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2013

Arboretum Annual Report 2012-2013

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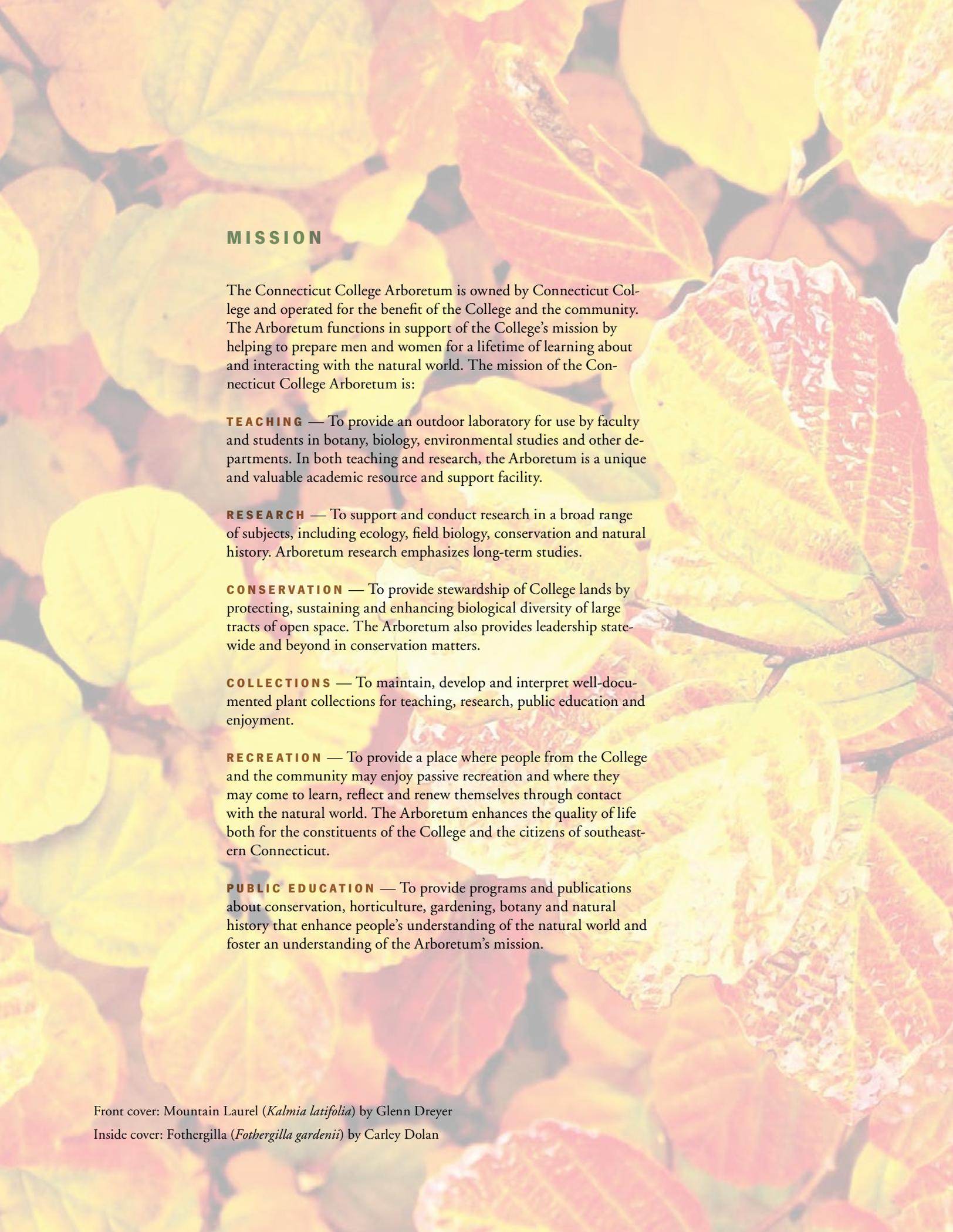
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Connecticut College
Arboretum Annual Report
2012 – 2013



MISSION

The Connecticut College Arboretum is owned by Connecticut College and operated for the benefit of the College and the community. The Arboretum functions in support of the College's mission by helping to prepare men and women for a lifetime of learning about and interacting with the natural world. The mission of the Connecticut College Arboretum is:

TEACHING — To provide an outdoor laboratory for use by faculty and students in botany, biology, environmental studies and other departments. In both teaching and research, the Arboretum is a unique and valuable academic resource and support facility.

RESEARCH — To support and conduct research in a broad range of subjects, including ecology, field biology, conservation and natural history. Arboretum research emphasizes long-term studies.

CONSERVATION — To provide stewardship of College lands by protecting, sustaining and enhancing biological diversity of large tracts of open space. The Arboretum also provides leadership state-wide and beyond in conservation matters.

COLLECTIONS — To maintain, develop and interpret well-documented plant collections for teaching, research, public education and enjoyment.

RECREATION — To provide a place where people from the College and the community may enjoy passive recreation and where they may come to learn, reflect and renew themselves through contact with the natural world. The Arboretum enhances the quality of life both for the constituents of the College and the citizens of southeastern Connecticut.

PUBLIC EDUCATION — To provide programs and publications about conservation, horticulture, gardening, botany and natural history that enhance people's understanding of the natural world and foster an understanding of the Arboretum's mission.

Front cover: Mountain Laurel (*Kalmia latifolia*) by Glenn Dreyer

Inside cover: Fothergilla (*Fothergilla gardenii*) by Carley Dolan





CONNECTICUT
COLLEGE

THIS REPORT FEATURES HIGHLIGHTS of the Arboretum's 2012 – 2013 academic year. The Arboretum is operated as a department within Connecticut College that reports to the Dean of Faculty, and our primary mission is to support the College's educational endeavors, especially teaching and research by faculty and undergraduate students. Our "living laboratory and museum" is a unique and often used asset in the academic program. Secondly, we have always made public education a priority, especially in the areas of environmentally appropriate landscape management and the appreciation of native plants and ecosystems. Within these pages you will glimpse some of the ways that we accomplish our mission and serve the college and the surrounding community.

Climatically, the year and a half between late summer 2011 and mid-winter 2013 has been most challenging. This period began with Hurricane Irene, the first big windstorm here in a few decades. Thinking we were off the hook for at least a few years, we were surprised to experience Super Storm Sandy in late October 2012. Between those two major wind and rain events many of the Arboretum's weaker trees (and fences, and signs) were either wind thrown or broken. With my interest in arboriculture, I couldn't help but notice that many of the trees that broke apart above the ground line did so at branch/trunk junctions that we describe as "co-dominant leaders." These are places where two nearly equal size branches diverge from the single trunk to create a tight, "V" shaped junction that can never form a strong attachment. The area where these double leaders touch each other, which increases as the stems grow in diameter each year, lacks protective bark. The wood in this tight zone begins to rot over time, forming the weakest node over the length of the tree trunk. These weak spots are where trees break first when higher than normal winds push against them.

Finally in late January 2013 a heavy, wet, 20 inches of snow fell that further challenged our woody plants. This time it was mainly shrubs that were adversely affected. The layers of snow weighed slender shrub branches down to the ground. As snow, and then ice, continued to fall, the branch tips were buried, then frozen in place for a number of weeks. Many shrubs and small trees were unable to spring back, and the effect of this winter storm will be very evident in their shape for years to come, though most people will have no idea what caused them to take on such strange shapes.

Thus our small grounds staff has had lots of experience with storm clean up over the past few years, and is really looking forward to shifting energy toward regular maintenance chores and new planting projects. So far, things look good for the rest of 2013.

Glenn D. Dreyer
Charles & Sarah P. Becker '27 Director



First customers at the Annual Mother's Day plant sale.

ASSISTANT DIRECTOR KATHY DAME develops and oversees the Arboretum's public education programming with the help of a volunteer committee. In recent years she has greatly increased programs designed for children while continuing regular programming for adults. The free children's programs are presented under the title "Let's Explore! Nature Activities for Kids" and are taught primarily by Kathy and six volunteers.

ADULTS

| Program Type | No. of Events |
|----------------------|----------------------|
| Conference | 2 |
| Lecture/Short Course | 1 |
| Guided Walk | 4 |
| Workshop | 8 |
| Plant Sale | 2 |
| Photography Contest | <u>1</u> |
| Total Events | 18 |
| Total Participants | 370 |

CHILDREN

| Program Type | No. of events |
|---------------------|----------------------|
| Workshops | 10 |
| Walks | 3 |
| Storytelling | 2 |
| Other | <u>1</u> |
| Total Events | 16 |
| Total Participants | 300 |

PROGRAM HIGHLIGHTS

Children's programs covered a wide range of environmental education topics including: seed planting and seed dispersal, forest forensics, fall foliage, geology, honey bees and even the Sonoran Desert.

One particularly well received adult program was "Developing Your Home Landscape" taught by Arboretum Curator Mary Villa in four sessions. Utilizing a new



Top: “The Traveling Seed” children’s workshop. Bottom: Guest speaker/singer Michael Caduto signed books after Members and Friends Night.

large classroom in the renovated New London Hall, each participant worked on a landscape plan for their home grounds after learning some basics from Mary. The program proved so popular that a second, four week session was added immediately following the first.

The Arboretum’s annual Members and Friends Night is the venue for awarding prizes in our Capturing Nature’s Beauty photography contest. The guest speaker for the June 2013 event was educator, author and singer Michael J. Caduto. Michael delighted children and adults alike with his storytelling and singing based on Native American and colonial traditions around the theme “Earth Gardens and the Seasons of Life.”

SALT — Smaller American Lawns Today — was conceived by the late Professor William A. Niering to promote environmentally sound landscape design and management that encourages biological diversity. The Arboretum has carried on Dr. Niering’s passion for ecologi-

cally based landscaping with an annual, multiple speaker seminar aimed at home owners. This year the SALT Seminar celebrated its 10th anniversary with the theme “Gardening in a Changing Environment.” Award-winning garden writer and photographer Ken Druse led the speaker roster.

With a similar foundational idea, the Arboretum also presents a conference for landscape design and management professionals each year, a two day symposium on ecological landscaping. In January 2013 we offered “Critical Interactions: Ecological Research into Landscape Design,” and over 100 people participated. These mid-winter, interdisciplinary symposia have been collaborations between Larry Weaner’s New Directions in the American Landscape, The University of Pennsylvania’s Morris Arboretum, and the Arboretum since 1990.

The New London Garden Club and the Arboretum sponsored a public meeting in late April on campus about conflicts between trees and utility lines at which Glenn Dreyer spoke on the “Right Tree, Right Place” concept. Also on the agenda were presentations by a former municipal Tree Warden and an Attorney who spoke about legislation resulting from the state’s Two Storms Panel recommendations to secure the state’s power and communications infrastructure.

TOURS

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The Arboretum offers free, public tours each week from May through October. Each Sunday afternoon one of the three major collections — Native Plants; Caroline Black Garden, or the Campus Landscape — is featured. The tours are conducted by trained volunteer docents. This year three of our most experienced volunteers Ken Graham, Allen Gauthier, and Tracy Burrell trained three new docents.

The Arbo Project, supervised through the college’s Office of Volunteers for Community Service, continued to organize children’s environmental education walks through the arboretum led by college students.

The Arboretum also makes private guided tours available to organizations, which this year included the Bethany Garden Club, New London Garden Club, Essex Garden Club; home schooled children, the Stoneridge Retirement Community, and two for the college Administrative Division’s year end celebration.

THEATER and MUSIC in the ARBORETUM

Flock Theater continued to use the Arboretum Outdoor Theater and Buck Lodge free of charge to present three plays during summer of 2012: *A Midsummer Night’s*



Left: Flock Theater presented Shakespeare's Henry V in summer 2012. Above: Dogbite performed at the June 2013 "Music in the Meadow" concert. Opposite page: Class of 2013 streamed down the Laurel Walk heading for the Outdoor Theater to attend a new Senior Week event called "Lilypad."

Goodwin-Niering Center Department Assistant Keleigh Baretincic. All photos were on display in the first floor of the Olin Science Center during the three middle weeks of June.

CHILD CATEGORY

- 1st Place — Weston Courtright for "The Lookout"
- 2nd Place — Lillith Davies-Smith for "Mother Nature's Awakening"
- 3rd Place — Weston Courtright for "Reach for the Sky"

TEEN CATEGORY

- 1st Place — Madeline Kollegger for "Strength"
- 2nd Place — Madeline Kollegger for "Under the Rock"
- 3rd Place — Holly Gagnon for "Enoch 18:14"

ADULT CATEGORY

- 1st Place — Linda Deabay for "Waterfall"
- 2nd Place — Denise Davies for "Winter Reflection"
- 3rd Place — Denise Davies for "The First Green"

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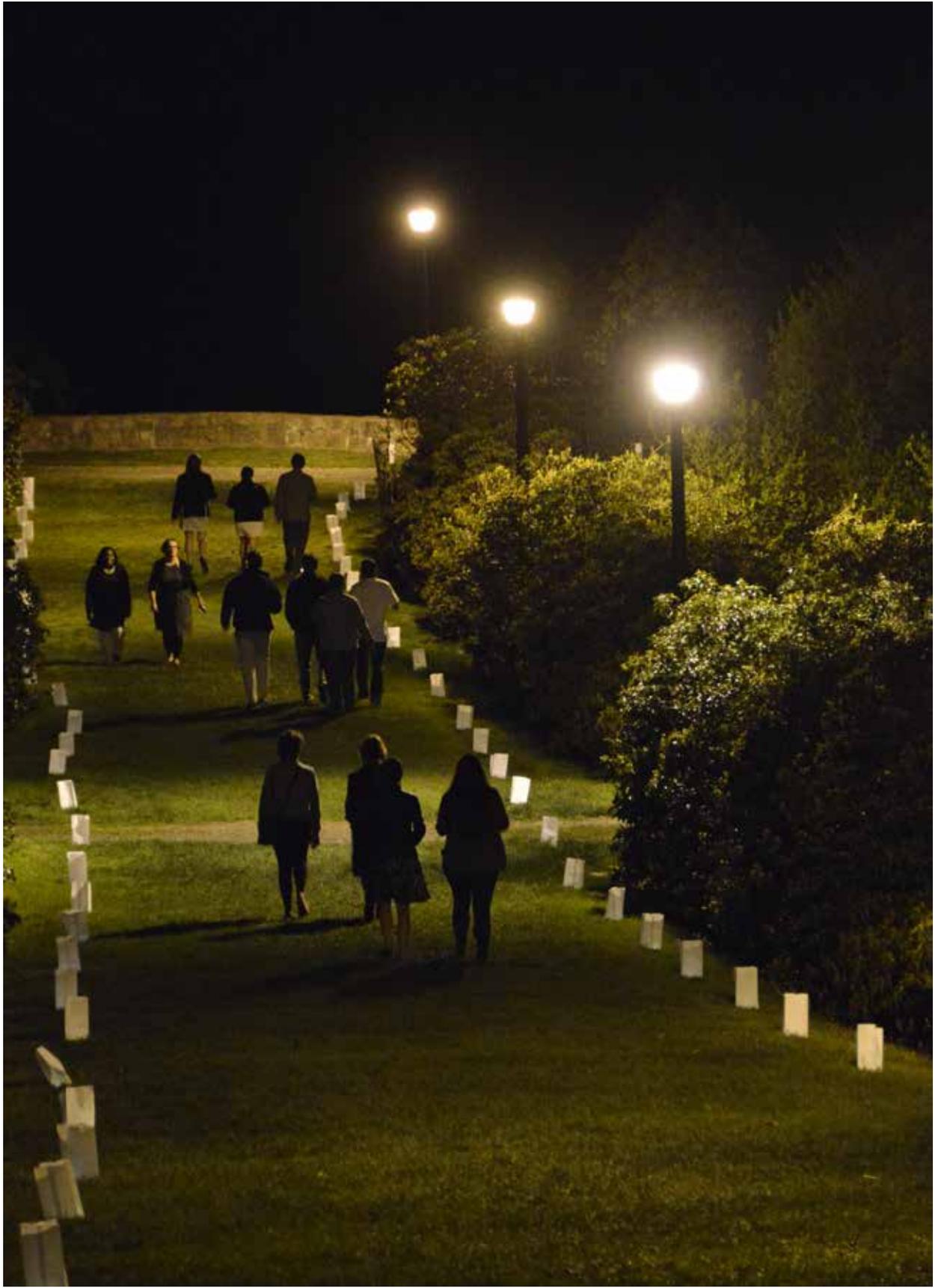
Dream in June, *Henry V* in July, and *The Crucible* in August. Approximately 1700 people came to the Arboretum to enjoy the shows.

In an effort to increase and diversify utilization of the Arboretum by the campus community, the Outdoor Theater was opened up to more student events. During this year the Junior Class produced two concerts featuring bluegrass/roots music each attended by over 200 hundred students. As part of the creation of new senior week traditions, the Senior Class used the Outdoor Theater in mid-May to stage a semi-formal dance called "Lilypad."

On the last weekend in June the Arboretum sponsored our first outdoor concert, called "Music in the Meadow" featuring local folk/roots/rock favorites Nancy Parent, Dogbite and the Hoolios. Much credit goes to College Relations graphic artist and local musician, Ben Parent, who was very involved in all aspects of this event (including performing in his wife Nancy's backup band).

PHOTOGRAPHY CONTEST

The annual photo contest "Capturing the Beauty of Nature," now in its 14th year, was judged by Prof. Anthony Graesch, Computer Support Specialist Mary Kallio, and





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THE ARBORETUM PROVIDES STEWARDSHIP for all 750 acres of college land, landscapes and natural resources that form a unique, living laboratory to support college teaching and research. During 2012 the Arboretum was utilized in many different college courses, including the following:

- Bot 105 Introduction to Botany
- Bot 225 Systematic Botany and the Local Flora
- Bot 315 Plant Ecology
- Bio 105 Organisms
- Bio 207 Ecology
- Bio 224 Animal Ecology
- Bio 307 Freshwater Ecology
- ES 115 Introduction to Physical Geology
- ES 210 Hydrology
- ES 312 Vector Based GIS
- ES 313 Raster Based GIS
- ES 315 River Environments

A rather different interdisciplinary teaching experience took place in the fall semester when Botany Professor Chad Jones and Studio Art Professors Andrea Wollensak

and Denise Pelletier utilized a Sherman-Fairchild Foundation grant to integrate botany and art in their courses. One set of art projects was done at various locations around the Arboretum and campus, while other indoor projects were created with objects collected in nature. Associated with this semester long event was an exhibition in Cummings Arts Center Galleries, “Systema Naturae: The Order of Nature,” that showcased the work of Swedish artists Carina Fihn and Berit Jonsvik. They were inspired by the life and work of 18th-century Swedish naturalist Carl Linnaeus. Fihn and Jonsvik employed a wide range of media – including artist books, photography, drawing, printmaking and video – to pay homage to Linnaeus, who is best known for creating systems for naming and classifying plants and animals. Part of the exhibit was devoted to beautiful, full size scanned images of herbarium specimens from the college’s CB Graves Herbarium.

Professor Jones and Glenn Dreyer continued their work on compiling a checklist of all native and naturalized vascular plants growing outside cultivation in Connecticut. There have been many name changes and plant family reassignments since the last checklist was produced in 1979, and it is anticipated that this publication will help field botanists, consultants, landscapers and gardeners catch up and start using the correct terminology.



Opposite page: A temporary student environmental art installation near the Edgerton and Stengel Wildflower Garden Entrance; Top left: An herbarium specimen of Blue Flag Iris collected in 1882, housed in the CB Graves Herbarium, and scanned for the Fall 2012 art exhibit "Systema Naturae: The Order of Nature."; Top right: A partially impounded tidal marsh at Barn Island Wildlife Management Area, part of the Arboretum management plan project. Bottom right: SODAR unit being installed in Arboretum north of Gallows Lane to record wind speeds for wind turbine feasibility study.



Many people will be surprised to learn, for example, that names of major genera like *Aster* and *Cornus* (dogwoods) are no longer in use for plants native to North America. Plants in both of those groups are now distributed among multiple genera. The book will be published in early 2014 by the Connecticut Botanical Society and distributed by the Arboretum.

During the 2012-13 academic year a SODAR (sonic detection and ranging) instrument was temporarily installed in a meadow near the Samuel Bolles homestead, north of Gallows Lane. This machine is used to measure and record wind speeds at varying heights above the ground, and is part of the college's on-going alternative energy studies. In his honors thesis, Physics major Michael Marshall '11 identified this relatively isolated and high elevation area as a potentially successful location for a single industrial size wind turbine to generate electricity for the campus. Given Michaels impressive work, the student alternative energy fund was used to rent the SODAR unit to develop an actual profile of wind speed at turbine

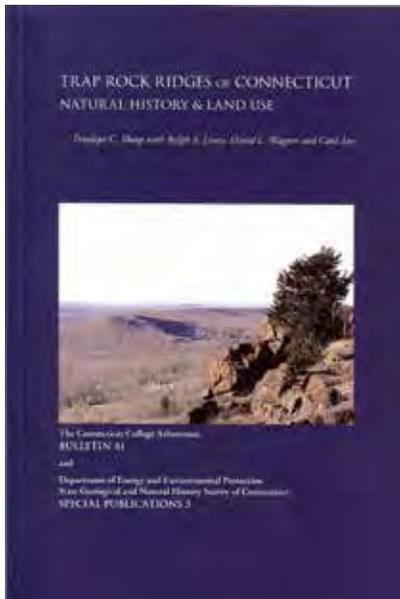
height over a 12 month period. Professor Doug Thompson will oversee analysis of the data during 2014.

For the past 30 years Glenn Dreyer and a committee of volunteers has been compiling information on large and historic trees in the state. The Notable Trees Project is now stronger than it has ever been, with the influx of some younger big tree hunters who have been actively measuring and photographing the state's arboreal heritage. The project is headquartered at the Arboretum and cosponsored by The Connecticut Botanical Society and the Connecticut Urban Forest Council. Currently there are records of 436 different kinds of trees totaling 3180 living individuals. This year we recorded 16 national champion trees, these being the largest of their species in the country.

Ongoing talks with the Connecticut Department of Environmental Protection (DEEP), Wildlife Division has led to a contract with the Arboretum to produce a comprehensive management plan for the Barn Island Wildlife Management Area in Stonington, CT. At 1024

acres it is the state's largest, most diverse and ecologically significant coastal wildlife management area. Approximately half the area is composed of vast tidal marshes which were the subject of research by Connecticut College faculty and staff, among others, for the past 60 plus years. The team assembled to research and develop the plan for Barn Island includes Botany Professor Emeritus R. Scott Warren, Retired DEEP Ecologist Ronald Rozsa, Botany Professor Chad Jones and Glenn Dreyer, plus two student summer assistants. The contract runs from summer 2013 to December 2014, and will provide the DEEP with a comprehensive archive of research, management and other uses along with future management recommendations to help the Wildlife Division attain its goals.

PUBLICATIONS



Newest Arboretum bulletin about trap rock ridges in Connecticut.

“Trap Rock Ridges of Connecticut: Natural History and Land Use” was published in spring 2013 as Arboretum Bulletin No. 41. Edited by Glenn Dreyer, this full color, 59 page book was a collaboration with the Connecticut Geological and Natural History Survey, DEEP, which commissioned the original manuscript a decade ago.

Ralph Lewis, retired state geologist and visiting instructor in geology at Connecticut College, wrote one of the chapters and was instrumental in bringing the publication to the Arboretum and helping to get it completed. The lead author was Penelope Sharp, an environmental consultant who lives at the base of a trap rock ridge in Northford, CT. High quality line drawings of the characteristic plants by Janet Zeh are complimented by many color images of animals and landscapes.

Two peer-reviewed articles originating from research in the Arboretum were published during this year. Professor Chad Jones utilized plant occurrence data from the long term Bolleswood vegetation studies to produce “Challenges in predicating the future distributions of invasive plant

species” in *Forest Ecology and Management* 284: 69-77. Chad Jones, Glenn Dreyer and Dr. Nels Barrett '78 documented the development of the Arboretum meadow planted in 2006 north of Benham Avenue in: “Evaluating the success of seed sowing in a New England grassland restoration,” *Natural Areas Journal*: 33(2): 214-221.

Glenn Dreyer and Dr. Jeff Ward of the Connecticut Agricultural Experiment Station published “Right Tree, Right Place” in *Connecticut Gardener* 19(1) 20-23. The article about selecting low stature trees for planting near utility lines resulted from their work during 2012 on the State Vegetation Management Task Force which made recommendations to Governor Malloy's Two Storms Panel (Oct. 2011 snow storm and Hurricane Irene, Aug. 2012).

Lily Fayerweather '13 participated in the 2012 long term vegetation survey in the Bolleswood Natural Area and then worked with Professor Jones on a Botany Honors Thesis titled “Factors influencing the current and historical invasion trends in the Connecticut College Arboretum.” Milan Saunders '13 also worked on the long term vegetation survey and utilized that information in her individual study project titled “The affect of the decrease in *Tsuga canadensis* on tree basal area.”

PLANT COLLECTIONS and CONSERVATION



THE ARBORETUM MANAGES approximately 600 acres of college property in New London and Waterford and curates the plant collection of the main campus, which is maintained by the Physical Plant Grounds staff. Arboretum staff also maintains the college greenhouse. During the past academic year we experienced a hurricane (Super Storm Sandy) in late October, and a very wet, heavy, 20 inch snow storm in late January, both of which damaged many trees and shrubs.

As part of campus wide sustainability planning the Arboretum staff updated our detailed Plant Collections Policy, revisited the Invasive Plant Management Policy and began documentation of our maintenance procedures for turf, woody plants, management areas and the greenhouse.

CAMPUS

Landscaping around the addition to New London Hall and in “Centennial Plaza” between Fanning and New London Halls was installed during summer 2012. Design was by a landscape architect working for the building architecture firm, with input from the Arboretum and Grounds Departments. Due to the extreme compaction of the soils from the 18 month construction project, we can expect higher than



Top: Superstorm Sandy damage to white pines in the northeast corner of the Native Plant Collection; Bottom: Centennial Plaza and the modernized greenhouse south of New London Hall

normal losses of these trees and shrubs. Gardens have not yet been replanted around the greenhouse due to the need to remediate the soil before planting.

As part of the New London Hall project a 90+ year old black oak tree was removed from near the southwestern corner of the building. The Arboretum saved two large logs and convinced the college and project architects to incorporate some of the salvaged wood into the building. Beautiful countertops were installed along the south-facing glass walls of the connector between the original building



New London Hall renovation project architect Laura Berman with the Esselstyn brothers whose company, City Bench, turned an old oak tree near the greenhouse into beautiful furniture for the building.

and the new addition on the floors 2-4. A large table made from a slab cut from the very middle of a log has become a popular place to socialize in the new lobby. The office directories on each floor are framed with the oak, and every door sign has a small panel of the wood as the bottom edge.

Horticulturist Leigh Knuttel and her staff spent significant time monitoring environmental conditions in the newly renovated

greenhouse and learning to most effectively use the new electronic controls for heat, motorized vents and fans. By mid-winter it became clear that the heating system, which utilized New London Halls' geothermal heating and cooling equipment, was under designed for midwinter temperatures. Temporary supplemental electrical heat was introduced and the greenhouse system was redesigned and reequipped during the summer of 2013. Early in the academic year the staff was busy assembling new tables, attaching grow lights to a ceiling grid in the west room, and moving plants back into their new locations.

The Lilian Niederman Memorial meadow garden directly south of The College Center, planted in May 2012, became well established over the course of the 2012 and 2013 growing seasons. By this past summer the resemblance to the Arboretum meadows north of Benham Avenue was starting to appear.

Approximately 20 trees were removed from the campus due to damage caused by Super Storm Sandy, and hundreds of hours were devoted to pruning and cleanup. Pruning in the canopy of large trees will continue for at least the rest of calendar 2013.

Curator Mary Villa began an inventory of the trees and shrubs in the Campus Landscape Collection during spring 2013 by concentrating on evergreens and on updating electronic maps to add our accessions. During summer she

was assisted in the campus inventory field work and data updates by intern Jo-anne Crystoff of Mystic, Conn.

CAROLINE BLACK GARDEN

During summer and fall 2012, Curator Mary Villa and her summer intern Andrew Harrington '12 did a complete inventory of all trees and shrubs in this four-acre collection. Each plant was identified, measured, mapped, databased and relabeled as needed. Mapping was done using the Olin Hall GIS facilities for the first time in an ongoing process to move from paper to electronic maps. This year landscape work in the Black Garden was devoted primarily to helping the redesigned water feature area at the back of the garden become well established, and to maintenance of the rest of the garden. Ten new trees and shrubs were added and thankfully there was little damage from Super Storm Sandy in this collection.

NATIVE PLANT COLLECTION and NATURAL AREAS

It became obvious a few years ago that the last remaining plant nursery in the Arboretum was in drastic need of renovation, since so much soil had been removed from it when plants were dug and transplanted over the course of the past eighty years. Located downslope from the College President's residence on Williams Street, the nursery was taking on the shape of a large bathtub, and large rocks were restricting planting space. After digging all of the useful specimens out, the Senior Groundsperson Bryan Goulet used the college backhoe to remove rocks and boulders and to cultivate the surface. Eighty yards of soil mix was created using decomposed leaves from the college campus leaf cleaning activity, organic silt stockpiled when the Arboretum pond was last dredged, and sharp sand. The new soil was added during summer 2013, and replanting will commence in 2014.

Nineteen trees and shrubs were removed from the Arboretum nursery and planted mostly in the Native Plant Collection this year. Two of these were Valley Forge cultivars of American Elm, a form very resistant to Dutch Elm Disease. The elms were planted along Williams Street at the Washington Entrance to the Native Plant Collection, between two surviving American Elms.

The 30 acre native plant collection suffered the loss of seven trees thanks to Super Storm Sandy, most of which were White Pines. One Red Maple that fell in the wildflower garden broke a granite bench in half, which was replaced. The high winds also blew down and damaged the metal sign at the entrance on Williams Street and blew over a long section of the decorative iron fence along Wil-



Left: Arboretum Field north of Benham Avenue inspired the design for the Niederman Garden; Right: The one year old Lillian Niederman Garden



liams Street, south of the entrance. Both were repaired by spring. The wet snow in January was unusually damaging because many shrubs and small trees were bent down into the ground by layers of snow and then frozen in place for at least a week, causing many to remain permanently bent if not broken off. Both storms caused a lot of extra trail clearing throughout the natural and managed land trails, including the jogging trail system east of Rt. 32.

NEW PLANTINGS BY COLLECTION

*New taxa in collection

CAMPUS LANDSCAPE:

- Acer griseum* — (1) Paperbark Maple
- Amelanchier* 'Autumn Brilliance' — (3) Autumn Brilliance Serviceberry
- Betula papyrifera* — (1) Paper Birch
- Betula platyphylla* — (3) Manchurian White Birch
- Cladrastis kentukea* — (2) American Yellowwood
- Ilex glabra* 'Compacta' — (12) Compact Inkberry
- Ilex opaca* — (10) American Holly
- Juniperus horizontalis* 'Wiltonii' — (47) Blue Rug Juniper
- **Lonicera fragrantissima* — (5) Winter Honeysuckle
- Microbiota decussata* — (17) Siberian Cypress
- Rhododendron atlanticum* — (4) Coast Azalea
- Rhododendron* 'Hino Crimson' — (19) Hino Crimson Azalea
- **Rhododendron* 'Lemon Lights' — (14) Lemon Lights Azalea
- Rhododendron* 'Yaku Prince' — (15) Yaku Prince Rhododendron
- Ulmus americana* 'Valley Forge' — (2) Valley Forge American Elm
- Viburnum rhytidophyllum* — (17) Leatherleaf Viburnum

CAROLINE BLACK GARDEN:

- Acer palmatum* — (3) Japanese Maple (green-leaved form)
- Corylopsis glabrescens* — (1) Fragrant Winterhazel
- Pinus bungeana* — (1) Lacebark Pine, gift of the Milford Legacy Arboretum
- Skimmia japonica* — (4) Japanese Skimmia
- Syringa villosa* — (1) Late Lilac

NATIVE PLANT COLLECTION:

- Acer saccharum* — (2) Sugar Maple
- Aesculus parviflora* — (7) Bottlebrush Buckeye
- Cercis Canadensis forma alba* — (1) White Redbud, gift of Meskwaka Project
- Rhododendron atlanticum* — (2) Coast Azalea
- Sambucus nigra* — (1) Black Elderberry
- Sambucus racemosa* — (1) Red Elderberry

ACCESSIONS by COLLECTION

As of June 2013, the Arboretum collection had 6,167 individual, accessioned, living plants.

| | # Trees | # Shrubs & Vines | Total Plants | Total Taxa |
|-------------------------|---------|------------------|--------------|------------|
| Native Plant Collection | 1019 | 1269 | 2288 | 321 |
| The Campus Landscape | 1390 | 1888 | 3278 | 435 |
| Caroline Black Garden | 178 | 451 | 629 | 233 |
| #of Plants | 2587 | 3608 | 6167 | |

TOTAL PLANT TAXA in ALL THREE COLLECTIONS

| | |
|----------|-----|
| Families | 62 |
| Genera | 165 |
| Species | 464 |
| Taxa | 749 |



Arboretum staff during summer 2013. Back row (l-r) Anne Kearney '12, Chloe Jones '15, Kevin Irakoze '16; Leigh Knuttel, Bryan Goulet, Charles Cochran '10. Front row (l-r) Jo-ann Crystoff, Kathy Dame '90, Mary Villa.

STAFF

DEPARTMENT ASSISTANT ELENE ANTHOPOLOS left her half-time position with the Arboretum in December. Elene started working for the Arboretum in July 2008, having previously served in the college's Physical Plant and Music Departments. Mary Villa, part time Curator and Information Manager in the Arboretum stepped in on a temporary basis when Elene left, and was hired as our new Administrative Assistant last spring. By year's end Mary was already very comfortable with her new duties, which include processing invoices, light book-keeping, tracking membership information, mailings, and general office support.

All other staff members remained the same as the previous year, including Glenn Dreyer, Director; Kathy Dame '90, Assistant Director for Public Programs; Leigh Knuttel, Horticulturist; Bryan Goulet, Senior Groundsperson; Charles Cochran '10, Groundsperson.

STUDENTS

Our three-person landscape and greenhouse maintenance staff is ably supplemented by many student workers each year. Students also assist Kathy Dame with education program announcements and mailings each semester.

SUMMER 2012

Andrew Harrington '12
Junhee Lee '14
Anne Kearney '12
Richard Worsman '12

FALL 2012

Nels Christensen '14
Caroline Corbett '13
Nevena Deligineva '13
Nick Fischetti '16
Alanna Fusco '13
Grace Glynn '14



The Class of 1973 40th reunion reception at Buck Lodge.

- Christopher Giri '15
- Timothy Hartshorn '14
- Ben Hopkins '13
- Zhibang Liu '14
- Colin Munson '16
- Matthew Murdock '13
- Caitlin Persa '16
- Christian Schorn '13
- Qimeng Zhao '13

SPRING 2013

- Nels Christensen '14
- Christopher Giri '15
- Tomothy Hartshorn '14
- Glindys Luciano '16
- Colin Munson '16
- Matthew Murdock '13
- Caitlin Persa
- Nate Wallace
- Qimeng Zhao

SUMMER 2013

- Kevin Irakoze '16
- Chloe Jones '15
- Anne Kearney '12
- Jo-Ann Crystoff (intern)

VOLUNTEERS

This year at least 35 adults volunteered to assist the Arboretum in a variety of ways. Most are involved in either

presenting educational programs for children or adults, or are docents who are scheduled to give free public tours on Sunday afternoons, and occasional private tours by special arrangement. Longtime volunteer Allen Gauthier heads up our "Hort Helpers" group by training, scheduling and supervising other volunteers who work on projects in various gardens in conjunction with Leigh Knuttel, Arboretum Horticulturist and Jim Luce, Supervisor of Grounds. Allen also assists Curator Mary Villa with collection inventory activities on a weekly basis. We acknowledge with thanks all of the following volunteers:

- Savas Anthopolos
- Robert Askins
- Keleigh Baretincic
- Roberta Brouwer
- Tracy Burrell
- Beverly Chomiak
- Richard Conway
- Jo-anne Crystoff
- John Cox
- Nevena Deligneva
- Kim Donohue
- Caroline Driscoll
- Joan Flynn
- Allen Gauthier
- Anthony Graesch
- Kenneth Graham
- Ashley Hanson
- Mary Kallio
- Anne Marie Lizarralde '91
- Manuel Lizarralde

Jim Luce
 Sandra Morse
 Susan Munger
 Becky Nortz
 T. Page Owen
 Arlene Raymond
 John Sargent
 Linda Sargent
 Robert Sherman
 Sally Taylor
 Charles Tillery
 Kathryn Williams
 Pamela Wright
 Michael Wuenschel

The Arboretum is grateful for the generous support provided through the following endowed funds:

Charles and Sarah P. Becker '27 Arboretum
 Directorship Fund
 Endowed Unrestricted Arboretum Fund
 Class of 1944 Special Projects Fund
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