

Arboretum news. Volume 11 1962

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THE UNIVERSITY OF WISCONSIN



Vol. 11, No. 1

Madison, Wisconsin

January 1962

New Member of Advisory Committee

We are happy to welcome Mr. A. F. Ahearn to the Arboretum Advisory Committee. Mr. Ahearn is the University Superintendent of Buildings and Grounds and is responsible for the maintenance of our physical plant. Mr. Ahearn has been most cooperative in matters affecting the Arboretum, and we are pleased that he has consented to serve as one of our advisory group.

Arboretum Residence Demolished

The old Civilian Conservation Corps overseer's residence, erected in 1932 as a temporary structure and, since the closing of the CCC camp in 1941, used by the Arboretum as a caretaker-watchman's residence, finally last fall reached the point where it was no longer feasible to continue expending money on "emergency" repairs on it - this emergency has persisted for the past decade or more so the building was condemned and torn down. It had been occupied successively by the late Tom Butzen, onetime work crew foreman, by our present Superintendent, Mr. Jacobson, and his wife from 1949 to 1954, and since then by Mr. Francis Mezera, a member of the Arboretum work crew, and his family. We were thus left without a residence for our caretaker and with seemingly little prospect of acquiring one in the immediate future. Because of the constant and very real threat of theft and vandalism it is imperative that someone reside on the grounds so, as an expedient which we earnestly hope will be highly temporary, the University purchased a large 46 foot trailer, second-hand but in good condition, which is now on the site of the old residence and is being occupied by Mr. Robert R. Ream and his wife. Mr. Ream is a University graduate student in Botany. Mr. Mezera, with a family of four children, felt unable to carry on in a trailer, however commodious, and has since left our employ, for which we are very sorry, as he was a good and experienced worker.

Arboretum Nursery Inventory

The Arboretum nursery in the headquarters area has been used to capacity in recent years, in furtherance of our large and continuing planting program. Woody plants, now mostly grown by us from seed, are moved out at the rate of several thousand per year and replaced with seedlings as soon as space becomes

available. Supt. Jacobson has vigorously pushed our planting program and has been highly successful in growing the seedlings we need. His November 1961 inventory shows that there are now more than 13,000 individual plants, set out in rows, and in various stages of development, in the 4 acre nursery. The species currently in greatest number is white spruce, Picea glauca, about 2750, all, or nearly all, grown from our own seed. There are more than 1700 sugar maples, Acer saccharum. Others present in rather large numbers are white cedar, Thuja occidentalis, hemlock, Tsuga canadensis, red maple, Acer rubrum, basswood, Tilia americana, dogwood, Cornus spp., and viburnums, Viburnum spp. Pines are down in number because our mass plantings of these are now largely completed. There is actually a much greater variety than is indicated here, with considerable numbers of exotics for use in horticultural displays. Also within the nursery are our seed beds, from which the seedlings are lined out in the rows.

Arboretum Office

For the first time since its founding the Arboretum now has its own administrative office and a part-time secretary. The office is located on the third floor of Birge Hall (Room 329) in space borrowed from the Botany Department. Our secretary is Mrs. John T. Curtis, widow of the former chairman of the Arboretum Committee. Mrs. Curtis passed the state civil service examination and is well qualified for this position. Her interest in, and knowledge of, the Arboretum is surpassed by few and she also has a Master's degree in Botany. We are very fortunate to have her. Any Arboretum business should be directed in care of Mrs. Curtis at 329 Birge Hall, University of Wisconsin, Madison 6, Wis. (Phone: Univ. Ext. 3815). The administrative details of running the Arboretum were formerly handled by Mrs. Catherine Pieper, Mr. A. F. Gallistel's secretary. Mrs. Pieper did this work as an extra duty and has the gratitude of all connected with the Arboretum, for she has been of invaluable assistance to us in carrying on its day-to-day affairs.

Snow Melt in the Arboretum

The quantity of snow that falls on native plant communities is important not only for the amount of water that it contributes to the soil. Snow is an excellent insulator and any time there is an appreciable quantity of it on the ground the soil is fairly immune from the exceedingly low temperatures that occur in winter. In years when the snowfall is exceptionally deep the soil under the snow does not freeze at all. Rate of snow melt and soil warm-up therefore has an appreciable influence on the behavior of plants. This is perhaps most important to the evergreen species since they retain their leaves all year and are subject to injury in springs when air temperatures are warm and the soil is still frozen.

The rate of snow melt and soil warm-up has been the subject of investigation in the plant communities of the Arboretum for several years, and it has been found that the different communities have quite different behavior in this respect. The variations are due to a differential accumulation of snow, as well as a differential rate of melting. The coniferous forests usually have the least amount of snow on the ground. This is plainly due to the fact that conifers keep their leaves all year, so that much of the snow that falls remains in the crown of the trees and either melts or evaporates there, never reaching the ground at all. This same phenomenon is seen in the deciduous forest, but to a lesser degree since the bare branches of the deciduous trees are not capable of holding very much snow. In both coniferous and deciduous forests the rate of snow melt differs from that in the open.

The time at which snow leaves the ground is, of course, dependent in part

on the total quantity of snow that falls and the temperatures that prevail during February and March. During six years for which the date of snow melt is available, the final day on which snow was present varies from February 26 to April 9. This wide fluctuation is probably an important factor in determining what plants are able to grow, since the species that succeed must be able to exist during winters when the ground is bare and the soil is frozen, as well as to survive during the occasional winters when the snow is two feet deep.

During the last three winters we have had a greater than normal snowfall in two seasons and practically none in the third. This has presented the opportunity to make a careful comparison of the differences between the snow cover in our plant communities. While data from other areas are available, most of the work has been done in the Leopold Pines, Noe Woods and the J. T. Curtis Prairie. These areas are especially useful since they are adjacent to each other and have the same soil and topography. The results indicate that greatest snow depth occurs on the prairie, though the prairie is not very different from the oak woods. The pine woods accumulates only about two thirds as much snow as the other two communities. Variation in snow depth within a single community is, of course, considerable. The deepest snow recorded has been, strangely enough, in the pine woods. Here there are occasional openings and the trees act as a snow fence, with the result that the lee side of openings in the pine forest may have snow depths of up to a foot more than the rest of the woods.

Maximum differences in the date when the snow melts occur when there is a relatively light snow cover. Under these conditions the prairie is clear of snow first, followed by the oak woods, and then the pines. We thus have the situation where the community that has the least snow on the ground retains it the longest. The reason is apparently closely related to the reason why the pines get less snow in the first place. The needles on the trees not only cut down on the amount of snow that reaches the ground, but they also cut down on the amount of sunlight, and consequently retard the rate of melting.

Frost depths are exceedingly variable. We do not yet have data for frost depths in the pines or prairie, but we know that in the oak woods, when the snowfall is heavy, the ground does not freeze. Last year, however, when we had practically no snow until March, we had frost. This year, in spite of the extreme cold, there is no frost in the ground. This is true not only in the woods, but also in the marshes.

In March, when we start getting warmer temperatures, the rate of snow melt is determined by three major factors, amount of sunlight, air temperatures, and rain. When the snowfall is light sunlight is the most important factor, so that the snow melts early and is usually gone before the air warms up. The more open communities become clear of snow first. When snowfall is heavy the snow is likely to disappear only after the air gets warm, and when this happens, the snow melts from all three communities almost simultaneously. Warm rains, of course, speed up the melting in all three communities. Any frost tends to leave the ground the same day the snow melts during seasons of heavy snowfall, but remains for some time after the last snow when the snowfall is light.

The instrumentation for these measurements is a combination of the most primitive and the most modern methods. Snow depth is measured with a yardstick and when the snow is deep snowshoes are a necessity. Soil temperatures and frost depth are measured with electronic thermometers called thermistors. These little instruments are metallic probes attached to lead wires. The thermistors are buried in the ground to depths of up to three feet, and the soil is replaced around them so that conditions are similar to what they would be if the ground had not been disturbed at all. They have been kept undisturbed in the soil for a period of two years now and are still functioning satisfactorily. Readings are taken with a resistance meter. These instruments permit readings at any time

and in any weather, but unfortunately they are expensive. At the moment our equipment is not in the Arboretum, but at the residence of Mr. Donald G. Schlicter on the north shore of Lake Mendota. Mr. Schlicter has a good maple forest on his property and has kindly consented to let us take environmental measurements in it. The information we get from this forest will be invaluable to us in the assessment of conditions in our own maple plantings as they mature.

The Arboretum is ideally suited for the study of microclimates, since it is a permanent facility and has a variety of plant communities in close proximity to each other. The Arboretum provides an unsurpassed opportunity for studying the effect of plant communities on the overall weather pattern. The establishment of instruments for the continuous recording of environmental data will be relatively inexpensive. The shelter house in the Gallistel Woods has been converted into a structure for the housing of delicate recording apparatus, and we hope that in the near future we will have an installation for the simultaneous recording of environmental data for most of our plant communities.

Arboretum Personnel

hairman, Arboretum Committee — G. Cottam, 324 Birge Hall, Univ. Wisconsin,
Madison 6, Wis.
xecutive Director
iperintendent
ecretary Mrs. J. T. Curtis
329 Birge Hall

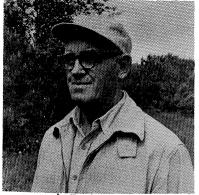
The University of Wisconsin Arboretum Grant Cottam, Chairman 329 Birge Hall, Univ. Wisconsin Madison 6, Wisconsin



Vol. 11, No. 2-3

Madison, Wisconsin

April-July, 1962



J. R. Jacobson

Retirement of J. R. Jacobson

J. R. Jacobson, Superintendent of The University of Wisconsin Arboretum since 1949, retired early in June. Mr. Jacobson has directed the area during its most critical period of development, and the fact that our basic plant communities are now well established and thriving is due in large part to his intelligent and continuing interest and personal participation, involving putting in extra hours far beyond any call of duty.

In his professional capacity, Mr. Jacobson has always most impressed this writer by his competence and success as a plant propagator. Although he had no greenhouse facilities until his final year on the job, he grew and developed from seed a whole range of native woody species, using screened seed beds in the headquarters nursery as the place for starting most of his young plants, especially the small-seeded ones. About a decade ago the writer noted that a large swamp white oak (Quercus bicolor) in Madison's Tenney Park was producing a big crop of very fine, well-filled acoms. This particular tree is one of exceptional form and beauty so, in furious competition with the squirrels, many hundreds of acoms were collected and turned over to Mr. Jacobson for propagation. The results are to be seen today in a splendid planting of several hundred of these trees, interplanted with other appropriate species, and arranged in a curving arc in the low southwest part of the Grady Tract. The trees are 10 to 12 feet tall, vigorous and thriving, a living testimonial to Mr. Jacobson's abilities. The same can be said of numerous other plantings and, in view of our very limited labor supply, the high incidence of success in our plantings has been a factor of the utmost importance in the great progress the Arboretum has made during Mr. Jacobson's tenure as overseer.

Mr. Jacobson truly had the interests of the Arboretum at heart, putting in, as stated, many extra hours, and going to much trouble to obtain desirable seeds and plants in collecting trips to the northern part of the state. He is a native of Eau Claire and spent 26 years teaching biology in the Superior, Wis.high schools before coming to the Arboretum, and thus has a personal interest in and knowledge of the North.

It is therefore appropriate that, at a dinner in his honor held June 5 at the Memorial Union, "Jake" announced that he and Mrs. Jacobson have purchased a residence on Chetek Lake in Barron County, where they will be in close and intimate contact with the sort of country they both like best.

A retirement "profile" of Mr. Jacobson, written by Janet M. Schlatter, appeared in the June 1st issue of the Madison Capital Times and some of the material in this brief article has been adapted from that account. The accompanying photograph has also been made available to us through the courtesy of the Capital Times.

... H. C. Greene



David Archbald

Dr. David Archbald—New Arboretum Managing Director

Dr. David Archbald, newly appointed Managing Director of The University of Wisconsin Arboretum, and Assistant Professor of Botany at The University of Wisconsin, comes to the Arboretum with the highest qualifications.

Dr. Archbald was born in Buffalo, N.Y., in 1925 and attended the Nichols School in that city. He was enrolled in the Naval Air Program at Cornell University in 1943 and spent the years 1943-1946 on active service with the U. S. Navy. Following release from service he entered the University of Buffalo from which he graduated in 1948. He then came to

The University of Wisconsin for graduate work in the Botany Department in the field of Plant Ecology, as a student of the late Professor J. T. Curtis. Dr. Archbald received the Ph.D. degree in 1954. His thesis, entitled "Establishment of and Interaction between Native Prairie Grasses and Legumes," was based largely on work carried out in the Arboretum. Dave also held the position of Arboretum Botanist while working for his degree, so he has a background which has been very helpful in enabling him to grasp quickly the essentials of his present position.

Dr. Archbald spent the years 1955-1961 in Sumatra in Indonesia. From 1955-1957 he held the position of Agriculturist in the Plantation Research Department of the U. S. Rubber Sumatra Plantations at Kisaran, a large 100,000-acre concession. His work entailed planning, executing, interpreting, and reporting of research on methods for increasing natural rubber production. studies in genetics, planting techniques, weed and erosion control, chemical yield stimulation, fertilizers, tapping systems, and disease and animal pest control. In 1958 he was appointed Department Director where his work included the general administration of the Research Department, with a staff of about fifty. Among the specific responsibilities were preparation of the annual forecast, research and operational programming, including the Malayan American Plantations, a 40,000-acre concession, personnel, and liaison with other research institutes in Indonesia and Malaya. While Director, Dr. Archbald set up an organization through which Americans resident in the Kisaran area could work during their spare time to bring their skills to bear on local Indonesian problems in diversified social service projects and educational programs. His experience and natural aptitudes well qualify Dr. Archbald for the position of Managing Director with its attendant responsibilities.

Additional Changes in Arboretum Personnel

Mr. Eugene D. Moran, who has been employed by the Arboretum since 1955, has been made foreman of the labor crew, effective July 1st. His years of experience with Arboretum problems and his familiarity with the present labor crew makes him well qualified for this new position.

Mr. F. Glenn Goff joined the Arboretum staff July 1st as Arboretum Botanist. He is a graduate of Central Michigan University in Mt. Pleasant, Michigan, where he was an outstanding student of Wakelin McNeel, Jr., a native Madisonian well known as a conservationist and naturalist. Glenn will be working toward a Ph.D. degree in Plant Ecology.

Damage to Observatory Woods

The severe windstorm which struck southern Wisconsin on a mid-June weekend caused extensive destruction in the oak woods adjacent to The University of Wisconsin Observatory at Pine Bluff. This woods is under Arboretum supervision and an account of it, with map, appeared in the April 1959 issue of the Arboretum News. Many large limbs were broken on the old, open-grown white oaks which are a characteristic feature of the woods, and two fine bur oaks which "made" the bur oak opening were badly damaged. This same opening suffered in another windstorm which swept across it two years ago. While the beauty of the woods and its value for teaching purposes is not completely lost, it is certainly diminished. A major clean-up job faces our small work crew. By great good luck the Arboretum at Madison escaped serious damage in the same storm, although the Maple Bluff area was hard hit.

Introducing the Friends of the Arboretum

The primary functions of the Arboretum are education and research. It plays an important role in the education of most of the natural science majors on the campus, and is the site of research carried on by graduate students and staff in the biological sciences. In addition to these primary functions, the Arboretum receives much use from nonbiologists as a place for outdoor recreation, where the complexities of nature can be viewed from many different viewpoints and at many different levels. Our budget is hardly sufficient to carry out our primary functions, and the many things we could be doing to make the Arboretum more attractive and useful as a place where the nonprofessional can enjoy its plant and animal communities, its horticultural displays, and its beauty are largely neglected, except where our primary functions can also serve these ends.

With the correction of this deficiency in mind, we are establishing an organization to be called Friends of The University of Wisconsin Arboretum. Its aims are twofold. The first is to provide funds primarily for the purpose of improving facilities for the public utilization of the Arboretum, to include the preparation of trail guides, the marking of trails, and the organization of occasional field trips for the members of the Friends of the Arboretum. The second aim is to provide public support to help protect the Arboretum from the demands made by the expanding urban area that now almost completely surrounds us, for roads, utility rights-of-way, highways, and even real estate development.

The organizing of the Friends of the Arboretum is under the direction of Professor Jacob H. Beuscher of the University Law School. Prof. Beuscher is a longtime friend of the Arboretum and is also concerned with many other aspects of providing open areas for our urban population. His feeling for the Arboretum is best expressed in his own words: "Thousands visit and enjoy this quiet, attractive, open space area located within minutes of downtown Madison. Its lilacs and flowering trees are a noteworthy springtime community attraction. Its quiet pathways, its lovely lake shores, its native woods and meadows, are the strolling grounds for hundreds seeking respite from the tensions of city life."

We expect to inaugurate the *Friends of the Arboretum* in September. Mr. James Larsen, science editor of the University News Service, has prepared a brochure giving the aims of the organization in detail. You will receive a copy in the fall, and we invite you to read it, and to join the *Friends of the Arboretum*.

James G. Dickson, Emeritus Professor of Plant Pathology at The University of Wisconsin, and a member of the Committee since the founding of the Arboretum, was killed in a plane crash in the Philippine Islands on February 28, 1962. At the time of his death he was studying disease-resistance capabilities of grain varieties for a Philippine brewery. Dr. Dickson was born February 7, 1891 at Yakima, Washington, and received the B.S. degree from Washington State College in 1915. He obtained his Ph.D. degree from The University of Wisconsin in 1920 and was immediately appointed to the staff of the Department of Plant Pathology where he remained throughout the rest of his active professional career, until retirement in 1961.

Professor Dickson became very well known as a specialist in the diseases of cereals and forage crops, and was the recipient of many professional honors, including the Presidency of the American Phytopathological Society in 1953, and later was named President of the American Institute of Biological Sciences.

Despite a very busy schedule, Professor Dickson was faithful in attendance at Arboretum Committee meetings during his 25 years of service since 1934, and was notable for his courtesy, tact and general helpfulness, particularly in land matters. For a number of years he resided just to the southeast of the Arboretum and made it a point to keep in active touch with the day-to-day affairs of the Arboretum. He personally knew township and county officials with whom we had to deal from time to time, and quietly smoothed out various misunderstandings and difficulties which cropped up. Although he ceased to be a Committee member in 1959, he left an impress on the Arboretum, and the things he did for it remain in the memories of those who were privileged to serve with him.

Arboretum Personnel

Chairman of the Arboretum Committee	Grant Cottam
Executive Director	G. W. Longenecker
Managing Director	D. Archbald
Botanist	F. Glenn Goff
Secretary, Arboretum Office	Mrs. J. T. Curtis
	329 Birge Hall

The University of Wisconsin Arboretum
Grant Cottam, Chairman
329 Birge Hall
The University of Wisconsin
Madison 6, Wisconsin



Vol. 11, No. 4

Madison, Wisconsin

October, 1962

The principal Arboretum prairie—a sixty-acre tract adjacent to the Leopold Pines and stretching eastward from them—has been dedicated as the John T. Curtis Prairie, a memorial to Professor Curtis, noted University of Wisconsin botanist and former Chairman of the Arboretum Committee, who died in June of 1961. The ceremonies were held on the afternoon of Sunday, October 14, 1962, at the entrance to the Prairie. Here a glacial boulder, found on the Arboretum Prairie and inscribed with Professor Curtis' name, had been placed in position previous to the dedication. The inscription for the boulder was donated by Professor Curtis' former students and associates, many of whom attended the dedication.

Professor Grant Cottam, longtime friend and close associate of Professor Curtis and his successor as Arboretum Committee Chairman, made a short introductory speech and presented Professor Robert P. McIntosh of Notre Dame University, a former student of Professor Curtis, who gave the principal dedicatory

In response to the many requests for copies of these speeches, they are printed here in their entirety.

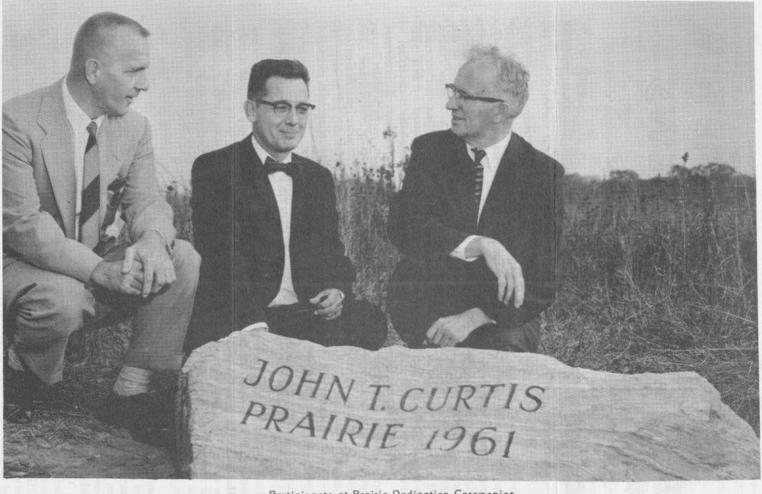
INTRODUCTION, DEDICATION OF JOHN T. CURTIS PRAIRIE, by Grant Cottam

It's just 30 years since The University of Wisconsin Arboretum had its beginning. In that short period, as time is reckoned by trees, it has become a truly valuable scientific and educational establishment, unlike any other in the world. We are proud of its beginnings, and expect our pride to increase as time permits our forests and fields to become eventually what they were designed to be—replicas of the natural communities of plants and animals that have covered our state,

but are now found only in isolated and inaccessible places.

This Arboretum is the product of the ideas and energies of many men. Its establishment required a diversity of talents—art, administration, money-raising, and science. Michael Olbrich, lawyer and member of the Board of Regents, changed the Arboretum from an idea to a reality. Col. J. W. Jackson, businessman and civic leader, took over after the death of Mr. Olbrich and became the prime mover in land acquisitions. To these two men we owe our greatest debt. Without them the Arboretum probably would not exist. Maurice McCaffrey and A. F. Gallistel were University officials who did within the University community what Olbrich and Jackson did outside it. Louis Gardner and Paul E. Stark were among the many who contributed land and money to complete our holdings. G. William Longenecker, Executive Director of the Arboretum, is responsible for the attractive physical layout of the plant communities and the horticultural plantings, and has helped in many other ways.

But it takes more than land to make an Arboretum, and the thing which gives this Arboretum its character is the conception that it should be a collection of plant communities rather than isolated trees—and that these plant communities should be large enough to support their normal complement of animals. This idea



Participants at Prairie Dedication Ceremonies

Left to right, Dr. Robert P. McIntosh, Department of Biology, University of Notre Dame, dedication speaker; Professor Grant Cottam, Botany Department, The University of Wisconsin, Chairman of the Arboretum Committee; and Professor J. H. Beuscher, Law School, The University of Wisconsin, one of the founders of the new organization, Friends of the Arboretum. Dr. McIntosh and Dr. Cottam are former students of the late John T. Curtis.

had never been tried on the scale that was attempted here, and it is these plant communities, with their animals, that makes this Arboretum the valuable research

and teaching laboratory that it is today.

The development of this unique concept of what our Arboretum should be is due to the scientists who first worked on this land. Outstanding among them were Aldo Leopold, N. C. Fassett, and E. M. Gilbert. They had the idea that it should be possible to create a plant community, and that once the plant community was established, and only then, it would be possible to attract and keep the animals that should live in it. It was a grand idea, but it was not easy to achieve.

Before one can attempt to reconstruct a plant community, one must know many things. There are roughly 100 different kinds of plants present in each of our communities, and each of them must be present in their correct proportions. At the time this magnificent concept was promulgated no one knew exactly what these plant communities should contain. The obvious things—yes. A pine forest contains pine trees, a prairie has grasses. But the kinds and numbers of the less

common plants were not well known at all.

This was the area in which John T. Curtis made his greatest contribution. His life was spent in finding out what kinds of plants grew in each of the varied environments of Wisconsin especially, but also in many other parts of the world, how many of each kind of plant there were, how they were arranged with respect to each other. To John, this inventory of Wisconsin vegetation was only a means to an end. He felt that before we could understand the plant communities, a necessary first step was to find out what they were. By the time his life ended, he knew more about the vegetation of Wisconsin than any man has ever known about a comparable area. As technical director of the Arboretum, he applied this vast knowledge to the development of our plant communities. This prairie, for example, before John T. Curtis became Research Director, was a series of rectangular plots, with the plants arranged in geometrical patterns, each of them laboriously removed from some prairie remnant and transplanted to this spot. It was a collection of prairie plants, but it was not a prairie. Dr. Curtis and his students conducted research into how to get prairie seeds to germinate, how to treat the soil, how and when to burn, and finally devised a management plan that enabled them to create the prairie that you see before you. It is not finished. It is not perfect. Only in time will the prairie species sort themselves out into their appropriate niches. But it is well on the way. All the species are here, and what habitats the land was lacking have been created. Even those of us with shorter vision can look out over the tall grass now and imagine buffalo behind it.

John Curtis applied himself to all our plant communities, not just the prairie. But the prairie was his favorite. He loved to wander through it, noting the success or failure of the treatments that had been applied under his direction. He loved it more than most of us can ever love it because he understood it better. But he loved its beauty, too. This prairie in all its beauty and complexity is in a very real sense a gift from John T. Curtis to us. We are proud to be able to

give it his name.

DEDICATION OF THE JOHN T. CURTIS PRAIRIE by Robert P. McIntosh

No area in the Americas has received so comprehensive a study of its vegetation as has Wisconsin. This is the consequence of two decades of work initiated and inspired by John Curtis. Many of us, as his students or colleagues, were a part of this uniquely productive period in which he provided a focus of intellectual stimulation and excitement which has established the Plant Ecology Laboratory of the University of Wisconsin as a leading world center of ecological studies. John was too immersed in his manifold activities to dwell on his own role as the leader of what has been described in ecological circles as the "Wisconsin school," or, as I have heard it called, "that Wisconsin Crowd," since he produced some 100 graduates now widely distributed from Louisiana to Canada, Massachusetts to California, and constituting a considerable force in American plant ecology.

The significance of the work at Wisconsin is not simply that it produced numerous students or an excellent study of the vegetation of this state but that major changes in ecological theory and methods were pioneered here. What is impressive, as one reviews the plant ecological work at Wisconsin, is its cumulative nature and the many innovations in approaches to ecological problems introduced. Dr. Curtis acknowledgedly built on foundations created by others,

as do all scientists. The body of the work in plant ecology, as seen in his book "The Vegetation of Wisconsin," is strikingly an integration of his own prodigious output with that of his predecessors, students and associates, and incorporating relevant comments from such diverse sources as the Jesuit relations and James Fenimore Cooper. The result is a book about the vegetation of a state, singularly free from provincialism, dealing with biological and ecological phenomena of fundamental importance and of interest not only to plant ecologists but to persons concerned with nature and natural resources far beyond the boundaries of this state. It is a tribute to his gifts as an expositor of ideas that most of it can be read with understanding and interest by the layman.

It is commonplace in the history of science that at times a field becomes stifled by its own accumulation of ideas and techniques which may become barriers to progress. One of the most notable facets of John was his readiness to divest himself of technical and theoretical orthodoxies which had outlived their usefulness. He had a remarkable ability to cut through fuzzy thinking to get to the core of a complex problem, to discard what was no longer relevant, to see new dimensions in old questions, and to create new and imaginative solutions to these questions.

At the inception of his work in plant sociology, after earlier distinguished work in orchid physiology, Dr. Curtis saw the need for more rapid and more accurate methods of analysis of vegetation. With his colleague, Dr. Cottam, an entirely new approach to vegetation sampling was developed, freeing subsequent workers from time-demanding field methods which limited the scope of earlier investigations. Most of the later studies accomplished by use of these improved methods would have been impossible or at least prohibitively expensive without them. These new techniques of rapid sampling made possible large scale studies in which many areas could be sampled objectively, and a critical examination of the nature of the plant community followed their development.

In numerous studies from 1950 on, Dr. Curtis and his students demonstrated that vegetation was best understood as a continuum. This major theoretical departure from the traditional view of vegetation had antecedents in earlier qualitative expression in America and Europe. John Curtis made the concept of the vegetational continuum his own by an enormous weight of quantitative data logically organized and clearly presented, fully supporting the theory of vegetation as a continuous variable. Here again the cumulative nature of the work done at Wisconsin is seen in force. The vegetational continuum concept has progressed in ten years from a simple, empirical, linear continuum to highly sophisticated and elaborated ordinations, which illustrate the emphasis on objective, analytic, quantitative work which marked his training of graduate students.

It should be noted that this cumulative effect is a tribute to John's ability to synthesize the work of others and to integrate it into a comprehensive structure. His forte was stimulating inquiry, not manipulating people to do projects. He possessed an intellectual vitality from which suggestions, ideas and insights streamed, but his students were stimulated to make the most of their own interests.

In addition to the research specifically on higher vegetation, various joint efforts incorporated studies of soil microfauna, lichens, and birds, with important collateral results.

The importance of the scientific work of Dr. Curtis is by no means confined to his original contributions to the science of ecology. It stands as an important bulwark to applied management in several fields. His theoretical work has materially influenced workers in range management in the western United States, the classification of forest stands in Canada, and game management programs in Wisconsin and elsewhere. Numerous papers relate directly to applied aspects of plant ecology. Apart from the impact of his ideas and publications, his influence in applied fields is felt through the many students in agriculture, game management, entomology, geography, and other fields, who took his courses and seminars in ecology as part of their work while at Wisconsin.

Dr. Curtis's foresight and interest in scientific research areas are in substantial degree the reason that Wisconsin is in the vanguard of states which have made effective efforts to reserve portions of native vegetation for study. He was a leader of the group which drew up a bill for the establishment of the State Board for the Preservation of Scientific Areas which was established by law in 1951. He served as its chairman until 1955 and as a member thereafter. In a very real sense "the State Board for the Preservation of Scientific Areas is a living monument to him."

No less than his personal scientific contributions and his significant public service, John is remembered by many students, undergraduate and graduate, for his keen analytic methods of teaching. He demanded and gave clear presentations of ecological questions. Recognizing that ecology required a high level of precision of statement, he strongly, although not in a doctrinaire fashion, emphasized quantitative methods and statistical treatment of results. All respected and admired teachers acquire nicknames, and "smooth-curve" was one applied to John, who was more widely known as J. T., stemming from the terse J. T. C. with which he customarily annotated papers and communications.

His attention to detail, shrewd observation, and capacity for work were marked characteristics. He once came East to speak at a college where I was then teaching. His stay there was only a matter of a few hours and included a ride around the area of perhaps fifteen minutes duration. When his book was published five or six years later, it contained a reference to observations made during that

brief ride.

Certainly in my experience it was not unusual to discuss a problem with him one afternoon and meet with him the next morning to be presented with either its solution or new ramifications completely supported by sheets of neatly printed data and precisely plotted graphs.

His passion for brevity and clarity of thought and statement was an outstanding characteristic, and justly earned the comment in a review of one of his articles by a distinguished plant ecologist, Dr. Stanley Cain. "Like all of the papers written by Professor Curtis or in association with him this is excellent. The scientific content is very high and the writing concise and lucid."

He was never a publicist nor polemicist even in the face of obtuseness on the part of some ecologists, but was sure of his view that thorough research, unequivocal data, and precise explanation would lead to understanding and acceptance. He simply asserted, with T. H. Huxley, "this and this have I learned, thus and thus have I learned it: go thou and do better."

John's interest in natural history began in his youth. It may or may not be suggestive that his first love and continuing enthusiasm were for the orchids which have a high aesthetic as well as scientific appeal. In any event, in spite of his exacting work in botany and ecology, he was a many-sided man. Being in the field with him was not solely a guided tour of plant ecology or botany. Many things attracted his attention, and comments on geological phenomona, birds, tobacco growing, local ethnic groups, architectural styles, archeology, places and persons of historical interest, and the color or grace of a plant peppered his conversation, testifying to an alert, sensitive human being.

It is noteworthy that the first sentence of John Curtis' book "The Vegetation of Wisconsin" asserts its dependence upon others. He says, "Proper acknowledgment of my obligation to others is made difficult because it is so great." Our purpose here today is to recognize, in concrete fashion, our obligation to John Curtis by dedicating to him the prairie area of the University of Wisconsin Arboretum. This is an appropriate memorial to a man ever concerned with ecology and the study of vegetation as a science, always alert to the practical needs of resource managers and conservationists, and quietly appreciative of the beauties and appeal of natural things to the mind and eye. It is for us to say, "Proper acknowledgment of our obligation to him is made difficult because it is so great."

Friends of the Arboretum Meeting

The Friends of the Arboretum, an association interested in supporting the Arboretum, held its first meeting at the site of the Curtis Prairie dedication. Professor J. H. Beuscher, University of Wisconsin Law Professor who has assisted in launching the Friends, presented a Constitution and Bylaws that was read and adopted. Elected to office were A. W. Peterson, President; Lowell Frautschi, Vice President; and Mrs. John T. Curtis, Secretary-Treasurer. The Board of Directors elected includes Mr. Peterson, Mr. Frautschi, A. F. Gallistel, Arthur Towell, Mrs. A. C. Garnett, Benjamin W. Huiskamp, Mrs. William Sachse, and Mrs. Bentley Courtenay. An Advisory Committee to provide close liaison between the Friends and the Arboretum governing body consists of Professors Grant Cottam, G. William Longenecker, D. Archbald, and J. H. Beuscher. Following the meeting the crowd divided into groups for various tours of the Prairie.

These were conducted by members of the Arboretum Committee, the Botany De-

partment, and former graduate students of the late Professor Curtis.

As of November 8, 180 members have joined in support of the Friends of the Arboretum. The response has been gratifying, particularly in that many members are from outside the Madison area and from other states. It is pleasant to know that our Arboretum is held in such high regard by so many loyal people.

Arboretum Personnel

Chairman of the Arboretum Committee	Grant Cottam
Executive Director	G. W. Longenecker
Managing Director	D. Archbald
Botanist	
Secretary, Arboretum Office	Mrs. J. T. Curtis
•	329 Birge Hall

The University of Wisconsin Arboretum Grant Cottam, Chairman 329 Birge Hall The University of Wisconsin Madison 6, Wisconsin