



LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

Arboretum news. Volume 12 1963

University of Wisconsin--Madison. Arboretum
Madison, Wisconsin: University of Wisconsin-Madison Arboretum,
1963

<https://digital.library.wisc.edu/1711.dl/HODFQDQDDLIIJ8I>

<http://rightsstatements.org/vocab/InC/1.0/>

For information on re-use see:

<http://digital.library.wisc.edu/1711.dl/Copyright>

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.



Vol. 12, No. 1-2

Madison, Wisconsin

January-April, 1963

Arboretum Tree Swallows

The tree swallow, *Iridoprocne bicolor*, is one of the conspicuous birds of The University of Wisconsin Arboretum from mid-April to July. The trusting nature of the birds, and their fearlessness in the vicinity of the nesting site, have enabled many Arboretum visitors to see and admire these handsome little birds at very close range.

The tree swallow is a semicolonial species nesting normally in cavities in dead trees bordering lakes and streams. However, it takes readily to man-made nest boxes. The Arboretum colony nests in the tin-can nest boxes erected in the vicinity of the Arboretum headquarters.

Tree swallows are a migratory species, wintering in the Gulf States and summering in the northern sections of the United States and southern Canada. The average date of their arrival in the Madison area is April 7th. Normally only a few individuals appear at first, but their numbers are augmented daily so that by the third week of April a large part of the population is present in the area. During this period, swallows may be seen in and about the Arboretum nest boxes mostly during the early to midmorning hours. Activity around the nest boxes increases with the approach of the nesting season so that by May 1st, swallows may be seen in the area throughout the day.

The tree swallow is a single-brooded species, and exhibits a remarkable degree of synchrony in its nesting. Nest building begins during the first week of May and the majority of pairs begin egg laying during the second and third week of May. Clutches consist of five to seven pure white eggs and incubation takes approximately fourteen days. The female alone is responsible for egg incubation, but with the hatching of the young, both parents assume responsibility for feeding the voracious youngsters.

Now swallow activity reaches a climax with adult birds coursing over the prairie, the ponds, and the sky for the flying insects needed to feed their young. The period from mid-May to July 1 is the best time to see these birds in the Arboretum, particularly in the lilac area.

The young swallows remain in their nests for eighteen to twenty-one days. This prolonged nestling period allows for full development of the birds' flight feathers, so that young leaving the nest for the first time are capable of pro-

longed flight. It is doubtful that the young return to the nest after fledging as both young and parent birds appear to leave the nesting area immediately. This results in a dramatic drop in numbers of swallows seen. One week swallows can be seen everywhere, and within a period of ten days to two weeks they have practically disappeared from the nesting area. The actual movement away from the area, in terms of distance, is probably not very great since large numbers of tree swallows may be seen later in the summer feeding over the surface of Lake Wingra.

Since the inception of the tree swallow study on the Arboretum in 1949, over 400 nesting attempts have been made by these birds. Two hundred and sixteen of these attempts have been successful and have produced 894 young swallows. Breeding pairs are trapped and banded during the time they are feeding their young. The information thus obtained provided data on such things as homing, pair formation, longevity, and population turnover. All fledgling birds are also banded and provide additional information on homing and survival.

Nesting success of the Arboretum colony has averaged approximately 50 per cent during the study, varying from less than 5 per cent to over 90 per cent in certain years. In the past, one of the principal causes of nest loss has been predation by raccoons. This source of nest destruction culminated in 1959 when only two nests out of 41 nesting attempts were successful. In 1960, a method of "coon-proofing" nest boxes was finally devised. This consisted of suspending the nest boxes on a wire between two steel fenceposts set eight feet apart. Fortunately this technique has proven to be remarkably successful, and for the past three years, nesting success has been 80 per cent for the colony as a whole. In addition, the colony has shown a substantial increase in breeding pairs in each succeeding year.

The Arboretum tree swallow study provides valuable scientific information on the life history and ecology of the species. However, equally important, it affords Arboretum visitors a fine opportunity to see and enjoy this graceful and beautiful little swallow at close range.

---Robert S. Ellarson

Arboretum Maintenance

Since the onset of World War II, when the Civilian Conservation Corps labor camp in the Arboretum was closed, we have had, considering our large area of about 1200 acres, a chronic labor shortage. In general, the quality of our work crew has been high and this has helped to compensate, but only partially so, for its small size, about eight men during the growing season, but with only one or two year-round employees.

Thus, finding ourselves in a "squeeze" like so many other enterprises these days, we have sought, and continue to seek, to make the most of what we have. The acquisition and efficient use of suitable mechanical labor-saving equipment naturally offers the best overall means of achieving our purposes. In recognition of our current needs, sufficient funds have been made available to us for the purchase of the following items of capital equipment, so that we may have them ready for use at the onset of the 1963 growing season: (1) A riding garden tractor for path mowing, light hauling of sods and earth-balled trees and shrubs, for hauling brush, and for hauling water for planting and for fire control. (2) A mobile gasoline-powered electric generator. We feel this can be a great labor saver, as it will be used to power tedious and time-consuming operations now being done almost entirely with hand clippers and hoes. The

items to be run off this generator are (a) shears for trimming hedges and shrubs in our formal horticultural areas, and along paths and roadsides, (b) trimmer for trimming grass along edges of beds in horticultural areas and at other points not readily accessible to our larger mowers, (c) cultivator to cultivate around woody plants in the nursery, especially newly lined-out plants, and (d) tiller-edger for edging beds in the horticultural areas, and for soil tilling in beds and in the nursery. (3) Various tractor attachments, including a front-end loader, a manure fork, a 60-inch bucket, a side-mounted mower, and a large 5-gang tow mower.

To further improve our efficiency, especially in the vital matter of fire protection, we are investigating the possibility of installing some form of on-site person-to-person communications equipment to enable us to call in from the field to Arboretum headquarters, to the fire department, or to the University police department, as the need may arise. We are also considering converting the old CCC water tower at the headquarters into a fire and observation tower. This could be done at no great expense and would be useful in dry periods in quickly spotting the approximate location of small fires before they become big ones.

New Taxonomic Garden

A new eight-acre taxonomic garden is being established on the rolling hillside overlooking the Gardner Marsh at the Fish Hatchery Road entrance (on Carver Street) to the Arboretum. The area has been cleared and graded in preparation for planting this spring. This garden will be a form of "outdoor museum," presenting as complete a display as possible of all the woody plant species native to Wisconsin. In addition, there will be a representative selection of woody species of importance from other parts of North America as well as the temperate regions of Europe and Asia. Specimens will be grouped by plant families, giving visitors the opportunity to compare various species.

A Report on the Friends of the Arboretum

A spring meeting for all members of the *Friends of the Arboretum* is being planned for Saturday, May 18. Following a picnic lunch, present plans call for a conducted tour through Gallistel Woods to view the spring flowers. The early spring wild flowers (ephemerals to the botanist) in Gallistel Woods are one of the Arboretum's most beautiful attractions. Mrs. Bentley Courtenay and Mrs. A. C. Garnett are in charge of arrangements. Announcements will be mailed to members soon. Reserve the day on your calendars now!

The *Friends of the Arboretum* are sponsoring trail guides and the publication of an attractive new map of the Arboretum. When completed, copies of both will be mailed to members.

It is hoped that the trail guides and nature notes for Gallistel Woods will be ready for the *Friends* tour on May 18. These guides will greatly facilitate the identification of the various plant species. The nature notes will give specialized information about particular features along each trail.

The new map, to be printed in color, will show the trails through the Arboretum and the various areas of interest to visitors. Information concerning the different plant communities to be found in the Arboretum will be presented on the reverse side.

The *Friends of the Arboretum* Board of Directors have been instrumental in initiating arrangements for a movie, to be filmed during the next twelve months, about the Arboretum. This will be a multipurpose film in that it will have many uses and will present the Arboretum to many varied groups. It will be an educational document of the Arboretum, its functions, its future goals, and its relationship to the University, to the city, the county, and the state.

IN MEMORIAM

Contributions in memory of Mrs. R. Alexander Brink and of Dr. Russell Dymond were received recently by the University of Wisconsin Foundation for the *Friends of the Arboretum*.

Arboretum Personnel

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

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

Harold E. Kubly
332 Commerce
Campus Mail



ARBORETUM NEWS

Vol. 12, No. 3

Madison, Wisconsin

July, 1963

Spring Meeting of the Friends of the Arboretum Dedication of the Jackson Oak

A meeting of the *Friends of the Arboretum* was held May 18, 1963 at the Arboretum. The day was somewhat chilly and windy, but sunny, and preceding the formal meeting a picnic tray lunch, catered by Mrs. Carson Gulley, was served to approximately 120 persons on the lawn in the shelter of the Headquarters Building. Arrangements for the luncheon were made by Mrs. Bentley Courtenay and Mrs. A. C. Garnett who are to be congratulated for the smoothness and efficiency with which the affair was conducted.

Following lunch the current *Friends'* President, Mr. A. W. Peterson, welcomed those present and gave a brief account of *Friends of the Arboretum* affairs as they stood at that time. There were 252 members, 192 of them Active, 24 Sustaining, 16 Supporting, and 20 Life, with \$4,394.00 taken in as dues. Mr. Peterson stated that all memberships will be renewable in January, 1964. The activities sponsored by the *Friends* include: making a movie about the Arboretum; preparing trail guides, including plastic markers and labels along the trails; printing a new colored map of the Arboretum; and the purchase of the last three remaining privately owned lots in the Lost City area. Mr. Peterson announced that support for the movie has been forthcoming from the University administration, the City of Madison, Dane County, and the Audubon Society. Funds are still needed for this project, however. Mr. Peterson concluded his remarks by introducing the officers and members of the Board of Directors of the *Friends*.

Aside from the business matters presented by Mr. Peterson, the principal event at the meeting was the presentation of a citation award to Mr. Joseph W. Jackson, the Arboretum's long-time friend and benefactor, and the naming for him of the Jackson Oak, the large and beautiful open-grown white oak which stands at the west end of the Curtis Prairie and which has long been pictured on the mast-head of the *Arboretum News*.

Professor Grant Cottam, Chairman of the Arboretum Committee, made the introductory remarks to the citation award, and stated, in part, "The Arboretum would not be here today were it not for the dedicated action of a few men. Our early history is full of narrow escapes from oblivion, and, in many of these episodes, the name of Joseph W. Jackson appears as the White Knight who rescued us. It would not be inappropriate if we were to name a large portion of the Arbore-



tum after him—he has been that important to us. But when I suggested that he drop a delicate hint about a memorial for him, he said that what he wanted was an oak tree. A specific oak tree. The big, old white oak growing on the west edge of the Curtis Prairie. It was here when the Indians roamed this country. Before the changes wrought by white man it was growing with a few others like it in a grassland. Fire scorched its bark every year. It very likely sheltered deer and bison as well as Indians. When the early settlers changed the prairie into a pasture, cows and horses rested in its shade. Now it is in a prairie again. This oak has been a symbol of the Arboretum for many years. It appears on the masthead of our little paper, *The Arboretum News*. It is on the cover of the *Trail Guide to Gallistel Woods* distributed today. I think it appropriate that this tree bear Colonel Jackson's name."

Mr. Lowell Frautschi, Vice-President of the *Friends of the Arboretum* and long-time acquaintance of Mr. Jackson, made the principal presentation address from which the following excerpts are taken:

"Madison as we know it is the product of many minds and many hands. We have had numerous benefactors, known and unknown, but among them all, three towering names stand out for the uniqueness of the role which they played as innovators and instigators and prodders of the others, and much of the physical beauty we owe to them. I refer, of course, to John M. Olin, Michael B. Olbrich, and Joseph W. Jackson.

"It takes rare talents to be in that company, and Mr. Jackson does have rare talents. In fact, he is by any set of standards a very rare bird. Physically energetic, mentally restless and imaginative, morally certain of the rightness of his objectives, persistent even beyond the point of stubbornness, persuasive, with a flair for words and oratory, he has also been a fortunate man who has lived many years and has seen many of his objectives attained.

"All of these qualities, and others besides, he devoted without stint to the great project of the Arboretum. Those of us who cherish this place and know something of its value are warranted, I believe, in considering it his finest and most lasting achievement. We call ourselves the *Friends of the Arboretum*. Mr. Jackson is surely the foremost among its friends, and in a sense its creator.

"Mr. Olbrich was the prophet of the Arboretum. Col. Jackson became its sword. It was he who rallied the cause when it languished following the death of Mr. Olbrich and in the early years of the depression, which brought discouragement everywhere. It was he who ferreted out the facts and relationships involved in parcels and tracts of land which he thought should be added to the Arboretum. He secured gifts from friends and acquaintances and from persons he had never known before—some of them very generous gifts, and sometimes just in the nick of time—so that these parcels and tracts could be acquired. He fed ideas for the expansion and development of the Arboretum to the Arboretum Committee almost faster than they could be absorbed.

"Now the Arboretum Committee has associated his name with the great spreading oak at the western end of the Curtis Prairie. It is a fitting association. Oaks lend themselves to symbolism, and symbolism comes readily to mind in this connection, but I shall not belabor it. Instead, I shall only remark on the appropriateness, perhaps the symbolism, of the nickname by which Bud Jackson is known to his friends. For just as the great oak has unfolded its tender leaves and stands green once more upon the prairie, so Bud Jackson seems to us to be ever fresh and youthful and ready for another season."

Two photographs of the Jackson Oak—a large one and a small framed desk-size one—were presented to Mr. Jackson. They were inscribed "The Jackson Oak—Named for Joseph W. Jackson in recognition of his years of dedication to the University of Wisconsin Arboretum."

Mr. Jackson responded with humor and dignity in a speech which brought applause from his audience. His firm voice and straight posture belied his years, giving evidence of his strong, determined character.

Professor Cottam then announced conducted tours through nearby Gallistel Woods for interested *Friends* and gave a brief account of the salient features of the woods and what we are trying to accomplish in the management of it. He pointed out that at the time the Arboretum acquired it Gallistel Woods was a fairly typical southern Wisconsin oak woods. We are now trying to maintain the drier part as an oak woods; to convert the more moist middle portion to maple-basswood, the richest type of forest that grows in Wisconsin; and finally to develop the lower, wetter part with river bottom species, including some of those characteristic of the Ohio Valley, as well as our own.

Most of the *Friends* who had attended the meeting, and some who came later, took the tour through the woods, in groups of 15-20, under the guidance of various persons associated with the Arboretum and familiar with the woods.

It was felt by those in charge of arrangements that the meeting was a very great success and we appreciate the interest and cooperation of the many *Friends of the Arboretum* who made it so.

Membership in the *Friends of the Arboretum*

The privilege of membership is accorded anyone making contributions to the *Friends of the Arboretum* in the following categories: Active, \$5 per year; Sustaining, \$15 per year; Supporting, \$25 per year; Life, a minimum of \$100. Checks may be made out to the UNIVERSITY OF WISCONSIN FOUNDATION-ARBORETUM and mailed to the Arboretum Office, 329 Birge Hall, Madison, Wisconsin 53706. All contributions to the Foundation are income tax deductible.

Some Interesting Insects of the Arboretum

To the amateur and professional entomologist, the Arboretum has provided an abundant, varied and colorful insect fauna. The first Ph.D. thesis granted by Wisconsin's Zoology Department was written by Charles Vorhies on the caddis flies of Wisconsin. His studies for a 1905 paper on the Caddis Fly, *Platyphylax designatus* Walk. were made at the Arboretum springs where their larvae still construct golden cases of sand. Since this early work, the Arboretum has been the site for many basic studies on a variety of insect groups such as the mosquitoes of economic and academic interest, the ectoparasites of the cottontail rabbit, the carrion flies, the tree hoppers, or the sawflies and weevils that attack pines and larches. For the amateur entomologist and all naturalists, there are the intriguing Bombardier Beetle and Firefly, the Tiger Beetle and Dragon Fly hunters, the colonies of ants and wasps, the insects that shape a plant host to their requirements in the form of a specific gall; and among the beautiful butterflies, the Monarchs of the prairie, the Red Admirals of the nettle flats and the Underwings of the deep forest. Under the forest duff are the minute Springtails and Protura; and hanging from a twig nearby, a cocoon from which a giant Cecropia Moth will emerge. Every conceivable ecological niche in the Arboretum will reveal its insect inhabitant; in its waters, deep within its soil, under rocks and logs, on and within every plant or animal, or in flight at all hours of the day. The numbers and kinds of insect species living within the Arboretum are unknown; probably many species are still unknown to science. There is an inexhaustible insect fauna for the collector and a rich and varied field laboratory for the biologist.

Fires in the Arboretum

The dry weather we experienced during June and July has led to the kind of fire hazard we usually expect only during early spring and late autumn when most plants are dead or dormant. We have experienced more fires during this period than during any comparable period in the Arboretum's history. Fortunately, all the fires were small. Four fires were started in the West Marsh between the Duck Pond and the Ho-Nee-Um area. None of them caused appreciable damage, but their location made fire fighting difficult. The potentially most dangerous fire occurred in the Grady Pines, and was just starting to burn into the crowns of the trees when it was extinguished. Some of these fires were deliberately set by small boys, and very possibly all of them were of this origin.

The small size of the fires was more than luck. We have had excellent fire protection from the Town of Madison Fire Department and excellent police protection from the University police. The City of Madison also assisted with some of the fires, although most of the Arboretum is not part of the city. To all of these organizations we express our thanks.

In an effort to make our fire and police protection more efficient, Professor D. Archbald, Managing Director of the Arboretum, has prepared special aerial photo-maps on which are marked all roads, all fire lanes, and all paths capable of being traversed by fire engines. Large copies of these maps are posted in the fire and police stations and smaller copies are in the fire engines and police cars. In addition, we have distributed gridded aerial photo-maps to all the immediate neighbors of the Arboretum, so that anyone finding a fire or other disturbance can report its location to the appropriate authority. We also have had a mobile telephone installed in our jeep. This jeep is the patrol car for our fire and police protection. It is equipped with a water tank and power pump and is used to patrol the Arboretum during weekends and other periods when the fire hazard is high. With the new telephone, for which we thank the University administration, we have a much more flexible control system and are able to locate fires, assess their potential danger, and report to all organizations much more easily and rapidly than we ever could before. The recent emergency has been the first time we have had occasion to use this new system and we are pleased to report that it works very well.

---G. Cottam

Account of Arboretum Prairies

For the Summer 1963 issue of WISCONSIN TALES AND TRAILS James H. Zimmerman, well-known Madison naturalist, has written an interesting and highly readable article entitled "Adventures in Reading Wisconsin's Landscape: The Prairie." Included are eyewitness accounts of the Wisconsin prairie as early explorers saw it, the reasons for the continued persistence of the prairie until the advent of the white man, the decline of the prairie to a few scattered remnants and relics following settlement and cultivation, and finally an account of the prairies of the Arboretum which, synthetic though they be, still offer the student and more casual visitor a reasonable facsimile of the old-time prairie in all its beauty. A list of some of the more outstanding summer prairie plants and their distinguishing characteristics is included and there are several attractive drawings of prairie plants, rendered with great fidelity, by Constance Conrader.

New Trail in Grady Tract Prairie

The Grady Prairie, which was under development until quite recently, is now well established and is being used increasingly by sizeable study groups. Since even ten or a dozen people can do a lot of trampling on a single tour it be-

came evident that a foot trail was a necessity if damage was to be avoided. Such a trail also, of course, makes the job of the tour conductor easier since he can develop his remarks with reference to various known points of interest along the trail. The exact location of the trail, which is now in use, will be indicated on our new Arboretum map which will soon be available.

Lost!

Recently, two of our largest clumps of a species of orchid were dug up and removed from the Arboretum! This rare and delicate plant is totally unsuited for growing in someone's yard. It requires a special environment found only in places where houses are never built. It is almost certain that whoever took these orchids, and probably planted them in a very choice spot in a garden, will have the opportunity of seeing them slowly die.

These plants were in a location not ordinarily visited by the public and we assume that whoever took them was a person who had been personally escorted to their location—someone we considered a special and unusually trustworthy friend. We would like to remind those whose enthusiasm for their own garden sometimes gets the better of all other considerations that many of the individual plants on the Arboretum are planted by hand (these were) and are the object of scientific investigation (these were). Their value to us is much greater than their value as objects of display in a garden.

Vandalism by the ignorant and vicious is to be expected and is of necessity more or less taken in stride, but it is occurrences of the sort just described which are truly discouraging and which cause those charged with the operation of public preserves to wonder whether their efforts have been really worthwhile.

Arboretum Personnel

| | |
|--|-------------------------------------|
| Chairman of the Arboretum Committee..... | Grant Cottam |
| Executive Director | G. Wm. 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, Wisconsin 53706



ARBORETUM NEWS

Vol. 12, No. 4

Madison, Wisconsin

October, 1963

Wildlife

The wildlife of the University Arboretum is a rich and varied resource attractive to both the professional student and the interested layman. The great variety of animal habitats ranging from open water to marshes, swamps, upland forests of several kinds, prairies, abandoned fields and thickets make the Arboretum a haven for most species of wildlife native to this section of the state. A complete listing of all of the forms of wildlife to be found in the Arboretum is impossible. However, approximately 20 species of mammals and over 200 species of birds have been recorded, to say nothing of the fishes, reptiles, amphibians, insects and other invertebrate animals.

The departments of Zoology, Entomology and Wildlife Management have used, and are using, the Arboretum for studies ranging from life history studies to works on the ecology and population dynamics of many of the wildlife species. A number of these projects are long-term. The Arboretum is ideally suited for these because of its stability and relative freedom from disturbance. One such study, the woodcock census study, has been conducted annually for over 25 years. Research projects on cottontail rabbits, songbirds, and small mammals have been in progress for over ten years.

Throughout the year, the wildlife of the Arboretum offers inducements to the interested observer. The wintery scenes are brightened by the flash of a cardinal and the nervous activity of flocks of juncos and tree sparrows. Snowy tracks attest to the comings and goings of foxes, cottontails, squirrels, and the scurryings of mice. As the snows disappear in March, the marshes come alive with songs of the swamp cricket frog, spring peepers, and leopard frogs, while at dusk, the winnowing of snipe and the flight song of the woodcock come down from above.

May sees the return of such excellent songsters as the catbird and wood thrush along with waves of warblers passing through the area. At this time a competent observer may see well over a hundred species of birds in a single day in the Arboretum. June and July are months when many of the birds and mammals are busy rearing their young. Young cottontails and ground squirrels are much in evidence along the roadsides.

Autumn brings its succession of migrant birds, while squirrels rustle in the oak leaves burying their winter stores. Driving through the Arboretum after dark,

one may glimpse a fox or raccoon out foraging.

Regardless of the time of year, the Arboretum offers opportunities for wild-life study seldom found in proximity to a city of Madison's size.

---Robert S. Ellarson

An Arboretum for The University of Wisconsin—Milwaukee

The southeastern part of the state contains the heaviest concentration of people and the largest number of institutions of higher learning in Wisconsin. It is not surprising, therefore, that biologists in this region are experiencing difficulty in finding areas of natural vegetation for their classes and research. To meet this need, The University of Wisconsin—Milwaukee is developing plans for an Arboretum along lines that parallel the development of our own. At present they have selected a site of about 200 acres adjoining Cedarburg Bog in Ozaukee County. The site contains over 60 acres of excellent beech-sugar maple forest, a large amount of lowland forest, and some cultivated land that can be used for the development of other native communities. Its location adjacent to Cedarburg Bog materially improves its potential, since nearly 900 acres of the bog is in state ownership, and about 300 acres of the bog has long been set aside as a Scientific Area. The combination of upland and lowland sites is ideal for teaching purposes, and this Arboretum should be a valuable aid to biologists in the area.

As presently planned, the new Arboretum will not duplicate any of the plant communities now growing on the Madison Arboretum. Milwaukee has a vegetation quite different from that of Madison. Beech and hemlock are both native in the area but absent from Madison, and the forest communities assume quite a different aspect because of the presence of these species. We anticipate that the Milwaukee Arboretum will provide facilities that will be utilized by staff and students from the Madison campus as well as from Milwaukee.

The greatest practical aid in the development of this Arboretum has come from the Wisconsin chapter of the Nature Conservancy. This organization has secured options on enough of the land to make the project practical, and is prepared to borrow enough money from its national office to exercise options on the most necessary properties. It is, however, unable to borrow enough money to finance the entire purchase, and other sources of funds are being investigated.

The Nature Conservancy has been very active in the acquisition of natural areas for the state. Abraham's Woods, Oliver Prairie and Lodde's Mill Bluff are properties destined to be part of the Madison Arboretum that are being financed by the Nature Conservancy. Other areas have been or are being acquired for the use of other institutions. No private organization has done more for conservation in Wisconsin. We are indeed fortunate to be the beneficiaries of so much of their work.

--Grant Cottam

Arboretum Wildflowers Photographed

Mr. Charles C. Johnson, professional photographer from New York City, visited the Arboretum several times during 1963 for the purpose of obtaining color photos of wildflowers for use in one of a series of projected New York Botanical Garden Wildflower Books. This ambitious project is under the direction of Dr.

Harold W. Rickett, Senior Botanist of the Garden. It is planned to treat the United States in five regions, a volume being devoted to each: the northeastern states (including Wisconsin), the southeastern states, the central plains and mountains, the southwest, and the Pacific northwest.

The Weather

The weather, always of concern to us in the Arboretum, was not especially favorable during the planting and growing season of 1963. In part this was due to a carry-over of a very considerable precipitation deficit from 1962, almost 10 inches according to Weather Bureau records. A dry late summer and fall brought both fire hazards and fires, so that at one time it was necessary to close the Arboretum to the public. The dryness also interfered with the development of the prairies, so that they were not nearly as floriferous and attractive as they have been in some years, particularly in the sandy Grady Tract. At the time of this writing in early November we are still waiting for much-needed heavy rains, but the prospects do not appear hopeful. Heavy snows before the ground freezes would be helpful also, but past experience indicates this is not likely in the Madison area. There is no doubt that we will survive these unfavorable conditions, as we came through the prolonged drought of the 1930's when our communities were just being established, but they do cause setbacks which are costly in money and in lost time.

Renovation of Grady Tract Oak Opening

Twenty years ago the oak opening in the south central portion of the Grady Tract justified its name, but, following the disastrous fire in the spring of 1954 when many of the larger trees were destroyed, big sections were "opened up" and weedy thickets of small Hill's oaks sprang up all over the place, almost eliminating the understory of prairie plants by shading and competition, creating an unattractive and almost impenetrable "brush woods" over a large area.

In an effort to reverse this situation and restore the former condition, we relocated a portion of our east-west fire lane system so that, instead of closely bordering the Grady prairie as in the past, it is now much higher up the north slope. This past summer the Arboretum work crew did a major job in brushing out the wide band thus created between what is left of the weedy thicket woods and the prairie. Poison was applied to the stubs of the brush as it was cut to prevent resprouting, and the brush was removed and burned. Selected trees, including all the bur oaks, were left standing. We think that sufficient of the prairie understory is still present so that it will quickly recover and once again become the dominant ground cover. An additional benefit from the removal of this brush is the simultaneous removal of the ever-present fire hazard it created. In the future, we feel that we can actually use fire for the brush and dead vegetation removal that may be necessary, just as we do in the case of our prairies, of which the oak opening is indeed but a transition-extension.

Progress of the Lime Prairie

The lime prairie—that small area in the middle of the Curtis Prairie devoted to the propagation and display of plants characteristic of dry, limestone-capped

hilltops in this region—was one of our communities which showed no perceptible retardation in the face of the dry conditions of 1963. It did famously in fact and was the subject of an illustrated write-up by Janet Schlatter in the *Madison Capital Times* green sheet. This lime prairie habitat was created by depositing crushed limestone, along with larger pieces of the stone, in a thick layer in a limited area and planting with the suitable species. As we expected, weeds were a big problem for the first few years, requiring intensive efforts in eradication, but the desired species have now seeded in to the point where they occupy most of the available growing space and, it appears, will in two or three more years be in control and self-maintaining.

Fall Planting Speeded by New Machine

A mechanical earthballing machine was rented for a month this fall to see what it could do toward lifting plant stock from the nursery preparatory to planting out. Transplanting by hand has always been a tedious job. Trees from 2-10 feet tall were moved from the nursery, with an earthball varying in diameter from 5-15" and in some cases weighing as much as 100 pounds. Stock with a tap root gave more trouble in manipulating than stock with fibrous or horizontal roots. A tractor-mounted auger was used to speed up preparation of the holes to receive the transplants. With this combination of equipment, planting was done at the rate of 200 trees per day.

Fifty trees, the first to be planted, were set out in the Woody Taxonomic Garden. Species planted in this new horticultural area are: *Acer rubrum*, *Betula lutea*, *Betula papyrifera*, *Juniperus virginiana*, *Larix laricina*, *Picea glauca*, *Pinus strobus*, *Populus balsamifera*, *Prunus virginiana*, *Quercus macrocarpa*, *Tilia americana* and *Thuja occidentalis*.

New Arboretum Map

The long-awaited colored map of the Arboretum is off the press! Printed in shades of green on pale blue paper, the map shows trails, firelanes and roads as well as wooded and open areas. The map was conceived and executed by John H. Wilde, professor of art at The University of Wisconsin. He has given an artistic touch to the map without sacrificing accuracy. Diminutive pen and ink sketches add their charm to the over-all effect. These are the work of Mrs. Bentley Courtney, *Friends of the Arboretum* board member.

The reverse side of the map contains a thumbnail description of the plant communities the Arboretum offers for the visitor, indicating the optimum time for a visit. This text, although worked on by many people closely connected with the Arboretum, must be credited to James A. Larsen, Science Editor for the University News Service. His was the monumental task of compiling all the available information and then reducing it to fit the space without loss of continuity. Photos, forming a silhouetted background for the text, were taken especially for the map by Prof. Gary Schulz of the University Photographic Laboratory.

Maps have been distributed to members of the *Friends of the Arboretum*. Funds donated by this organization paid for printing the map. Copies are available from the Arboretum Office, 329 Birge Hall, Madison, Wisconsin 53706, for twenty-five cents per copy.

FRIENDS OF THE ARBORETUM

Annual Meeting; New Officers, Progress Report

The *Friends of the Arboretum* marked its first anniversary in October with a business meeting held Sunday, October 6, under the Jackson Memorial Oak in the



Site of the Woody Taxonomic Garden, University of Wisconsin Arboretum, located on Carver Street at the Fish Hatchery Road.

Arboretum. Mrs. Bentley Courtenay and Mrs. William Sachse were elected to four-year terms as directors. Membership for 1962-63 totaled 311 with an income of \$4,134 in dues, \$640 in memorials and \$510 in contributions. Additional funds were raised to produce a movie, now nearing completion, depicting the Arboretum through the four seasons of the year. It is a general purpose film describing the aims of the Arboretum and its role in relation to the University, the city, the county and the state. Generous support for the filming has been received from the University (\$5,000), the City of Madison (\$1,500) and Dane County (\$1,500). The balance will be borne by the *Friends*. Estimated cost is \$9,000.

At a meeting of the board of directors held immediately following the general business meeting, Mr. Lowell Frautschi was named as president for the coming year, replacing Mr. A. W. Peterson, whose leadership was so effective in getting the *Friends of the Arboretum* off to a good start. Mr. Arthur Towell was elected vice-president and Mrs. John T. Curtis was reappointed secretary-treasurer. Members of the advisory committee, consisting of Professors Grant Cottam (Arboretum Committee Chairman), G. Wm. Longenecker (Arboretum Executive Director), J. H. Beuscher (U. W. Law School) and D. Archbald (Arboretum Managing Director) were asked to serve for a second term.

Professor Grant Cottam presented an evaluation of progress made by the Arboretum this past year. He also revealed plans for the future. The single most important event of the past year was the development and success of the *Friends of the Arboretum*. The contributions made by this organization include (in addition to sponsorship of the movie mentioned above): acquisition of the last lots in the Lost City area needed to complete our holdings; advances in public relations and education through presentation of a trail guide and trail labels for Gallistel Woods and plans for the same for the Curtis Prairie-Noe Woods-Leopold

Pines trail, the Jackson Oak Memorial, and publication of the new Arboretum map; and future plans for publishing a history of the Arboretum.

Cottam also noted continuing progress in development of plant communities in the Arboretum, namely the Woody Taxonomic Garden and the Rocky Mountain Forest, both in the process of early planting this fall. Reestablishment of the Grady Tract oak openings appears elsewhere in this issue of the *NEWS*.

The main purpose of the Arboretum is to further development in education and in research. This past year twenty new research projects were initiated, representing seven different University departments, one private individual sponsored by a University department, and one professor from Marquette University.

Our main problems continue to be the lack of sufficient buildings and sufficient personnel to meet the growing research demands and the public interest stimulated by the *Friends of the Arboretum*. Too fast traffic on the main road through the Arboretum also continues to be a major problem.

Long range plans include further development of plant communities and the hope that a research building, containing facilities for public education as well as University-sponsored research, will become a reality.

Arboretum Personnel

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

In Memoriam

As this issue of the *NEWS* goes to press word has been received of the death of our friend, and former Arboretum Committee Chairman for many years, Albert F. Gallistel. Contributions are being received by the Friends of the Arboretum in memory of Mr. Gallistel.

Friends of the Arboretum
University of Wisconsin Foundation
Box 5025
Madison, Wisconsin 53705

A feature article on Mr. Gallistel will appear in the January issue of the *NEWS*.

The University of Wisconsin Arboretum
Grant Cottam, Chairman
329 Birge Hall
The University of Wisconsin
Madison, Wisconsin 53706