



**Annual Report 1974-1975**

TO THE PROVOST OF THE UNIVERSITY:

SIR,

The observance of the Bicentennial of the United States began in Lexington and Concord in the spring of 1975. The publicity given to the Commonwealth of Massachusetts has cited the Arnold Arboretum in brochures and maps, and has resulted in an increase in the number of visitors to both Jamaica Plain and Weston.

The Jamaica Plain site of the living collections is one of the stops on a Museum Loop Shuttle Bus service, offered free to visitors on weekends. Special attention has been needed, therefore, to the appearance of the grounds and the handling of visitors on weekends. This special need, requiring extra help and expenses, will continue through the next year.

Other national problems have affected the Arboretum through the continuing increase in costs of supplies, in some serious shortages of materials needed for the care of the collections, and in the need for fuel conservation. The Arboretum followed the University policy as far as possible in observing fuel-saving days and reducing temperatures in all buildings. We found it necessary to make an exception in the research greenhouses, where reducing the temperature the previous winter had serious effects on the quality of the collections.

The previous fiscal year had seen an attempt by the City of Boston to acquire the South Street tract of the Arnold Arboretum for a campus-style high school. No sooner had the City of Boston agreed to seek an alternate site, than a bill was filed in the legislature of the Commonwealth to acquire the same site for athletic facilities for Boston State College. To combat these bills, much time has been required on the part of the director and other staff members of the Arboretum, the officers of the University, and even representatives of the National Historic Site Commission in Washington.

The land in question is classified as "wetlands," is inadequately fenced, and has relatively few organized collections. It is, however, included within the boundaries of the Arnold Arboretum as recognized in the National Historic Landmark designation. The land has a reasonable use in teaching and research problems at present, but will be needed more in the future for the development of the living collections. Convincing legislative committees that

open land is useful for current biological studies, and is needed for future growth of trees, seems to be difficult.

Finally it should be noted that the changes in governance and fiscal operation of the University in recent years have had an ever-increasing effect on the Arnold Arboretum. On the fiscal side, additional and increasing charges for University operation in Cambridge are made against all types of endowment and gift funds of the Arnold Arboretum. With restrictions on staff attempts to obtain extra gifts, the result is a decrease in the actual funds available for regular activities of the Arboretum.

The status of collections held by private and public institutions has been the subject of concern among directors and curators in recent years. Three years ago, the National Science Foundation made small grants to selected institutions having collections of biological materials of systematic value, and some of these collections have been termed national resources. The grants for curatorial support were to help upgrade the collections and to insure the availability of material for scholarly work. In contrast to these goals, some departments and museums within the University have chosen to de-emphasize both the status of the collection as a research aid and the role of the curator in the care of the collection.

The decision is expressed in a policy of appointing only "professors," who will have a stipulated and required teaching assignment. This action has been proposed as a University-wide policy. The role of a "curator" versus a "professor" has been the subject of continuing discussions within the Arnold Arboretum staff, with the Committee to Visit the Arnold Arboretum, and with deans and administrative officials of the University.

The role of the Arnold Arboretum has been quite different from that of other departments, or even some museums, in its financial independence of Harvard tuition income, in its association with the public and with the City of Boston, in the emphasis of curatorial excellence in living and other collections, in the emphasis of research based on these collections, and in its traditional method of staff appointment for research and service, with only an option of compensated teaching within the University. The complex and difficult role of a self-supporting arboretum with a significant autonomous reputation must be considered in its association with a special public, as well as with one of general interests, with a city and with a university. Many differences of opinion are unresolved at the present time, and discussions will continue.

#### STAFF

There were staff changes in the several sections of the activity of the Arnold Arboretum. Mrs. Patricia Hall resigned as librarian of the Gray Herbarium and Arnold Arboretum, and we secured the services of Mrs. Lenore Dickinson on transfer from within the University. In the herbarium, Professor Norton Miller arrived to assume his duties on January 1 and Dr. Shiu-Ying Hu was given a leave of absence to teach at Chung-Chi College in Hong Kong. In the

horticultural area, Mr. Edward H. Flaherty, III, was appointed curatorial assistant. Dr. Yin-Tse Lee was reappointed a Mercer Research Fellow.

Resignations were accepted for Mr. Robert Hebb, assistant horticulturist; Miss Pamela Bruns, illustrator; and Mr. William Grime, curatorial assistant.

## HORTICULTURE

The living collections of the Arnold Arboretum are grown on 265 acres in Jamaica Plain and 110 acres in Weston. By an agreement, nearly a century old, with the City of Boston, the grounds and therefore the collections are open to the public at "reasonable hours." The care and development of the collections are the responsibility of the staff, while the maintenance of roads, paths, benches, and fences is the responsibility of the City of Boston, which also supplies police and fire protection.

Not all of the Arboretum is fenced in, and even the fenced areas cannot be closed due to nonfunctioning gates. In fact, the Arboretum collections are open all of the time. A periodic review, by staff and Visiting Committee, of the problems of nighttime parties, vandalism to plants, labels and buildings, litter, undisciplined visitors, illegal behavior, fires, etc., commonly results in recommendations of additional guards, better fences, locked gates, and admission fees. Contrasting recommendations have also been received from legal advisors within the University, security agencies, and the Police Department. Although the problems remain unresolved, they are less than those experienced by arboreta in other major cities, although that is small consolation.

During April and May, Captain L. Quinlan of Station 13, Boston Police Department, had a twelve-hour patrol from 10:00 A.M. to 10:00 P.M. in the Arboretum each day. This resulted in a marked improvement in the crowd behavior and in the litter problem.

The original indenture directed the staff of the Arnold Arboretum to grow all plants hardy in the vicinity of West Roxbury. Sargent and subsequent directors limited observance of this directive, for the most part, to woody plants appropriate in an arboretum. Many plants are acquired and placed on the grounds only to be lost through a lack of hardiness, improper environmental conditions, theft, injury, or many other factors.

The grounds of the Arnold Arboretum were mapped carefully in the 1940s, and the location of each plant recorded in the permanent files. It is today one of the most carefully documented living collections. The collections in 1949 numbered 3,861 taxa. Additions and losses have been variable in subsequent years, but in 1974-1975, 6,186 hardy taxa, as species, varieties and cultivars, are within the living collections in Jamaica Plain and Weston.

Other taxa are in greenhouses or nurseries as young plants or research collections and are not counted. Each taxon is represented by one or more plants and often by several collections from different geographic areas or different sources. The records of the Arnold

Arboretum living and dead collections are incorporated in the data bank of the Plant Sciences Data Center, and printouts of the computer records are available.

The greenhouses and plant propagation efforts are fundamental to the care and maintenance of a quality living collection. [Mr. Fordham](#) and his staff handled 617 taxa within the greenhouses: for replacement of plants on the grounds (339), for information on methods of propagation (220), for general observation (12), for distribution (20), and for staff research (26). Requests are received from other organizations for seeds or propagation material, and these are filled whenever possible. Thus, 99 shipments representing 468 taxa of plant materials were consigned within the United States, and 11 shipments of 69 taxa were made to seven foreign countries.

We received from United States sources 71 shipments of 161 taxa; and from eight foreign countries, 12 shipments of 37 taxa. Although it is easier to ship and receive materials as seeds, these have genetic variability, and may be less than satisfactory for research purposes. Nevertheless, we requested and received 114 shipments of seeds, from the United States and thirty other countries, of 589 taxa; and distributed on request 48 shipments, to eleven countries, of 186 taxa.

The major landscape development on the summit of Bussey Hill was completed during the first part of the fiscal year and opened formally on a special invitation to the Friends of the Arnold Arboretum in October. The construction was done by Delmonico Construction of Hull, Massachusetts, under the supervision of Mr. Vincent Merrill of Shurcliff, Merrill and Fottit. The plantings were done by the Arboretum grounds crew. The attractive new area, with benches and walls, has drawn many visitors to its special plantings of summer-blooming plants.

Labeling and mapping of the plants has been the responsibility of Mr. Edward Flaherty, who received support from Volunteers as well as from summer student trainees in checking maps and plants for labels. It is the goal of the staff to have a collection truly representative of plants hardy in the area. These are to be well grown, accurately named, properly mapped and labeled, attractively displayed, and studied or available for study by scholars from the Arboretum staff as well as the other University departments.

#### CASE ESTATES

The Case Estates in Weston comprise approximately 10 acres and serve as a general nursery area for recent introductions; an area for accessioned collections, either not wanted or for which there is no room in Jamaica Plain; and an area for display collections of special educational value. Staff research projects can also be accommodated in Weston, and to facilitate this use, new irrigation lines are being installed by our staff on a program to take several years. The ground cover plant collections and those of medicinal herbs are also under renovation on a schedule.

Two buildings in Weston, the Red School House and the Barn, are used for teaching, as classrooms or informal laboratories. The central portion of the brick barn has excellent acoustics and is used for meetings of 50 to 150 people. During the winter the wood paneling of this area was cleaned and refinished, and the entire building checked for safety.

At the request of the director, the Harvard Corporation voted to permit the town of Weston to take 10,446 sq. ft. of land of the Arnold Arboretum in Weston for a compensation of one dollar (\$1.00). This taking is associated with a long-planned and equally long-delayed action to widen Wellesley Street in order to permit sidewalk and bicycle paths for the protection of pedestrians and visitors to the Case Estates.

## HERBARIUM

In a multifaceted trade for space, involving the Botanical Museum and the Museum of Comparative Zoology, the herbaria acquired three units within the MCZ, representing approximately 3,000 sq. ft. With funds supplied largely by the Dean of the Faculty of Arts and Sciences, the rooms were renovated for herbarium, research and office space.

Professor Carroll E. Wood, Jr., moved his office into one of the units, along with the resources and staff of the project on the Generic Flora of the Southeastern United States. The herbarium cases containing the herbarium of the New England Botanical Club, a responsibility of the Gray Herbarium, occupy slightly more than one unit, and the remainder of the space now holds the collections of ferns and related nonflowering plants. The shift of these collections permitted some expansion of the storage of each. Special attention has been given during the year to curating the ferns, with funds from the NSF curatorial grant. This collection is now in superb condition.

The removal of the New England Botanical Club collection from the fourth floor of the Harvard University Herbaria building has permitted further adjustments within the building. A suite of three rooms, forming an office and laboratory complex, has been designed for Professor Rolla Tryon, of the Gray Herbarium, and his associates. This will be completed and occupied during the next fiscal year. A small room has been created for archival material previously scattered in miscellaneous files. Professor Miller has acquired space, adjacent to his office, which will be remodeled as a laboratory. Dr. Schubert will obtain a larger office, and Professor Howard will acquire a small laboratory area.

While additional space is welcomed by the recipient staff members, the problems of overcrowding of library and herbarium collections remain critical. The University did approve the hiring of an architect to prepare drawings for an addition to the Herbaria building. A prospectus including such drawings will be needed when funding for construction is solicited. Hopefully, the addition contemplated will offer proper housing for herbarium specimens and library resources, as well as supply the laboratories and offices for professors of biology.

The herbarium of cultivated plants and general herbarium storage, maintained in the administration building in Jamaica Plain, was fumigated by the Waltham Chemical Company over the Christmas holidays.

A Herbarium Committee was formed under the chairmanship of Professor Miller. An initial duty of the committee was to seek a replacement for Mr. Grime, and Mrs. Jackie Smith was selected to begin her duties in the next fiscal year. With the changes in the herbarium location of specimens, a new leaflet, Information for Visitors, was prepared, and the leaflet on loans and the handling of specimens was revised. At the end of the year all microscopes in the herbaria were inventoried, and were cleaned and adjusted on a special contract.

The curatorial grant received from the National Science Foundation was renewed for the third year of a possible five-year period. The grant to Harvard is administered in the office of the Gray Herbarium on behalf of the Arnold Arboretum, Botanical Museum, Farlow Herbarium and Library, and the Gray Herbarium. The grant has permitted the hiring of additional personnel for mounting of specimens and for curatorial work, and the result of this additional labor is evident and welcome.

The herbarium is an active one. The collections are fundamental to the research of many of the staff, and are regarded as a significant national systematic collection. The requests for loans honored during the year comprised 129 loans of 18,288 sheets from forty-six institutions within the United States, and 55 loans of 8,105 sheets from thirty-two institutions in other countries. Specimens mounted and inserted in the herbarium totaled 15,004, bringing the accessioned herbarium to 1,026,459 specimens, of which 154,044 comprise the herbarium of cultivated plants in Jamaica Plain. A total of 16,339 specimens were received: 10,012 by exchange, 2,110 as gifts, 3,632 by subsidy, and 594 in return for identification. In contrast, 3,894 specimens were sent in exchange. The herbarium collections housed in the Harvard University Herbaria building in Cambridge require repeated adjustments, due to the lack of sufficient space for proper storage and curating. Another 25 Merrill cardboard boxes were added during the year, making a total of 2,396 such cardboard boxes holding regular herbarium specimens, used in stacks or on top of other cases. In addition, it has been necessary to remove unidentified specimens from the generic sequence in the herbarium in order to house properly regular and identified collections. At present the basement area holds twenty-five cases of such material, identified only to genus or family, and removed from the regular sequence. This is admittedly improper care of valuable collections, but the best that can be done until additional space and facilities become available.

The research of the staff includes floristic studies, monographs, and investigations of single taxa. A bibliography of thirty-four published papers and books indicates the type of projects completed and published during the past fiscal year by the staff.

## LIBRARY

Mrs. Lenore Dickinson assumed the duty of head librarian on August 1, 1974, on a joint appointment with the Gray Herbarium. Mrs. Dickinson is assisted in the library operations by three fulltime library assistants in Cambridge, also shared with the Gray Herbarium, and one library assistant in Jamaica Plain. Students are employed for shelving of books and routine cleaning in Cambridge, and Volunteers have assisted materially in Jamaica Plain.

A Library Committee was appointed, consisting of staff members from the Gray Herbarium and the Arboretum under the chairmanship of Dr. Bernice Schubert, to assist the library staff in policy decisions.

The number of botanical periodicals pertinent to areas of staff interest seem to increase yearly. The subscription costs of both new and existing periodicals have increased, as have expenditures for binding, supplies and equipment. Throughout the University library system, efforts to restrict budget increases have led to an examination of library holdings. In the Biological Laboratories, for example, subscriptions to periodicals are being canceled if the journal is in another library in Cambridge or Boston. This is certain to increase even more the student demands upon the Arboretum library. To the present, however, no journal has been dropped from the Arboretum holdings.

Since its beginning the library of the Arnold Arboretum has had an individual system of cataloguing and book arrangement. This was feasible while the library was small or increased slowly; while the primary use was by a cooperative staff; and while management was through the personal interest of a librarian who was familiar with the arrangement through long years of service. All these permissive factors have been changed in recent years, and the necessity of adopting a standard system has become evident. Thus, the Library of Congress system of cataloguing has been adopted for new accessions, and as time permits, volumes or sections of the current library will be changed to conform. Catalogue cards under this system can be obtained from the Library of Congress, from other research libraries such as the National Agriculture Library, or from the publishers when ordering books. The reference collections in Cambridge and Jamaica Plain will be the first areas where the Library of Congress classification can be put into effect. In time the staff adapts to the methods being taught to library personnel.

There has been an 18 percent increase in total library circulation over the past year, and the use of books by other than staff and students within the Herbaria building is now 20 percent of total circulation. The requests for books on loan have been handled largely by photocopies, and only three volumes were sent on interlibrary loan during the year; while the 277 photocopy requests filled represented a 20 percent increase in such service. Following the discovery of vandalism of rare books, an alarm system was installed in the library, greatly restricting the off-hour use of the library by the scientific staff.

With financial assistance provided by the Massachusetts Council on the Arts and Humanities, it was possible to repair and restore the bindings on a number of valuable books of

the eighteenth and nineteenth centuries. The curatorial grant from the National Science Foundation has provision for some retrospective binding and restoration of volumes, as well as the acquisition of book boxes for the storage of unbindable materials. The regular binding program for periodicals is continued with unrestricted funds of the Arnold Arboretum.

Archival materials associated with the library holdings include catalogued collections of kodachrome slides and historic negatives of Wilson and Rock expeditions. Many hours of labor were contributed in Jamaica Plain by Volunteers during the year in renovating both the kodachrome slide collection and the negative files. The glass negatives exposed by Wilson have been placed in special plastic envelopes for better protection, and the legends have been carefully restored on these and the Rock pictures.

The library was increased during the year with the addition of 1,433 catalogued items to total holding of volumes and pamphlets of 84,346.

## EDUCATION

The staff of the Arnold Arboretum must function within several distinctive educational levels in the Boston community. By terms of the endowment, the Arnold Professor and Director of the Arnold Arboretum is required to teach the knowledge of trees within the University. The role of other staff members in college and university teaching has varied over the years. The opportunity to teach at Harvard has been extended to qualified staff members, who have had various joint appointments, usually as lecturers but occasionally as assistant or associate professors, in addition to their regular curatorial appointments. Some departments and museums within the University have now adopted a policy of appointing only professors, who will be required to teach a minimum number of courses.

Curatorial work in these museums will only be supervised by the professors, and no public service function will be required. Traditionally and in practice the Arnold Arboretum has not been solely a teaching organization, but one devoted to research, offering its collections for public visitation or scholarly use to horticulture as well as botanical need. Both teaching and service roles of some or all of the staff have involved contacts with a general public in answering questions, lecturing or conducting tours, supplying material, preparing exhibits or displays, and writing at various levels. However, the role of the curator in maintaining collections is still valid and fundamental to an organization whose traditional work is based on collections of living plants, dried specimens and library books.

Professor Wood taught all or part of three regularly scheduled Harvard courses in biology during the year: Biology 103, The Taxonomy of Vascular Plants; Biology 11a, Diversity in the Plant Kingdom; and Biology S-105, Plants of the Tropics. Professor Howard shared the summer course with Professor Wood and also, in the fall semester, offered Biology 209, The Phylogeny of the Flowering Plants. Professors Howard and Wood and Dr. Schubert all supervised the work of graduate or undergraduate students in numbered research courses.

Two Summer School classes were offered at the Arnold Arboretum in Jamaica Plain. Biology S-110, Principles of Practical Horticulture, was taught by Dr. DeWolf; and Dr. Weaver offered Biology S-109, Taxonomy of Cultivated Plants. An evaluation is now being made of the participation by Arboretum personnel in the Summer School program in view of the distance from Cambridge, the lack of air-conditioned lecture rooms as well as of proper laboratories and equipment, and the difficulties of involving the staff in summer instruction programs without additional direct compensation.

The staff members of the Arnold Arboretum are invited to present seminars or lectures at other colleges, and they meet college classes that visit the Arnold Arboretum. [Mr. Fordham](#) has the greatest contact in this area, for most biology or horticultural classes visiting the Arboretum request explanation of the propagation work or the procedures used in the greenhouses and nurseries.

For tours of the collections, primarily in the spring, the Volunteers are willing and able to lead visiting garden clubs or plant study groups, but the curatorial and professional staff is involved in the explanations and tours of college groups in the library, herbarium, greenhouses and laboratories.

Nationally and internationally, members of the Arboretum staff have had roles in professional organizations. As selected examples, Dr. DeWolf has served on the International Orchid Commission on Classification, Nomenclature and Registration. He attended the Eighth World Conference in Frankfurt, Germany, and was elected chairman of the commission. Dr. Schubert has attended the Mexican Botanical Congresses and has served as an active section chairman. In preparation for consideration at the International Botanical Congress, Dr. Schubert has served as chairman of the Standing Committee on Stabilization of Specific Names. For the past two years, Professor Howard has been president of the American Association of Botanical Gardens and Arboreta.

Many requests are received for staff members of the Arnold Arboretum to be speakers, or to take part in various ways in local organizations and projects. Staff members usually will speak without charge within the communities where the Arboretum is located, i.e., Jamaica Plain, Cambridge and Weston. Our instructional programs are coordinated with those offered to the public by such local organizations as the Garden in the Woods, the Massachusetts Horticultural Society, Wellesley College, the Audubon Society, Habitat Inc., and the Cambridge and Boston Adult Education Programs. Mr. George Pride serves as coordinator for the Arboretum in these programs. He has also represented the staff at the Earth Week Inner City environmental conference on the theme of changing vacant lots to garden plots. As these gardens developed, he served as a judge for the Street Scene exhibits in Cambridge and for the 4-H Club vegetable workshop in Dorchester-Roxbury.

The nationwide interest in conservation, particularly the category of endangered plant species, has also involved the staff. Professor Wood was invited to participate in a discussion at

River Front Farm in Virginia, where twelve botanists and a total of fifty people attempted to prepare for publication a list of such taxa. Dr. DeWolf chaired a session on plant materials for the International Conference on Preservation and Restoration of Historic Gardens and Landscapes, held at Dumbarton Oaks in Washington, D.C. Locally, Professor Howard has attempted to contribute a "reasonable approach" in advising on some drastic legislation proposed for the Commonwealth of Massachusetts by concerned citizens.

Staff handling of sales and rentals of our two educational films has proved costly in time. We asked for and received competitive bids from film distributors, and contracted with Macmillan Films for the distribution of *The Arnold Arboretum and Poisonous Plants*. With extensive advertising by this company, the film will receive wider use, and the staff has the right to retain several copies for local use.

Displays explaining the work of the staff, or the plants grown at the Arnold Arboretum, are often requested by schools and libraries. The lecture room in the administration building in Jamaica Plain offers wall space for some exhibits. One of "Plants in Many Moods," comprising the photography of Peter Chvany, was followed by photographs of botanical gardens and arboreta of the United States by Professor Howard.

An exhibit of poisonous plants was displayed in Widener Library during the summer and fall. Specimens of species roses, embedded in plastic by one of the Arboretum Volunteers, have made an attractive exhibit which has been displayed in libraries in the suburbs of Boston. The transparency display panels, used in Jamaica Plain, have formed part of an exhibit in the Information Office in Holyoke Center, and artifacts of the Wilson expedition to China were supplied to the Boston 200 Committee for the exhibit "Where's Boston" staged at the Prudential Center.

The James R. Jewett Fellowship was awarded to Mr. Larry Morse, a graduate student, for support of field work in a study of the species of *Hudsonia* in the coastal areas of North America.

#### PUBLICATIONS

An Editorial Committee was appointed during the year to aid Dr. Bernice Schubert, who has served as editor of the [\*Journal of the Arnold Arboretum\*](#) since 1963. In October of the fiscal year, Miss Kathleen Clagett was appointed technical editor, Dr. Schubert continuing as chairman of the Editorial Committee which will assume responsibility for the botanical content of the manuscripts submitted. The four numbers issued during the fiscal year included twenty-six articles by thirty-two authors, and totaled 626 pages. The new cover for Volume 56, 1975 represented a mass collection of leaves of *Sassafras albidum* drawn by Karen Velmure.

Mrs. Jeanne Wadleigh served as editor of *Arnoldia*, and the six numbers issued during the fiscal year totaled 550 pages. A treatment of "Low Maintenance Perennials," by Robert Hebb, was issued as two numbers. One number was devoted to "Wild Plants in the City," by

Nancy Page and Richard Weaver. "Lichens," by Weaver, and "Poison-ivy," by William Gillis, were long articles of other issues.

The first volume of *Flora of the Lesser Antilles* was published by the Arboretum during the year. A grant from the Stanley Smith Horticultural Trust made possible the printing by the Harvard University Press. The first volume contains a treatment of the Orchidaceae by Leslie Garay and Homer Sweet, and introductory historical and phytogeographical data by Professor Howard.

Hastings House Publishers, Inc., issued Stephanie Sutton's biography of Joseph Rock under the title, *In China's Border Provinces*. This work utilizes many of the historical records and photographs among the collections of the Arnold Arboretum. Rock made one trip to China sponsored by the Arnold Arboretum during the administration of Charles Sargent.

Quadrangle/The New York Times Book Company reprinted "Wild Plants in the City," by Nancy Page and Richard Weaver, which was issued originally as a number of *Arnoldia*.

The press also plans to reprint and distribute the two issues of *Arnoldia* by Robert Hebb on "Low Maintenance Perennials."

Harper and Row Publishers, Inc., published *A Student's Atlas of Flowering Plants: Some Dicotyledons of Eastern North America*. This work was planned and prepared under the direction of Professor Carroll E. Wood, who was assisted by Dr. Elizabeth Shaw, Karen Velmure, and Dr. Kenneth Robertson. The original printing was soon depleted and a second printing, with a new title page, was issued during the year.

The staff also prepared a new brochure and map for the collections in Jamaica Plain, which incorporates additional data on publications and on the Friends of the Arnold Arboretum.

#### GIFTS AND GRANTS

Professor Carroll Wood received a grant from the National Science Foundation for a one-year extension of the research associated with a generic flora of the southeastern United States. Professor Howard received a grant from the Stanley Smith Horticultural Trust to aid in the publication of a volume of the *Flora of the Lesser Antilles* issued during the year.

The Friends of the Arnold Arboretum generously contributed monetary gifts as well as gifts in kind. Gifts of books for the library were received from Mrs. F. S. Deland, Mrs. S. C. Lee, and Mrs. Maud E. Upton. Memorial gifts were accepted in memory of Mrs. Peter Boshco, Stephen Britton, Loring Conant, William Coulter, Sr., Virginia S. Jewett, Elisha Wilson Morse, and Stanley Woicik.

RICHARD A. HOWARD, Director