evening was about to come to an end. He paddled along until he was about ten feet away from the li'l skunk, who began to have a feeling that a crisis was impending for somebody. So he hoisted up the rest of his tail and braced himself. On came faithful old Boozer.

Suddenly, whang-o!

That did it, folks. Poor old Boozer rolled on the ground and frothed at the snoot and couldn't see even a tree for 24 hours. The itty bitty skunk was infused with a sense of manhood and self-confidence, and the next time his mother made a snide remark he told her to go climb a tree.

Deeply embedded in the foregoing classic is everything you need to know about skunks, and more too.

1. Skunks attach a good deal of importance to making smells, because their ability to foul things up in this manner is their sole claim to respect in the animal community. (They get a lot of respect, even from bears.)

2. Skunks are plenty dumb. This fact is related to fact 1. They don't have to be bright because nobody in his right mind is going to give a skunk any trouble. Foxes fool around with them sometimes, but only when in the most devil-may-care mood.

3. Horned owls are an exception to this, but they get skunks before the skunks can get organized.

4. The average skunk family is about six. This is sufficient skunks for anybody. (Skunklets born end of April, weigh about one ounce. Father indifferent to family unless hungry, in which case he eats a few. Otherwise home life dull. Father persona non grata about house until skunklets mature somewhat in fall, at which time he may report back. May not, though.)

5. Mother and young are likely to travel around together for at least a year.

6. Skunks take advantage of wasps by getting them at night, when they are sleepy. This may very well be the nicest thing that skunks do. However, they also eat grubs off hop vines, which makes for more beer, which is nice.

7. Skunks do not care for hounds or anything else that doesn't mind its own business. Boozer should have known.

8. If Boozer did any calculating at all, he miscalculated. Skunks can shoot that liquid with appalling accuracy and in any direction, up to 10 feet.

9. They have to be well braced to do this, however. Therefore you can safely pick up a skunk by the tail, although it is best to go have a short beer instead.

10. Skunks give ample warning of what they intend to do by hoisting their tails, all the way to the tip. After that, Boozers step in where angels fear to tread.

11. Skunks can't climb trees and probably wouldn't bother to anyway.

The worst thing about skunks is the smell. The best thing about them is they don't make it all the time. They only make it when they get burned up about something, and as the average skunk has a sweet disposition there is not such a tremendous smell in the country as there certainly would be if all the skunks (estimated three million) got burned up all at the same time. There is no record of this having happened as yet. This is probably because they lack organization. But if they ever get a leader, boy they could take Russia in 24 hours.

The skunks would probably not want to do this. They are strictly an American animal and have lived all over the United States for many years and are reported to like it here, especially in New York because this State was the first to put them on the protected list, back in 1893. Although the skunk's diet is less than one percent game birds and eggs, there are some who feel that the boys back in '93 got a bum steer.

So why is a skunk? Never mind, Bub. Rabbits are nice. Think about them instead.

—P. W. FOSBURGH

FOREST RANGER

FOREST RANGERS relax when the fall hunting season ends and the woods are blanketed with snow. No longer apt to be a clarion of disaster, a ringing telephone fails to make stomach muscles perform strange, excited flipflops. Until next spring the Rangers' fear of forest fires is dulled.

The Conservation Department has almost 100 Forest Rangers. Their main duty is to keep fire out of some 17,000,000 acres of New York State's dense forests, farm woodlots and potential forest land. At the same time, though, they protect the State's vast holdings from trespass. This is no small job when you consider that within the Forest Preserve of the Adirondacks and Catskills alone the State owns almost two and one-half million acres of land.

Distinguished by broad brimmed Stetson hats, dark green uniforms and an embroidered pine tree on the left sleeve, this little band of public servants is thinly scattered throughout the State. Even in the Adirondacks and Catskills, where the concentration of Rangers is naturally heaviest, each man is responsible for approximately 200 square miles. Some of this is apt to be State land and some private land. However, it is up to the Ranger to organize his whole territory so as to prevent fires and, if one should break out, to suppress it with the utmost dispatch.

Fires are the main concern of all Rangers. When one recalls the article by Harry W. Hicks, who told in the last issue of the *Conservationist* of how the fires of 1903 ravaged 600,000 acres, it's small wonder Rangers have an occupational case of the jitters—that keyed up feeling known to GI's just before the big push. Rangers know full well that thousands upon thousands more motorists, campers, hikers, hunters and fishermen now use the woods than in 1903 and that, with conditions ripe, it would take just one of them to set off a conflagration similar to the holocaust of 1903.

The great fires of 1903 and 1908 gave the necessary impetus required for organization of a Ranger force in 1909. It has paid dividends because the average fire in New York today has been reduced from some 200 acres to five or ten acres. However, recent years have not shown any appreciable decline in the *number* of fires, most of which are caused by human carelessness.

In most instances Rangers make their homes their headquarters. And headquarters becomes almost like a prison with the Ranger chained to the telephone. He paces back and forth, sits down, picks up a newspaper, reads a sentence, tosses the paper down, paces back and forth, goes out in the garden, sniffs the air and comes back to be close to the telephone—waiting, waiting for a call from a tower man who has spotted the spiralling smoke of a new fire. Dragged on for days, even weeks, this waiting becomes a torture that far surpasses the vigil outside a delivery room.

And then comes the call. That jittery feeling disappears. Within a couple of minutes the Ranger has telephoned firewardens for help, given directions to his wife should additional help be needed, and careened off to the fire with a truck load of equipment—power pump, hose, knapsack pumps, shovels, axes, rakes, grub hoes and a host of other fire fighting tools.

His fire may be a smouldering ground fire covering a few square feet, or it may be a savage surface fire racing through a field of explosively dry grass toward a lumber slash. Whatever kind, he has to make a snap decision. There's no time to look in the book or call up his District Ranger for advice. He, himself, has to know his terrain, what fire can do, how many men he will need and how best to attack the fire.

Calmness, self-reliance and an ability to get the most out of a crew of men hastily picked up are requisite characteristics of Rangers. When he can pay his fire fighters only 35 cents an hour and his firewardens and foremen only 50 cents for a lot of hard, backbreaking, dirty work, it means he must be a good diplomat and organizer.

In the course of a year, even though he may have fires breaking out simultaneously, the average Ranger spends comparatively little time suppressing fires. The bulk of his time is devoted to preventing them. This takes the form of routine tasks plus his own ideas and ingenuity. Within the area protected by the Department, it is necessary to obtain a fire permit before burning a pile of brush, logs, stumps, or dry grass. The permits are free and serve as a valuable safety measure.

Here again Rangers are called upon

to make decisions and at the same time do a little proselyting for the cause of conservation—with diplomacy. It's not always easy to tell some irrascible old native, who claims he knows all the dangers of fire, that his brush pile might set half the county afire.

Another routine task of the Ranger in forest fire prevention is to check all softwood lumbering jobs within the Forest Preserve. He can't dictate what trees are to be cut or how or when, but he can, and must, insist that limbs be lopped from felled trees up to a point where the trunk is three inches in diameter. It then takes only two or three years, when the limbs lie on the ground, for them to decay beyond the point of being a serious fire hazard.

A Ranger carries on his public relations work at odd moments, and seldom even then with the conscious thought that it's public relations work. But without having laid a groundwork of community good will, he will be lost when he arrives at a fire. The law empowers him to press into service any able-bodied person over 16 years of age, but the law does not tell him how he is going to secure experienced personnel in a matter of minutes when he needs them most. That little point is left up to the Ranger.

But throughout his district every Ranger has a number of volunteer firewardens with a cache of fire fighting tools. These men are paid 50 cents an hour only when actually on a fire. Public spirited, most of them consider the appointment an honor.

When there is no danger of fire—and that means during wet spells or winter months—Rangers work in the woods. There are upwards of 600 miles of hikers' trails in the Adirondacks and Catskills, a large percentage of which they maintain. They also assist in the maintenance and operation of the State's 30 public campsites, located in the Forest Preserve.

THE RANGER

1. Works hard.
2. Doesn't get paid much.
3. Likes his job.

◆

Here's the story of what the job amounts to, told by an ex-Ranger who ought to know.

In this work they must show resourcefulness and an ability to turn their hand to almost any task. With axe, saw and scythe they may build or clear hiking trails; with but very few more tools and some odd nails, out of logs and shingles they may construct a solid lean-to; or with the equipment of a telephone linesman they may install and repair wires leading for miles through the woods to fire towers atop mountain peaks.

Hard, physical work though it is, this is what the men enjoy. It's their chance to get in the woods, to forget fires and that clanging telephone at home. This is freedom and fun. And at the day's end maybe there's a bit of time left for fishing or hunting.

Off-hand you might believe that Rangers in, say, the Adirondacks, snag a dear each fall. But what happens? The leaves have fallen. The woods are full of hunters. And it's dry. So the Ranger is stuck at home beside his telephone, thinking of the fat bucks he has seen on his travels earlier in the year. The thought of those venison steaks skipping around the woods has him drooling.

And then he awakes one morning to find the leaves beautifully packed down by a heavy rain. He's all set to take off with his rifle when the telephone rings and he's advised a city hunter is lost in a remote section of his territory.

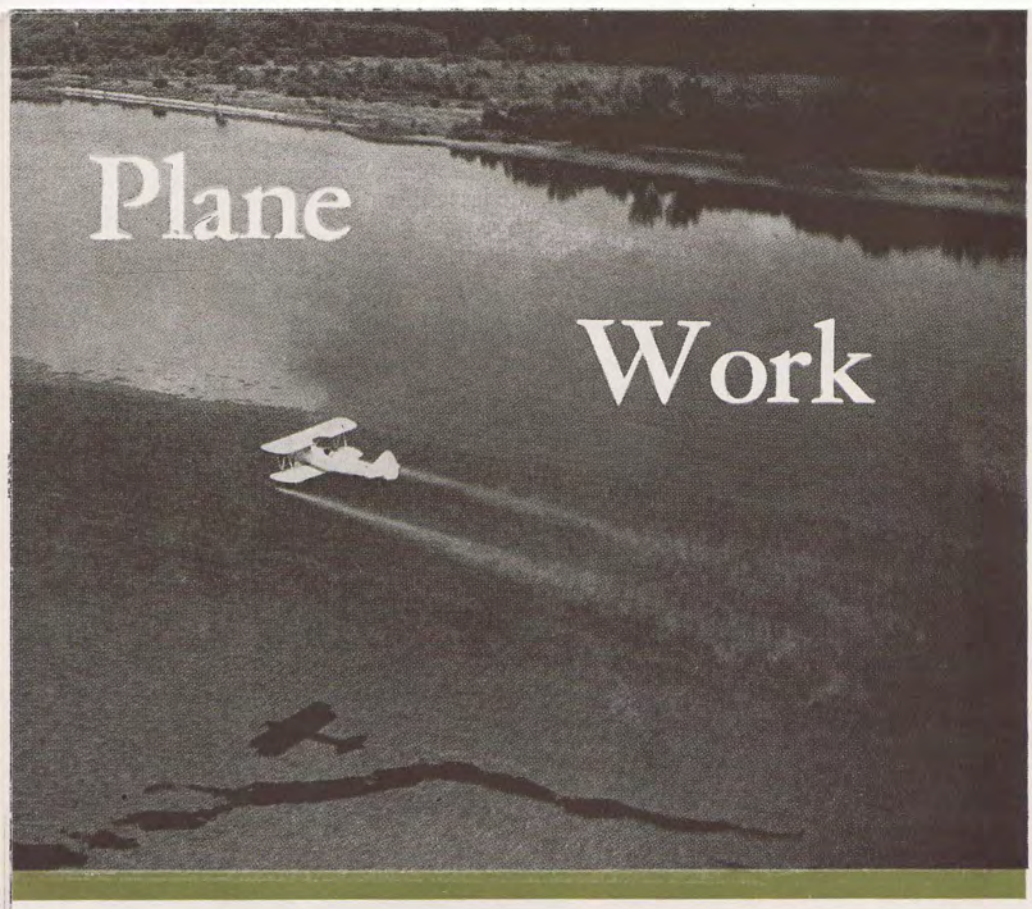
Day or night, summer or winter, Rangers must be prepared to meet such emergencies—fires, lost persons, accidents, plane crashes. It used to be that they seldom or never took vacations at stated times; perhaps just a day off now and then when conditions warranted. Usually they figured on twenty-four hour duty the year around.

Of late, though, an attempt has been made to put the Ranger on a regular work week. He's puzzled. What happens at the end of a regular work day if he leaves home for the movies, say, and the telephone rings to announce another emergency? Rangers are pretty conscientious and have a tremendous feeling of responsibility.

WELL, where does the Department get this species of man? For the most part they are local men—lumbermen, farmers, plumbers, electricians, masons, carpenters, surveyors, trappers, guides—who at one time expressed a desire to work outdoors at a steady job. Few of the old timers have had technical forestry training, but it is hard to beat their practical experience.

New York State Forest Rangers are a far cry from the Hollywood idea. You never see New York Rangers bending over in the saddle to kiss pretty blondes; they use trucks rather than horses and favor brunettes who don't show the dirt so badly when fighting forest fires. If it wasn't for that damn telephone at home and those anxious days of inactivity during fire weather, it would be hard to beat the life of a Ranger. But you'd never die rich.

—ARTHUR G. DRAPER



Plane Work

FIVE AIRPLANES! Whatinell does the New York State Conservation Department do with five airplanes?

That $64 question came at me out of a clear sky the other day and hit me right between the eyes. For I suddenly realized that surprisingly few of our citizens are aware of what we in New York are doing with conservation aviation. In spite of all that has been written recently about the use of conventional aircraft (and this does not include helicopters) in conservation work in other states, except about the application of insecticides no ideas have been advanced that we haven't been working on for nearly 10 years. I know that sounds cocky, but it's said in all modesty. So I don't suppose there is any better time to clear up this $64 question than right now. Gather around, and let's do some hangar flying.

Someone told me once that experience is like an electric lamp. It gets its energy from the past and shines its light on the future. If that's the truth, perhaps the reason New York State's Conservation Aviation Lamp of Experience burns a little brighter than that of most states, is that we made application of aviation to conservation way back in 1931. In that year we purchased our first airplane, and since then we have amassed slightly under 11,200 of the roughest, toughest and nastiest flying hours you'll ever hear about.

Up to a year and a half ago, this flying was done with one single engine land airplane which was replaced periodically. But on May 5, 1939: "Engine quit over Oneida Lake while searching for illegal fish nets; landed in a short field; hit dead furrow; wiped out landing gear; no one injured." So the process of replacement was speeded up a little. Today this Department owns and operates five airplanes, and as a unit they have become one of our most effective tools in keeping abreast of modern conservation. With these airplanes we can now accomplish tasks only dreamed of a few years ago.

Since our conservation aviation got its start in forest fire control, naturally some of the more significant developments have been in connection with that sort of work. For instance: augmented by two-way radio, we can now definitely establish, and immediately report, the location of a forest fire; make an immediate appraisal of its probabilities; guide fire fighters directly to the fire; call for additional help or equipment, if necessary, even before the fire fighters arrive at the fire; direct the actual suppression measures; and estimate (generally within five percent) the burned area once the fire has been put out.

Incidentally, to give you some idea of how efficient this estimation of burned areas can be, a few years ago we estimated a fire to be 690 acres. It took exactly 15 minutes flying time to do this. It took six surveyors six weeks with very careful measurements to find 650 acres in the same fire.

On major fires where supervisory personnel and/or additional equipment are badly needed, we are able to transport them from one end of the State to the other in a minimum of time, and in some cases deliver them right on the scene. With our bomb racks, we can deliver food and equipment to fire fighters on the fire line. With ambulance equipment, we can transport injured persons from deep in the forests to points where medical aid is available. And, gentle reader, if you doubt the psychological effectiveness of the airplane in fire prevention, you're invited to New York next fire season. The mere fact that planes are up there on patrol keeps a lot of people from starting fires. I know of a case where the airplane was responsible for the promise: "Not even a match unless I get a permit".

Then spraying. Since the spring of 1946 we have applied liquid insecticides to thousands of acres of infected forest lands that would have been impossible to treat with any other available equipment. We spray city parks, too. Last year there was a severe outbreak of gypsy moth in Thatcher Park, southwest of Albany, but our planes got it under control and saved the famous shade trees there.

Actually, aerial surveys to determine the extent of forest pest damage were conducted as early as 1938. In that same year we were able to gather very useful data on ducks, beaver, and pheasants for the game research program. Migratory duck surveys were carried on through 1942 in an effort to establish the periods when specific kinds of ducks migrated through the State. This work was curtailed during the war and resumed again in 1946, when a more comprehensive duck survey was undertaken with excellent results. Deer, beaver, muskrats and pheasants were included in the 1946 project, but time and weather prevented a really systematic census. Enough work was done, however, to prove that the airplane has definite possibilities in this particular field and we intend to develop them as fast as we can.

THIS Department has been aware for years that its fish propagation techniques were gaining an ever increasing lead on stocking techniques. So the first aerial fish stocking experiments were conducted in the early 30's. In the middle and late 30's "live drop" experiments were carried out, and as a result, it was definitely proved that the airplane is a quick, effective and very efficient means of stocking, especially in remote areas.

On one "live drop" experiment, 5,000 fingerling trout were released from an

airplane from an altitude of 100 feet. A cheesecloth seine, which had been submerged under the target area in the lake, was taken up after the drop, and 91 percent of the trout were brought back to the hatchery alive.

In May of this year, one air stocking project called for the liberation of 20,000 six to seven-inch lake trout in Beaver River Flow. We used our G-21 Grumman to do this job, and even with limited tankage in the airplane, only four 75-mile trips were necessary. 15,000 fish were released while in flight, and 5,000 were released directly into the water after landing on the Flow. Each airplane round trip took 70 minutes. I am told it formerly took 10 men three weeks to do this job, and according to what I hear they didn't enjoy it much either.

RIGHT here, if I had space, I'd like to add about 6,000 well chosen words of praise for the operators, sportsmen pilots, and fish and game clubs who have so generously donated their time, talent, and aircraft for the furtherance of our aerial fish stocking program. Considering the risks involved and the aircraft used, they have certainly done a splendid job. And while I'm in a charitable mood, much of that kind of praise can be leveled at the Civil Air Patrol for the help rendered the Department during the war.

In addition to our forest fire control, fish distribution, wild life surveys and forest pest control work, a variety of uses are made of our airplanes. Among these are: the patrolling of State land, aerial photography (slightly under a 1,000 hours in the past 16 years), forestry law enforcement, logging operations surveys, fish and game law enforcement, aid to victims of disaster or emergency (this includes floods, lost persons, lost airplanes, drowned persons, etc.,) disaster surveys, cooperation with State Police, transportation of executives and testing of special equipment.

Much could be written about each of these activities. They embrace development projects such as a specific type airplane solely for fish distribution, (with special oxygen tanks, fish tanks, and associated loading and releasing equipment permanently installed); a ground marking system for better insecticide distribution; a calibrated camera to determine the rate of spread of forest fires, to be used in connection with a "dark room" on our G-21 for the rapid development of film on the scene; also a "voice from the sky" amplifier, in connection with a radio transmitter, to be used in searching for and directing lost persons, in warning fire crews of impending danger, in warning persons in fire zones, and in directing Game Protectors searching for illegal fish nets.

Speaking of illegal fish nets, they have always been a problem for our Law Enforcement Bureau. The first year we used the airplane in spotting them was 1935, but only after a little headwind was experienced because the practicability of such an operation had to be proved. It was. Unknown to the pilot a site was selected, five nets were set, and the pilot told to go find them if he could. Within the hour he returned, having found all five, plus a sixth that the boys in the office didn't know about. Needless to say, since this noble experiment the airplane has been used fairly often in spotting illegal fish nets.

Oh yes, I nearly forgot to mention that we have just finished flying 20 tons of building materials into Cedar Lake for the erection of a Ranger cabin. It was a 22-mile one-way haul from our loading point, and the round trip, including loading and unloading, averaged 55 minutes. Twenty-three trips in 3½ days were necessary. It would have taken a tractor and jumper with maximum possible load 132 days to do this job. Suffice it to say that by taking to the air we did it in one-fortieth the time and at one-half the cost.

What make and type aircraft have we got in this conservation airforce? Well, first we have NC 600—her name is "Lizzie Zilch the 10th." She is a ZKS-7 Waco with a 285 Jacobs, constant speed propeller, and complete navigational and forestry two-way radio. She is used exclusively for forest fire control and has fittings for skis, wheels, or floats. Next we have NC 601—her name is "Dearie." She is a Stinson L-5 with a 185 Lycoming. She is equipped with radio and used almost exclusively by our Division of Fish and Game for wildlife surveys and law enforcement. She has fittings for wheels and skis and is currently being equipped with floats, and with tanks for fish distribution.

Next we have our spraying twins, NC 604 and NC 605—"Bugger" and "Gnattie" by name. They are Stearman N2S-4's, with 220 Continentals. They are especially equipped with large insecticide tanks in the forward cockpits. Associated spray equipment (nozzles, pumps, etc.) are also installed on these airplanes. Higher power, as well as more advanced equipment, will be installed in the near future.

Last but by no means least, we have NC 606. Her name is "Goosey." She is a G-21 Grumman amphibian with two Pratt and Whitney Wasp 450's. She is our combination flying fire engine, ambulance, freighter, executive transport, fish planter ,and what not. She is equipped with bomb racks and a freight type interior (4 chairs can be quickly installed or removed,) and complete navigational radio. Forestry radio will be installed when available.

Just a word about the boys who fly these airplanes. To those who have the impression that this is a sissy job and that any pilot can handle it, let me say they have another guess coming. Although any flying over rugged mountain terrain is relatively dangerous, and although both fire control work and the application of insecticides are particularly so, not one employee has been injured in 16 years of flying. (At this point we knock on wood.) Considering the low elevation at which most of this flying must be done to be worthwhile, the inescapable hazards that exist, and the miles flown through dense smoke and deadly down-drafts which occur around fires and in rough topography, this is something of a record. It tells things about the skill and experience of our flying personnel.

EVEN so, when an engine quits over dense forests and open water, some element of luck must be present when the pilot and observer walk away unscratched. Despite the fact that our excellent record has been marred by only two minor accidents, we have many times escaped by narrow margins, and if there is a law of averages applicable to accident frequency it must be mounting against our good luck. This is a serious job and you never know what tomorrow will bring.

Yes, it's a serious job but it has it's funny side. I remember coming back to the Montgomery airport after flying fires all day to find the airport on fire. I had to circle around up there until the fire was put out.

And incidentally, accident number 2 gave my own private Lamp of Aviation Experience an added flicker last March —I forgot to put the wheels down.

—FRED MCLANE, *Chief Pilot*

The INDIAN Hunter

THE YOUNG Indian hunter shifted his position carefully. He had stationed himself to the windward of the deer runway, carefully choosing a spot from which he could not be seen from the trail. It was tiresome waiting, since he could make no noise and yet needed to have his bow and arrow close at hand for use on short notice. By looking through the trees, he could see his two brothers equally alert, but obviously bored with the waiting.

Finally, a deer came down the runway. As it reached the point closest to all three of the hunters, the bow strings suddenly twanged and the deer stumbled ahead a few feet before it fell with two arrows in it.

As the hunters gathered around the fallen deer, the eldest brother made a short speech to the spirit of the deer explaining the need for killing it. According to custom, the kill belonged to the oldest man in the hunting group, and therefore the eldest brother was obliged to skin the animal while it was still warm. That completed, the three hunters stripped off the meat from the carcass to be dried into "jerked" venison. The more choice cuts were saved as fresh meat for immediate use and piled in the hide. The three brothers, having divided the meat among themselves and tied it into bundles, dragged the remains of the carcass to one side of the trail, and started home.

As they approached the village, each hunter separated from his two brothers and carefully hid his bundle of meat. Then he proceeded home. He quietly told his wife where the bundle of meat had been placed, in order that she might go out and bring it in. Had he and his brothers come directly to the village with their food, it would have become the property of the community and would have been divided among all the families. But when his wife found the meat in the nearby woods, it became her property and she could do with it as she wished.

This imaginary hunting episode, which might have taken place before the coming of the Europeans to our State, illustrates three major factors which controlled the activities of the Indian hunter: he used weapons with which he was skilled, he was an expert woodsman, and he was governed by social customs connected with the hunting process.

Although the New York Indian hunters of the 15th century, prior to the coming of the Europeans, had no firearms and no steel weapons, they did possess bows and arrows, spears, clubs, stone axes and flint knives. The points of their arrows and spears were either hardened and shaped by charring or were tipped with chipped stone points, made—as were the stone knives—by chipping fragments of flint or similar stone. They supplemented their hunting weapons by the use of a variety of hunting accessories which could be made from various kinds of materials at hand. Pitfalls, with inward sloping sides, trapped animals who stepped upon the carefully camouflaged pit opening. Trip snares and bait snares of many varieties served to catch animals alive. Nooses and deadweight falls were used to kill larger and more dangerous furbearing mammals. And as a result of careful practice and complete knowledge of the habits of animals and birds, the Indians often caught their prey with their hands.

However, the possession of hunting weapons or the knowledge of how to construct traps and snares did not in itself make a good Indian hunter. The Indians of New York State considered hunting a very serious business. For them, it was not a sport or a game. Every Indian village, like our own communities today, owed its very existence to an adequate food supply. The Indians lived so close to nature that a shortage of garden crops, a slim harvest of berries or fruit, or a scarcity of game could be responsible for a winter of partial starvation instead of one of health and plenty.

The problems connected with the never-ending search for food were divided between the sexes. The women and the children cared for the garden crops, of which corn, beans and squash were the staples, and for the gathering of the berry and fruit crops in the forest. The men and the older boys were responsible for securing the meat and the fish which helped balance the Indian diet.

The training to become a good hunter formed an important part in the educational program of every Indian boy. A man's standing as a citizen in an Indian community depended upon the extent of his knowledge of the world about him and his ability as a good provider for his family. While still very young, boys were taught games by their uncles and their fathers in which the utensils for hunting were used. During the long winter evenings tradition and stories of the past were frequently repeated in order that the boys might learn of the hunting customs of their elders. As they grew older, the games took on a more serious aspect, and competitions were held to improve skills and create rivalry. They were invited to watch the ceremonies of either a family or community nature which were held prior to the departure of a hunting party, and to listen to the celebrations marking the return of a successful group. They were taught the songs and the chants which were a part of these ceremonies, and their meaning.

DURING their adolescence, as the boys achieved skill and knowledge, they were allowed to accompany hunting parties, when, under the guidance of more experienced hunters, they were given an opportunity to demonstrate their ability under actual living conditions. By the time an Indian had attained manhood and become the head of a family, his training over many years had taught him how to deal most effectively with the various situations which might arise while he was hunting. This was an extremely serious business for him; his very life, as well as that of his family, depended upon the way in which he met each situation.

The attitude of the Indian toward hunting was quite different from that of the present day hunter. This was not

only because the Indians had no other way in which to secure meat and fish except through hunting, but also because of their attitude toward all living things about them, based upon their philosophy of life. The Indians felt themselves a part of nature. They recognized a kinship with all living things about them. As they would put it, they were brothers to the deer, the wolf and the muskrat, to the eagles, the ducks and the crows, to the fishes, the snakes and the insects. All living things, including the plants, were believed to have souls or spirits, and the more fortunate of the Indians were said to be able to talk with these other creatures.

This attitude of mind led, of course, to the establishment of ceremonies before starting upon a hunt, in which symbolic offerings were made to the

By
Dr. CARL E. GUTHE, *Director*
New York State Museum

spirits of the animals to be hunted. In songs, chants and speeches, explanations were given for the need to kill some of these animals, and requests made for their cooperation and forgiveness in advance. These were solemn occasions because the future food supply of the family, and often of the whole community, depended upon them.

Out on the hunt itself, whenever an animal was killed the leader of the party made a little speech to the spirit of the animal, apologizing for what had been done and explaining the reason for doing it. The treatment given to the products of the hunt—to the skins, the bones and the flesh—was determined by social rules and regulations. When a large hunting party went out, the proceeds were all put together and brought into the village for the use of the entire community. When the hunter went alone and secured meat or fish, he hid it near the edge of the village for his wife to find, in order to avoid having to divide it with others.

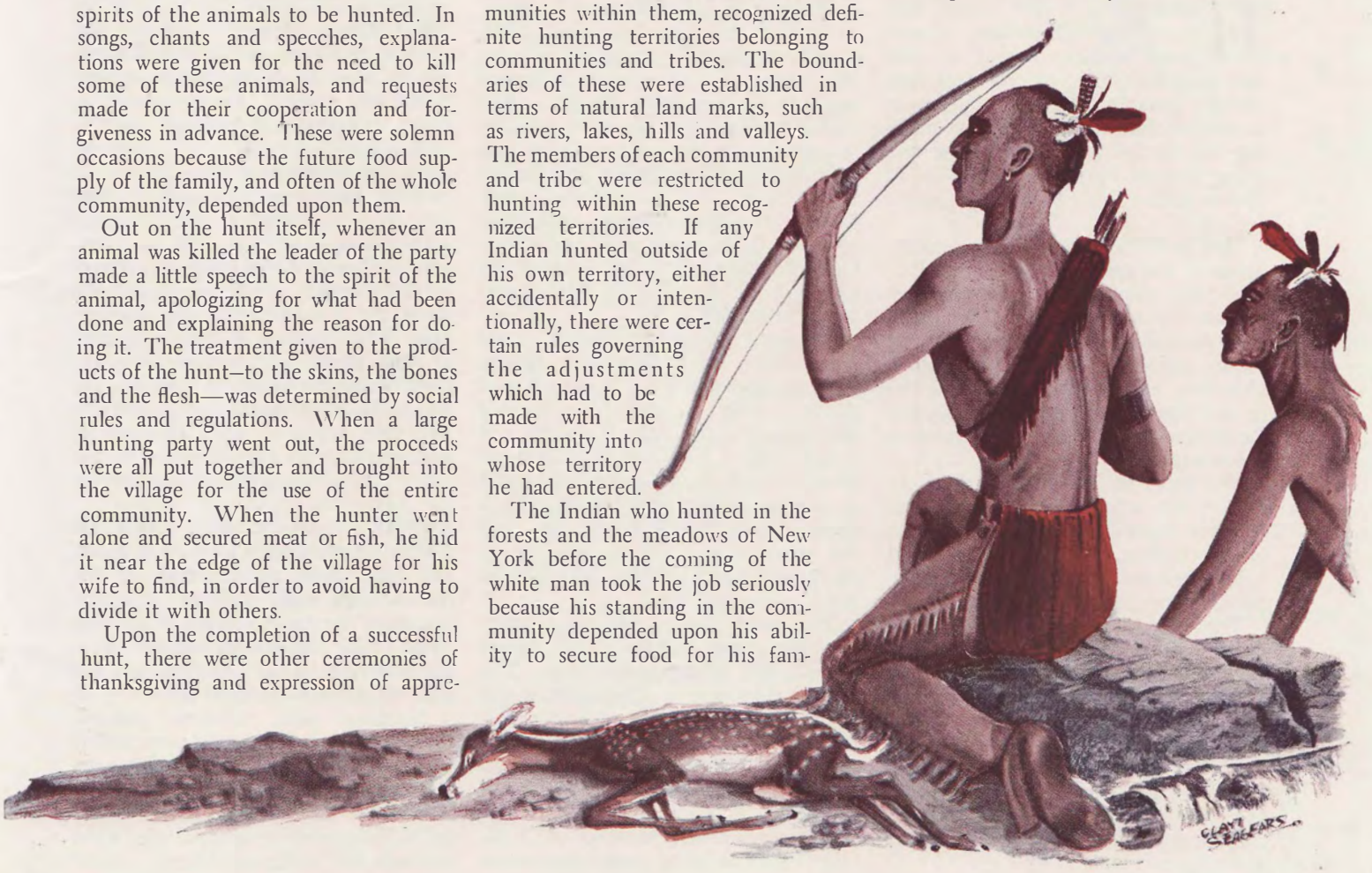
Upon the completion of a successful hunt, there were other ceremonies of thanksgiving and expression of appreciation to the spirits of the animals who had allowed themselves to be killed.

There were also restrictions or taboos which the Indians had to observe while hunting. Indian tribes were divided into larger family associations called clans, each of which had a special relation to the particular animal from which it took its name. Among the Iroquois there were the Bear, Wolf, Turtle and Deer clans. For example, a member of the Bear Clan, because of his special relationship to all bears, was governed by certain rules and ceremonies, when hunting bears, which did not apply to members of other clans. Again, individual Indians might adopt a particular animal as a guardian spirit, on the basis of some vision seen in dreams, and thereby establish a special relationship with that particular animal.

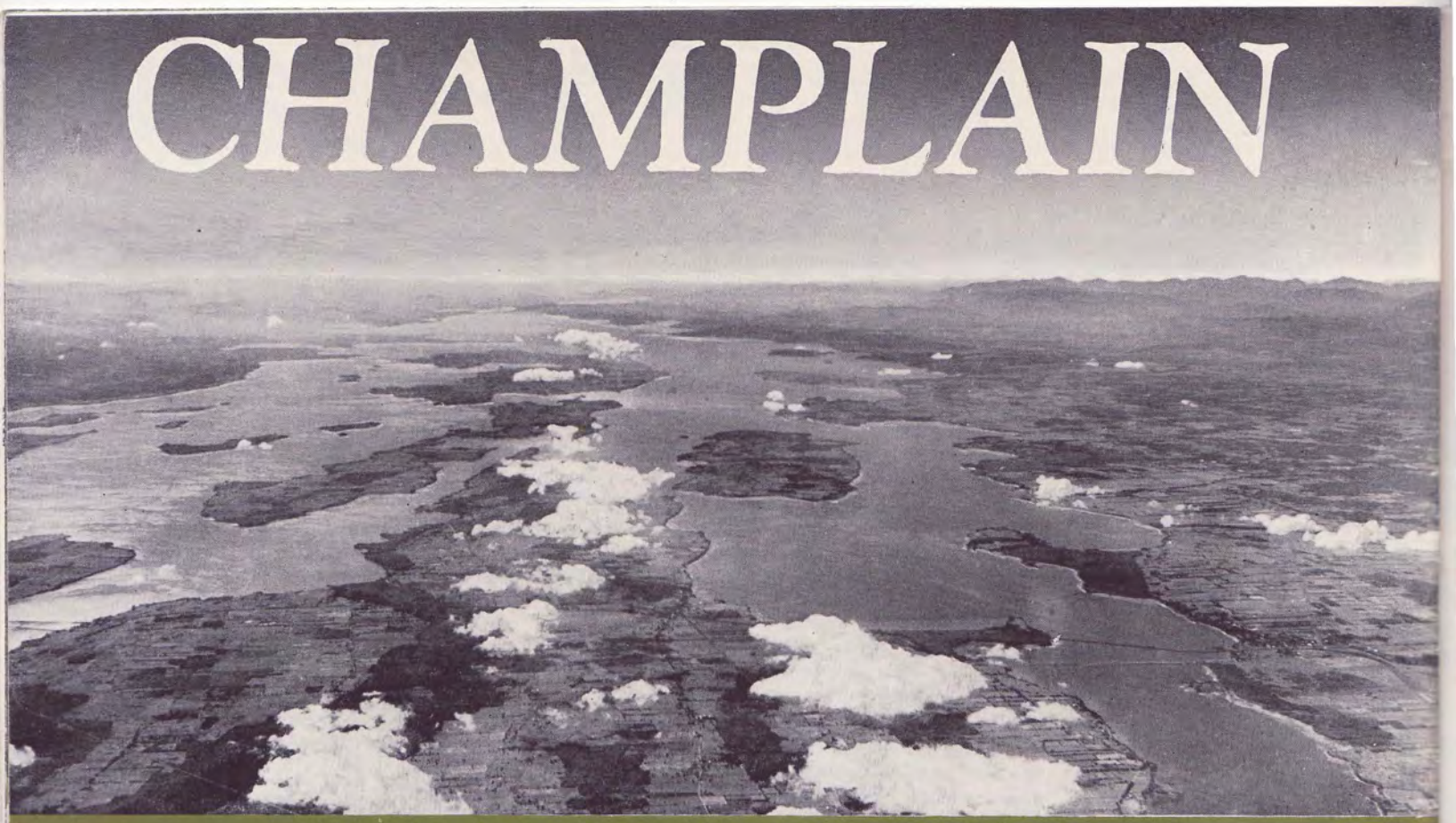
The Indians of our State felt they shared the territory in which they lived with the other creatures of nature. They also recognized that their neighbors held the same attitude toward the region in which they lived. Accordingly, throughout what is now New York State the several Indian tribes, and the communities within them, recognized definite hunting territories belonging to communities and tribes. The boundaries of these were established in terms of natural land marks, such as rivers, lakes, hills and valleys. The members of each community and tribe were restricted to hunting within these recognized territories. If any Indian hunted outside of his own territory, either accidentally or intentionally, there were certain rules governing the adjustments which had to be made with the community into whose territory he had entered.

The Indian who hunted in the forests and the meadows of New York before the coming of the white man took the job seriously because his standing in the community depended upon his ability to secure food for his family. According to our standards, his weapons, traps and other hunting equipment were relatively simple. As a result, the Indian placed greater reliance upon his knowledge of nature and his ability as a woodsman. But the Indian was not a free agent. Whether he hunted alone or with a group of companions, his actions were controlled by regulations, customs and ceremonies. Some of these may seem like superstitions to us, but the Indian believed there were valid and practical reasons for their existence.

Our hunters of today have more elaborate and effective equipment. They also are governed by laws, customs and even ceremonies, in which they have faith, although the Indians would think some of them strange and unnecessary. Yet, the greatest difference between the Indian hunter and the hunter of our own civilization is a psychological one. The Indians' philosophy would have made it impossible for them to comprehend why we regard hunting as a sport. They considered animals their friends, and the business of killing them an unpleasant necessity.



CHAMPLAIN



Looking south from Canadian border—Rouses Point bridges at lower right; Grand Island at top center

HISTORY does not record that Samuel de Champlain, "discoverer" and explorer of the lake that bears his name, was ever more than casually interested in either its beauty or its fish. Samuel was too busy marking out the limits of New France and riding around in canoes with a lot of Huron Indians bent on killing Iroquois Indians.

Had he followed less violent pursuits, however, the entire history of the Empire State might have been changed, because his massacre of the Iroquois in 1609 near what is now Ticonderoga set off an explosive chain of events which ultimately engulfed the North Country in two bloody wars—French-Indian and Revolution—and gave Americans their independence.

We won't go into the historical details in this article; if you missed them in school there are still plenty of sources of information. Suffice it to say that Lake Champlain, "Highway of the Nations," is steeped in legend and lore.

The unfortunate part of the whole deal, from a New Yorker's point of view, is that history and geography obliged us to split up this largest of our lakes with our neighboring State of Vermont, though it is hard to say who got the better of the bargain. Champlain is some 130 miles long, 11 miles wide at one point and 399 feet deep at another, and there would seem to be plenty of water for everyone.

It might be well right now, however, to explain that there *is* a line of demarcation, generally recognized as being the center of a buoy-marked channel mid-way up and down the lake. Also that New York and Vermont have no reciprocal agreement as regards hunting or fishing (you'll need a Vermont license if you stray past the boundary mentioned), and that Vermont authorities are allegedly as tough as Ethan Allen's Green Mountain Boys, who crossed the lake in 1775 to steal Fort Ticonderoga from the British.

Physically, too, Champlain is a split personality. From Whitehall (South Bay) to Crown Point it is narrow and shallow, with a perceptible current which gives it the appearance more of a river than a lake, and its waters are usually turbid. From Crown Point north it becomes wider and deeper, with a rocky bottom except in the bays, and the water is generally sparkling clear. Its deepest area is between Barber Point and Cumberland Head.

This wide physical variance is automatically responsible for a great variety of fish and fishing possibilities. The biological balance in Champlain is one of the best in the State, and numerous tributaries suitable for spawning have much to do with the lake's high productivity. Dr. Emmeline Moore listed 62 species of fish in the Conservation Department's biological survey of Champlain in 1929. The game species are represented by muskalonge (in tributary Great Chazy River,) northern pike, pickerel, walleyes, and large and smallmouth bass. In the panfish division are bullheads, sunfish, an abundance of perch, crappies, rock bass and smelt.

There are also such creatures as sturgeon, lake catfish which run to 20 pounds; sheepshead, gar pike, eels and ling. An especially interesting resident is the mooneye or "lake shad", a silvery-white fish which will reach a length of 18 inches and which, say fly-rod enthusiasts, is as sporty as any trout its size. The mooneye is fairly abundant at Port Henry and provides excellent sport during the month of August, when he can be taken on the surface at night with flies and small bait. This sort of fishing is a highly specialized art, involving secret techniques developed locally.

THE salmon for which Champlain was once famous have disappeared, but lake trout are reported in the Survey, and while only an occasional specimen is caught, natives of the area believe they can still be found in deep-water sections of the lake if anyone will take the time to go after them.

Northern pike, walleyes, pickerel, bullheads and perch are the more widely distributed species, being found the entire length of the lake. The largemouth is less abundant and is confined largely to shallow, weedy areas, generally in the southern half. The smallmouth, one of

Champlain's most important fish species, is restricted to the northern "arm" of the lake.

The real way to find out where the fish are, of course, is to go out after 'em. We'll assume you have a couple of weeks' vacation. Shall we start?

Our jumping off place will be Ticonderoga, and our local sources of information either Carl Blanchard, president of the Ti Fish & Game Club, or George Towne, who runs a garage up there and knows most of the neighborhood fish by their first names. Chances are you will be directed to Frank Thatcher's boat livery at Fort Ticonderoga, where you can get boats, bait, accommodations and bang-up food. If you want walleyes, take your trip early—in May or June—or again in the fall. Northern pike are cooperative during most of their open season, and in the southern end of the lake they run well—an average of about seven pounds, with individual specimens often weighing considerably more.

There is bang-up bullhead fishing in this section, and the over-size lake catfish are an attraction in themselves. (Incidentally, there is an erroneous impression that Champlain boasts two species of "cat"—the species mentioned, and a smaller, spotted "channel cat." Actually these latter are only immature specimens of the lake catfish proper.)

IF you take the kids with you, they will find plenty of panfish (perch, sunfish and crappies) in most of the area from South Bay to Champlain Bridge. And for diversion you might even take time out to throw a spear at one of the many four and five-foot gar pike with which the shallow, southern end of the lake is liberally peppered. From "Ti" the fishing varies little as far north as Champlain Bridge. You can cover all this water either by arranging charter boat accommodations through the Fish & Game Club, or drive on to King's livery two miles south of Crown Point on Route 9N, where you'll find boats and cabins. Five miles from Ticonderoga there is a spot called the Spar Mine that is particularly recommended for walleyes.

Beyond the bridge Champlain becomes more of a lake, and along with the change in its physical features there is likewise a change in its fish. The ubiquitous walleyes and northerns remain with you, of course, but their ranks are strengthened by the smallmouth bass, and the farther north you progress, the better the fishing for him becomes.

Switch to Route 22 from 9N at Westport and you will touch in at Essex and Willsboro. You will find boats available at both spots, and just north of Willsboro there's a place called Camp of the Pines where there is a little bit of everything in the way of recreational facilities and a spot to put your head. Once back on 9N (at Keeseville), you can also take side roads to the lake shore towns of Point Douglas and Point Kent.

Northeast of Plattsburgh (your next major stop) lies imposing Cumberland Head. Prejudiced individuals from the upper reaches of the lake will tell you that it marks the southern limits of Champlain's really "hot" smallmouth fishing. In any event, it does have good fishing, not only for smallmouths, but for walleyes as well, and there are plenty of places near Plattsburgh where a man can get a boat.

Finally, at Rouse's Point, you get into really big business. One of the better known locales is Point Au Fer, about three miles south. Back in 1774 this point boasted a military stockade which became known as the "White House", and at one time or another it housed such historical "greats" as General Burgoyne, Philip Schuyler, Benedict Arnold, Benjamin Franklin, and others. Today—unless you are interested in digging for Indian arrowheads and Revolutionary War relics—it is simply a good place to go fishing.

To its west lies King's Bay, with its bullheads and northern pike. Off east, and well inside the State boundary, is Big Shoal, with its walleyes and smallmouths. Just north of this reef is Catfish Bay and its northern pike and bass of both varieties.

At Rouse's Point proper there is a wealth of fishing between the two bridges which cross to the Vermont shore and in the neighborhood of old Fort Montgomery. This area produces big catches of walleyes in the spring of the year.

There are hotels and cabins at Rouse's, and a good sprinkling of guides licensed by the Conservation Department. Among them are George McChesney, Arnold Scales, George Davies (Sr. and Jr.), Fred Chevalier, Carl Moot and Paul Schonire.

Rouse's Point is a good place to stop in this treatise, because if you go any farther, Lake Champlain becomes the Richelieu River, and you find yourself in the Province of Quebec. But no treatment of Champlain could be complete without mention of its famous winter angling.

Northern pike, walleyes and perch can be taken in good numbers in practically any shallow water bay, and there is particularly good ice fishing for walleyes at Champlain Bridge. The big attraction, however, is the Champlain smelt.

These silvery and savory little fish seldom exceed a foot in length, (in the larger of two distinct species) but they can call forth a bigger concentration of

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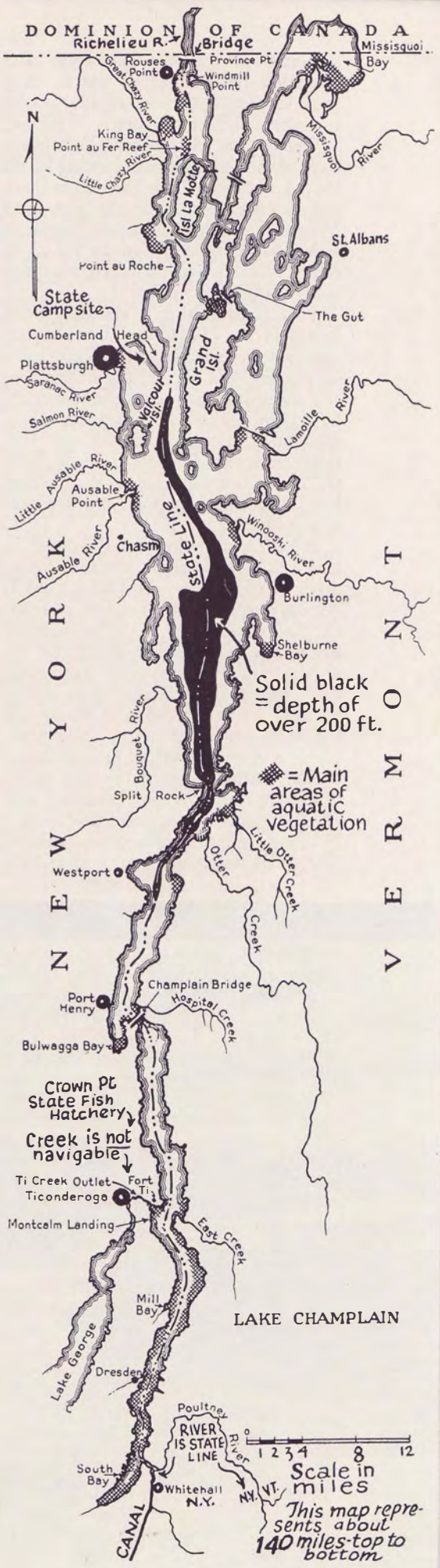


anglers than any game fish in the lake. Confined to the deeper waters, they provide excellent sport at four major rendezvous—Port Henry, Westport, Willsboro and Plattsburgh. Whole villages of ice-fishing shanties spring up on the lake offshore from these communities early each January and hold on until March. The fishing is almost festival in nature, and the boys go so far as to elect "Shantytown" mayors during the course of the season.

This smelt fishing is generally done in water from 15 to 60 feet. The shanties themselves are hauled out to likely spots on runners, and commercial interests in the communities mentioned generally have them for rent to outlanders at reasonable rates. Local hotels can normally be depended upon to arrange such facilities. The fishing gear is simple in looks and cheap in price and available at any sporting goods store.

If you have followed us this far in this article it's a cinch you're a fisherman. If you are not, and have stuck it out anyway, it might be well to add that the lake has plenty to offer in other diversions. The duck hunting, for example, is about as good as any you'll find outside Long Island when things are right, with big flights of blacks and teal in early fall and substantial concentrations later of bluebills and whistlers.

The northern end of the lake, again, is undoubtedly the best shooting area (and likewise the heaviest shot over,) but any bay throughout Champlain's 130 miles will hold waterfowl if food is available. Most of the shooting is done from points and off-shore blinds.

Our Next Issue features LAKE KEUKA

And, inasmuch as we started this thing off with the word "history," we must logically call attention to the existence of scores of historical sites along Champlain's shores which should be "musts" on your itinerary.

Centuries-old Fort Ticonderoga is probably outstanding. Held successively by French, British and Yankees in the course of 70 years of warfare, it has today been restored to its original form, and its extensive museum alone is well worth the 60 cents admission.

Farther north, at Crown Point, you will find Fort St. Frederic, erected by the French in 1731, and Britain's Crown Point itself, once the sturdiest fortification on the waterway. The State has a 100-acre reservation here, embracing ruins of both forts, and the Conservation Department maintains a public campsite.

There is a much larger Department campsite at the head of Cumberland Bay, north of Plattsburgh, in the event you will be "roughing it."

At Rouse's Point you will find previously mentioned Fort Montgomery, and there is hardly a turn in the road along the shore of Champlain where some marker does not direct attention to a date in history which pointed up the development of your State—and Nation.

Your trip along the lake will take you to nationally-famous Ausable Chasm, one of the most imposing scenic wonders in the country. A trip through this awe-inspiring gorge by boat is almost mandatory, and it can be taken from early summer to November 1.

Getting into this magnificent country is no problem. If you live south and east, take Route 9 from Albany to Lake George Village and switch to 9N. Or, if you wish to hit the extreme southern tip of the lake at Whitehall, take Route 4 from Troy, changing over to Route 22 at Whitehall.

If traveling by train, the D & H Railway maintains schedules from New York City which will enable you to leave the metropolis of a Friday night, visit any one of the points mentioned on Champlain, and be back in time for work Monday morning.

All in all, Samuel de Champlain really started something. It is interesting to note in closing, however, that the Indians had another name for "his" lake. They called it "Caniaderiguarunte"—"The lake that is part of another lake." Americans ever since have been trying to figure out what that "other" lake might be.

—Bob Bush

South across the Champlain bridge (at right) near Port Henry; note Lake George left center horizon

Maps

THE U.S.G.S. QUADRANGLES

NEVER A DAY goes by but what this Department receives letters from persons asking for maps of certain sections of the State. In most cases the writer has evidently seen one of the topographic maps published by the United States Geological Survey, and has the idea that the Conservation Department can supply them.

The Department uses U.S.G.S. maps for practically all phases of its work, but we have to buy them from the Federal Government just as you do. They cost 20¢ each, with a discount of 20% on orders of $10 or more. They may be obtained by writing to the U. S. Department of Interior, Geological Survey, Washington, D. C.

The maps are published on sheets that measure about 16½ by 20 inches. Each quadrangle is confined within the geographical limits of 15 minute intervals of latitude and longitude, so that it takes about 260 quadrangles, or individual maps, to cover the State of New York. Each map quadrangle is named after a town, lake or mountain situated within its bounds, and in ordering the maps it is necessary to give the name of the quadrangles desired. For the asking, the U.S.G.S. will send you a free copy of an index map showing the name, location and coverage of the various map quadrangles for New York State.

These standard U.S.G.S. maps are drawn on a scale of approximately one inch of map surface to one mile of ground surface. They show graphically the natural physical features of the terrain, such as lakes, streams and mountains, as well as the artificial or man-made features such as roads, towns, canals and railroads. Topography is shown by means of contour lines, each line indicating a rise or fall of 20 feet. On the back of each map there is printed matter telling all about them, together with a legend showing the symbols used to denote the various features.

To make these maps more durable, they can be mounted on muslin with some good map-mounting adhesive. A handy way to mount them is to cut off all the superfluous margin, cut the map up into nine sections along the five minute lines of latitude and longitude, mount each section on cloth in its relative position, and allow a ¼-inch gap between sections for folding. This makes a map that can be folded to a size of about 4½ by 6 inches—handy pocket size.

UNLESS you know your country you can't afford to be without such maps. By studying the contour lines, you can tell what a mountain will look like before you see it. The contour lines will also indicate the easiest hiking route from point to point, avoiding the inevitable ups and downs of a direct compass course. The maps record all physical features in such detail that, by using them in conjunction with a compass, you move as you please in strange country.

Any hiker or hunter can get "turned around" in the woods, but if he's equipped with a U.S.G.S. map and a compass, he can't get really lost. If he sits down and consults his map as soon as he feels he has begun to lose his way, he will be able to locate his position on the map within a mile or two. Then he should pick out on his map what navigators call "a major bracket." This is simply an extended landmark—a river, road, or trail will do—which he knows he will be able to hit somewhere along its length provided he keeps going in one general direction. He can determine this direction from his map, and follow it with his compass.

Twenty cents is cheap insurance against getting lost.

—D. G. RANKIN, *Supervising Forester*

THOSE AERIAL PHOTOGRAPHS

THE MAGICIAN will tell you that the hand is quicker than the eye. But the hand which wields the drafting pen on mapping work cannot compare in speed or fineness of work with the eye of the modern aerial camera.

Yet because of this very fact aerial maps, or mosaics made by the assembling of a number of aerial photographs, are little used except to give a general picture of a specific locality. Their wealth of detail confuses rather than helps.

For these and other reasons, and in spite of all the talk about them, there are no aerial "maps" of New York State. The job of assembling the thousands of prints required, together with the time, labor and expense involved in securing the necessary ground control and correcting the prints for distortion and scale, would be tremendous.

While the greater portion of New York State has been photographed from the air at some time or other, the flights have been made by a number of different agencies and for entirely different purposes. The scales used have varied widely. The Army Engineers, the Geological Survey, the Coast and Geodetic Survey, the U. S. Department of Agriculture, the Soil Conservation Service, as well as a few counties, municipalities and private organizations—all of these agencies have taken aerial photographs of sections of New York. But each has retained in its own negatives.

MORE important than the mapping phase of aerial photography is the use of aerial prints for detailed study under the stereoscope. If two overlapping prints showing the same terrain are viewed under a stereoscope, an image will be seen which will show the relief, the trees, houses, power lines and other details in three dimensions. This is the sort of image seen through the old-fashioned parlor stereoscope. A study of this kind enables the engineer to determine the best locations for such things as highways, railroads and canals; the game and fish manager to locate areas most suitable for wildlife restoration projects and to determine the portions of streams in need of development; and the forester to map the various kinds of timber and even to measure, with a very small percentage of error, the heights of individual trees.

A study of the prints themselves with the naked eye helps the land surveyor to locate property lines, the assessor to check his assessment rolls and locate any parcels which may have escaped the tax collector; and the planner of civic and private developments to locate his proposed construction in the best and most pleasing manner. Aerial prints are also of great assistance in laying out farming operations.

While they can also be used by sportsmen in partially settled areas to determine possible hunting grounds, they are of little use to such individuals or to hikers in the heavily wooded sections of the State because the leaves comprising the forest canopy obscure all the details except the most prominent streams and lakes. Photographs taken in the winter would not have this disadvantage. Such pictures are, however, seldom made because they have little value in the study of forest growth, and also because the best flying weather is in June or October.

So, until such time as the State is photographed on a uniform scale, and until a central library of films is established, the sportsman and hiker would be well advised to continue his use of the U. S. G. S. sheets. They are still the best available. And they are available.

—ARTHUR S. HOPKINS, *Asst. Dir., Div. Lands and Forests*

Campsite

THE Fish Creek Ponds Campsite is officially closed now, and the bears and wildcats have taken over.

The closing date was September 15, but the general exodus of campers began right after Labor Day. One of the last to fold up his tent was Carlton Thompson, of Syracuse, who loaded his car, backed it out of his parking place, and banged into a disgruntled bear. A couple of days later Doc Terry, the caretaker, chased out a wildcat that had taken over the garbage-collecting detail.

So all but the hardiest campers have moved out, the wilderness is moving back in, and one of the finest public campsites in the Adirondacks is resting up after a big summer season. It was quite a season.

Twelve miles from the nearest permanent village—Tupper Lake—during July and August the Fish Creek Ponds Campsite is one of the larger Adirondack communities. It had its beginnings in 1924 with an open Adirondack lean-to and three fireplaces close to the highway, which in those days was either a sandtrap or a mud hole, depending on the weather. (Now it's Route 10.) But since 1924 this campsite has unrolled like a magic carpet, in and out between white birches and pines, and along the sandy shores of the Fish Creek Ponds and Square Pond.

From a 20-fireplace, one toilet, one water pump set-up in 1926, the campsite has grown in 21 years to include approximately 400 individual camping spots—each with its own plot of ground and beach—54 chemical toilets, two large bathhouses, a modern drinking water supply, a unique open air assembly area used for church services and for home talent entertainment, an adequate garbage collection system, and an administration building for the caretaker in charge.

What happens when a tent city in the Adirondacks, with 1500 inhabitants, springs up overnight? More than you think, perhaps.

In 1926 the Conservation Department began keeping a record of the users of this area. In that year 2,500 were counted. Since then, and up to September 1 of this year, the total individual use has been 641,557 with a 1947 registration of 40,177 individuals. The total man-day use since 1926 has been 1,462,281. These are figures, not estimates, and they seem to indicate that a lot of people like to camp out at Fish Creek.

The average daily population of campers on this campsite in July and August is 1,500—a sizeable community. About 20% of them are from other states and foreign countries. The New England States, New Jersey, Ohio, Pennsylvania, and Canada registrations are the most numerous of the out-of-staters, but during the course of the season practically every state is repre-

sented. There are a surprising number of campers from California. One Californian told me that he came east to see trees. "Where I live," he said, "it's all sand and rock and grease wood."

New arrivals get a friendly greeting. If difficulties arise in setting up camp, neighboring campers pitch in and help out. The writer got stuck there one summer day with a balky automobile and expert auto mechanics seemed to spring from the ground. A camping group differs widely from the type of summer vacationist that one finds in hotels and boarding houses. Campers are the rugged individualist type.

ONE day last summer we noticed an unusual trailer. The owner proudly showed it to us, explaining all the unique housekeeping gadgets, folding partitions, cooking arrangements, etc. Then he pointed to his two healthy children and remarked, "You know, I'm getting a bit worried about those kids. They live outdoors during the winter in Florida, and in summer we come north. Those kids were born in a hospital but they've never lived in a house. The time is coming when they'll have to be house broken and it's going to be a job."

Every variety of tent and trailer is on display at Fish Creek. People buy tents and spend the winter altering them and adding gadgets, and when summer comes those tents have changed so much that the manufacturer would hardly recognize them. Trailers go through the same transformation. In fact, some campers build their own. Many elderly and retired couples live in trailers and flit about like migratory birds from parking place to parking place, just visiting.

A campsite caretaker, six helpers, and two lifeguards comprise the staff that administers this city, and they do a surprisingly good job. Perhaps you think the caretaker is not a busy man. You see him in a neat uniform talking with people at his cabin, and you may not realize that what with registering campers, assigning sites, inspecting facilities, answering questions, settling disputes, making out reports, receiving needed supplies, explaining to a few selfish campers the unfairness of their request to stay all summer in a crowded campsite at the expense of a family with only a short vacation—this caretaker sometimes gets a few hours of uninterrupted sleep and eats a few meals on time.

One day last summer Doc Terry decided to put a thumb tack in a board for each question asked. In an hour he had run out of tacks.

From an economic standpoint the sudden mushroom growth of an Adirondack community, from nothing to 1,500 persons daily, presents problems. This year for instance, for the week ending June 22, food for 1,660 man-day campers had to be available. For the week ending July 6, only two weeks later, this figure had jumped to 9,404, or approximately 27,000 meals for the week. From July 1 to September 1 the population, though changing constantly, remained roughly stable at an average of 10,000 person-days each week—which is just about the present capacity of the Fish Creek camp.

There are several sources of food supply. Vendors from Tupper Lake and Saranac Lake with meats, vegetables, and groceries make daily trips. Trucks from large local dairies make the rounds every morning along a five-mile campsite road which skirts the shores of the Fish Creek and Square ponds. Two dairies this past season sold approximately $9,600 worth of milk and cream, going from tent to tent just as milk wagons in the city go from house to house. Trucks come later with ice cream, butter, and eggs. Many campers, seeking greater variety, drive to Tupper Lake or Saranac Lake and buy from the stores. Approximately $3,000 worth of ice was sold on the campsite this year, and the proprietor of a general store or trading post just outside the camp limits estimated his gross business with Fish Creek Pond campers at $25,000. This is no mean business, when you consider that he has a steady clientele only three months of the year.

BILL PETTY, District Forester in whose bailiwick this campsite is, says the volume of business done with the campers by grocery stores, sporting goods stores, and other concerns in Tupper Lake and Saranac Lake is much greater than that done by the peddlers on the campsite. There is also the boat business. Although some campers bring their own, others pay out at least $4,000 for boat hire each season, and as every camper with a boat is a potential fisherman, there is a substantial local business in fishing tackle.

But food is the big item. Figure out the loaves of bread in 30,000 meals, multiply by 10, and you will get a fair idea of the bread consumption for the season. And then flapjacks: 10,000 breakfasts, 10 flapjacks per camper (plus or minus)—equals 100,000 flapjacks a week. We asked a young lady stenographer how much syrup would be needed for 100,000 flapjacks and she replied, "Gee whiz, that's an engineering problem." (You may think we overestimate appetites, but if you ever saw a Fish Creek camper sail into a stack of flapjacks, you won't argue with us. It's the mountain air.)

We could continue indefinitely on this subject. But we have probably suggested enough figures to show that Fish Creek Pond campers leave a lot of dollars behind them to help out the economy of this Adirondack region.

FISH Creek Ponds Campsite is the vacation spot for many thousands of people. We in the Department who are charged with this particular job take a great deal of satisfaction in knowing that we are doing something to help people. Not only to help people get a vacation in the woods and mountains who could not afford the expense of a conventional resort, but also to help the vacation communities of New York by bringing them business. For many a small enterprise, the Fish Creek campers make the difference between a lean off-season and a comfortable one.

—WILLIAM MULHOLLAND
Sup't., Bureau of Camps and Trails

FLORA

THORNAPPLE

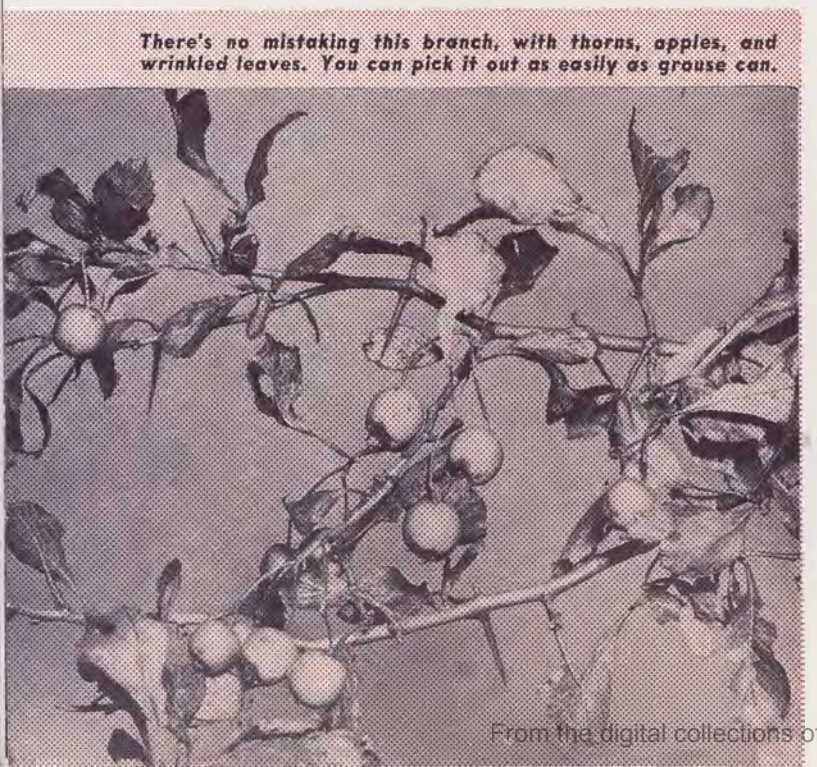
An early settler on abandoned land

THORNAPPLE, hawthorn, red haw, white thorn, May thorn, Crataegus, "that blankety-blank bush all over my cow pasture"—there are many names, depending on one's locality and point of view—but they all refer to a small tree or large shrub whose bright red fruits are an important fall and early winter food for many of our upland game species.

A hundred and fifty-odd years ago, when the surveyors were busy carving up our State into neat rectangles and parallelograms, they came across what they knew as *white* or *May thorn* along the stream courses, in the old Indian fields, and in the occasional openings in the primeval forest caused by wind, fire or landslide. After the surveyors came the pioneers. When the pioneers cleared the land, thornapples found more room, so that today, thanks to the ability of the bony, ribbed seeds to pass unharmed through the alimentary tracts of cows, and thanks, too, to the protection afforded by their long sharp thorns, thornapples have taken over abandoned fields and cow-pastures over most of the State outside of the Adirondacks and higher Catskills. Their greatest abundance is in Central New York, where from November to May their horizontal, zig-zag branches color whole hillsides a musty blue-gray.

Thornapples hybridize readily, and there are lots of them. So it is understandable that botanists should have described and named about a thousand different kinds in North America, most of them from the eastern United States. We also have 90-odd varieties introduced from Europe and Asia.

In late May the wild thornapples put forth their toothed leaves and clusters of five-petalled, white flowers. They make a pleasing display, especially when massed in so famous an arboretum as Highland Park, in Rochester, which has a special area devoted to them. The odor of the flowers is often slightly to strongly fetid, possibly to attract flies for pollination. The small, apple-like fruits, which begin to color in late August, are usually dry, mealy, and tasteless, with numerous strong, ribbed nutlets or seeds that only the grit-filled gizzard of a grouse can digest.



There's no mistaking this branch, with thorns, apples, and wrinkled leaves. You can pick it out as easily as grouse can.

CERTAIN individual trees with larger "apples" have been observed to hold their fruit in good condition as late as February, but the majority of the haws are on the ground by early December. Occasionally you can find them among the leaves in March or April, perfectly preserved by ice and snow. The Washington thorn, native to Virginia and points south, is frequently planted in New York gardens and parks for its large masses of small scarlet, lustrous haws that often hang on the branches until new growth in May forces them to drop. This species might well be tested for hardiness, fruiting and use in some of our game management areas.

It is in the bright, crisp, still days of fall and early winter that thornapples really earn their board and keep. Grouse dearly love the red haws, or fruit, and will fly, or laboriously walk, a hundred yards or more from the woods to fill their crops to the bursting point. If grouse can be said to prefer one food over another, then certainly thornapple is a preferred one.

Deer, cottontails, and occasionally squirrels, also patronize the thornapple cafeteria—as any good tracking snow will tell you—until ice and snow lock the door for the winter. Cottontails then shift to gnawing the twigs, shoots and bark.

Thornapple thickets have some value as escape cover for game, as most hunters know. Large expanses of thornapple, however, are unnecessary and undesirable from any standpoint. For the purposes of the game manager, a small number of trees, judiciously located and kept free from competition so they can grow and fruit well, are satisfactory. Visitors to the 15-odd upland game management areas administered by the Bureau of Game will note that the fall-feeding strips which border hardwood or conifer plantations feature thornapple and other fruiting shrubs and trees, with here and there small clusters of conifers to provide shelter and escape cover, and to insure that not *all* your shots are easy. The large expanses of hawthorn and wild apple have generally been broken up by block plantings of conifers and hardwoods which will produce a crop of timber in years to come. Meanwhile, as the plantings grow up, the thornapples are still there and will remain until the timber trees grow up and crowd them out.

Timber and game, recreation and soil conservation, that's the principle of multiple use of our abandoned farmland. Thornapple is part of the picture.

—RALPH SMITH, *Game Research Investigator*

BLACK BEAR

Chief vanisher of New York wildlife

THE OLD GAG about the little boy with the bear behind might have been more colorful if it had been a black bear—but far less probable. Black bears just don't do that sort of thing. In fact the life work of this particular kind of bear is to stay as far away from Man as possible and still, on occasion, fill his belly with the fruits of human husbandry, particularly if it be bee balm.

New York State has a surprising backlog of black bears. That is good. It also is a distinct tribute to the intellect of our subject who offers some 12 square feet of target area to the three-quarters of a million hunters who take to the woods when bears are busiest stowing grease aboard for the winter. Furthermore, the rate at which bears reproduce themselves is the slowest of all our game mammals—for ma normally must survive four winters before she produces her first cub. If the reproductive capacity of deer were as low as that, it would be just too bad. But bears are much smarter than deer in the out-of-sight department.

In New York, most of the cubs probably are born by mid-February after a gestation period of approximately 215 days. At birth they look not unlike ten ounces of cooked hamburger covered with dark mould. Their eyes don't open for about three weeks—otherwise they might die of fright. Ma, engaged in the fitful sleep of semi-hibernation when the great event occurs, is of no help to her pint-sized brats in their meanderings for meals. She goes on sleeping while the helpless cubs by some miracle seem able to keep from being squashed and at the same time feed from the available founts, mostly high up the old bear's chest. Real use of the hind legs doesn't occur for a month or more. It has been suggested that this may be Nature's way of keeping the small fry from straying too far from the feed box while ma sleeps.

The hibernation of bears, or lack of it, is interesting and not fully understood. The most intensive observation of how New York's bears spend the winter seems to have been carried on by J. R. Matson of Perry. His studies show that bears ordinarily don't hibernate unless they are sufficiently fat. Bears that have had slim pickings are therefore forced to keep on the prod in search of food, snow or no snow. Contrary to popular belief the site chosen for the winter sleep usually seems to be above ground in a spot beneath the close-sweeping branches of a spruce, under a blowdown, or among roots. The bear seems capable of doing considerable improvement to the site. One bear (in Maine—where they may be smarter) actually had laced low branches with other material to weave an efficient screen. Wintering sites seem to be chosen indifferently, although they are often on a south slope or open to the south.

THERE are several records of bears quitting helpless cubs at high speed without a show of protective instinct. But otherwise the mother seems to be not only a good provider but an excellent disciplinarian. The first and only bear we ever saw in the wild was a cub. It was sailing over a huckleberry bush, apparently drop-kicked by its mother.

Several tame black bears, according to N. Y. State records, have killed the persons who reared them. There seems to be no authentic record, however, of a wild bear attacking a human, at least without substantial provocation.

Bears eat all sorts of stuff—ants, carrion, fish, berries, eggs, pork, potatoes and plug tobacco. Their penchant for sweets often leads to considerable damage to vacant camps. When bears break into such a place—which they do readily and not uncommonly in the Adirondacks and Catskills—the owner, in order to save time, often touches a match to the joint and builds another. There's only one sadder sight of general animal mayhem—an apiary after a visit by bears. Hunters who have had their hanging bucks hauled down during the night will dispute this.

As a rule, however, New York State bears do little damage to Man's interests and rate at the top of the list of interesting wildlife. Fortunately, they seem able to maintain population levels under present laws—unless, as seemed the case around Indian Lake last year—a concentration of beechnuts or other late fall food draws bears into a limited area. More than 30 were taken last fall in that vicinity against a normal take of three or four.

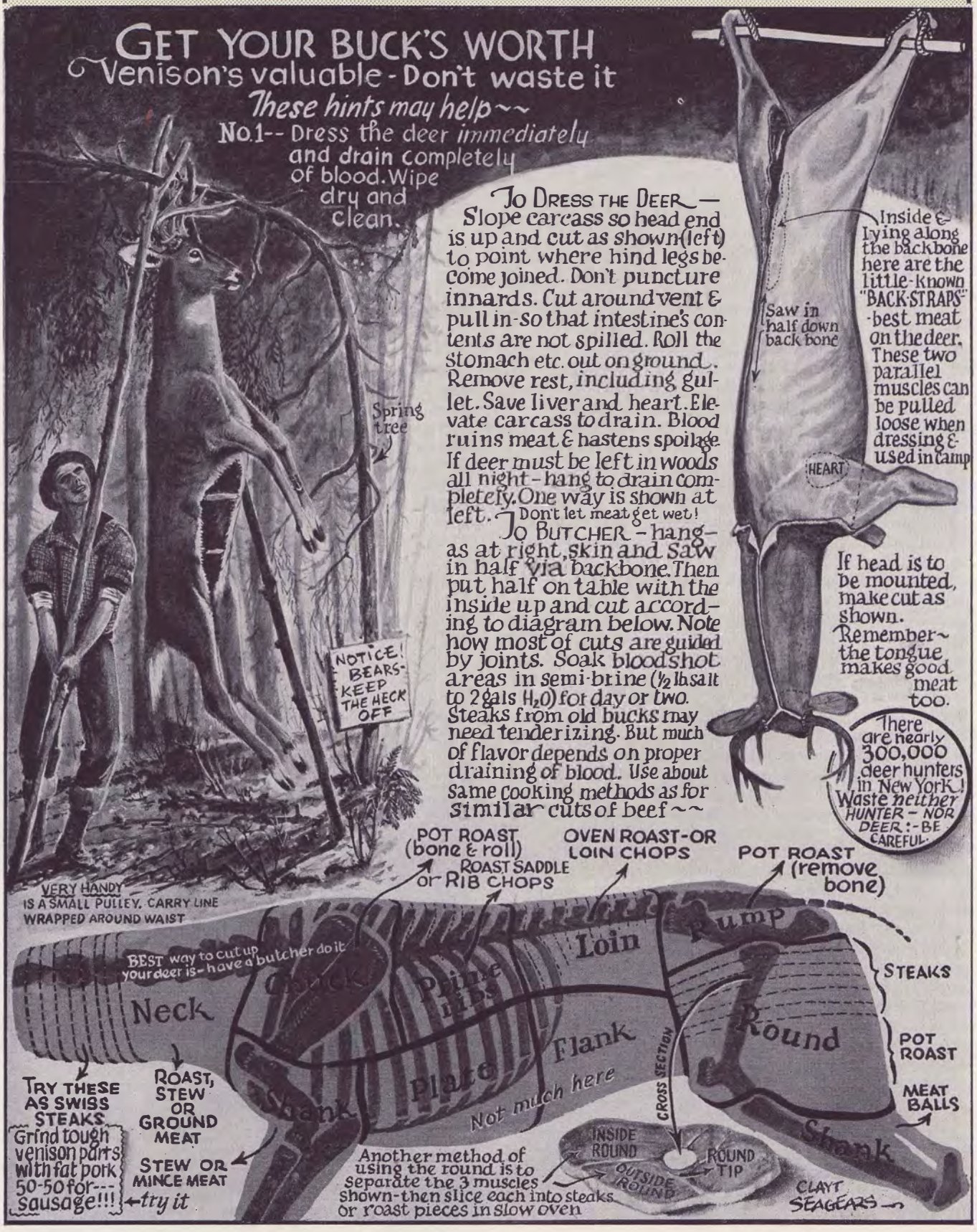
The largest known bear in New York was bagged by Jean Mose of Saranac Lake in 1938. It weighed 532 pounds. The average probably is about 250, and those commonly reported 400-pounders usually are heavily weighted with baloney.

Hunters normally take more bears per square mile in Greene County than in any other; but Hamilton seems to have a much greater population. The annual reported take for the whole State varies from 60 to 150, but the annual bag of bear stories runs into thousands.—CLAYT SEAGEARS

Orphaned cubs, reared by the Department, now in Bronx Zoo. At top is only gray phase recorded in N. Y.

The INSIDE on the OUTDOORS

by Clayt Seagears



MOBILE PREDATOR

The automobile is one of our prime predators of wildlife and also one of our most indiscriminate killers. Once in a while it even balances its murder sheet by knocking off a lot of critters which are, in themselves, enemies of worthwhile species.

One of the *Conservationist's* staff recently kept tab on highway kills for a three-week period over a 30-mile stretch of road and came up with the somewhat encouraging report that predators appeared to be the major victims.

Unique on the obituary list was a red fox, few of which are ever killed by cars, and a great horned owl, which flew into the side of an automobile in broad daylight.

The remainder of the list included six cats, four rats, two blacksnakes, a snapping turtle, and the gory remains of what was undoubtedly a weasel.

The unfavorable side of the report, however, dealt with the fact that small song birds topped the entire lot, with rabbits running a close second.

WET OR DRY?

A great many fishermen believe that it is essential to wet their hands before unhooking an undersized fish and returning him to the water. This practice is based on the assumption that dry hands may break the protective coating of slime, and so allow infections such as fungus to attack the fish.

Actually, losses due to secondary infection caused by dry handling have never been proved serious, and in returning an undersized fish the most important things to avoid are hook injury, and squeezing of the fish. Tearing out a barbed hook can do plenty of damage, and in a previous issue we suggested leaving swallowed hooks alone by simply cutting the line or snell.

Squeezing a fish, especially in the region of the gills, is likely to kill it. If you can unhook the short ones without handling, so much the better, but if you must get a hold on your fish, take him by the tail section where there are no vital organs. A bass or trout—but not a pike—you can hold by the jaw. But no matter what your technique, the less pressure you put on vital regions the better your chance of meeting the fish again when he has grown up.

3 Writers At Work

You pay your money and you take your choice

(1)

"Those who attended the conservation meeting at the Memorial House last Friday night must have been convinced of one thing: Conservation is a job that concerns everybody, and must be done by everybody.

"This particular meeting was called to discuss the problem of wildlife conservation. But before it was many minutes old, it became clear to those present—and there might well have been more of them—that conservation is far too big a problem, even as applied to the conservation of game, to be solved by dumping enough hatchery-bred fish into streams and lakes, or by liberating enough pen-raised pheasants.

"It became apparent, too, that the conservation of wildlife is only one phase of the over-all problem of preventing a senseless waste of all of America's natural resources . . . If we allow unwise use to deplete the crop-producing qualities of our soil, or if we permit the best of our farming areas to be robbed of their riches in the form of mud washed downstream or of dust blown away, we are courting future tragedy . . . If we turn our fields and forests into stretches of barren and unproductive soil, we shall, at long last, find our economic epitaph written in words strangely like those describing the prodigal in the parable, of whom it is recorded that, after wasting his substance, he 'began to be in want'.

"The Sportsmen's Club of Northern Westchester has performed a public service in undertaking its program of wildlife conservation through habitat improvement. Whatever it may accomplish along the lines of increasing the quantity of game, it has started some of the people of this area thinking about a subject that demands serious study and, after that, action.

"Conservation is not the responsibility of federal or state departments or bureaus, nor of privately financed organizations. It is everybody's job." —*R. T. Barrett, in the Katonah Record*

(2)

"As one who has been keenly alert to the alarming game shortage and the need for remedying it, I would like to comment on the commissioner's so-called 'huge fox-pheasant test' or 'noble experiment' as some gullible writers have termed it.

"At the outset I would like to point out that I am fully informed on all phases as well as the full significance of the test which is being carried out in the limited area between Cayuga and Seneca Lakes." (See page 29.)

"The Commissioner and his staff are interested in one thing only, and that is in perpetuating the present game shortage, and the millions of dollars that will flow into their hands as a result of it, thru increased license fees so long as the game shortage continues.

"They know that foxes are the most destructive predators on the face of our land, and that they can depend on them to keep our game at the present level of scarcity just so long as they can keep the sportsmen from getting a statewide bounty on foxes, such as they have in South Dakota. That, Mr. Sportsman, is the real reason why they frown on the bounty . . .

"They themselves are going to act as judge and jury to settle the fox-pheasant dispute which threatens their million dollar racket. The test and all phases of it are very conveniently arranged for that purpose . . . The test is actually designed to give every bird hunter in the state a dirty deal . . . It is up to every sportsman and organization in the state to let them know this is one racket they are not going to get away with . . ."—*Leo A. Wincowski, in a letter to the* Syracuse *Post Standard*

(3)

"FOX HUNTERS BEWARE"

"The small game hunting clubs **are** sponsoring a drive to destroy our foxes, our sport, and our income with unfair means such as man-made rabies.

"If they can destroy our sport, we can destroy theirs—kill grouse, pheasants, rabbits the year round. Post your land." (Signed) "A Fox Hunter" — *Note distributed by professional fox trappers.*

YOU NEVER KNOW

Commercial contests notwithstanding, it sometimes pays to catch a big fish. Witness the case of Mr. George Trombley, of Ticonderoga on Lake Champlain.

A few weeks ago a couple of downcountrymen, en route from a week's deep-sea fishing off the coast of Maine, dropped in at George's bailiwick to inquire about the local angling. George got the job of showing them around. And took them out for bullheads—for which that section of the lake is more or less famous.

During the course of the evening George snagged onto a real "bullhead" —one, in fact, which scaled 18 pounds.

In the science books, of course, this fish is listed as a "lake catfish", or more specifically, *Ictalurus ponctatus*. It took George an hour to land it, inasmuch as he was using a fly rod, a light test leader and a #5-0 hook. The boys finally towed the monster ashore on an accommodating beach.

The pay-off?

It is reported by George Towne, also of Ticonderoga, that Mr. Trombley received, gratis, some $50 worth of deep-sea fishing tackle from one of his guests. Who figured, logically, that Mr. Trombley needed it more than he did.

DOPED WORMS

It's illegal to dope a racehorse. The same thing goes for greyhounds. But there seems to be no law against a fisherman giving his worm a shot of benzedrine.

It was a doctor, of course, who doped out this angle for bait fishermen. According to a story from United Press, Dr. George Apfelbach, a Chicago physician, became disgusted with the indolence of average nightwalkers and decided to do something to jazz them up. He dissolved a benzedrine tablet in half a glass of water and immersed his bait in this solution, whereupon the worm took a new lease on life.

Not for long, however. A five-pound bass sucked him in, along with the doctor's hook.

POSTER CONTEST

Would some budding artist like to win $250 and a trip to St. Louis next March? That's first prize in a nationwide conservation poster contest as announced by the National Wildlife Federation. The award will be made at the North American Wildlife Conference next spring, and any student from the seventh grade through high school may compete. The subject is Soil and Water —and their Products. Closing date is February 1, 1948.

A copy of the rules and regulations regarding the contest and further detailed information may be secured by writing the Servicing Division of the Federation, 20 Spruce Street, Boston, Massachusetts.

MUZZLE LOADERS

"Shoot and swab" enthusiasts got together last month in Ticonderoga for the Third Annual National Muzzle Loading Rifle Shoot, and a man named William Waite, Jr., Glen Cove, L. I., walked off with four firsts, two seconds and three thirds to keep honors in the Empire State.

Game Protector John H. Bouck has been taking care of this fawn since it wandered into a farmyard near Middleburg last June. The deer has never been confined. It bleats and strikes at the door when it wants out or in, and although it spends most of its time in the woods, it heads for the house at the first bark of a dog.

However, the Ticonderoga Cup match—one of the highlights of the shoot—went to an outsider, Dr. J. E. Hirtle, of Bath, Pennsylvania. This cup, incidentally, has yet to be won by a New Yorker. And just to keep things in the family, the Doctor's wife, no mean shot herself, placed first in the flintlock, open sight event at 50 yards.

There were other unusual scores. Winford P. Smith, Bristol, Connecticut, scored a possible in the 25-yard pistol event, and a junior marksman, Earl Young, Warrensburg, amassed 98 x 100 in the "any sight" 100-yard event. His coach, Redver Conley, also of Warrensburg, came in second.

Shooters representing New York, Pennsylvania and all the New England States participated in the meet, which is fast gaining in popularity among muzzle-loader fans. The event is sponsored by the Ticonderoga Chamber of Commerce and by the local Fish and Game Club.

DUCK BANDING

The State of New York is making a valuable contribution this fall to the waterfowl management program being developed for the Atlantic flyway by the Fish and Wildlife Service, the Wildlife Management Institute and the states along the Atlantic coast. The Conservation Department's new duck banding project is providing the opportunity.

Game authorities have frequently pointed to the lack of adequate data on breeding areas and migrational movements of waterfowl using this flyway. The only means of obtaining the necessary information is to band large numbers of ducks flying down the eastern migration routes. Hunters along the flyway would then be expected to report the taking of these banded birds to the Fish and Wildlife Service or their own State Conservation Department. Returns from the breeding areas would come another year through birds caught in traps, or shot in the north.

In New York considerable duck banding work has been carried out over the years. A careful study of the data available from the return of bands heretofore placed on ducks in the State revealed the lack of sufficient information from certain regions. To correct this situation, and to lead the way in the extensive banding program needed on the flyway, the Department's biologists have established a series of duck trapping and banding stations across the State this fall, several of them as a result of generous cooperation by duck hunters and public agencies.

These stations will be located at Oak Orchard Game Refuge, on Oneida Lake, Lake Champlain, Tomhannock Reservoir, at the Bronx Zoo and at the Southampton Waterfowl Sanctuary, Quogue, L. I. Banding work also is being carried on at the Montezuma and Missiquoi Waterfowl Refuges, the former being near Auburn and the latter on the Vermont side of Lake Champlain.

FIRE WARNING

As we go to press, the Weather Bureau in Albany comes up with a report which should give us pause. Rainfall in the East Central part of the State, for August, September, and the first half of October, has been the lightest ever recorded either officially or unofficially. The rest of the State fared little better.

Obviously, the woods at this writing are tinder dry, partly because of the absence of rainfall, but also because heavy frosts dried up vegetation much earlier than usual, particularly in the Adirondacks and Catskills. Although the situation may be changed by the time you read this, heavy rains or snows must fall before danger of fire is past.

DEPARTMENT ACTIVITIES

DEER HUNTERS – PLEASE – The Department's deer checking stations, an important phase of the Pittman-Robertson Deer Research Project, will be operated again this year at selected points on main highways in the Adirondacks, Catskills, and Southern Tier. It is requested—even urged—that all successful deer hunters passing these stations stop to have their bucks checked.

As in past years, the Department is anxious to collect statistics on the age and skeletal size of deer taken in the three main hunting regions of the State. Age is revealed by inspection of teeth; skeletal size is indicated by the distance between the Achilles' tendon and the point of the toe on the hind foot. Such statistics—provided enough deer are offered for inspection at the checking stations from year to year—will supply information which will help to guide deer management programs in each region.

Data collected last fall revealed a number of interesting facts: 50 percent of the deer taken in the Southern Tier and the Catskills were yearlings, compared to about 25 percent in the Adirondacks. Four percent of the bucks checked in the Adirondacks were at least 7½ years old (some were over 10), whereas only one buck of 7½ years or better was checked in the Catskills and Southern Tier.

EXPERIMENT—The fox's role in the pheasant picture—long cussed and discussed by sportsmen—is being closely examined in a practical experiment now being conducted by this Department.

The decline in the pheasant population—a situation experienced not in New York alone but in all states in the Northeast—focused the attention of many people on the fox. His tribe has increased in recent years, and that accentuated the controversy about his relative value as a fur-bearer, provider of sport, and predator. Game technicians in many states hold that the primary cause of the pheasant decline is the series of successive unfavorable nesting seasons. Many sportsmen feel, however, that excessive fox populations are a decisive factor.

So—to determine just how fox predation affects pheasant populations—the Department is now conducting a large-scale check. Two 100,000-acre areas are being used in the experiment. On one, expert State trappers have been engaged since early August removing the fox population. On the other, separated from the first by a lake, no trapping is

DO YOU KNOW YOUR LAWS?

After you've taken your deer–

1. Attach the license tag and keep it attached until the meat's all gone. You can, however, drag your deer back to camp, or other transportation point, before tagging it.
2. Get it out of the woods before midnight of the day after close of the season in the county where you killed it.
3. Transport the deer yourself or send it by common carrier; parcel post is prohibited. If you don't detach the head, another person can transport it for you. Deer tag and another tag showing your name and address is needed on the animal, plus the name and address of the other person if he does the transporting.
4. You can keep the deer at home or in a public freezer until next July 1.
5. Until next July 1 you can cut it up and give it away if you tag the piece or pieces with your name, address, license number, date and the name and address of the lucky one who gets the meat. Any other person having the meat in possession between donor and consumer must also tag it with his name and address.
6. Wrapped or boxed venison must be marked "Venison" as well as contain the other tag marks.
7. It's important that license returns be made to the Department in Albany by registered mail within five days after close of the season in the county where the deer was killed. Use ink and write legibly, please.

The 100,000th pheasant (a new national record) is in this shipment from a State game farm

being done and the fox comes and goes as he pleases. On both areas, releases of banded game farm pheasants have now been made.

A series of checks will be maintained to test the effect of fox predation on these liberated pheasants. First, hunters will be contacted to secure records on any cock birds they shoot this fall. Live trapping will be done in the late winter to determine any variations in survival and to compare winter losses on the two areas. Pheasant brood counts will follow during the summer, and hunters again will be checked next fall to measure the effect of predation on pheasant reproduction.

Then—the game men will read the facts they have uncovered and make public their findings.

CONFERENCES: Now that all but one of the regional conservation conferences have been held, it is apparent that they fill a long-felt need in New York's fish and game program. District meetings already have been held at Ithaca, Sodus, Bear Mountain State Park, Stamford, Allegany State Park, Buffalo, Syracuse and Carthage.

A FINANCIAL CRISIS FOR FISH AND GAME

The anticipated financial crisis for fish and game conservation—which I have been discussing with sportsmen all over the State for the past two years—is here. It would have arrived even earlier had it not been for shortages of materials and equipment and lengthy delays in our postwar construction program.

It is a crisis which anyone who has had simple arithmetic can easily understand. Two simple figures tell the basic story. Our budget for fish and game work only for the current year calls for the expenditure of $2,699,325. Our income for last year was $2,118,539.70 and current returns indicate that it will be approximately the same for this year. Income and outgo, therefore, are already out of line by some three to four hundred thousand dollars *on the basis of current operations*—without the additional conservation effort which increased hunting and fishing make necessary.

I see no possibility of deferring action on this crisis beyond the coming session of the Legislature. It will have to be solved either by providing additional funds for fish and game work or, *failing that, by cutting back our fish and game work to come within the present income.*

The prospect of less, rather than more, fish and game work, at a time when our need for it was never so great, is one which I am sure does not appeal to our sportsmen who are so directly concerned, or to the business people of our State who have come to realize how much our fish and wildlife resources mean to our economy.

What's the Answer?

Last year the organized sportsmen, working through the New York State Conservation Council, sought to meet this crisis by a modest (60¢) increase in the license fee. The bill which would have accomplished this passed the Senate with only three dissenting votes but was beaten in the Assembly. Because this is being written prior to the annual convention of the Council, I do not know what action the Council will take this year, nor do I know what action may be taken by the Legislature itself.

If this crisis is not met in this way, the only alternative would be to abandon the principle of the Conservation Fund and endeavor to secure additional financing in some other way. The sportsmen of the State fought so hard for the establishment and the maintenance of the Conservation Fund, and its fundamental soundness in good times and bad has been so well demonstrated in this and many other states, that I hate to see some temporary stop-gap expedient resorted to at this time. The Conservation Fund pays for the regular continuing work of fish and game and I should personally hate to see any part of this work placed in jeopardy by relying on supplemental appropriations from the General Fund which we know will vary from year to year with economic conditions.

Nevertheless, the Department stands ready to work with the sportsmen and the Legislature on any and all suggestions which may be advanced to meet the present crisis. The important thing is to go forward, not backward, and to do everything possible to meet the alarming drains being made upon our fish and game resources. Solving our financial problem should be our first order of business.

PERRY B. DURYEA, *Commissioner*

The regional conferences brought out generally many important local conservation problems, and there was hearty approval of Commissioner Duryea's efforts to build up a decentralized field force of trained men in both fish and game to deal directly with these problems at close range. Much of the success of the meetings was due to the District Game Managers and the men from the regional fisheries offices, who played an important part in each program.

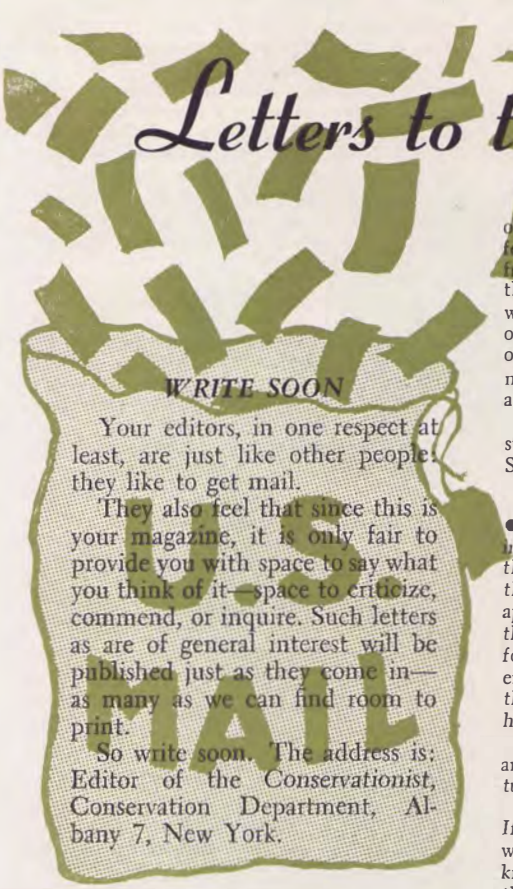
It was apparent from the discussions at the conferences that most people around the State realize that all hands—Conservation Department, sportsmen and the public in general—will have to extend themselves to the utmost in a major conservation effort if the tremendous present-day demand being put on fish and wildlife resources is to be met. It was also clear that there is now a very general appreciation of the fact that it will cost more money—not only because of inflation but to foot the bill for the additional effort which is needed. At the western New York meeting, many of those in Erie County who fought with vigor against the increased license fee proposal last winter—now that the matter has been more fully explained to them—expressed a willingness to press for it next winter. The same feeling was expressed in central New York where similar opposition had been recorded by a smaller group.

WATERFOWL—Duck hunters of the Hudson River valley—one of the important waterfowl migration routes of the State—are considering the establishment of a regional organization to cooperate with the Conservation Department in making better duck hunting. The Department's waterfowl plans, and a review of the experiences of the Northeastern Waterfowl Association, were laid before a recent meeting of local waterfowl enthusiasts at Catskill.

As the Hudson River sportsmen prepared to take this progressive step, the Northeastern Waterfowl Association made a report on its experimental mallard raising program for 1947. This was conducted in cooperation with the Department's Bureau of Game Farms. The Association this summer released from its Black River rearing station, at five weeks of age, 850 out of the 1,050 day-old ducklings they received. This was accomplished despite the loss of 65 ducks killed in the yards by a dog.

It is interesting to note that the Department's waterfowl census flight of early October in the Ontario-St. Lawrence area, where the Association's experimental mallard duck stocking has been carried out, revealed more mallards than had been observed there on any previous aerial check conducted during the past two years.

Letters to the Editor



THANX

Gentlemen: My two-week vacation this year spent in your State-owned recreation areas was the most enjoyable ever. You gentlemen are doing a splendid job. Of particular comment was the unusual hospitality and spirit of helpfulness shown by all the Forest Rangers, particularly at Wilmington Notch and on Whiteface Mountain. To continue explorations and trips in New York, I would appreciate your recreational circular No. 8, "Trails to Marcy." Thanx again.

David Podietz, Philadelphia

PHEASANT BANDS

Gentlemen: Last year, the Saugerties Fish and Game Club banded and liberated close to 500 pheasants. This year we will band and release close to 1000. We recently received a band from a cock bird that had been shot last fall, and upon looking up the records we found that in two weeks from the time we released this bird it had traveled a distance of about nine miles.

This is the sort of information we want, and we would appreciate it very much if you could print a paragraph informing your readers of the work we are doing and asking them to return any bands they may collect.

Harold Mills, Saugerties

● *Ulster County hunters, please note.—Editor*

MONEY, WOMEN, & FISH

Dear Editor: I have heard a lot of gripes about the way the State funds received from the sale of fishing and hunting licenses are used. I myself have never read a report to the people on this matter, or ever met anyone who did. And from the State's point of view I'll bet they don't have anywhere near enough funds to do the things that actually should be done.

Second, in my own territorial waters (now comes the blow that killed father), I have observed an average of more than half of my fellow sportsmen are of the opposite sex, and from time to time I have observed two or three women to one man in a boat, all of whom have taken their legal limit. There was only one license to cover the whole legal catch of four people. We could raise a lot of badly needed funds if we were to license the women also.

Third and last: Why does the State allow streams to be posted that are stocked with State-raised trout?

Floyd Powell, Syracuse

● *(1) All monies received from the sale of hunting, fishing, and trapping licenses (as well as those received from fines and penalties) go into the Conservation Fund, and, after specific appropriation by the Legislature, are used by this Department's Division of Fish and Game for "the care, management, protection and enlargement of the fish and game resources of the State, and for the promotion of public hunting and fishing."*

(2) A bill calling for the licensing of women anglers was introduced last year in the Legislature. It failed to pass.

(3) The State does not stock posted waters. If, however, an owner elects to post a stream which has previously been stocked with his knowledge and consent with fish supplied by the State, such waters thereafter cannot be considered as legally posted under the Conservation Law.—Editor

AGAIN

Dear Editor:—I read with great interest Edith Coleman's letter on "Who Pays for What". I'm a gentleman, so I won't be too harsh on Edith, but this is my answer:

We city dwellers (I was a country boy once . . .) buy about 80 percent of all that farmers have in the way of produce. Suppose, for instance, that there was no city market for Edith's produce or that the city dwellers bought all their farm produce from Canada, Mexico or England. Remember that we do have planes, and even orchids are flown in from South America. Why not farm produce?

We city dwellers have only a few days in which to enjoy hunting; the farmer can hunt through the entire season. Here, for example, was the expense account of myself and five buddies who hunted only part of the 1946 deer season (10 days):

Licenses	$ 53.75
Food	210.00
Rooms	180.00
Miscellany (ammunition, gas and oil guides, car repairs, refreshments)	150.00
Total	593.75

This was all spent in one community in the Catskills, and not one of the party got a deer to show for his $100. That was for only 10 days out of the year. I fail to see where Edith has a gripe. We could have taken a trailer and all our foodstuff with us, spending only our license fees, and then she could have reason to gripe. I think that on the average the true sportsman from the city pays his way and a little to spare. Show me an average five farmers who would leave $500 in their community for 10 days of hunting. Besides, we pay all our other taxes, too.

Remember, this was just one small group. Multiply that by 1,000 and you still won't get the full amount. The farmer should consider game as one of the by-products of the land, and the money the sportsman leaves in his community as part of the harvest.

Lysle Burtch, Arlington, N. J.

LAMPREYS

Dear Sir: Regarding this recent and new found sea lamprey menace, could you answer a few questions for me?

To what extent are these lampreys prevalent in N. Y. State waters? Is it possible for them to work their way through the Barge Canal, up Seneca River and Canandaigua Outlet to Seneca Lake and Canandaigua Lake? If so, what preventive measures could be taken to stop them?

William R. Forward, Rochester

● *Presently accepted opinion is that the lake lamprey is simply a landlocked, more or less dwarfed form of the sea lamprey. They are believed to be native in the St. Lawrence, Hudson, Delaware, and Susquehanna rivers and in some Long Island streams; and in Lakes Ontario, Champlain, Cayuga, Seneca and Oneida.*

Lampreys were recorded in Lake Erie as far back as 1921, presumably having reached this lake through the Welland Canal. Only recently, however, have they become abundant enough in the Great Lakes to be regarded as a menace there.

The sea lamprey was recorded in Cayuga Lake as long ago as 1875, and for many years has been regarded as a serious menace to lake trout and other species in Cayuga, Seneca and Oneida lakes. But during its long history in these waters it has been prevented by natural and artificial barriers from spreading to other lakes, and there is no reason to suppose these barriers are less effective today.

Though sometimes confused with eels, the lamprey does not have the eel's facility of going overland past obstructions it cannot jump. Lampreys appear to be stopped by comparatively low falls or dams.—W. C. Green

HEAVIEST BUCK

Dear Sir: Could you tell me the record weight of a buck deer killed in the Adirondack Mountains as recorded by your office. Actual weight —no guess work.

W. Grant Ingersoll, Remsen

● *388 lbs. before being dressed, duly attested. Killed by Henry Ordway of Glens Falls in Warren County in 1890.—Editor*

RAMAPO POLLUTION

Sirs: I have been informed that the dumping of a carload of defective vitamins into the Ramapo, in the Tuxedo area, has destroyed all of the fish and insect life in the river. My informants stated that no penalty had been inflicted upon the offending manufacturer and that nothing had, or in fact, could be done to mend the damage. It would be most interesting to know whether this is correct, and I should appreciate your comments.

Dana S. Lamb, New York City

● *The case in question was immediately investigated by this Department. As a result, an action has been instituted by the Attorney-General's office to collect the penalty for the violation, in addition to an action in equity designed to force the company to take permanent measures to correct the situation.—Editor.*

BULLSEYE

Gentlemen: I suggest that perhaps one of the most useful places to send the Conservationist would be to our children, and a good place to reach them is in our public schools. If you do not already have this idea in effect, I would like to see at least one copy in the hands

of each and every science teacher in the State.

My wife teaches science in a small country school and uses my copy each time it comes. The children eat it up. What better place is there to plant the idea of conservation? If you could get the idea across with the Department of Education, and should they not have the funds, I for one would happily donate a subscription or two toward that end.

E. F. Meschter, Kinderhook

● *Thanks for the idea, and thanks for the offer. Unfortunately production, distribution, and financial problems have so far made it impossible for us to launch a program of this kind, but it is still our objective to get the magazine into every school in the State. Right now, we have to rely mainly on sportsmen's clubs to provide their local schools with subscriptions. Many of them have done it, but we still have a long way to go.—Editor*

VIOLATORS

Dear Editor: I would like to ask if it would be possible to publish the names of violators of our conservation laws in the magazine. I receive the list of these violators each month, and only the members of our club know who they are. It seems to me that the magazine now has subscribers that do not belong to any organization, and that the general public should know about these violations.

If you wish you can give this idea to other clubs by printing this letter in your next issue.

John Benedict, Secretary
Central New York Rod and Gun Club

● *Monthly lists of all violators are submitted by this Department to every newspaper in the State. If your local newspaper does not publish these lists, you might suggest to the Editor that he do so. But if we attempted to print them in the magazine, we would have to find space for about 1,000 names in each issue—Editor*

LEGAL BAIT

Dear Editor: Will you please end our argument concerning what is legal bait? I say it is illegal to use perch and frogs for bait; my friends say it's legal. I thought that the only legal baits are the ones mentioned in our pocket syllabus.

Charles Chatfield, Rochester

● *Frogs may be used for bait during the open season on frogs (June 16-September 30) and for five days thereafter. Perch may be used for bait provided they have been legally taken by angling, with a hook and line.—Editor*

NO SLIGHT INTENDED

Dear Editor: In your August-September issue in "Facts on Fall Fishing" you state that muskalonge and bass fishing are available at various points along the St. Lawrence River, but you do not include Ogdensburg.

We not only have several boat liveries, but I know of nine licensed guides in and around Ogdensburg. Since you have a record of the number of licensed guides in the State, it would be interesting to compare the number licensed in the villages mentioned in your article with those licensed in Ogdensburg.

Upwards of 50 muskies have been caught in that part of the river fronting the city proper. We believe that is one of the best muskie territories in the State, and cannot understand why we are always slighted in your publications.

John G. Ward, Ogdensburg

● *We're sorry, but please believe that no slight was intended. In a round-up such as the article you mention, it's inevitable that some of the fishing grounds in the State should be omitted. The fact is that the number of licensed guides in the Ogdensburg area compares favorably with that in any of the St. Lawrence towns we listed.—Editor*

RECORD TROUT

Gentlemen: Putnam County this year produced the largest lake trout ever taken in that county. It was caught on August 14 in Lake Gilead by Ralph Swansen of Yonkers, on a flatfish plug. It weighed 20 lbs., 4½ ozs. when it was weighed in at White Plains two hours after it had been caught. It was 39¾ inches long and 21¾ inches in girth.

One of these days Lake Gilead is going to produce a 6-7-8 lb. rainbow. Why? Because there are sawbellies in there and when some of them have been eaten up watch out for a big rainbow. (I hope there are no browns in there.)

Ralph Brady, Mahopac

● *No browns in Lake Gilead as far as we know. This Department has put only rainbows and lake trout in there, and unless some misguided amateur "stocker" has put in a brown trout or two, the lake should live up to Mr. Brady's expectations.—Editor.*

TWO MEN IN A BOAT

Dear Editor: We always understood that if two men were in a boat—one rowing, the other fishing—they both needed a fishing license. In the August-September issue of the *Conservationist* you contradict this and state that as long as the man rowing sticks to his oars he doesn't need a license. Is this a new law, or have we misunderstood the old one.

Loretta Adams, Albany

● *This is the same old law, but you're not the only one who has misunderstood it. As long as the man who is rowing does not otherwise assist in taking a fish, he needs no license. This interpretation of the law has been upheld in the courts.—Editor*

SPECIAL PROTECTORS

Dear Editor: I read with interest your article in the *Conservationist*, having to do with violators. In it you state that your Department should consider appointing more Special Game Protectors from the membership of clubs. I belong to a newly formed club and believe you are 100 percent right. Could you forward me any information as to how to expedite such an appointment, as we have a few members who would be only too glad to serve in this capacity.

Ernest Holze, Putnam Lake

● *Special Protectors are appointed by this Department only after they have been interviewed and approved by the District Game Protector in their locality. In your case, you should consult District Game Protector Harold L. Canepi, Room 1001, 15 Maiden Lane, New York City.*

It is not generally realized that there is considerable work—including the filing of detailed and regular reports—attached to the job of being a Special Protector. Our records show that although many newly appointed men start off eagerly, their enthusiasm is likely to wane in a short time. If that happens, they are a liability rather than an asset to the Department. —Editor

N. Y. FLY PATTERNS

Dear Editor: In your listing of N.Y.S. Fly Patterns on page 19 of the June-July *Conservationist*, you neglected to mention three patterns which were originated by residents of New York and which are very important.

In case you want to bring your list up to date, here they are: American March Brown, an imitation of Stenonema vicarium, first tied by Preston Jennings of Brooklyn; Grey Fox, an imitation of Stenonema fuscum, also originated by Mr. Jennings; Red Quill, an imitation of the male Ephemerilla subvaria (Hendrickson). To the best of my knowledge, I was the first to tie this pattern, and it is not to be confused with the English fly of the same name. Incidentally, this is the one Mayfly found in our streams it pays to imitate with both a male and female, because there is a distinct difference in them.

Art Flick, Westkill

BACK ISSUES FOR SALE

Dear Sirs: I have a full year's issue of the *Conservationist* which I will sell, either the first issue or all, so if you know or hear of anyone wishing same please give them my name and address. . . .

Mrs. S. A. Miller, Cleveland (N. Y).

THOUGHT FOR TODAY

Gentlemen: You still smell.

Leonard S. Gross, New York City

● *This essay, here published in its entirety, accompanied one dollar for renewal of subscription.—Editor*

PHOTO CREDITS

Second cover, pages 7, 12, 13, 18, 20, 22, 24, Doug Finch; page 14, Earl McGuirk; pages 23, 25, 29, Clayt Seagears; back cover, Ellen Edmonson, Velma Knox.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933.

Of the NEW YORK STATE CONSERVATIONIST published bi-monthly at Albany, N. Y. for October 1, 1947.

State of New York } ss
County of Albany }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Pieter W. Fosburgh who, having been duly sworn according to law, deposes and says that he is the Editor of the New York State Conservationist and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper the circulation) etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, New York State Conservation Department, Albany, N. Y.; Editor, Pieter W. Fosburgh, Albany, N. Y.

2. That the owner is: the New York State Conservation Department, Albany, N. Y.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are (If there are none, so state) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation. the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

PIETER W. FOSBURGH. Editor.

Sworn to and subscribed before me this 29th day of September, 1947.

DUNCAN G. RANKIN

[Seal] Notary Public in and for the State of New York, appointed in Albany County, official number, 275.

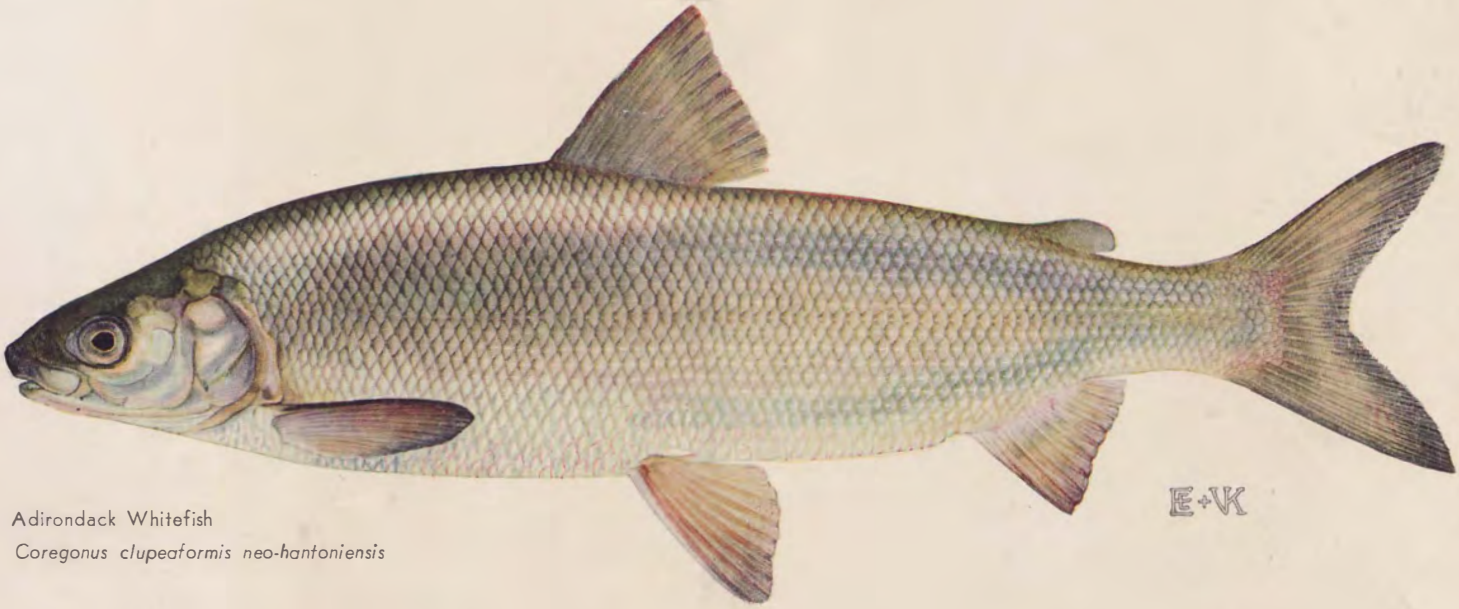
My commission expires March 30, 1949

Out Of The Past

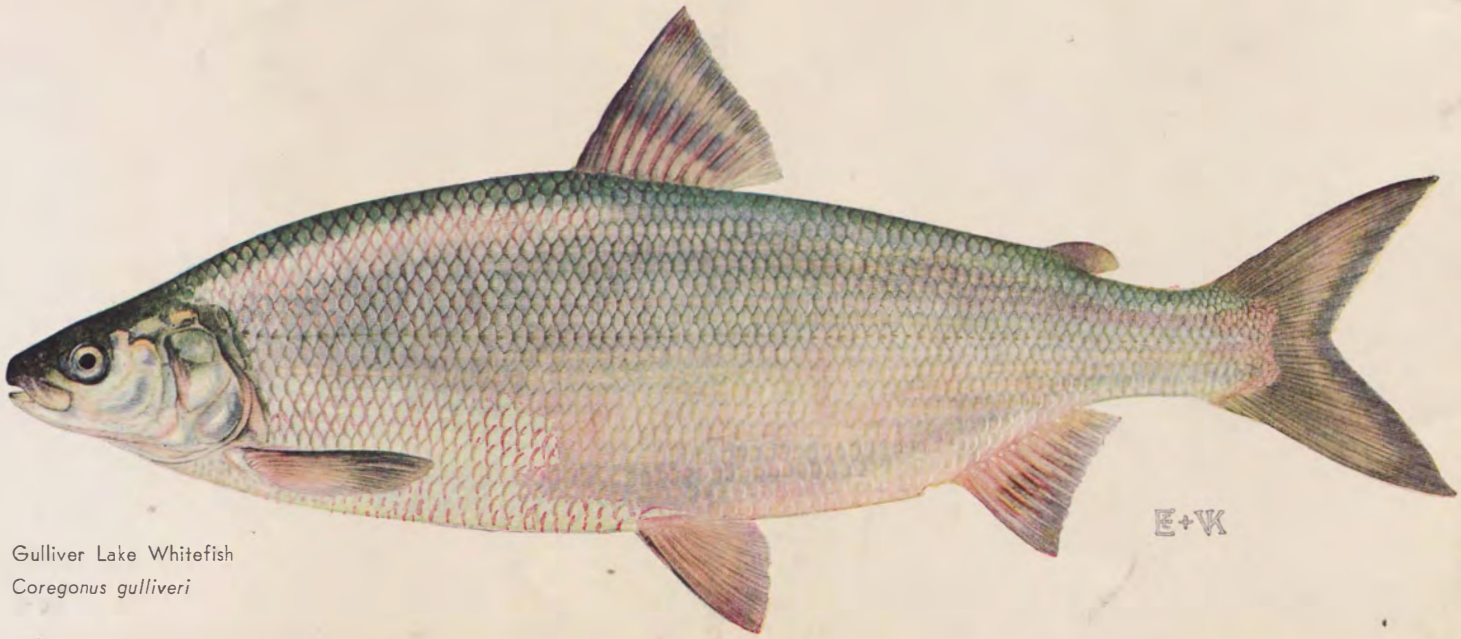
"LOST IN A SNOWSTORM"

Old Adirondack characters distrust buttons. They may use them, but to be on the safe side they use a safety pin as well. Hy S. Watson, who did this picture for the 1904 annual report of our Forest, Fish, and Game Commission, knew his Adirondack characters. He was also an excellent illustrator.

Round Whitefish
Prosopium quadrilaterale



Adirondack Whitefish
Coregonus clupeaformis neo-hantoniensis



Gulliver Lake Whitefish
Coregonus gulliveri

NEW YORK'S THREE WHITEFISH