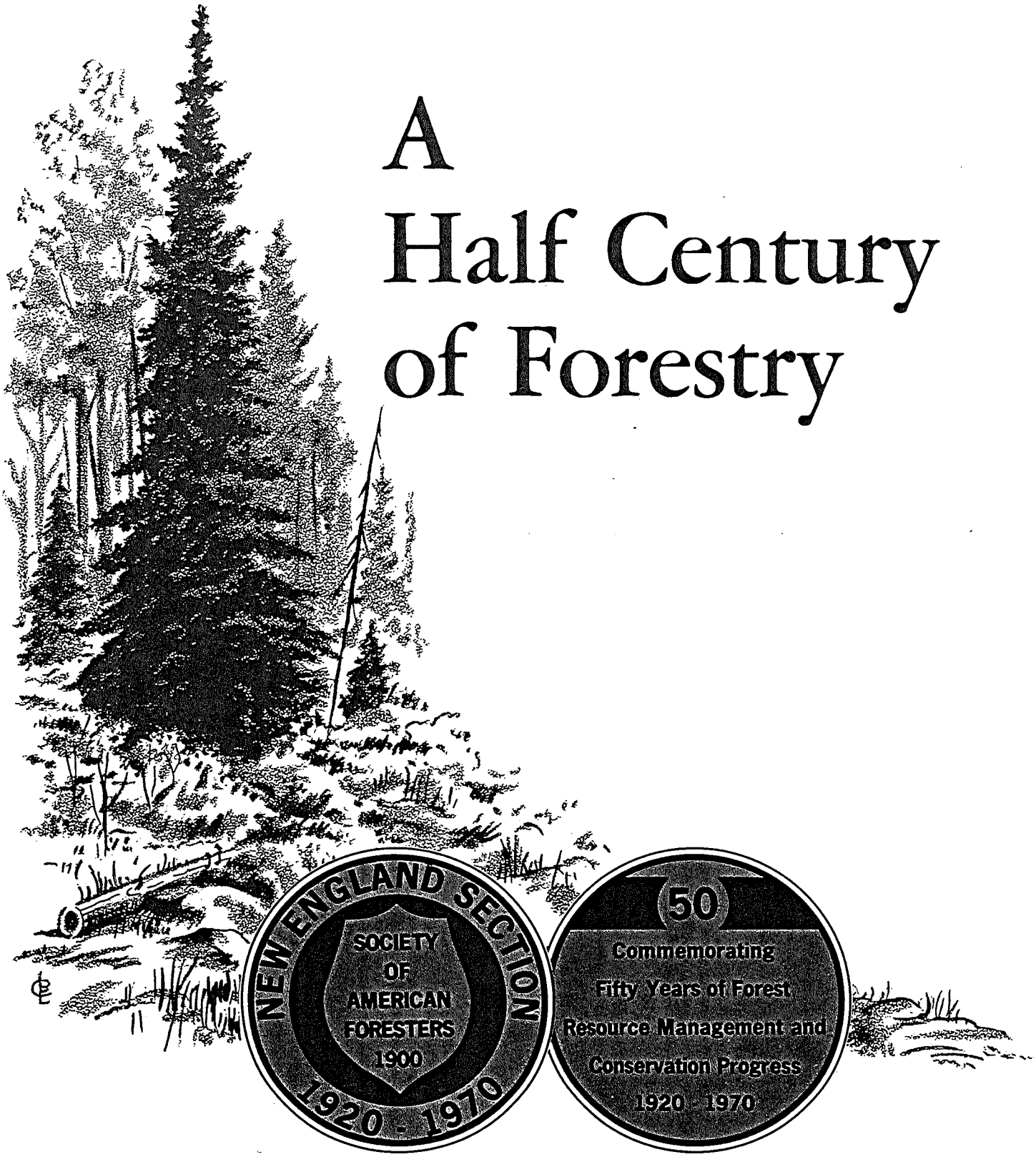


# A Half Century of Forestry

# A HALF CENTURY OF FORESTRY 1920 - 1970

*Published and distributed by the New England Section, Society of American Foresters, March 1970 to commemorate the Section's 50 years of contributions to forest resource management and conservation progress in New England and the Eastern Canadian Provinces.*

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# FOREWORD

The narratives which follow tell the story of forestry in New England and Eastern Canada during the past fifty years, our accomplishments and our failures. Like most historical documents this one will be of increasing interest and value as years go on.

We wish to express our deep appreciation to our authors. Theirs has been a labor of love, but a great deal of effort has been involved and they are busy men. They have participated in making forestry history. May they continue to serve the cause!

Other individuals and organizations have assisted our authors, to a greater or lesser extent, by making suggestions and supplying information. Because of lack of space they must remain anonymous. To them, however, we and our writers express deep appreciation.

In arranging the histories for publication we have begun with southern New England and progressed north and east. Thus we are moving from the states of greatest urban and suburban development to the more sparsely settled states and provinces with the greatest concentrations of timber; and from regions where the aesthetic value of trees and their place in a liveable environment may be paramount, to those where board feet and wood fiber will continue to be the life blood of industry and the forests the source of water for industry and the good life down stream.

Let our authors tell you about it!

ROBERT I. ASHMAN
*Editor*

March 1970

# MASSACHUSETTS

By Ernest M. Gould

*"But do your thing and I shall know you . . ."*
*Self Reliance by Ralph Waldo Emerson,* 1841.

THE PEOPLE of Massachusetts were well aware that the past winter had been a hard one. Fuel had been short because the railroads had not completely recovered from the strains of the Great War; so when spring came earlier than usual it was doubly welcome. The fact that April third, 1920 was bright, clear and a balmy 61 degrees must have pleased the small group that gathered in the State House in Boston to found the New England Section of the Society of American Foresters.

There were plenty of reminders of the war, many men were still wearing uniform coats, the Chief Forester was "Colonel" Greeley and only last January there had been a ceremonial presentation of "Tree Seeds for the Allies" in front of the State House. Even though 1919 had been a poor year 36,000,000 seeds had been collected by the American Forestry Association and given to the people of Britain, France and Belguim to reforest the battle fields of Europe and replace their cut-over woodlands.

On the whole, people were hopeful as the post-war depression showed signs of slackening. Foresters in Massachusetts were particularly cheered because Governor Coolidge had just appointed William Bazeley to the newly created post of Commissioner of the Department of Conservation and State Forester. It was thought that this would end the bickering that had been going on for years between the old state forester and the Massachusetts Forestry Association, the most powerful force for state forestry since it was organized in 1898.

The constitution had recently been changed and a method of "initiative petition" set up as a way of getting bills before the legislature. The Massachusetts Forestry Association was the very first to use this new system, after busily collecting 31,000 signatures to their bill authorizing the purchase of 250,000 acres of land for state forests. There were thought to be over a million cut-over and burned acres in the state and the proposal was to buy a quarter of them and immediately plant trees to bring the land back into full production. Furthermore, the cost of the whole venture was to be covered by serial issues of state bonds, and these would eventually be paid off by the sale of timber. The entire concept was new enough to need promoting and this may have had a good deal to do with choosing the State House as a place to organize the Section. Foresters, then as now, had a good sense of how to focus public attention on an issue and exert pressure when it was needed.

Of course foresters had other problems. On March 8th Colonel Graves had resigned as Chief Forester of the United States after telling the Secretary of Agriculture that the "pecuniary returns afforded professional and scientific men in the Government" were entirely inadequate. But this drastic step seemed to have had some good effect because in April starting salaries for forest assistants in the federal service were raised from $1,100 up to $1,500 a year. This would almost certainly make it possible to hire good students away from industry.

On the technical front there were some exciting possibilities too, one of the more exotic was the use of airplanes in the west to spot forest fires. The previous summer Air Service pilots had flown Curtis and De Haviland biplanes on

fifty-six days to prove that they could locate fires as much as 30 miles away while flying at 10,000 feet. The larger of these planes could stay aloft as long as four hours and average 95 miles an hour, so a lot of territory was covered with only six forced landings. The main problem lay in getting the information to the fire fighters—landing and walking to the nearest phone was too slow, and dropping message cannisters on the district headquarters was not wholly satisfactory. Pigeons were being trained for next summer, and a related experiment on Mount Hood suggested that "wireless telephone" might be practical.

However, for professionals the central issue revolved around the problem of "forest devastation" created by cutting methods that left the growing stock depleted and subject to further destruction by the run-away forest fires that usually followed. A special Committee for the Application of Forestry, headed by Gifford Pinchot, had just reported to the Society of American Foresters. Their proposal, entitled "Forest Devastation: A National Danger and A Plan to Meet It", was printed in the December Journal of Forestry, and all but one article in this issue was devoted to the subject. Over the next nine months more than half the Journal articles dealt with various aspects of the problem or the plan.

The fact that a great bruhaha arose in forestry circles is not too surprising, because the plan hinged on having the federal government take charge of the cutting and management of all industrial forest lands in the nation. There were many other facets, but this is the one that caught the eyes, the minds and the hearts of foresters and industry people alike. Arguments about federal vs. state control and cooperative aid raged hot and heavy, and the New England Section at its first summer meeting went on record as firmly opposed to the philosophy of the whole report. Later in the year a poll of the national membership was taken and interpretation of the many views expressed added fresh fuel to the controversy. The excitement did not die down until the end of the year when the plan was lost in the press of other business.

One spin-off was a good deal of public education about the danger of fires and the desirability of state forests. In Massachusetts the Forestry Association's bill passed the Great and General Court and was signed into law. But not without suffering a considerable "sea change" in the process. The authorization was cut back to 100,000 acres, planting was deemphasized and the financing feature was lost to a more straightforward scheme of appropriations. A ceiling of $5.00 per acre was set that would make sure that most of the land acquired was fairly run down. Working within this law and its various extensions to acquire a reasonably productive forested estate for the people of Massachusetts would call for all the ingenuity that the Commissioner could muster over the years ahead. The resulting pattern of holdings, with most of the land in the western part of the state, was also a by-product that is causing some problems today, when most of the people live in the east.

Professional concern about the future supply of wood products was certainly made more pressing and real by the fact that in 1920 the prices of lumber and paper had risen very sharply. In fact there was an outright shortage of newsprint and the higher price, combined with other cost increases, was forcing 2 and 3 cent newspapers off the market. This made the man in the street well aware that something was going on. At that time most of the newsprint was manufactured in the northeast, and editorials were quick to point out that New York pulpwood would probably be gone in 10 years and New England's in the decade following. Many editors also highlighted the fact that the Northeast and the Lake States were pretty well cut-over, that most of the lumber had been coming from the south, and more recently from the far west. Transportation

charges to the populous east were high on these long distance shipments and the opening of the last extensive stands of old growth was disquieting. This source seemed likely to last only about 50 years, much too short a time for the cut-over lands to develop an adequate substitute supply of sawtimber, especially if "devastation" continued unchecked. Although there was disagreement about how to do it, foresters were in total agreement that action was needed now to avert disaster by 1970.

While Massachusetts foresters had their eyes firmly fixed on the problem of producing more timber, unseen changes in the forest system were underway that would relieve the local pressure. Since the turn of the century the box and cooperage industry, based on the abundance of old field pine, had been the main consumer of timber in the state. But now a revolution was under way in the container business, especially in the packaging of food. Although butter, lard and pickles still came to the store in tubs and barrels, the invention of wax papers, corrugated boards and other similar paper products was changing the merchandising and buying habits of the nation. By the mid 20's the use of new and more satisfactory packaging materials had made such inroads that the stumpage price of New England white pine was in rapid decline. Competition from cheap western and southern lumber at this time further accentuated the local problem, so that foresters were used to the idea of low prices long before the Great Depression. Symptomatic of the times is the fact that the Harvard Forest staff turned a good deal of its attention from silviculture to lumber market research and mill processing studies.

Perhaps the fact that farmers were still in financial trouble helped the state program of land acquisition continue rapidly with new appropriations under revisions of the law adopted earlier. The State Forester also worked closely with the Massachusetts Forestry Association in a campaign to promote Town Forests. This was so successful that over half the towns in Massachusetts have their own forests, much of the area now very valuable "open space." A major effort was also made to perfect means of detecting and suppressing forest fires, especially on Cape Cod. The federal and state forest services cooperated with the Association and the fire wardens in six towns to patrol roads and give intensive public information about fire prevention. Over a three-year period losses were reduced 80 percent.

The "roaring twenties" departed with something very like a "sonic boom" when in the fall of 1929 the bottom fell out of the stock market. Worse yet, the economy progressively sickened in spite of repeated doses of encouragement by people in high places who saw "recovery just around the corner." With nearly 13 million unemployed the system was simply not working and it was obviously time to try something radically different. Power flowed to Washington and a whole battery of new programs was set in motion, together with "alphabetical agencies" to administer them.

President Roosevelt looked at the nation's forests and saw them not through foresters' eyes as timber producing areas, but rather as places where large numbers of young men could be put to work quickly, doing useful things in a healthy outdoor environment. The Civilian Conservation Corps was created with all the trauma and speed of a war time mobilization. In fact the army was in charge of the initial organizational effort, and foresters struggled to generate a backlog of conservation projects quickly designed to do things on a scale they had only been able to dream about heretofore.

Actually Massachusetts had already seen the opportunity to use its state forests for work relief; in 1930 $125,000 had been appropriated and 350 unem-

ployed men were hired. The following year 1,450 men were employed, many on a part-time basis. In addition 51,000 new acres were added to the state forest system. But in the spring of 1933 the flood gates opened and the CCC set about creating 31 camps and hiring 6,200 boys. The initial summer operation was in tent camps because the action was temporary, but before fall the value of the program was realized by the public, and Congress made it a year-round activity. Winter-proof buildings went up in a hurry but not fast enough to get all the C's under a warm roof until nearly December. At "its height Massachusetts had 51 camps and over 10,000 men and boys working on 170,000 acres of state forest lands," according to H. O. Cook who was largely responsible for the work from the State Forester's office.

By 1940 the defense boom had sopped up most residual unemployment and the CCC camps were no longer needed so the program was quietly closed down. The lesson learned about how forests can be used to ameliorate human misery has special significance for foresters, now that remedying variable prosperity and unequal opportunity is so important to the survival of city life. We tend to remember the physical accomplishments—the thousands of trees planted, the acres of timber improved, the hundreds of miles of roads and trails built, the fire towers erected, the hundreds of camp and picnic sites constructed. But the really significant facts concern the thousands of men and boys who were taken from hopeless deadend situations at home and placed in a healthy environment, taught useful skills, properly fed, and given a new self confidence that they could cope. In the woods foresters produced hope, self respect, competence and health even though they aimed only at better forests. When the need was satisfied they closed their camps without loss.

The prompt effectiveness with which the CCC program was started and stopped indicates a valuable asset that forests have over many other public works when social purposes must be served. Unlike more massive undertakings, the forests are scattered over most of these United States, the work needed can be done in small increments so that when a halt is called because the human rehabilitation job is done, any activity already accomplished can be left to make its useful return later. Contemplated work can generally be laid aside for some future time of need without too much loss.

The mid 30's were also years when land-use planning was tried on a large scale. Worcester County was chosen as the pilot county for intensive planning that would be a model for the rest of the states. Clark, Harvard and the University of Massachusetts all cooperated on this project and foresters were valued partners with agriculturalists and geographers in the whole venture. This was a forerunner of the multidisciplinary approach to resource planning that is coming to characterize forestry today.

Like so many other programs this one eventually got lost in the press of affairs caused by the 1938 hurricane and the subsequent defense boom. For if the 20's ended with economic disaster, the 30's will be remembered in New England for natural disaster. On September 21, 1938 a catastrophic blow was dealt the forests of central New England by one of the worst hurricanes and floods ever to hit the region. White pine, that queen of trees, proved one of the most susceptible species. However, except in sheltered areas any kind of tree went over if it was big enough. Power and telephone lines were down and roads were blocked almost everywhere, and restoration of these vital services took weeks in many places, the necessary bridgework and road repair even longer.

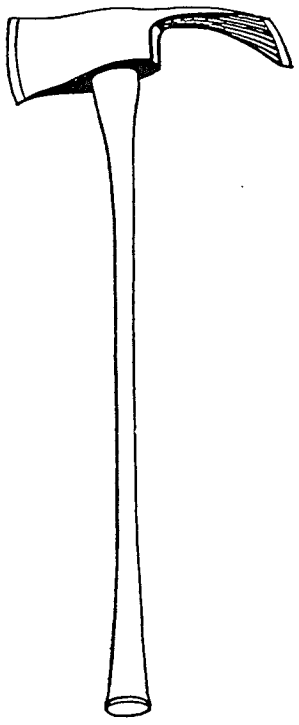
Several years' normal cut was on the ground at once and the market price of sawlogs collapsed. Also there was a real threat of forest fires on a holocaust

scale the next year. Emergency measures were obviously needed and again a national program, the New England Timber Salvage Administration, was devised and manned by the Forest Service to get logs cut and stored in ponds to stop insect deterioration. The federal government purchased the logs on "International Scale" and priced according to "grade", thus introducing these new measures into the region. Owners, operators and some special groups like the Petersham Forest Cooperative cut and delivered the logs. Some CCC camp demobilization was delayed so that the boys could help clear slash back from highways and other danger points and the WPA put hundreds of men to work on fire hazard reduction.

The net result of all these cooperative efforts was that about 300 million board feet were salvaged in Massachusetts, half by NETSA and half by industry. And the terrible fires anticipated never materialized. Again a large scale experiment in public action showed that foresters could respond to emergency needs with vigor and determination and that many agencies could cooperate successfully to meet a clearly understood situation.

Foresters also learned that uncertainty was a physical fact of life that they must fully deal with in any future long term plans. Only a little research was needed to show that similar hurricanes had visited the region at least twice before, in 1815 and 1635. In fact this knowledge suggests that the appearance of colonial forests must have been largely determined by the elapsed time since a preceding widespread hurricane, and very old trees were the exception rather than the rule.

In the 40's foresters were largely preoccupied with the war. Considerable effort was made to cut wood to relieve the oil shortage and research was done on charcoal furnaces, camouflage and the like, but these were rather marginal efforts. Many older foresters cooperated with the agricultural specialists in organizing farm labor and other necessary war work. One of the major long-run benefits was the development by the military of such technical skills as photogrametry that could be turned to good use in forestry after the war. Also the mechanization of farming in Massachusetts laid the ground work for the final disappearance of horses from woods work.



Those major developments that shaped foresters work in the 50's and 60's came after the war. The conversion to a peacetime economy without a depression and the lift this gave to the economy and paychecks set the scene for a new level of affluence that was entirely unprecedented. The population of Massachusetts started to grow rapidly again after a slackening between 1940 and 1950, and the flow of people from rural to urban areas continued. About this time the counter tide away from the core cities and into the suburban areas also got into full swing—laying the ground work for our current metropolitan problems of encysted poverty and underprivileged minority groups stranded in the central city.

The foundation for most of the problems foresters cope with today was laid by a cultural revolution that was just getting under way when the New England Section was first organized. Although its significance was not fully realized at the time, the advent of the automobile was to so change transportation routes and travel habits that Massachusetts would never be quite the same again. It had begun slowly in 1903 when there was about one motor vehicle for every 750 residents, but growth was rapid so in 1920 there was one vehicle for about every 12 and in the decades that followed one for nearly every family. In 1968 the entire population of the state could drive away at once, and with a little sharing only a quarter of the cars would have anyone in the back seat.

In light of this rapid build-up in mobility it is easy to understand why the 20's and 30's were marked by a spurt in improved road building and why conservationists were interested in roadside beautification. Personalized transportation not only caused the demise of horses, but also the interurban trolley lines and eventually local passenger service on the railroads. (The airlines had the dubious honor of killing off longer distance passenger trains in the 60's.) It is difficult to imagine how much mobility has changed the life styles of Massachusetts residents.

It is a cliché to note that the world is smaller, but foresters can illustrate how much the state of Massachusetts has shrunk in the last half century. When H. O. Cook went from his Boston office to the October Mountain State Forest fifty years ago it was an overnight trip. The best way to go started with an early morning departure by trolley and then various railroad connections ending in northwest Connecticut where the first night was spent before hiring a horse and wagon at a livery stable to complete the trip by noon of the second day. (For distances less than five miles it was department policy for foresters to walk.) In the same elapsed time the present State Forester could drive to Chicago instead of the Berkshires, about 1000 miles instead of 100. In effect, better roads and cars had reduced access time by a factor of about ten so residents of Metropolitan Boston can today visit Pittsfield as readily as they did Framingham in 1920.

This change in mobility coupled with increased crowding in the east, and with time and money available to travel has had a profound effect on rural land values. Agricultural withdrawal has allowed the forest to reclaim land once needed for the crops that fed urban people. But the same land now serves a different supporting role by providing some of the amenity that makes a productive city life worthwhile.

The Department of Forestry and Wildlife Management, University of Massachusetts recently made a study of Berkshire forest landowners and found, as other studies have shown, that land is held for a bundle of reasons. More significant for foresters is the fact that only about a fifth of the owners listed timber production among their reasons for holding land. More and more city folk are reaching out from their homes to preempt a piece of the rural environment of Massachusetts for their own. Their satisfactions are many but the "territorial imperative" seems strong enough to make the whole state into an "urban realm."

This new breed of landowner is frequently interested in managing his land, but often the traditional values of timber production rank low in his hierarchy of returns. Wildlife, hiking or riding trails, better visibility, improved views, living space and the like are often the chief objects of attention. Thus, the forester is changing his scope of expertise in order to service landowners in Massachusetts. Techniques of resolving conflicts between uses are increasingly important because so many acres receive "simultaneous use" that the old "multiple use" system, based on zoning and an abundance of land, is no longer feasible.

Over the last 50 years timber production has come to occupy only a small corner of the field of forestry in Massachusetts. With an average of less than one acre of land per resident the value of forested land has taken on many bright new facets that fall under the rubric of "living environment." And foresters already spend a great deal of their energy working with others to avoid downgrading our water and landscape by careless use or overcrowding.

The scope of this cooperation is reflected in the number of natural resource agencies operating in the state. Back in 1920 the Section could take joint

cause with only a few older organizations—mainly the Appalachian Mountain Club, the Massachusetts Forestry Association, the Trustees of Public Reservations and the fledgling Department of Conservation. Today all of these are operating with renewed and enlarged interests in natural resources, and they have a whole galaxy of complementary organizations. Federal, state, county, regional town and private groups are listed under 41 headings in the Massachusetts Natural Resource Directory, published by the Cooperative Extension Service in 1968.

Now and in the future foresters are emphatically not alone in their efforts to improve the management of our outdoor environment for the benefit of Massachusetts citizens. In the past they have responded most to the needs of those who have contact with the forest, especially people who own some of it. These folks have their own sets of values and priorities for using the scarce supply of outdoor space, and most of them are at least moderately well off and well educated.

Increasing awareness and concern about our environment is having an impact in our universities. Traditional emphasis in forestry education in Massachusetts has changed greatly in recent years. The Department of Forestry and Wildlife Management, University of Massachusetts, has grown from a small number of students to an enrollment of about 400 in the natural resources fields. Expanded programs of teaching, research and extension education have been developed to accommodate broad interests and needs of our society. Undergraduate to doctoral programs are offered in five disciplines: forestry, wood science and technology, wildlife biology, fisheries biology and resource planning. A two-year associate degree in wood utilization is also offered.

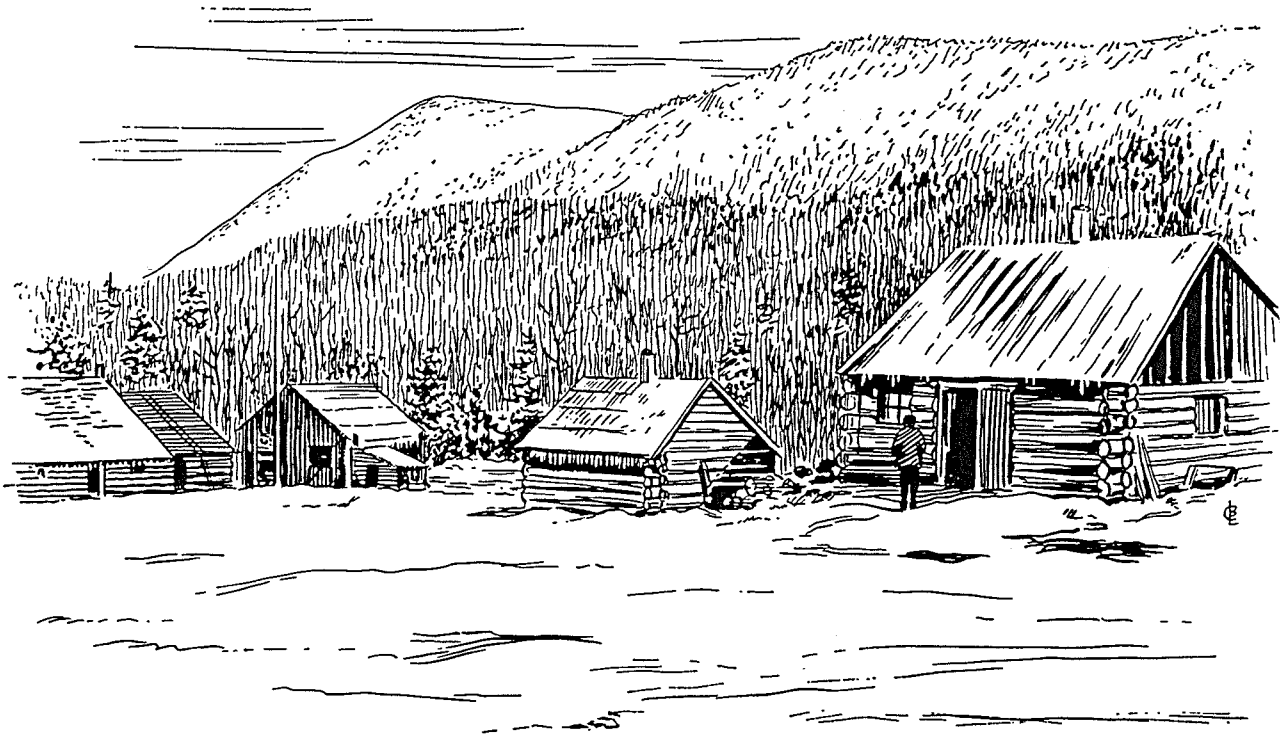
The Harvard Forest has broadened its scope of activities from primary interests in silviculture to broader aspects of resource management, principally through programs in research and continuing education.

Unfortunately, the submerged class of the city poor seldom have any contact with foresters, and woodland has not been made relevant to their way of life. However, these are the restless ones, the people who are living in the very heart of those sensitive controls that run our urban society. Finding some way to alleviate their anguish, to break the cycle of grinding poverty, rehabilitate the delinquent, restore the capacities of the drop-out and make city life safe, stimulating and altogether civilized is the core problem we all must settle very soon.

At the moment conventional wisdom suggests that answers are urgently needed to two domestic problems — eliminating the discrimination caused by poverty, and protecting the quality of Massachusetts' environment. In light of their past services to society the community of foresters could team up with others to play a vital role in solving these twin dilemmas. This cadre of trained and dedicated men could use their battery of powerful organizations to tackle the job of resource management on a larger scale. If simultaneously the youth of our state could be involved in a way that will give them the education, skills and satisfactions they so badly need, the social value of our forests might be tremendously increased.

Of the more distant future less can be said with confidence, except that the really critical events are largely unpredictable. However, the forces that are very likely to surround foresters in whatever work they do will probably include the following: trees will continue to dominate most of our landscape and a growing segment of a more mobile and aware public will have frequent contact with the out-of-doors. A very large number of these citizens will express themselves more effectively about what should be done in our forests, so that decisions will be ever more complex. We can also expect that the rate of change in life styles,

technology and human values will continue to accelerate, thus increasing land use conflicts and broadening our options. If these postulates are true, foresters will have to be exceedingly sensitive and responsive in order to ride the racing crest of urban life in Massachusetts. The beginning of our second half century is a time when each of us should turn his imagination to this task.



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