

JCRaulston Arboretu

AT NC STATE UNIVERSITY

Vol. 9, No. 1

DIRECTOR'S LETTER

JCRA Symposium

'From Origins to the Landscap

Moving on

By Bob Lyons, Ph.D., Former Director

As I turned in this, my final contribution to this newsletter, I told Chris Glenn blame it on me if this issue goes to press late. You see, writing this letter has always been something that I enjoyed, but also something that I can't just sit down and do on cue. As any writer will probably

agree, putting pen to paper (or fingers to keys in today's world) to produce something worthwhile takes more than allotting a couple of hours in your daily schedule. That may work for checking off a "to do" list, but it is hardly effective for penning the Director's

Letter, and my final one at that! Being in the right frame of mind can make all the difference in the world and being caught up with all the new preparations related to my departure hampered the onset of that "right frame of mind," I'm sure. In any event, my apologies for any publication delay I may have caused.

It would certainly be appropriate and perhaps expected for any outgoing director to recant a litany of changes, accomplishments, and significant events that marked their tenure. And, for sure, I'll get into that in a minute, but I'd rather start with the last days first. To put it very simply, I was absolutely floored by the outpouring of appreciation I experienced during my last few months at the Arboretum. Your e-mails, cards, special mementos, and personal visits meant very much to me, as did your understanding of my decision to test out the new waters of a new position. Most organized "farewells" took the form of a "roast" and I was often surprised by what surfaced...apparently my mind did a fairly good job of selective recall as I had blocked out many of the incidents revived by the going-away parties! Many thanks to my staff whose well-organized gathering at Nancy Doubrava's was both hilarious and poignant. I have recounted their talents oftentimes in my past comments, but they truly are

the best and their special gift of the signed quartet of photos representing the seasons in the JCRA will be long cherished.

Many thanks to our volunteers, too. They have always been known for

their tireless and significant contributions to the general well-being of the JCRA. I have made some solid friends amidst this group, for sure, and am especially thankful for the December party at Amelia Lane's home. It was always a personal highlight to host the holiday

> open house for volunteers at my home, but my impending move just wouldn't last minute "good byes" when Amelia that signed book and beautiful blue remind me of you all for years to come! Some people may not realize that I, too, oversaw a volunteer group, a way to maintain my own sanity by keeping my

permit that. Having a chance to say some took on that event was very special...and ceramic container from the volunteers will hands busy in the garden. These folks

were very allegiant and became known as the Monday night/Saturday morning volunteers and I could convene them with a simple e-mail call to arms. We did everything from work in the annual trials, prune climbing roses, and weeding, weeding...and, man, was their assistance valuable! I was also very saddened when our group lost one of its own regulars, Lou Fitzgerald, just weeks before my departure. I was so thankful, however, that he and I worked side by side about a week before his heart got the best of him and we were able to talk about my new position. He'll be missed but also fondly remembered, especially amongst that team of volunteers.

To the entire department, college, green industry members, and myriad of other well-wishers, your farewell reception will never be forgotten! I was both shocked and delighted to have the opportunity to see so many of you in one place, at one time, and I'm still trying to separate fact from

fiction from all the stories...but I guess it really doesn't matter! That incredible indoor greenhouse (which I like to call my personal Wardian Case) was a superb choice for a farewell gift and I'll remember you all for a long time to come whenever I view it...wherever I eventually call home. Seeing all of you simply reminded me of the countless new friends I've made in North Carolina in a relatively short time frame; and for someone like me who landed here six years ago with few prior acquaintances, I couldn't be happier about that. What a flashback it has been to recall even nanoseconds of my classes, talks and presentations, committee meetings, outreach events, and just plain friendly and professional interactions with so many of you. Special appreciation to our own JCRA Board of Advisors who seemed to kick off all the farewell festivities by hosting a surprise reception for me at the final board meeting of 2004. I will certainly regret not having the opportunity to work with the newest members of the board and I'll miss my associations with current board members. We have done plenty together and all for the betterment of the JCRA. The ceramic vase is great and that poster depicting a hapless JCRA Director crossing the street is just too clever! In the last month on the job, it took on a special life of its own as it became the place to pen one's autograph from all reception attendees and just about anyone else who walked into my office prior to my departure...it is now literally covered with signatures and for that I'm especially grateful.

Of course, I could go on forever on the subject of farewells, but I really did want to summarize just a few of the highlights of my tenure here at NC State and the JC Raulston Arboretum. I was not always the best person to heed my own advice because if I did, I would have reflected upon our accomplishments more often. I'm pleased that we stuck to and strenathened our mission here at the JCRA. We continued to amass, teach about, and expand the outside world's view of landscape plants. Our collections were unsurpassed and unparalleled, and that sentiment was not only echoed by ourselves. We achieved closure on the planned capital improvements through the opening of the Ruby C. McSwain Education Center and associated buildings. Our staff grew along with our internal budgets, we enhanced student participation in the JCRA via formal educational experiences and new summer internships, our plants and programs were better interpreted in an active and passive sense, we traveled near and far and took members along with us, and we improved the rewards for volunteer hours accumulated. The number of JCRA vehicles increased, we renovated and improved numerous garden spaces, most notably the enormous Perennial Border, and sponsored notable speakers. By acquiring partnerships, we constructed a new Lath House, produced a commemorative alumni calendar, and contributed to an award-winning Extension publication in *Successful Gardener*. More and more plant groups became integrated into our evaluation efforts, and we hosted and were a part of industry field days throughout the year. Our Galas became increasingly more successful, financially and otherwise, and we initiated an overall endowment for the JCRA that now totals over \$35,000.00. We embraced new forms and vehicles of information technology, resulting in Web access to our newsletter, a hugely successful listserv and monthly

electronic update, award-winning publications produced by sophisticated software mastered by talented staff, and acquired better and better computer hardware...and this just scratches the surface.

However, in the interest of space and with the knowledge that I could write forever as easily as I can speak without using a period, I'll sign off as your director feeling very good about our accomplishments, our dedicated membership, the state of our collections, and what the future has in store for the JCRA and any new director. I leave you not with "good bye," but rather with "see you later," as I hope you will come and visit me at the University of Delaware and Longwood Gardens...just not all at once, please, and remember to look both ways before crossing the street!

Newsletter Dedication

This newsletter is dedicated to Bob Lyons and Todd Lasseigne in appreciation for their years of service and support of the JC Raulston Arboretum.





ICRaulston Arboretu

AT NC STATE UNIVERSITY

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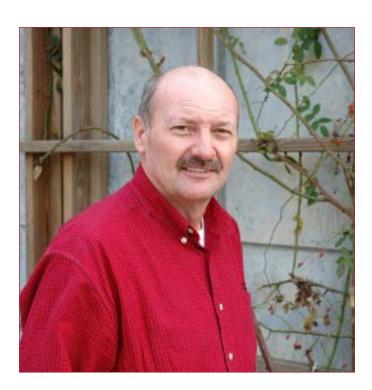
Fothergilla 'Mount Airy' — fothergilla

Gala in the Garden

May 1, 2005 (Sunday) 3:00 PM-7:00 PM



New Staff



M.A. "Kim" Powell, Interim Director and Professor, NC State M.L.A. NC State, 1974

We are excited to welcome Kim Powell as interim director of the JC Raulston Arboretum. He has been a faculty member of the Department of Horticultural Science since 1978. His Extension responsibilities include landscape design, landscape contracting, and landscape management.



James Lail, Horticultural Assistant A.A.S. CALS Agricultural Institute, NC State, 2004

James Lail was our summer 2004 Raleigh Garden Club/Friends of the JCRA Intern. He joined the Arboretum staff in January shortly after receiving his Associate's degree, filling the position previously held by **Anne** Calta and more recently by Peter Conden.

Walk and Talk at JC Raulston Arboretum with Michael Dirr

By Vivian Finkelstein, JCRA Volunteer, and Nancy Doubrava, Interpretive Specialist

Imagine touring the JC Raulston Arboretum alongside world-renowned plantsman and author of the standard reference text on woody plants, **Michael Dirr**, Ph.D (below). Last October, two very enthusiastic groups of Arboretum symposium participants had this opportunity — one unsurpassed for any plant geek. Currently residing in our region, Mike often visits the JC Raulston Arboretum, whose plants have become familiar to him. A former professor at University of Georgia at Athens, he is a master teacher, superbly knowledgeable plantsman, and an inspiration for new talent. He showed what he felt were the best of the best plants, while praising many fine plantsmen along the way. These are a few of the highlights from his tour.



Liriodendron tulipifera 'Ardis'

Mike began the tour at a relatively small, but very fine tree, the littleleaf tuliptree (*Liriodendron tulipifera* 'Ardis') growing near the Arboretum's parking lot. He pointed out that 'Ardis' is small in both leaf size and stature, a compact version of standard species tuliptree — a behemoth. An introduction by **J.C. McDaniel**, Ph.D., University of Illinois, it is an excellent choice for today's smaller landscapes.

Nyssa sylvatica 'Wildfire'

The next stop was at a beautiful black gum tree, *Nyssa sylvatica* 'Wildfire' growing near the parking circle. Living up to its name, it has red new growth, outstanding fall color, red veins, and a red petiole. Mike prefers this cultivar to the one bearing his name, *Nyssa sylvatica* 'Dirr', a favorite at the Arboretum for its outstanding fall color. The cultivar 'Dirr' was a clone of a black gum **J. C. Raulston**, Ph.D, selected in Athens, Georgia, for its brilliant Chinese lacquer red fall color. Mike had sent him cuttings to propagate at the Arboretum. 'Wildfire' appears to be less susceptible to leaf spot. 'Dirr' is located near the JCRA Book and Gift Shop.

Liquidambar styraciflua 'Slender Silhouette'

Not far away was the fastigiate sweetgum (*Liquidambar styraciflua* 'Slender Silhouette'), growing near the brick parking circle. For a narrow specimen tree, Mike prefers it to the upright European hornbeam (*Carpinus betulus* 'Fastigiata'), which, although slender in youth, eventually opens up with age. We can thank the internationally known plantsman, **Don Shadow** (Shadow Nursery, Inc., Winchester, Tennessee), for this plant introduction.

Albizia julibrissin 'Summer Chocolate' PP13,822

The group gathered closely around Mike to see another eagerly anticipated plant introduction, the purple-leaf mimosa (*Albizia julibrissin* 'Summer Chocolate'). He described how the new spring growth emerges with bronzy purple leaves, and then this fantastic leaf color turns an even deeper purple in the summer heat. Purple leaves all summer! Discovered by the Japanese nurseryman, **Masato Yokoi**, the Arboretum's specimen came as a gift to the Arboretum from **Mike Ishii** (Ishii Plants, Saitama City, Japan). Always the teacher, he showed us how the mimosa seed looks like a tick. The Arboretum's specimen of 'Summer Chocolate' is growing by the steps between the Ruby C. McSwain Education Center and the JCRA Book and Gift Shop.



×Sinocalycalycanthus 'Venus'

Growing unassumingly at the south edge of the brick parking circle is another new introduction, Venus sweetshrub (×Sinocalycalycanthus 'Venus'). 'Venus' has lovely star magnolia-like white flowers with an alluring fragrance. It has proven to be heat tolerant for southern gardens. This white-flowered shrub is a descendant of the hybrid Raulston allspice (×Sinocalycanthus raulstonii 'Hartlage Wine'), which was then crossed with related Calycanthus species. 'Venus' resulted from breeding work done by NC State professor Tom Ranney, Ph.D., (NC State Mountain Horticultural Crops Research and Extension Center, Fletcher, North Carolina). "He's the best scientific breeder in the country," said Mike. "Tom is reaching for the stars with his program and succeeding."



Cotinus coggygria Golden Spirit™ PP13,082

The golden smokebush (*Cotinus coggygria* Golden Spirit™) won high praise from Mike. The foliage emerges gold-yellow and retains this stunning color throughout the growing season. He recalled how excited he was upon first spotting this plant in Europe in 1999. A fantastic new plant with all sorts of potential, he could not wait to get one himself to evaluate. But upon returning home to the U.S., he visited the Arboretum only to find out that J. C. Raulston already had one growing in the Perennial Border!



Betula nigra 'Summer Cascade' PP15,105

The handsome weeping river birch (*Betula nigra* 'Summer Cascade') growing to the left of the Manooche Cascade was selected in 1996 by **John Allen** (Shiloh Nursery, near Harmony, North Carolina), where his father Danny had first found it in 1991 as a 4' by 4' mound in a row of river birches in their nursery. He told us that the parent tree at 15 years of age is a 12' by 10' ball, unstaked! This plant is patented and a portion of the royalties will go to NC State.

Callicarpa americana 'Welch's Pink'

Up the steps and along the hillside just past the cascade, we saw the pink American beautyberry (*Callicarpa americana* 'Welch's Pink'). Mike mentioned that it's best grown in the shade so it won't burn. Offering another propagation tip, he recommended soaking the seeds first before planting them. Offspring will have true-to-color pink berries.

Hydrangea macrophylla Endless Summer™ PP15,298

The Endless Summer series of French hydrangea (*Hydrangea macrophylla* 'Bailmer' Endless Summer™) will rebloom all summer long. They are now so common that even Lowe's Home Improvement Warehouses and The Home Depot offer them for sale. Hybridizing those with the lacecap French hydrangea (*Hydrangea macrophylla* 'Veitchii') produced a mildew resistant rebloomer. A new one called 'Blushing Bride' will be available through a contract agreement between nurseries and the University of Georgia in Athens, in which the University gets a thirty-cent royalty on each plant. *Hydrangea* 'Waterfall' also blooms spring and fall, but gets mildew in the shade. Fresh from writing a book about hydrangeas, Mike explained how dormant (leafless) hydrangeas will root all year round from single node stem cuttings 6" to 8" long in a bark medium, if one inch is exposed above the soil.

Distylium myricoides 'Lucky Charm'

The compact broadleaf evergreen, blue isu (*Distylium myricoides* 'Lucky Charm') from Piroche Plants, Inc., British Columbia, located on the hillside past the Manooche Cascade, has maroon flowers, and is good in full sun. Mike likes it massed on banks because it presents good dark green foliage.

Gardenia augusta 'Grif's Select'

Mike pointed out the hip-fruited *Gardenia augusta* 'Grif's Select' and launched into a praise of the various recently introduced gardenias like 'Daruma', 'Chuck Hayes', 'Lynn Lowery', 'Daisy', and others. 'Grif's Select' was developed from seeds that Mike received from the Beijing Botanic Garden. The single-flowered, hip-fruited gardenias in the Paradise Garden were offspring from plants grown from seeds J. C. Raulston got from the Nanjing Botanic Garden about the same time in the late 1980s.

Loropetalum chinense var. rubrum

Chinese fringe-flower (*Loropetalum chinense* var. *rubrum*) is another plant with forms new to the U.S. in the last couple of decades. It was first heavily promoted through the Arboretum. J. C. Raulston received a

Loropetalum from James Waddick (Kansas City, Missouri) in 1989, and he took it to the Southern Plant Conference. Since then, it has taken off to the point that it is one of the top 30 plants in sales. There are hundreds of Loropetalum taxa now catalogued. The species grows to 20' tall. There are purple-leafed, pink-flowered, and now, from Tom Dodd (Tom Dodd Nurseries, Inc., Semmes, Alabama), there is a prostrate semi-weeping form called 'Bill Wallace'.

Mike encouraged one of the participants, J. Guy of Carolina Nurseries (Moncks Corner, South Carolina), to talk about the modern challenges nurseries face in promoting a new plant. J. told how they have to be extremely creative, always looking for innovative ways to advertise. They have promoted new plants on "Good Morning America," and by giving them out to the garden writers at their annual meeting, they will know and mention them. Tens of thousands of dollars can easily be spent in promoting a new plant. There is also room for smaller nurseries like Brian Upchurch's Highland Creek Nursery (Fletcher, North Carolina) to grow just a few of the less heavily promoted woody plants, keeping diversity alive and well, added Mike. Highland Creek Nursery is a wholesale grower of unusual and rare woody plants.

Metasequoia glyptostroboides 'Ogon'

The golden dawn redwood (*Metasequoia glyptostroboides* 'Ogon') is aptly named, since 'Ogon' means gold in Japanese. Mike pointed out that it does not keep its gold color if it is not watered, so don't be surprised if drought turns it green in some dry years.



Cornus mas 'Spring Glow'

The next stop was at a fine specimen of Cornelian cherry (*Cornus mas* 'Spring Glow'), a seedling selected by J. C. Raulston at NC State in 1990 for its extraordinarily early profusion of gold flowers in March. Mike admired its attractive dark green and heat tolerant foliage, showing no signs of disease late into October. Unlike most other *Cornus mas*, which produce handsome red fruits in the summer, 'Spring Glow' does not.



Viburnum 'Conoy'

Not tonight, deer! Addressing the common problem of deer eating garden plants, Mike claimed that although they eat most viburnum, deer will not eat *Viburnum* 'Conoy'. The parent, *Viburnum utile*, adds deer resistance. He mentioned also that both University of Georgia and Tom Ranney are breeding new viburnums with a goal of producing fragrant flowers.

Illicium lanceolatum

The Chinese anise (*Illicium lanceolatum*), one of his favorites, has rose-pink flowers, good evergreen compact mound form, and suffers no drought stress. Also for textural effects, it could replace *Kalmia* in southern gardens. Members of *Illicium* in the star-anise family are among the last shrubs deer will eat in the garden. They contain a fragrant substance called safrol, which gives the anise shrubs (also *Sassafras*) their fragrance and makes them less desirable to foraging deer.

Lagerstroemia fauriei 'Fantasy'

He recounted the story of the 'Fantasy' Japanese crepe myrtle (Lagerstroemia fauriei 'Fantasy'), one of the original seedlings of Lagerstroemia fauriei planted in the U.S. during the 1950s. The seeds were collected by John Creech (U.S. National Arboretum) on Yakushima Island in Japan, where they are endemic. He told of how Don Egolf, Ph.D., one of the foremost plant breeders of ornamental woody plants in the U.S., took advantage of its mildew resistance to breed 20 new cultivars of resistant hybrid crepe myrtles at the U.S. National Arboretum.



Always ready to share the spotlight and let other people shine, Mike took the opportunity repeatedly to promote others. He ended his afternoon tour by emphasizing how fortunate we are that dedicated plantsmen like **Todd Lasseigne**, Ph.D., the several southeastern nurserymen present, and plant breeders like **Dennis Werner**, Ph.D., and Tom Ranney from the NC State faculty, were keeping more exciting new plants coming our way.



Plant More Labels!

By Nancy Doubrava, Interpretive Specialist

Last year a survey was conducted in which members of the JC Raulston Arboretum were asked what could be done to improve their next visit to the Arboretum. One of the top suggestions was clear — label more plants. Twenty years ago, the first labeling volunteers, led by **Tom Bumgarner**, started making the familiar wooden plant labels for the Arboretum. The new permanent engraved labels began appearing five years ago, when an engraving machine was purchased by the newly hired Arboretum director, **Bob Lyons**, Ph.D. The project of making permanent labels was handed over to me, **Nancy Doubrava**, the new interpretive specialist. With over 6,000 taxa at the Arboretum, this proved to be a daunting task.

Many things happen behind the scenes before a permanent label reaches the garden. The first step in the process is to input accurate plant identification, origin, and nomenclature. Former assistant director, Todd Lasseigne, Ph.D, has been responsible for completing this task, with the help from past students, including Jon Roethling, research technician. Now that Todd has moved on, we have started to develop a new group to research the names for accuracy. This information is then easily exported from the Arboretum's plant database, thanks to a system created by Valerie Tyson, plant recorder. A dedicated group of volunteers led by Vergean Birkin, then imports the information into standardized models created by Chris Glenn on the engraver's computer. We are also grateful to Chris for troubleshooting the engraving machine's programs and creating new models as needed. Finally, the labeling volunteers, still led by Tom Bumgarner, place the labels in front of the proper plant in the gardens.

To date,

- 2,800 taxa have been researched in preparation for a permanent label;
- The engraving volunteers have made 4,100 engraved labels and given over 1,665 hours of their time;
- There are 3,500 plants in the Arboretum with an engraved label and we are still chipping away at the over 4,600 remaining.

A special thank you goes to NC State's Phi Alpha Xi, Ornamental Horticulture and Floriculture Honor Society, for providing financial support since the project's inception.

So, next time you wonder what plant that is, just look for its label.



Left: *Magnolia* × *loebneri* 'Willowwood', one of 3,500 plants permanently labeled at the Arboretum.

STUDENT PROJECT

Tsunami-inspired Project Teaches Far-reaching Lessons

By Nancy Doubrava, Interpretive Specialist, and Anne Spafford, Assistant Professor, NC State

Students in **Anne Spafford**'s Landscape Construction Studio (Horticultural Science 495C) were challenged to think globally this semester, as they designed temporary shelters to assist people devastated by the tsunami in Southeast Asia. Their goal was to design and build temporary shelters using inexpensive, or better yet, salvaged and environmentally friendly local building materials.

Students began by researching Southeast Asia in earnest. Details were collected about location, climate, people, typical architecture, local building materials, and construction methodologies. The students were encouraged to reuse packaging materials from the enormous amount of relief aid being shipped in from around the world. With access to fresh water a critical issue, the incorporation of a water catchment system was a requirement of each design.

Students then built study models of possible shelter designs. The best features from several models were selected by the class and incorporated into one final 8' by 8' design. A full size structure was built, and as expected, a lot of redesigning took place on site, depending on what materials were salvaged from around town. A close look at the structure





Above: HS 495C students Tom Murray, Tim Webb, Todd Odea, Cliff Reid, Jessica Kohls, and Daniel Futrell (not pictured: Patrick Bumgarner; Anne Spafford, Assistant Professor; and Gabe Martin, Teaching Assistant)

reveals a framework of bamboo (a renewable resource) and flooring made from wooden pallets. The front wall features a sliding wall/door made from pallets, rough-sanded and stained. The other walls demonstrate use of various building materials, including particle board, a bamboo weave, and lattice (okay, okay we bought this as a timesaving measure, but larger pieces of debris would work here too!). The open lattice wall on the south facing side is designed to support an annual vine. The inhabitants of the shelter will remain dry thanks to a roof made of a waterproof plastic tarp (similar to packing material used in shipping dry food goods).

We invite you to visit this shelter, constructed in the northwest corner of the Annuals Trial Area at the JC Raulston Arboretum. It will be on display for the duration of the growing season. The completed project will be documented as drawings and images and sent to aid agencies.

Left: Tom Murray (on ladder) and Cliff Reid frame the tsunami shelter. Below: The completed tsunami shelter on display in the Annuals Trial Area.





Gala in the Garden

By Donna Walker, Development Associate

What's the best spring party around? Why, of course, the JCRA Gala in the Garden! Well known as the spring social calendar kick-off, this is an event for all friends and supporters of the JCRA. On Sunday, May 1, 2005, the Gala will be held in the garden with cocktails, hors d'oeuvres, live music, and a silent auction featuring a plethora of unique plants and an eclectic array of other distinctive items. The afternoon will culminate with a delicious dessert social and an exciting raffle drawing in the York Auditorium in the Ruby C. McSwain Education Center. We're keeping the admission at the same low \$50.00 per person it's been for several years.

We encourage those who wish to participate as corporate sponsors to go to our Web site at <www.ncsu.edu/jcraulstonarboretum> to see the various corporate levels and their benefits. This is the Arboretum's main fund-raising event of the year, with proceeds supporting daily operations of teaching, research, and public garden displays. Please consider a contribution of \$1,000.00 and become a special Silver Level Sponsor.

The Gala in the Garden provides a distinctive opportunity to entertain your family, friends, and business associates while strolling around the grounds, perusing all the dazzling auction items. Corporate sponsors are also invited to enjoy the hospitality tent, designed exclusively for use by Gala sponsors and their guests.

Please call Anne Porter at (919) 513-3463 or Donna Walker at (919) 513-3826 with questions or for further information, or go to the Arboretum's Web site and click on Gala.

Gala Container Garden Contest

Here's your chance to help the JCRA with the Gala in the Garden and put your gardening skills to the test all at once. We're having a container garden contest! The gardens will be judged by Arboretum staff and the winner will receive either an engraved brick to be placed in our courtyard or two tickets to Gala 2006 — your choice. We'll use all entries as part of our decorations at Gala 2005 and they will also be included in the auction. Go to our Web site at <www.ncsu.edu/jcraulstonarboretum> for all the details or contact Donna Walker at (919) 513-3826 or <donna_walker@ncsu.edu> for more information about the contest. We'll only need 22 containers so don't wait to contact us!

Planting the Seeds for Development

By Anne Porter, Director of Development

A Gift of a Garden

In the heart of Raleigh and less than ten minutes away from our Arboretum, there is another enchanting place to visit — the Joslin Garden. For more than 50 years, **William** and **Mary Coker Joslin** have worked to transform the four acres surrounding their home into gardens containing an extensive collection of plants. Arranged with great sensitivity to cultural conditions, native plants are well represented with both substantial shrub and herbaceous perennial layers. It is a delightful treat for everyone, from the most devoted horticulturist or botanist to the novice gardener to those who just enjoy natural beauty in all its splendor.

A Little History

At the turn of the twentieth century, this land was a farm owned by **Bryan Grimes**, then Secretary of State. Remnants of an old dam and the farm's terraces in the sloping woodland area are still visible. The area surrounding "Broken Dam" was the site of a Boy Scout camp. The farm was aptly named "Arrowhead Farm" because of the many arrowheads found throughout the area. An ancient mortar and pestle was also discovered here, giving further indication of Native American activity.

The Garden

In a hillside setting crisscrossed with natural springs, the Joslin Garden is designed as a series of garden rooms consisting of naturalistic plantings and architectural features. The paths are designed to follow, in sequence, the various themes of the plant collections. The size and maturity of many specimens serves to make this garden a unique asset to our community.



Above: Mary Coker Joslin leads a group of students through her garden.



The garden is a living museum that is a constantly changing organic entity, developing and adjusting to topography, climate, and other environmental factors. Some plants are rare, while others are examples of what we are fast losing: the natural flora of Piedmont North Carolina.

Special Partnerships

The Joslin Garden is a special gift with great significance for the training of young horticulturists, designers, and botanists. Mary and William Joslin's desire is to see their garden serve generations of students in the understanding and appreciation of ecological garden design. NC State's Department of Horticultural Science professors **Pat Lindsey**, Ph.D., and **Will Hooker** have worked closely with the Joslins to make their dream a reality. Other NCSU partnerships include the Department of Landscape Architecture and the Department of Botany.

A Legacy Garden

The Joslins have deeded their garden to NC State, subject to their right to live on the property and maintain and improve it for their lifetime. They have also established, with the Triangle Land Conservancy, a perpetual conservation easement that allows the property to be used for garden and horticultural purposes only.

Open Garden

April 2, 2005 (Saturday) — 9:30 AM-6:30 PM 2431 West Lake Drive, Raleigh, NC (off White Oak Road)

Everyone is cordially invited to attend the Joslins' Annual Open Garden Day.

Through the Joslins' philanthropy and planned gifts to NC State, this exquisitely detailed and flourishing residential garden will forever be a Raleigh treasure for everyone to enjoy.

Your Legacy

If you would like to learn more about how you might leave a legacy, please call or e-mail Anne Porter at (919) 513-3463 or <anne porter@ncsu.edu>.

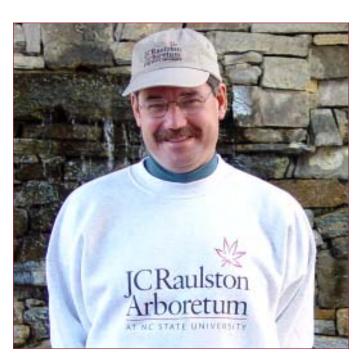
Thanks for Supporting the Annual Appeal and the New Dr. Robert E. Lyons JCRA Internship Endowment!

Thanks to all of our members and friends of the Arboretum who generously supported the 2004 Annual Appeal.

A very special thank you to everyone who supported A Legacy for the Future — Dr. Robert E. Lyons Internship Endowment in honor of **Bob** Lyons.

Serving as director of the JCRA from 1999 to 2004, Bob Lyons' dedication, leadership, support, and service were invaluable to the growth and stability of the Arboretum. The JCRA Board of Advisors set a goal of \$50,000.00 in order to fully fund this endowment and create a permanent intern position that will benefit both the Arboretum and worthy students throughout the years. Through the generosity of members and friends of the Arboretum, we will make this goal.

If you would like to be part of this tribute to Bob and part of a lasting legacy to the Arboretum, please contact Anne Porter at (919) 513-3463 or <anne_porter@ncsu.edu> or Donna Walker at (919) 513-3826 or <donna_walker@ncsu.edu>.



Ways to Give Beyond Membership Support

Outright Gifts

Include cash, appreciated property (stock or real estate), or tangible personal property.

Matching Gifts

Many gifts from active or retired employees qualify for matching gifts from their employers. Please check with your employer — this could double your gift!

Bequests and Planned Gifts

You may specify a gift by writing your will or living trust to include the JC Raulston Arboretum as a beneficiary. A planned gift is an incredible opportunity to capture tax-saving benefits now and leave a rich legacy for the future.

Memorial Gifts

What better way to remember or honor a loved one, friend, business, or organization than with a special memorial tribute gift? There are many opportunities — from an engraved brick, to a garden bench, or a named garden. This is a gift that keeps on giving!

Real Estate or Securities Gifts

Donors pay no capital gains on the increased value with their gift of stock or other appreciated real estate.

Gifts of Insurance

You may specify the JC Raulston Arboretum as beneficiary of an existing policy, or you may make a pledge by purchasing a new whole life insurance policy and naming the JCRA as the recipient.

For more information on these giving opportunities, please call or e-mail Anne Porter at (919) 513-3463 or <anne porter@ncsu.edu>.



Above: JCRA special donors and friends, Ann Blakely, Pat McCracken, Ruby McSwain, and Donna Walker, enjoy a beautiful, summer day at the Arboretum.

Gift and Membership Information

Gift Type	ler I e u	
☐ Dr. Robert E. Lyons Interns☐ JCRA Membership*	hip Endowment — New □ JCRA Gift Membership*	
□ JCRA Endowment	□ Educational Programs	
☐ Plant Collections	□ \$2,000.00 Internship Sponsor	
□ Other:		
*Membership form on reverse. Contact Information		
Address		
Company		
City	State Zip	
Phone	Fax	
E-mail		
Type of Payment (che	ck one)	
Cash	CAs Foundation) is analoged for	
A check (payable to the N	C Ag. Foundation) is enclosed for	
	_to my ☐ MasterCard or ☐ Visa	
Card Number		
Expiration Date		
Signature		
□ I wish to make a pledge o Please invoice me □ quar	f \$ (minimum of \$120.00). terly □ monthly.	
☐ I would like my gift to rem	ain anonymous.	
☐ My gift will be matched by enclosed.	my employer, and the paperwork is	
□I am interested in making	a bequest and/or planned gift.	
□ I would like to attend a free/no obligation Planned Giving Workshop.		

Membership Application

Membership Levels

■ Student — \$10.00	□ Sponsor — \$250.00
(full-time, 2- or 4-year accredited)	□ Patron — \$500.00
□ Individual — \$30.00	■ Benefactor — \$2,500.00
\square Family/Dual $-$ \$50.00	☐ Philanthropist — \$5,000.00
☐ Check here to receive our newslette	er by Web only. Receive no hard
copies and save us postage — plea	se include your e-mail address.

The JC Raulston Arboretum is under the auspices of the NC Ag. Foundation, a 501(c)3 organization. Your membership dues are tax deductible.

Mail To

JC Raulston Arboretum, NC State, Campus Box 7522, Raleigh, NC 27695-7522

Members Enjoy

Annual Plant Distribution — An opportunity to take home as many free plants as you can carry at the yearly members plant giveaway.

JCRA Newsletter — Published twice a year and filled with information about plants, upcoming programs, and developments at the JCRA.

Friends of the Arboretum Lectures — Free admission to monthly lectures from September through May.

Connoisseur Plants — At higher membership levels, members receive some of the finest rare and hard-to-get plants available.

JCRA Book & Gift Shop Discount — Members receive a discount on all purchases.

Reduced Admission — To selected special events, workshops, and symposia.

JCRA e-Updates — A concise, monthly online newsletter, highlighting upcoming events, activities, and news from the JCRA.

Discounts and Special Offers — Many great offers and discounts provided by area businesses and organizations when JCRA members present their membership cards.

Guest Passes — When you renew your membership or join the JCRA as a new member, you'll receive a couple guest passes good for admitting one person to any of our FOA Lectures.

Satisfaction — Knowing that your membership and gifts help support one of the country's most respected research, extension, and teaching facility.

4th of July Rooftop Celebration!

By Anne Porter, Director of Development

July 4, 2005 — The Arboretum will once again be the hot spot for the 4th of July Rooftop Celebration. This event is hosted by **Johnny Wynne**, Ph.D., Dean of the College of Agriculture and Life Sciences at NC State. This special event recognizes the College's corporate sponsors and major donors.

Want to join in the fun? Here is your chance. We invite you to become a 2005 Gala in the Garden sponsor! For more details click on "Gala" on the Arboretum's Web site at <www.ncsu.edu/jcraulstonarboretum>.







Top: CALS corporate sponsors and major donors enjoying delicious food and camaraderie.

Middle: Gala in the Garden sponsor, Bobby Wilder, Century Framing, enjoys a dance.

Bottom: Gala in the Garden sponsors, Richard & Marian Taylor, Taylor's Nursery, enjoy the 4th of July fireworks.

Arboretum **U**pdate

Butterfly Garden Renovation

By Judy Morgan-Davis, Interpretive Assistant

Renovation of the Butterfly Garden began last year and is scheduled for completion in April 2005. The new garden will be filled with woody plants and perennials that provide food for butterflies and their larvae, of course; however, the garden is designed to be attractive to a variety of wildlife. Many of the plants included in the design produce fruits or seeds that feed birds as well as butterflies. Although the original amphibian inhabitants of the garden were carefully rescued and relocated, frogs will enliven the new pool in time. This special water feature will also meet the needs of male butterflies that collect salts from damp soil. Keep an eye on the progress as this area metamorphoses into a beautiful garden once more!





Top: Volunteers take advantage of the empty beds to stain the fence that separates the Butterfly Garden from the Finley-Nottingham Rose Garden. Bottom: Barbara Kennedy and Charlie Kidder (left to right) brave the cold temperatures along with the other volunteers staining the fence.

Drainage Improvements and the Contemplation Garden

By Christopher Todd Glenn, Programs & Education Coordinator

Even in a relatively dry winter like we had this year, there are still some drainage problems in the Arboretum. Interim Director **Kim Powell** has begun to correct a few of the most difficult areas, starting with the vicinity near the Perennial Border extension.

Installation work began on the Contemplation Garden shortly after the New Year. Bland Landscaping Co., Inc. was hired to install the hardscaping which should be completed by April 2005.





Top: Tim Ketchie, Kim Powell, and Bradley Holland (left to right) improve drainage near the Perennial Border extension.

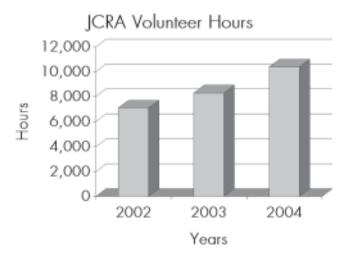
Bottom: A crew from Bland Landscaping Co., Inc. installs the hardscaping for the Contemplation Garden.



Volunteer News

By Frankie Fanelli, Volunteer Coordinator

Volunteers are contributing more of their talents and time than ever before! As you can see from the chart below, volunteer hours have climbed each of the last three years. JCRA volunteers not only work hard but enjoy both social and educational events conducted especially for them. An extra special benefit is the camaraderie and plant knowledge that volunteers readily share with each other and the staff. Do take a few minutes and read about the available volunteer opportunities. Please contact Frankie Fanelli at (919) 513-7004 or <frankie_fanelli@ncsu.edu> to discuss the possibilities!



Volunteers in Action...

Bob Davis, aquatic gardens curator, led an enrichment session for the tour guides. The guides listening to Bob (kneeling) include (left to right) Gail Harris, Charlie Kidder, Roland Flory, Kathe Rauch, and Frankie Fanelli.



Sandi Zazzara, former container gardens curator, conducted an evening brown bag for the volunteers on the splendid containers that she designed and planted. Sandi (below, back right) left the Raleigh area last year. We wish her well and will miss her great smile and special design talents.



The Friends of the Arboretum Annual Plant Distribution requires over 100 hours of volunteer time to label, transport, and arrange the plants. Volunteers also do whatever needs to be done on the big day so that the event runs as smoothly as possible. The check-in crew pictured below (beginning in the foreground) are Marty Howard, Sandy Reid, and Amelia Lane.



Volunteers can always be found helping with various tasks in the garden.

Carolyn Fagan and John Schott (facing page) are part of the very dedicated labeling team. This team works every Tuesday! The team is lead by Tom Bumgarner and also includes, Patrice Cooke, Margaret Jordan, Laddie Munger, Bill Satterwhite, and Dora Zia. Thank you for such dedication!



JCRA Volunteer Opportunities JCRA Book & Gift Shop

Volunteers are needed for the spring season. Hopefully, we will have enough volunteer staffing to have the shop open daily!

Evening Gardening

A gardening team meets every other week from 6:00 PM to 8:00 PM so that the office bound have a chance to get some garden time! The day of the week is yet to be determined.

Weekly Gardening

This gardening opportunity may work with one of the curator teams or with the roving group that works where needed!

Curators

Many new garden areas need curator expertise. These opportunities require strong horticultural talent, the capability to lead a team of gardeners, and an on-going, regular contribution of time.

Special Skills

From time to time we have a need for skills other than horticulture. Several wooden garden structures need repair and painting. The preparation of program announcements can use the expertise of a graphic designer.

Contact Frankie Fanelli about volunteer opportunities at (919) 513-7004 or by e-mail at <frankie_fanelli@ncsu.edu>.

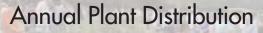
Volunteer Curators & Coordinators

Susan Andrews — Winter Garden Co-curator Pam Baggett - Entry Garden Curator Harvey Bumgardner — Finley-Nottingham Rose Garden Co-curator Tom Bumgarner — Labeling Curator Claude & Mary Caldwell — JCRA Archives Co-curators Dave Duch — Winter Garden Co-curator Anne Clapp — Finley-Nottingham Rose Garden Co-curator Bob Davis — Aquatic Gardens Curator C. J. Dykes — Wisteria Garden and Vines Curator Wendy Elliot — Butterfly Garden Curator Frankie Fanelli — Paradise Garden Curator Barbara Kennedy — Roving Gardening Group Coordinator Charlie Kidder — Southwest Garden Curator Amelia Lane — Mixed Border Curator Mary McClure - Klein-Pringle White Garden Curator Pat McCracken - Magnolia Collection Curator Bob Roth - Lath House Curator Adrienne Roethling — Perennial Borders Curator Bill Satterwhite — Bluebird Houses Curator Ann Swallow — Japanese Garden Curator Dick & Judith Tyler — Winter Garden Co-curators TBA — Container Gardens Curator

×Sinocalycalycanthus raulstonii 'Hartlage Wine' — Raulston allspice



In the photo above, tour guide, **Catherine Poff**, describes the attributes of seasonal plants for the "A Walk in the Winter Garden" visitors. This popular February event drew over 200 visitors that enjoyed a lecture, garden tours, and refreshments. This success can be attributed to the efforts of all the volunteers that participated in various ways!



October 8, 2005 (Saturday) 9:00 AM

Programs

For more information concerning any of the Arboretum's events, please visit the Arboretum's Web site at <www.ncsu.edu/jcraulstonarboretum> or call (919) 515-3132.

Pi Alpha Xi Annual Spring Plant Sale April 9, 2005 (Saturday) — 8:00 AM-4:00 PM April 10, 2005 (Sunday) — 10:00 AM-3:00 PM JC Raulston Arboretum parking lot

Offering rare and unique annual, perennial, and woody ornamentals. Proceeds benefit horticultural scholarships and area nonprofit organizations. For more information, contact a Pi Alpha Xi member at (919) 515-3178 or visit www.ncsu.edu/project/pialphaxi.

Friends of the Arboretum Lecture
"Bringing Butterflies into Your Garden"
John Dole, Ph.D., Professor, Department of Horticultural Science, NC
State
April 21, 2005 (Thursday) — 7:30 PM
Free for members — \$5.00 for nonmembers
York Auditorium, Ruby C. McSwain Education Center, JCRA
Everyone knows and loves the Monarch butterfly but there are so many
more beautiful species you can attract and enjoy in your yard. Learn what
it takes to make a butterfly friendly yard and learn to identify some of the
common species you can find in your yard.

Gala in the Garden
May 1, 2005 (Sunday) — 3:00 PM-7:00 PM
\$50.00 — Advanced registration required
JC Raulston Arboretum

Join us for a delightful spring afternoon with cocktails, gourmet hors d'oeuvres, live music, and a silent auction featuring a plethora of unique plants and an eclectic array of many other distinctive items.

Meet the JCRA's Curators and Gardeners in Their Gardens May 14, 2005 (Saturday) — 10:00 AM-12:00 PM Free

JC Raulston Arboretum

Volunteer curators and gardeners are essential to the Arboretum's daily needs contributing their time and knowledge. Here's your chance to meet the people behind the scenes. Volunteers will discuss the gardens and collections as well as the history behind them. Join us and wander through the Arboretum on this special day celebrating our volunteer curators and gardeners.

On the upper right-hand side of the address label to the right, there is an entry above your address. It is the password needed to access this newsletter on the Arboretum's Web site at <www.ncsu.edu/jcraulstonarboretum> and the date your membership expires. The entry is in the following format: mm/dd/yyyy — password.

Willie York Memorial Friends of the Arboretum Lecture
"A Collectors View of Mexico — What I Have Learned in 25 Years!"
Carl Schoenfeld, Yucca Do Nursery, Hempstead, Texas
May 19, 2005 (Thursday) — 7:30 PM
Free for members — \$5.00 for nonmembers

York Auditorium, Ruby C. McSwain Education Center, JCRA

A review of what has been learned in 25 years of exploring temperate zones in Mexico. The talk will begin on the scope and significance of the Mexican flora and branch out to emphasize specific plant groups and their associated communities such as pine-oak, woody lilies, bulbs, perennials, and flowering shrubs. Interlaced in these discussion will be comments on the habitat niches that these plants occupy and why.



Above: Carl Schoenfeld collects seed of *Callicarpa acuminata*, a Mexican beautyberry, on the 1992 expedition to Mexico with J. C. Raulston and John Fairey, Peckerwood Garden, Hempstead Texas.

If you are a member of the Friends of the JC Raulston Arboretum, we have a reciprocal agreement with the Sarah P. Duke Gardens. You are entitled to their member's rate if you attend any educational program they offer. Just present your JCRA FOA membership card and they will honor it as their own. Visit <www.hr.duke.edu/dukegardens> for their program listings.

JCRaulston Arboretum

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