

15

Friends of  
Sarah P. Duke Gardens  
Magazine

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# *flora*



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Cover photo: Zinnia from 'California Giants Mix' in the Terrace Gardens. Photo by Duke student Matthew Cicanese (see p.16).

Additional photos by: Kavanah Anderson, Dilip Barman, Stefan Bloodworth, Bill LeFevre, Rick Fisher, Jason Holmes, Katelyn James, Paul Jones, Clement Lee, Reagan Lunn, Bobby Mottern, Mike Owens, Michelle Rawlins, Annabel Renwick, Bryan Roth, Sarah Reuning, Orla Swift, Jan Watson, Erika Zambello.



# dear friends,



Every day I have the distinct pleasure of working at Duke Gardens in a setting described in the media last year as insanely beautiful and stunning. And when I arrive each morning, I encounter some of the most skilled and talented staff and volunteers to be found in any public garden...anywhere.

In the following pages we share news of many of the exciting projects recently completed and underway, including our new Japanese Garden and Piedmont Prairie. The Japanese Garden, designed in collaboration between our staff and the curator of the Portland Japanese Garden, Mr. Sadafumi Uchiyama, is a major addition to our Culberson Asiatic Arboretum and promises to be an important example of the Japanese Garden style in America. The Piedmont Prairie will greatly expand our role in plant conservation and complements the adjacent Steve Church Endangered Species Garden in our Blomquist Garden of Native Plants.

On the program side, you will read of our groundbreaking work with the East Durham Children's Initiative, certificate programs, and the expansion of our guided tours program. In addition, several of our staff, volunteers and Duke students share their connections to the garden and offer insights into why they are drawn to be here. I find their stories to be particularly inspirational, and their photography is superb.

All of us here gladly toil to create and nurture an environment in the heart of the Duke campus for learning and inspiration, and for the enjoyment not only of the students, faculty and staff of this great university but the thousands of local residents and others from around the world who visit and are often amazed that Duke Gardens is open to all free of charge.

We are able to do this only because Duke University and our many friends and supporters value and support Duke Gardens. Thank you and I hope we see you in the garden soon.

Sincerely,

A handwritten signature in black ink, appearing to read "W. M. LeFevre".

William M. LeFevre  
Executive Director



# A New Japanese Garden

## Shaping the illusion of a seasoned space

By Bobby Mottern, *Director of Horticulture*

*In the Culberson Asiatic Arboretum this spring, cherry blossoms will fall upon newly shaped ground, cascading water will make soothing sounds, new paths will pass by moss-covered boulders, and fresh scenery will delight from beneath a gazebo of aromatic cedar.*

Around the world the Japanese garden style has represented the quintessential essence of an Asian garden, and since being introduced to the American public at the 1876 Centennial Exposition in Philadelphia, Japanese-style gardens have proliferated across the country. There are now more than 250 Japanese gardens open to the public across North America alone. Currently in North Carolina, the JC Raulston Arboretum in Raleigh and the North Carolina Arboretum in Asheville have Japanese Gardens.

The idea of a Japanese garden in the Asiatic Arboretum has been brewing in curator Paul Jones' mind ever since he began working here in 1984. Over the years Paul has installed many Asian-inspired spaces and features in the arboretum, but it wasn't until the tea house garden was built in 2007 that there was an official Asian-themed garden space. However, tea house gardens are just one type of Japanese garden, and they are





rustic, humble spaces with stepping stone paths, a simple wash basin and maybe a stone lantern, all meant to support the tea house. Zen gardens are another type of Japanese garden, the neatly raked sand meant for meditation and inner reflection. But the most classic of Japanese gardens is the “strolling garden,” with meandering paths, water features, covered structures, controlled views and refined plantings. This is the version Paul had in mind, and last year the dream became a reality as ground was broken on an intriguing sloping wooded area between the tea house and Flowers Drive.

This project actually began in 2012 with the search for a designer. Paul contacted his first choice, Sadafumi Uchiyama (who goes by the name Sada), the curator of the Portland Japanese Garden. Sada is a third-generation Japanese gardener who also happens to be a landscape architect. Sada came to the U.S. in the late '80s and actually lived in Chapel Hill for a short time before moving to Chicago and the University of Illinois for bachelor's and master's degrees in landscape architecture.



Sada has been involved with the Portland Japanese Garden for over 10 years, first as a board member and later as garden curator. The Portland garden is considered one of the finest representations of Japanese gardens in North America, and through a unique arrangement Sada is permitted to consult with other institutions to promote the culture and design of Japanese gardens in this country. Fortunately, he was wrapping up a project at Denver Botanic Garden and he was able to join us in developing this exciting new project.

Traditional landscape architecture generally follows a standard design process. It begins with the site analysis, followed by conceptual and schematic design work, refining the concepts in design development, and finally producing construction drawings from which the project is built. But there are design jobs that do not follow the traditional approach. These projects are usually very artistically oriented and attempt to create representations of nature that are so specific they don't easily translate into architectural drawings; the Japanese Garden is one such project.



Sada is a master of the Japanese garden style, not to mention a talented artist. His stunning drawings of streams and boulder settings were easy to comprehend, but the application of the design into built forms was going to require craftsmen who could interpret the ideas and then trust their own skills to build it when Sada returned to Portland. Fortunately we were familiar with local contractors who were able take Sada's renderings and bring them to life with a level of artistry and precision that architectural drawings would never convey.

Clockwise from top left: Sadafumi Uchiyama (center) discusses the project with Paul Jones (left) and contractors; spraying shotcrete (concrete mixed with air) into the future stream bed; watering the mosses; regrading the steep hill adjoining Flowers Drive; installing boulders with a crane (photo by Bill LeFevre). P. 3: Construction of a cedar gazebo overlooking the garden. All photos by Bobby Mottern unless otherwise noted.





Vince Williams, owner of Creative Garden Spaces in Greensboro, specializes in building natural pools and waterfall features. He designed the Fish Pool system in the Terrace Gardens when it was renovated in 2011. In the Japanese Garden, Vince's team constructed two faux streams replete with cascades over large boulders, moss covered logs and plants, all of which appear as if they were created by Mother Nature herself.

There are also a few structures in the garden. A gazebo beside the stream provides a relaxing seating area that offers views to the red bridge and beyond. This structure was designed by architect John Sibert, a partner in the Raleigh firm 2SL Design Build. John brings a high level of expertise in Japanese culture from years of living in Japan, and he happens to employ some of the most talented carpenters in the area. Paul worked with John during the construction of the tea house, so we knew whom to contact for additional structures in this new garden.

Brooks Burleson, owner of Natural Stone Installation, is a master stone craftsman from Raleigh. Brooks has performed many stone projects at Duke Gardens, such as the wall in the Charlotte Brody Discovery Garden and the stone path in the tea house garden. His expertise lies in dry laid stone walls similar to those in New England and Great Britain, but he can do most anything a client desires with stone. The stone floor in the new gazebo is a perfect rendition of Japanese masonry, and Brooks was able to match Sada's desired pattern after receiving only brief direction and a simple sketch. Without these talented artisans, this project certainly would never have met our expectations.

The theory behind Sada's design is to showcase the passing of time, a concept common in old landscapes but rarely attempted in new gardens. The garden is divided into two spaces. The first displays a bold stream cascading down angled boulders into a pool. The source of the water is hidden, adding an element of mystery. The suggestion of a previous habitation will exist



beside the pool in the form of exposed foundation stones that appear to have once supported a modest building (possibly a tea house), as well as an antique stone well, and worn cobble paving representing a long ago traveled road bed. Visitors pass from this space either down the main path or along a small footpath to the "newer" garden area with a gazebo positioned uphill from the existing tea house garden. The gazebo is located beside a gentle brook and provides views of the surrounding garden, the red bridge, and beyond into the arboretum.

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*The concept of "borrowed scenery" is key in Japanese landscape design to create the illusion of endless borders. Other fixtures of Japanese garden culture will also be included, such as stone lanterns and bridges, bamboo fences, intimate footpaths, the aforementioned boulders and water features.*

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The concept of "borrowed scenery" is key in Japanese landscape design to create the illusion of endless borders. Other fixtures of Japanese garden culture will also be included, such as stone lanterns and bridges, bamboo fences, intimate footpaths, the aforementioned boulders and water features, and many examples of plant material used in traditional Japanese design.

This garden will be a remarkable addition to the Culberson Asiatic Arboretum and Sarah P. Duke Gardens, and an alluring new attraction for all Japanese garden enthusiasts and the Duke and Durham community.



# Riches in the Ditches

By Annabel Renwick, Horticulturist, *Blomquist Garden of Native Plants*



Above: Native sunflowers growing in August on Marie Poteat's Farm in High Point, N.C. Photo by Annabel Renwick. Page 7: Remnant prairie on power-line right of way in rural North Carolina (top); photo by Stefan Bloodworth. Roadside ditches where seeds were collected in rural Durham (bottom); photo by A. Renwick.

“There cannot be many jobs these days that depend on knowledge of ecology, botany, conservation biology and high-powered gardening!” wrote an English friend and retired botany professor in the U.K.

He was responding to a letter I wrote at Christmas, in which I told him of my excitement concerning a new project in my work here at Sarah P. Duke Gardens. In the summer of 2014, I'd been tasked to help design and create a small prairie in the Blomquist Garden of Native Plants.

In addition to being amazed, he was also amused that an English botanist like me, even one with a PhD in grassland ecology and management, would be at the center of such a project here in North America. One thing I've come to know, after miles of driving rural roads and struggling through waist-high grasses hunting for seeds, is that even though the plant and animal species in the grasslands here may differ from those “over there,” the fundamentals of the ecology in both places is remarkably similar.

As I neared completion of our Blomquist Prairie project's first phase recently, I experienced a bittersweet moment when, after several months of seed collecting from the wild and many weeks of painstaking germination experiments in the greenhouse, I handed over my collection of seeds to the commercial growers who will steward them into the next phase of their existence.

Hoffman's Nursery in Bahama, N.C., makes its living from transforming tiny seeds into mature grasses. It was into their capable hands that I was passing the work from six months of my life, to be returned to me this summer in the form of 8,000 potted plugs representing 11 species of native Piedmont grasses. In doing so, I couldn't help but reflect on all that had transpired to reach this point.

From an ecological perspective, I had been asked to help build a representation of an almost vanished Piedmont ecosystem whose modern day remnants represent only a shadow of that





ecology's former grandeur. At one time, the Piedmont Prairie was a natural landscape where scattered trees sheltered billowing grasses grazed by large herbivores notably absent from the modern-day Southeast. It is not only the bison and elk that are missing, but also many species of native grasses and wildflowers that once co-inhabited these natural systems. Today, these Piedmont prairies exist only in small remnants, often found in power line right of ways or on roadsides. My goal was to collect sufficient wild seed of these prairie species to build our own rendition of this vanishing landscape. As with the botanical explorers of yore, I became a plant hunter. Unlike them, I had the luxury of an air-conditioned pickup truck to navigate between scattered locales where my quarry species now congregated.

People have asked, "Why don't you just buy the seed?" Indeed, why go to all the bother of chasing down the seeds while avoiding ticks and jumping ditches? It's a natural question, which has a very natural answer. It is important that we create a prairie that has a sense of place. We want it to contain the progeny of plants whose parents populated the roadsides of this region before there were roads. Added to this, purchasing plant cultivars ensures the buyer of uniformity, while growing plants from seed assures diversity; we want the latter. The multitude of hues, textures and colors of a grassland waving in the wind evokes powerful human emotions, and we hope to engender such feelings in our visitors. I just had to survive the navigation of unfamiliar country roads, the occasional uncertainty that my identification of the species was exact, and the sheer volume of seeds it was necessary to collect to bring such a project as ours to fruition.

Along the way I received more than a few curious glances from passersby no doubt wondering what on earth I'd lost in the ditch that was so important that I had to wade through waist high weeds to find it. One site in particular stands out in my mind: a dirt road cut through thick forest in northern Durham, occasionally

opening to reveal tiny roadside meadows thickly populated by the plant species I was hunting. I shared many afternoons there with horseback riders whose open curiosity prompted me to approach them and explain what I was doing. My English accent would always elicit surprise, as if I had dropped from the sky as a lost alien to find myself meandering down forgotten country roads. A brief explanation of my mission, and the way in which these plants had found a haven in the same spot that the riders chose to escape the din of humanity, was something they could appreciate, and they always wished me luck as they disappeared into the woods.

As I left Hoffman's, having marked the end of the plant hunt with the passing of the torch to the team at the nursery, I motored past several of my old collecting haunts. It is nearly impossible for me to drive in the country now unencumbered by the need to identify hidden pockets of this area's rich natural heritage as I pass them. Those slender, arching stems could only be little bluestem. Those silver seed heads, like rockets suspended high on long stems, must be *Saccharum*. The list goes on, as does this project. I will hold onto my memories of wandering the country roads of rural North Carolina gathering tiny seeds. Although it is over for now, I would be lying if I said I won't miss it.



# Gardens Tours

## Serving visitors with expanded opportunities

By Chuck Hemric, *Director of Volunteer Services*

There is always something new at Duke Gardens – newly flowering plants, new garden projects and entirely new gardens. This spring we have expanded the tour options so that more people may schedule a guided tour and enjoy the Gardens with a fresh perspective.

Guided tours are offered Tuesdays through Fridays at 10 a.m. and 2 p.m. from March 15 to November 15 at \$8 per person. We encourage advance reservations, held with payment, as these tours fill up rapidly.

*Discover newly designed garden spaces while re-visiting your favorites.*

Explore the Gardens on a docent-led walking or trolley tour and savor the beauty of the season, or discover the four main garden areas of Duke Gardens. Enjoy plants at peak bloom, delight in the perfume of flowers and discover the new gardens as you learn more about the richness and diversity of this 55 acre garden gem.

You have two options: walking tours or trolley tours. The walking option allows for a leisurely pace through the Gardens, looking closely at the plants and garden settings and lasting about an hour and a half. Trolley tours last an hour and are also interpreted by a docent.

For frequent visitors familiar with the Gardens, we offer thematic tours. These are more in-depth and are topic specific. Perhaps hearing of the important role that women played in the creation and development of Duke Gardens would be of interest to you. Or you may be mesmerized by the beautiful water features or the skillful architecture in Duke Gardens and want to learn more about them.

Discovering the newly designed garden spaces while re-visiting your favorite iconic garden areas is bound to create a rewarding tour of Sarah P. Duke Gardens. Anyone interested in scheduling a guided tour can contact registrar Sara Smith at 919-668-1707. We would love to share the Gardens with you!



### THIS YEAR'S TOUR FEATURES:

- *The new Japanese Garden in the W.L. Culberson Asiatic Arboretum*
- *A new bridge and recirculating stream in the Blomquist Garden of Native Plants*
- *A view of the new Piedmont Prairie in development in the Blomquist Garden*
- *Stories about how and when each garden area was created*
- *Outstanding specimen plants throughout the Gardens*





## An Exemplary Docent

By Erika Zambello

The expansion of Duke Gardens' tour offerings has been a big hit, in no small part because of the talented team of volunteer docents who make the tours so informative and pleasurable for visitors.

Volunteer Andy Wheeler is among the most prolific of these docents, earning the Gardens' prestigious 2014 Gehman Award for his efforts over the years, including leading almost 100 tours.

"I like being able to show off this place to visitors from out of town," Andy says, "especially people who would be incapable of seeing the Gardens any other way."

As a trolley tour guide, Andy is responsible for taking visitors to each unique garden section, providing a near constant narrative about the plants and features visitors are seeing, along with the history of the Gardens.

In addition to being a docent, Andy is also a Garden Ambassador and works with the volunteer propagation team.

To prepare for his role as docent, Andy completed a formal training program. His initial training was 8-10 hours, full of the history of Duke Gardens as well as practical experience. Subsequent

trainings included a visit to Duke Homestead. A new docent is ready to "graduate" only after shadowing another docent, and then taking director of volunteers Chuck Hemric on a tour.

After years of leading tours, Andy now has it down to an art.

"He's got a great wit," said Toni Hill, who praised Andy as "a great asset" to Duke Gardens after taking a tour with him. Hill said she knew Duke Gardens well, having lived in Durham since the 1970s. But she saw and learned yet more on Andy's tour.

"It really made me catch my breath, it was so interesting and so pretty," said Hill. "We used to visit a lot, and we would see a number of things, but not the stuff that he took us to see."

Tour participant Jeanette Gullledge also praised Andy's talent as a docent.

"Andy shared a lot of extra tidbits and allowed me to ask questions in my areas of special interest along the way," she said. "I really appreciated his in-depth knowledge on the garden and history. It was a very comfortable experience with a 'behind the scenes' feel to it. I felt like we really lucked out having Andy as our tour guide!"

# Deepen Your Knowledge with Certificate Programs

By Jan Little, *Director of Education and Public Programs*

Discover how to capture the beauty you see in nature, or create the garden of your dreams. Join a certificate program at Duke Gardens to develop or refine your skills in certificate classes designed for the busy adult.

*Two different certificates are available from Duke Gardens:*

The **Home Horticulture Certificate** program helps participants gain knowledge about plants, landscape design, garden installation and maintenance so they can enjoy a successful garden at home.

The program focuses on the gardening techniques and plants best suited for North Carolina gardens, with lectures, demonstrations, field experiences, hands-on instruction and projects. Participants learn best horticultural practices based upon current research and design skills in one of the country's most beautiful gardens.

The **Nature Photography Certificate** program blends the technical skills of photography with participants' artistic vision to capture the beauty of flora and fauna, and to share their love of nature.

The program helps refine and expand participants' knowledge of equipment, processes, composition and methods while increasing their skill and awareness of the beauty of our natural world. Photographers of all experience levels are encouraged to enroll in this program, from beginner to advanced, using any type of photo equipment (including single lens reflex or simple digital point and shoot cameras).



Each certificate program builds basic knowledge in required courses that are then combined with elective courses to allow participants to customize the program to suit their particular interests. The classes are offered on both weekends and weekdays, with daytime and evening sections.

The instructors comprise industry experts and Duke Gardens staff. Participants often note that they not only enjoy the classes and instructors but also meeting other people with similar interests and goals.

You do not have to be participating in a certificate program to take a certificate class. Join us to enjoy learning from local experts and sharing your experiences with other gardeners and photographers.

*For more information, please go to [gardens.duke.edu/learn/certificate-programs](https://gardens.duke.edu/learn/certificate-programs).*





## *gardens connections:*

**Rose Boyarsky**

*Duke Gardens Volunteer*

You've been volunteering at the Gardens' information desk ever since the Doris Duke Center opened in 2001. How did you get involved with Duke Gardens? I've been involved with gardening ever since I was a little girl. And when I lived in St Louis, after I retired, I went to the Missouri Botanical Garden and took the master gardening course, and I worked there for over 10 years as a "plant doctor." People would come up and bring me their plants or ask questions about what's wrong.

Then we moved back to North Carolina, and as soon as I got settled I came over to find out was there something here for me. I'm too old to be outside. I need a desk job. So I've been here Tuesday mornings ever since the building opened. It's my place, my spot.

What would you tell prospective volunteers about Duke Gardens? Well, there's something for everybody. That's what I tell my friends who are looking for something to do, some



community service. You can dig in the dirt, you can weed, you can lead a trolley tour, you can sit at a desk, you can propagate plants. There are all kinds of wonderful things to do, if you're the least bit interested in any of that.

### **What is most gratifying about your job at Duke Gardens?**

Well, I love helping people to know about the Gardens. And I always send them to the White Garden, because otherwise they miss that. Or if they have a large garden of their own or they raise vegetables, I always send them over to the Discovery Garden, and they're amazed.

I also love the ability to go and watch the plants as they grow and develop and bloom over the seasons. I've always had a big garden myself, and I've always planted things. And now I don't anymore, so this is my second garden.

## Capturing flighty subjects



Male N. American wood duck (L) and Mandarin duck (R).

*"As a wildlife photographer, I consider Duke Gardens to be an excellent place to spend my time because of all the great opportunities it offers me to photograph various waterfowl, songbirds, raptors, small mammals, and creepy crawlies."*

**Reagan Lunn**, Duke Gardens Volunteer Photographer

*Photographed all the waterfowl in the Culberson Asiatic Arboretum pond for a new informational sign*

# Duke Gardens Partners with East Durham Children’s Initiative

By Kavanah Anderson, *Education Program Coordinator*

Imagine the first time a child touches the velvety soft leaves of lamb’s ear, smells the wafting scent of sweet osmanthus or learns about measurement by comparing long and short leaf pine needles. Their world can become a richer more intriguing place.

Our new partnership with the East Durham Children’s Initiative brings these experiences to every second-grade student at YE Smith Elementary School. As an official museum partner, Duke Gardens serves the second-grade class with five visits to the Gardens and one in-classroom visit from Duke Gardens’ education staff, scheduled across the school year.

As a “museum for plants,” we are excited by the opportunity to work with a group of students on multiple visits within a school year. The students develop a familiar relationship with the Gardens and notice seasonal changes as they hone their observation skills and build appreciation for nature.

In addition to the second-grade partnership, Duke Gardens offers a “Friday Club” called “Nature Explorers,” held weekly at the school and open to all YE Smith students. The Nature Explorers club often begins with someone asking, “Are we going outside today?” The answer is undoubtedly, “Yes.”



After reading a book or poem about leaves, squirrels, birds or other elements of the natural world, club members head outside to find nature in their own neighborhood. Around the school grounds, students have huddled together to observe a mama wolf spider carrying her babies on her back. They have spotted squirrel nests high up in the trees and a hawk circling over the soccer field. They have made owl masks after acting out the predator/prey relationship between owls and mice through games. When students make a learning connection, their excitement is contagious.

At the earliest Friday Club and during the first student visit to the Gardens, students were anxious about spending time outside, citing allergies, fear of dogs and general disinterest. It is encouraging to watch their growing enthusiasm to get out into nature. As these students explore the interconnections between humans and nature, they become more likely to care for the natural world as adults. Current research confirms that students who participate in environmental education programs score higher on standardized tests in math, reading, writing and listening. Critical thinking skills also improve significantly. Additionally, outdoor activity increases physical fitness and helps minimize childhood obesity.

Students are testing Rachel Carson’s hypothesis that “the lasting pleasures of contact with the natural world are not reserved for scientists but are available to anyone who will place himself under the influence of earth, sea and sky and their amazing life,” and they are finding it to be true.



Left to right: discovering life in soil; investigating lichen. Photos by Kavanah Anderson.





Left to right: An infected tree (by Daniel Herms); emerald ash borer close-up (by Debbie Miller); evidence of the borer (by D. Herms). All courtesy of forestryimages.org.

# On the Lookout for Emerald Ash Borer

By Beth Hall, *Paul J. Kramer Plant Collections Manager*

Emerald ash borer (*Agrilus planipennis*) is an invasive beetle that has killed millions of North American ash trees and threatens millions more. First detected in Detroit in 2002, it has since spread to 22 states and to Canada. Probably imported from Asia in wood packing materials made from ash, Emerald ash borers are strong fliers capable of flying up to several miles, but their spread has occurred mostly by moving infested wood material like firewood, nursery stock or even wood mulch. The beetle was found in North Carolina in 2013 just north of Durham in Granville, Person, Vance, and Warren counties.

The metallic green beetle bores into the inner bark and outer sapwood of ash trees (*Fraxinus spp.*). White fringetree (*Chionanthus virginicus*) is also suspected to be a host for the beetle. Once a tree is infested, it declines and eventually dies within a few seasons. The first symptoms are thinning branches, leafy sprouts growing from large branches, and increased woodpecker activity as the birds dig into the bark looking for the beetle larvae. If these symptoms are present, look for D-shaped exit holes and evidence of beetles tunneling under the bark. If emerald ash borer is suspected, contact a local agricultural extension agent.

There are nine species of ash trees in the Gardens' collections\*, native to both North America and Asia. Last summer, an intern worked on a project to map all of the ash trees in the Gardens. This complete inventory makes it possible for staff to monitor for signs of infestation. This spring, we will work with the North Carolina Department of Agriculture & Consumer Services to set out pheromone traps. These traps are hung in ash trees when the adult beetles are emerging, typically in mid-May in the Piedmont. Early detection is very important in efforts to protect our trees. Systemic pesticides can be effective in preventing emerald ash borer but they are only suggested for high value ornamental trees, as they are intensive treatments. The pesticides are only recommended once the beetle is known to be within 15 miles, which means monitoring is essential.

Duke Gardens participates in the American Public Gardens Association's Sentinel Plant Network, a network of public gardens dedicated to the detection, diagnosis and community awareness of high consequence pests and pathogens. Thanks to their support, Duke Gardens has been able to place interpretive signs in the Gardens and receive training on pest detection. You can learn more at [sentinelplantnetwork.org](http://sentinelplantnetwork.org).

\*White ash (*Fraxinus americana*), Chinese flowering ash (*Fraxinus insularis*), Japanese ash (*Fraxinus longicuspis*), Manchurian ash (*Fraxinus mandshurica*), flowering ash (*Fraxinus ornus*), Quinling ash (*Fraxinus paxiana*), green ash (*Fraxinus pennsylvanica*), and Siebold's ash (*Fraxinus sieboldiana*).

# Students in the Gardens

*Duke students share their appreciation for Duke Gardens in words and photographs.*

Duke Gardens strives to serve Duke students with educational and enjoyable programs, partnerships and social events, and by serving as an alluring place to connect with nature, study, stroll, gather with friends, and unwind. We love seeing students enjoying the Gardens, and we love when they tell us what it means to them to have Duke Gardens as part of their Duke student experience. We hope you enjoy their photos and sentiments, too.



*"I need to be outside more than the average person. I grew up right outside a national park and spent almost every weekend there. This need has followed me to grad school. If I am locked in my room for some study time, I will leave my window open to get a breath of fresh air. I walk to school almost every day so that I can spend just a little extra time outside.*

*For me, Duke Gardens are a home away from home. The seemingly endless pathways allow me to get lost in nature. Every season greets me with different shades, smells, energy and light. As a photographer, I love capturing the way the Gardens change, and I love bringing my friends along with me."*



**– Samantha Leonetti (B'15)**





Male cardinal on a Japanese apricot (*Prunus mume*).



Coleus flower



*“As a student at Duke, where classes, activities and events are going on around the clock, it is a blessing to have the Gardens as a place to get away from the hustle and bustle and to soak in a peaceful natural setting. Having embarked on wildlife photography as a hobby, I enjoy spending my free time in the Gardens scouting for new subjects to photograph, be it passerine birds playfully hopping around in the canopies or little critters hiding amongst the various plants.”*

**– Donovan Loh (T'17)**

*“The Gardens provide me with a place of quiet solitude and reflection to escape to during the exciting chaos of my graduate studies here at Duke. They are truly the jewel of the Duke campus, and they were the first feature I fell in love with during my initial visit here years ago.”*

**– Matthew Cicanese**

*MFA documentary student, class of 2015*



Tulip 'Cummins'



Matthew—who created the cover photograph for this issue—is a conservationist, explorer and award-winning documentary artist who expresses the importance of preserving the Earth and its biodiversity through digital photography, film production and audio storytelling. See more of his work at [matthewcicanese.com](http://matthewcicanese.com).



Allium 'Forelock'





Azalea 'Pink Cascade'



“Duke Gardens has been an immense resource for me as a student concentrating in Ecosystem Science and Conservation. I have practiced flora and fauna identification through photographing native birds, flowers and insects, and learned about botany and horticulture through the wealth of classes offered at the Gardens. Most importantly, I have seen firsthand how experiencing the outdoors in a beautiful setting can connect people to the natural world and inspire conservation.”



– **Erika Zambello (F'15)**  
*Duke Gardens work-study student*





## *gardens connections:*

Jan Watson

*Horticulturist, Historic Gardens*

### **When and how did you first become interested in horticulture?**

The extent of my horticultural experience growing up was cutting our grass (six hours with a push mower). I knew next to nothing about plants, but I always enjoyed being outside. Whether I was riding the four-wheeler in our woods or throwing mud pies at trees (it was before internet...we made our own fun), I spent 90% of my spare time outside. Unfortunately, I wasn't one of the lucky people that figure out their calling at a young age. I got a psychology undergraduate degree and completed a semester of a master's program in guidance and counseling. I really liked the idea of helping people, but I never really thought it was the right fit for me. After several unfulfilling jobs, I decided that I needed to be outside. So I got a job as a tour guide at the Missouri Botanical Garden. It was there that my love of horticulture finally took shape. I then worked in the nursery industry for seven years before going back to school for my horticulture degree at the University of Georgia.

**Do you have a home garden?** Our home garden is a network of paths weaving through about three-quarters of an acre of garden spaces. We keep running out of places to put plants. Instead of cutting back our collection like normal people would do, we just add more garden space. I am constantly moving things around and experimenting with different combinations. There is always something beautiful and unexpected happening any time of year. It is always a surprise in spring when things come up that I had forgotten I planted. It could be described as a collector's garden. We like to try new plants and see if they make the cut. Even though I garden all day long, working in the home garden never feels like "work." It's fun and a great learning experience. I can make tons of

mistakes without worrying that 300,000 people are going to be a witness to them!

### **What is most gratifying about your job at Duke Gardens?**

I love that I am helping to create something beautiful that can influence a person's mood or outlook in a positive way. They might come to the gardens feeling depressed; they leave uplifted. They come feeling tired or sick; they leave refreshed. They come feeling confused; they leave with clarity. However indirect it is, I'm helping people, and there is nothing more gratifying than that.

### **What might be surprising for readers to know about you?**

I am a nut about collecting Christmas ornaments. I keep them in their original boxes, labeled and packed away in a certain order. I spend a couple of days carefully decorating my tree. I've been known to keep the tree up until February because I like to look at it and because I dread packing away the ornaments.

### **What quality do you respect most in other people?**

My parents are the hardest working people I know and have always stressed the importance of giving 100% to whatever goal you set. I try to live that way and have the greatest respect for people who always try their best, whether they meet their goals or not.

### **What is the most important factor for you in selecting plants for a successful garden design?**

Choose plants that live. If you are not picking plants that perform well in your climate or in your site conditions, then it doesn't matter how conceptually great the texture, color or shape is. You can't be successful with a bunch of dead plants.

Left to right: Home garden featuring *Agave americana* (photo by Jan Watson); Watson planting flowers in the Memorial Garden (photo by Orla Swift).







Photo by Orla Swift

## In Memory of...

By Jason Holmes, Curator, Doris Duke Center Gardens



This fall I had the honor of working on a new bench site in the Spring Woodland Garden. The site was given in memory of a young duke alumna named Amanda Smith Johnston (T'04). Amanda passed away in April of 2014. Her family visited the location in late summer and realized that very near this spot was where Amanda and her husband had taken their engagement photo. This area in the Spring Woodland Garden has always beckoned for an attractive bench where one can sit and admire the surroundings. The site, located at the lower end of the garden, sits perched above the arched Duke stone bridge below, on which Amanda's engagement photo was taken. It looks to the southwest across the wooded ravine whose stream flows west towards the Asiatic Arboretum.

The bench itself was built by local carpenter and wood artisan Andy Howard. It is a curved bench made of locally sourced woods. Strong white oak (*Quercus alba*) and solid black walnut (*Juglans nigra*) give this bench strength and a colored contrast. Andy built this bench to be sturdy and comfortable and fitting of a woodland garden.

The curve of the bench is reflected into a circular stone landing below that evokes quiet contemplation. This landing, built by Brooks Burluson of Natural Stone Installation, has a course of chardonnay lilac field stone that runs the outer edge and

encircles an irregular pattern of Tennessee flagstone. In the center of the circle is a wonderful 2-foot diameter spiral that begins and ends on itself. This design repeats that of the lilac field stone and is edged in a lighter variety of the same stone. I wanted this design to signify life's journey and to offer pause and contemplation.

Surrounding the site is a hellebore collection, dedicated a year ago in memory of Tom Ellis (E'84) and Adam Fowler (E'84). Other plantings of cast iron plant, Christmas fern and lilac daphne encircle the bench and create an intimate space for the casual passerby. Smaller native woodland ephemerals such as trillium, bloodroot and puttyroot orchid also reveal their best at varying times throughout the year.

As the Spring Woodland Garden begins to grow, we are excited at the addition of yet another wonderful project to this Garden. This summer a Duke stone overlook will be built that looks back toward this bench. The ravine that meanders past the bench site will become a recirculating stream, which will flow to a shallow pond just below a new overlook named the Beverly and Bert Welch Woodland Garden Overlook. Without spoiling the rest of the surprise, I'd like to close by saying that none of this would be possible without the gracious giving of others.





# A Grounding Tradition

By Jesse Turner, *landscape architect*

We have a funny little Duke Gardens tradition that began with my son Finn in 2008 and has been carried on with my daughter Piper in 2011 and my youngest daughter Juniper in 2014. All of them touched their feet to the earth for the first time at Duke Gardens when they were just a week old.

We do this for a handful of reasons. The first is that when Finn was born, we had a very small yard that didn't have much grass in it. Most of the yard was fairly barren because of our dog Tilley, for whom the yard served as an occasional outhouse. It wasn't a great place for a kid to touch the earth for the first time.

The second reason is that we wanted to go on a picnic and get out of the house. The third reason is that once we did it with Finn we figured it would be a good story to tell them all someday when they are older.

The last and probably most important reason was not apparent until after Piper had touched down. We want our kids to be enriched in their lives. We want them to know the taste of fresh air and the feeling of soft grass on their bare toes, and to be engaged with their world.

I was born a landscaper's son and was lucky to spend my childhood stomping around very fine gardens in Western N.C. I

preferred to be barefoot when I could be, and I know the feeling of warm or cold soil between my toes. My wife also spent her childhood playing in natural areas, making up games and rollicking around. We feel that, as soon as possible, kids need to be in touch with nature in order to appreciate it.

Duke Gardens and our family have been connected for generations. On the Wilson side of my family, my great-grandfather, great-grandmother, two great-aunts and two great-uncles were either alumnae or dedicated patrons. I was fortunate to have been the landscape architect for the Charlotte Brody Discovery Garden, and I am proud to be able to pass a connection to this stunning place on to my children.

Duke Gardens is a special place for our family and, through our little tradition, we are much more aware of how important it is in our community. Being able to experience such a truly magnificent garden, right down the road from our house and for free, is a great gift to us.

We're very happy that our kids touched the earth there for the first time. Most of all, we are happy that they will always be able to go back to that spot knowing that their ancestors have been there before. Hopefully our family will carry this connection for many generations to come.

Photos courtesy of the Turner Family





## *gardens connections:*

### Rick Fisher

*Duke Gardens Board of Advisors member,  
Gardens member, instructor and volunteer*



#### **What motivated you to begin volunteering at Duke Gardens?**

I was a master gardener at the time, and I took Jason Holmes' class on propagation. After I took the class, I thought, "Well, maybe I could learn some more by actually doing some of what we went through." So I went to Chuck (Hemric, director of volunteers), and somehow we got talking about photography, and he said, "Oh, yeah, we could get you on the prop team, but you know something I always wanted to get was pictures of volunteers." So I got onto the prop team at the time and I also started to take pictures of volunteers.

I liked working with Jason. He was like a plant encyclopedia. I could learn a lot from him. There were some other people at the time who had been there for a while, so there's a social aspect to it, too. And at the same time, I had a greenhouse at home, so I was taking some of the things I learned about plant propagation and doing things at home in my own greenhouse.

**How did the Durham Garden Forum begin?** I was president of a local garden club. But after I served my time in the garden club, there seemed to be less & less enthusiasm for education in the garden club, and more just sort of social things. So I felt like there was a real need for some kind of organization that would serve as a more educational resource to interested gardeners. I approached Jan (Little, director of education and public programs) and said, "Hey, what would you think about having some kind of organization here in the Gardens that would be more oriented toward gardening education—not a garden club, but I haven't really thought what we'd call it." And she said, "Oh, yeah, that would be a great idea." So we formed a steering committee that became what now is the Durham Garden Forum at the Gardens.

Later, I felt like it was time to step down and get somebody else involved as the head of that organization, because I'm a lot better at starting something than keeping it going. And I had already hand-picked somebody I thought would be real good. That was Gene Carlone. The Garden Forum has grown to I think about 130 members. It's a very active organization.

**What led you to form the Durham Photography Club at Duke Gardens in 2011?** Jan was doing more and more photography education at the Gardens, and I knew there was no photography organization in Durham. If you wanted to be in a club, you had to either go to Raleigh or Chapel Hill. So I approached Jan about

doing a photography club. Very quickly we got about 45 to 50 members, and that's still a pretty active group, and I still remain the leader of that organization.

#### **How did you come to join Duke Gardens' Board of Advisors?**

I was in Rotary at the time, and Bill (LeFevre, executive director) was a member of Rotary. We would always see each other at Rotary. And one time we got talking about the Gardens and I remember saying to him, "What would it take for the Gardens to be on the short list of the best gardens in America?" He said that if we just did X, Y and Z, we could practically and easily get to that. Just talking to him got me excited about the Gardens. And I said, "Well, if you ever need a board member, I'd be interested."

**What has been most gratifying about your involvement at Duke Gardens?** I feel so good about how much progress has been made over the last several years, even though I have had very little if anything to do with it—just seeing how much has changed in the Gardens and being on the board at the time that was happening. At the same time, the success of both the Garden Forum and the Photography Club has made me feel good, because both have been doing well and have pretty active memberships. Then we had a period when I did some portraits and raised money for the Gardens, which was fun, but that was more practicing my craft, which at the end of the day is probably what I like most to do.

And all of that, whether it be the Master Gardeners or the Garden Forum or the Gardens board or my photography—all of them sort of create a larger network of people. When I retired, the thing that was hard—and I think this is probably true of most people who retire—was the isolation of retirement if you don't do something. You can be used to going to work every day and interacting with people. So I had to replace that with some sort of interaction with people on a semi-regular basis that would become a new network of people. All of those things have helped fill that void.

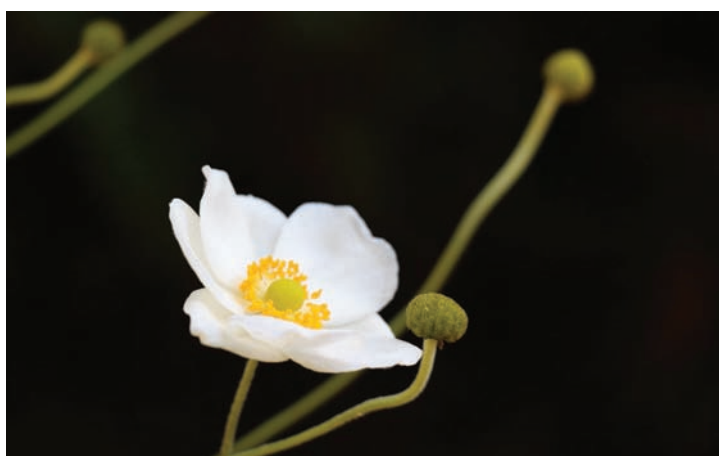
#### **What do you wish for Duke Gardens' future?**

I'd like to see the Gardens' reputation keep building, and for the Gardens to continue the progress of the past five years.



# Facebook Photo Contest: 2014 highlights

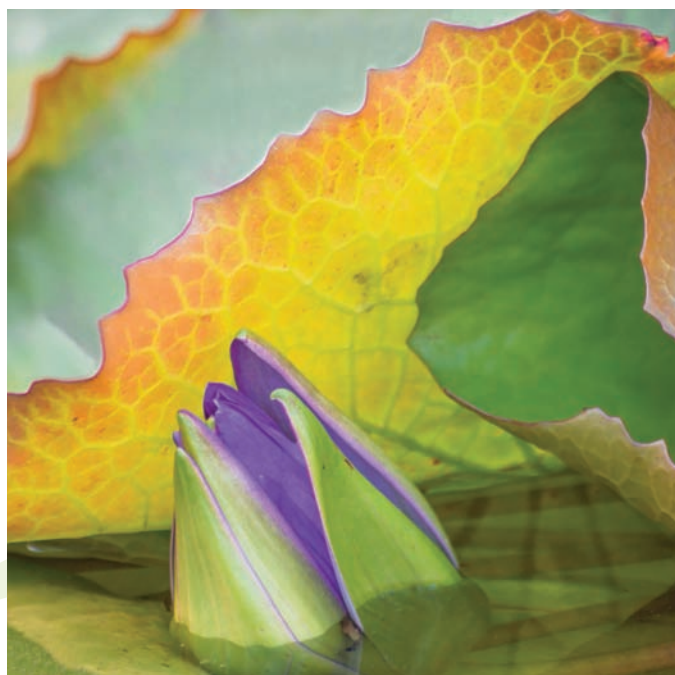
To see more, please go to [facebook.com/dukegardens](https://facebook.com/dukegardens).



**Tina Conlon Phillips** (above; *Anemone sylvestris*): 2nd place judges' pick, "Buds & Blossoms" contest

**Christine Swanson** (top): 1st place judges' pick for "Fall Colors."

**Kaye Summers** (right; water lily): 2nd place in Facebook votes for "Shapes"







**David Smith** (top left; *Clematis florida bicolor*): 1st place in Facebook votes for Open Theme contest.

**Deborah Marcus** (top right; *Magnolia X lobneri* 'Leonard Messel'): 3rd place judges' pick and Facebook votes for "Buds & Blossoms."

**Wyatt Q. Medlin** (above): 2nd place in Facebook votes for "People in the Gardens."

**Linda Kim** (left): 1st place in Facebook votes, 2nd place judges' pick in "Students in the Gardens."



# arts in the gardens



## MUSIC IN THE GARDENS

Duke Gardens and Duke Performances will join forces again this summer for the popular outdoor music series Music in the Gardens.

All concerts take place rain or shine on the lawn behind the Doris Duke Center. Shows are at 7 p.m. The lawn will open 30 minutes prior to the start of each show. Lawn chairs, picnics and blankets are encouraged. Dogs are not allowed.

Food and beverages, including beer and wine, will be available for purchase.

Tickets generally go on sale in May at [tickets.duke.edu](http://tickets.duke.edu) or 919-684-4444. Keep an eye out for an announcement of artists and on-sale dates at [dukeperformances.duke.edu](http://dukeperformances.duke.edu) and [gardens.duke.edu](http://gardens.duke.edu).



## CIOMPI QUARTET PRESENTS

Duke Gardens is working once again with Ciompi Quartet, Duke's Department of Music and the Office of the Vice Provost for the Arts to organize a summer chamber music series.

"Ciompi Quartet Presents" concerts will take place in Kirby Horton Hall in the Doris Duke Center on June 2, July 14 and August 4. The concerts typically feature one or more members of the Ciompi Quartet with guest artists.

Stay tuned at [ciompi.org](http://ciompi.org) for a series announcement. Tickets will be available in advance at [tickets.duke.edu](http://tickets.duke.edu) or by calling 919-684-4444. Parking is free after 5 p.m.



## ART & NATURE REPRISED

Duke Gardens' Blomquist Garden-themed art exhibit in spring 2014 was such a success that we anticipate reprising it every year with a new theme.

The second annual exhibit, "Art and Nature: Artwork Inspired by the Historic Gardens," expanded on the first exhibit's three-day run with a seven-day run in the Doris Duke Center's Kirby Horton Hall.

The Blomquist exhibit drew about 500 people and featured works by 20 artists. Linda Carmel won "Best in Show" with "Above Our Heads," a textured acrylic painting on canvas. Sally Sutton was awarded first runner-up with "Connected," a pastel image on paper. Angela Burr's "Flying Through the Blomquist," an acrylic painting on canvas, was second runner-up.

## DUKE GARDENS IN PICTURES

Duke Gardens has a new souvenir photo book, an 8.5x11-inch paperback featuring 56 pages of gorgeous vistas, iconic scenes and stunning plant close-ups from throughout the 55-acre gardens.

The book also features a 4-page pictorial timeline showing all the dramatic changes that have transformed Duke Gardens over the past 75 years into the award-winning botanic garden that it is today.

Duke Gardens would like to thank the following contributing photographers for their artistry and generosity: Kavanah Anderson, Robert Ayers, Stefan Bloodworth, Lee Capps, Heather Davidson, Rick Fisher, Lindsey Fleetwood, Wendell Hull, Paul D. Jones, Kathy Julian, Robin Lin, Pat Lloyd, Riley MacLean, Alain Michot, Jordan Montgomery, Robert Mottern, Michael Pedde, Michael Patrick, David E. Perry, Sarah Reuning, Orla Swift, Satsuki Scoville, Howard Sykes, Charles Twine, Karen Webbink and Erika Zambello.

Charles Twine shot the cover photo. And Durham graphic designer Colleen Carrigan designed the book.

The price is \$17.50. It's available at the Terrace Shop, Duke University Store, via mail order by phone at 919-684-9037, or online at [shopdukestores.duke.edu](http://shopdukestores.duke.edu). See a preview at [gardens.duke.edu/souvenir-book](http://gardens.duke.edu/souvenir-book).



Top: "Autumn Ginkgo," by Beth Craddock Smith. Bottom: "Iris," by Freeman Beard. Both were featured in the 2015 Art & Nature exhibit.



## A NEW WISTERIA

The Pergola Restoration Project has progressed smoothly since the original Chinese wisteria was removed last summer. If you haven't seen the pergola lately — newly revealed without its iconic blanket of green and purple, and repaired and painted — you will be in for a pleasant surprise. The dramatic lines of the structure have now taken the spotlight, creating a striking crown atop the colorful Terrace Gardens.

The restoration of the pergola, which required cutting back the vines in order to access the metal structure itself, presented an ideal opportunity to reconsider our wisteria species selection. The Chinese wisteria had not been blooming healthily in recent years, in part because of its age and also because it had wound its way between narrow slots in the metal ages ago, choking itself as it grew wider over the decades.

None of the less invasive alternatives, including the native *Wisteria frutescens* (above), was deemed to equal the outstanding floral display of the original. So initially we had intended to simply cut back the Chinese wisteria

and control it strictly as it regrew. However, in light of our recent strategic planning process, which includes the goal to embody environmental sustainability throughout Duke Gardens operations, we have reversed our course and will replace the Chinese wisteria with the non-invasive native species.

We hope you will enjoy watching the regrowth, in person or in photos, and that you are pleased to know that this iconic beauty now serves as yet another example of Duke University's and Duke Gardens' commitment to sustainability.

## PLANNING FOR THE FUTURE

As Duke and Durham continue to grow, the Doris Duke Center and the front entry experience at Duke Gardens need to expand their capacity to provide excellent customer service to an ever increasing number of visitors.

Duke Gardens and Duke University are working with Duda Paine Architects of Durham to provide master planning, programming and concept design services for the proposed expansion of the Doris Duke Center and the redesign of the main entry experience at Duke Gardens.

Duda Paine has worked on many impressive projects at Duke University, including the Trent Semans Center for Health Education at Duke, the Duke Faculty Club, Duke Center for Integrative Medicine and the Duke Eye Research Institute. They are currently designing the new Student Wellness Center.

Among their high profile projects in Durham are the American Tobacco Campus Plan in 1997 and 2012, and the headquarters for the advertising firm McKinney.

Turan Duda grew up in Durham and spent time in Duke Gardens as a child. He and partner Jeffrey Paine spent nearly two decades at Cesar Pelli & Associates before starting their own firm.

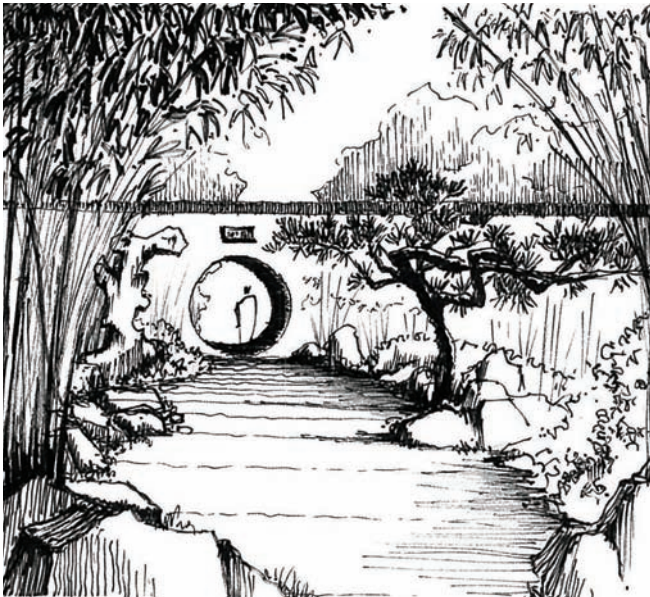
As Duda Paine states in its design philosophy, "Our designs help merge buildings with landscape and connect people with nature."

*Do you have a special connection with Duke Gardens?*

**If so, we'd love to hear about it.**  
Please write to Flora  
at [orla.swift@duke.edu](mailto:orla.swift@duke.edu)







## CHINESE GARDEN PROGRESSING

Gu Peng, an associate with Mahan Rykiel Associates of Baltimore, is excited about the opportunity to design a Chinese garden at Duke Gardens.

Educated in both China and the U.S. in architecture and landscape architecture, Peng has begun the conceptual design process by impressively linking the agricultural and horticultural history prefacing the development of Duke Gardens with that of Durham's sister city Zhuzhou in Hunan, China.

Peng, accompanied by principal Scott Rykiel, first visited Duke Gardens in February 2014. Initial concepts were provided last fall, and in February of this year Peng and Scott again flew down and spent a day on site for additional discussion and site inspection. A more detailed conceptual plan is expected by summer, with final plans due soon after.

As was the case with the Durham-Toyama Sister Cities Japanese Pavilion, we are looking forward to working with the Sister Cities Program of Durham and Zhuzhou, and with Durham's Friendship City Kunshan, to create a garden that will educate, stimulate, and further the bonds that link our respective cultures.

- Paul D. Jones

## INTERNATIONAL RECOGNITION

Sarah P. Duke Gardens continues to earn national and international recognition, earning kudos from The Huffington Post and tripadvisor.com, among other publications.

The Huffington Post included Duke Gardens in its list of the nation's "insanely beautiful public gardens." Tripadvisor.com called Duke & Duke Gardens "North Carolina's top campus worth traveling for." And the Gardens placed at No. 4 in bestmastersprograms.org's worldwide list of 50 most stunning university gardens.

The Charlotte Brody Discovery Garden was chosen for Landscape Architecture Foundation's Case Study Investigation (CSI) Award. And the Gothic Gate Kiosk (pictured below) received Durham's prestigious Golden Leaf Award for Neighborhood Garden & Landscape.

Duke University and Duke Gardens took first place in lawnstarter.com's "Top 10 Best Landscaped Colleges: East Coast." It won a Green Star Grand Award from the Professional Grounds Management Society.

Locally, the Gardens and Doris Duke Center won first place for "Best Event Space" in Durham Magazine's Readers' Choice Awards, and second place for "Best Outdoor Family Outing Location." And in Carolina Parent magazine's Family Favorites readers' choice awards, it was named the best place to take visitors. You can see these honors and more at [gardens.duke.edu/about/awards-and-honors](http://gardens.duke.edu/about/awards-and-honors).

Duke Gardens is pleased to be increasingly recognized for its excellence in horticulture and services. And we thank our members and donors for making it possible to continually improve and excel.





## A GIFT OF COLOR

With the publication in 1978 of his pioneering treatise “Japanese Maples,” author J.D. Vertrees contributed immensely to the popularization of a group of small trees that today have become horticultural icons. From East to West, few avid gardeners are unfamiliar with the multi-seasonal interest and beauty that *Acer palmatum* imparts to the landscape.

Thinking about “plants of note” in Duke Gardens, one that may straightaway come to mind is the large Japanese maple that graces the Fish Pool in the Terrace Gardens—a vintage specimen exceeding 50 years. And throughout the Gardens are more than 90 kindred selections—young and old, large

and small—which light up the springtime with subtle pastel hues, and the autumn with a broad palette of vivid red, yellow and orange tints.

Randy Fox and his wife Linda could be numbered among the *enthusiastic* admirers of Japanese maples. Soon after their marriage in 2001 they began collecting and growing their favorite cultivars with the intention of embellishing the dream home they planned to build near Hillsborough. Sadly, Randy died unexpectedly in 2008. Afterward, Linda continued to maintain their nursery and the maples Randy so much enjoyed. But, as happens with well cared for plants, infants grow into adults.

Facing the question of finding good homes for her “children,” Linda recalled the frequent visits she and Randy had made to Duke Gardens, strolling from maple to maple admiring, discussing and learning the virtues of each. Now, once again, she looked to Duke Gardens, this time with the idea of sharing the bounty growing in her back yard.

Last fall, Linda’s gift (and Randy’s, too, she would be quick to add) of more than 50 specimen maples, joined their kindred in new homes throughout the Gardens. We appreciate the generous gift, and we hope that you will think of Linda and Randy as you admire these new maples during your Gardens visits.

- Paul D. Jones

## DUKE GARDENS ON INSTAGRAM

Duke Gardens joined Instagram last fall, and the response from Gardens fans and photographers has been enthusiastic.

Instagram is a popular app in which people share and tag photos uploaded from mobile devices, often using fun filters and effects. Take a look through photos tagged #dukegardens, however, and you’ll see that few people bother with any special effects — the Gardens are stunning enough without them.

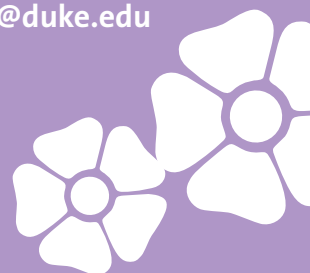
If you’re on Instagram, come follow @sarahpdukegardens and look for our themed calls for photos. We love to feature followers’ photos whenever possible.

Special thanks goes to Gardens volunteer Doris Rudd, a graphic artist and avid Instagram user, for helping to launch our Instagram and keep it running smoothly.

Duke Gardens strives to be sustainable. If you’d rather read Flora online than receive a printed copy, please let us know.

Email [millicent.snow@duke.edu](mailto:millicent.snow@duke.edu) or call 919-668-1711.

Thank you!





## HELP US SAVE THE DATE

Duke Gardens is putting together a database of Duke alumni who chose Duke Gardens for their weddings or engagements. Already, we're getting lots of great stories.

Alumni are asked to share their graduation year and school, and their Gardens wedding or engagement date. Some have also shared photos.

Allison Fox, who graduated from Duke's Nicholas School of the Environment in 2014 with a master's degree in environmental management, says she and her fiancé Paul were high school sweethearts. They plan to marry this October.

"When I decided to come to Duke, we agreed that we'd wait to get engaged until after I graduated with my master's degree," she wrote in an email to [dukegardensweddings@yahoo.com](mailto:dukegardensweddings@yahoo.com). "I never thought he would take that quite so literally! Paul proposed in the Gardens just a few hours after the Nicholas

School recognition ceremony on May 10th, 2014. He popped the question in a secluded wooded area of the Gardens, because it was the first place in the Gardens we found ourselves alone that day."

"I loved walking through the Gardens after class or on the weekends during my time in Durham," she said, "and now they're even more special."

For more information or to share your story, please go to [gardens.duke.edu/alumniweddings](http://gardens.duke.edu/alumniweddings).



Want to keep up with the latest Duke Gardens happenings all year? Check out our blog at [gardens.duke.edu/about/publications](http://gardens.duke.edu/about/publications) and sign up for email updates at [gardens.duke.edu/subscribe](http://gardens.duke.edu/subscribe).

## FOOD FOR CHARITY

The Durham branch of the Food Bank of Central & Eastern North Carolina was again able to provide hundreds of meals to needy families over the winter, thanks to the fourth annual Duke Gardens holiday food drive led by curator Jason Holmes.

The staff and volunteers of Duke Gardens — along with a sister organization that wished to remain anonymous — gathered 3,035 pounds of food, baby supplies and related products sought by the Food Bank for its clients' use year-round. That will help provide 2,556 meals throughout our local community. We are thankful to all who donated, and we look forward to helping even more people in need next year.

## SETTING THE SCENE

Duke Gardens and a fictional volunteer will play a part in Barbara Claypole White's latest novel, *The Perfect Son*, due out May 26.

English born and educated, White is a "Southern author" living in rural Orange County with her family. Inspired by her poet/musician son's courageous battles against obsessive-compulsive disorder, Barbara writes hopeful stories about troubled families that include mental illness. She is passionate about woodland gardening and the surrounding native plant world of the Piedmont.

Her debut novel, *The Unfinished Garden*, won the 2013 Golden Quill Contest for Best First Book, and *The In-Between Hour* was chosen by SIBA (the Southern Independent Booksellers) as a Winter 2014 Okra Pick. Both of these novels are set in the forests of Orange County. *The Perfect Son* is set in Durham, and an important scene takes place at the Gardens.

Barbara will read from *The Perfect Son* and discuss the story behind the story at the volunteers' lunchtime "Tuesday Talks" meeting on June 30. She will also give away two signed copies. For more information, or to connect with Barbara, please visit [barbaraclaypolewhite.com](http://barbaraclaypolewhite.com).

- Annabel Renwick

## SUMMER INTERNS

Duke Gardens had a diligent quartet of summer interns last year. They worked with staff members in the Gardens and also on special projects, as detailed below:

**MARY ALEXANDER** was a junior at the University of Georgia, studying landscape architecture. She came to us with experience at Athens Botanical Garden and some design work for Fort Yargo State Park. Her independent project included using our BG-Base program to map all of the gift trees in Duke Gardens.

**TERESA (TESS) ANDERSON** is studying for her bachelor's in horticulture at N.C. State University, where she is a dean's list student and active in the horticulture club. She researched and documented our Stout Hemerocallis Collection for her project.

**BRYAN BYERS** also attends N.C. State, majoring in horticulture with an agribusiness minor. He also worked for seven years at Eaker's Nurseries and Tree Farm in Cherryville, N.C. He worked with our propagation team, taking cuttings of plants in Duke Gardens for our future plant sales.

**ELIZABETH WHITNEY** is a biology major at Unity College in Maine. She also worked as a field technician with the Hemlock Ecosystem Management Study, and an ornamental horticulturist for North Shore Land Management. For her project, she mapped our entire collection of *Fraxinus* in the Gardens so that they can be monitored for emerald ash borer infestation (see related article on pg. 13).

- Michelle Rawlins



## A LEADER IN SUSTAINABILITY

Jason Holmes, curator of the Doris Duke Center Gardens, received the 2014 Outstanding Leadership in Waste Reduction Award during Duke University's Sustainability Awards ceremony last spring.

Jason oversees the large compost system in the Charlotte Brody Discovery Garden, and he also composts at home. He has been proactive in encouraging staff members to compost whenever possible at work and at home, and in creating opportunities to do so — such as using compostable utensils and recyclable plates at staff gatherings. In addition, Jason is a member of the Gardens' sustainability-focused Green Team.

"This is a wonderful honor recognizing Jason's daily efforts to reduce, reuse, recycle and compost everything he can, as well as encouraging others to follow his footsteps," said Bobby Mottern, director of horticulture.



## GARDENS TO CO-HOST PRUNING WORKSHOP

Duke Gardens is working with the North America Japanese Garden Association (NAJGA) to offer a two-day workshop titled “Aesthetic Pruning” on Oct. 22 & 23.

As defined by the Aesthetic Pruners Association (APA), this pruning technique combines the artistic skill of the pruner, the essence of a tree [or shrub], the science of horticulture, and the needs of clients and surroundings in a creative interpretation of small trees and shrubs as living art forms. That’s a mouthful, but most often the result is simply an enhancement of a tree’s natural habit.

NAJGA is a recently chartered nonprofit that seeks to ensure the enduring value and social impact of Japanese gardens in North America through networking, professional development, education, research and advocacy. Paul Jones, curator of Duke Gardens’ Culberson Asiatic Arboretum, serves on the board of NAJGA.

The workshop is a regional event intended to promote the Gardens’ new Japanese-style garden that will be open to the public this year, and also to inform the gardening public about the work of NAJGA. Master pruners from APA will be on hand to guide the workshop.

Additional information about APA can be found at [www.aestheticprunersassociation.org](http://www.aestheticprunersassociation.org), and NAJGA at [www.najga.org](http://www.najga.org). For more information about the workshop, email [info@najga.org](mailto:info@najga.org).



Above: An elegantly trained Japanese pine in Kenrokuen Garden in Japan.  
Inset: A pine being pruned at Huntington Botanical Gardens in San Marino, Calif. Photos by Paul Jones

# a closer look: Duke Gardens curators on interesting plants in their gardens



## CHIMONANTHUS PRAECOX (a)

To be precocious is to develop earlier than might be expected. In the garden this adjective may be used to describe certain plants that come into flower while Mother Nature is still enforcing the chill of mid-winter. Witchhazels (*Hamamelis spp.*) are well-known shrubs that often display this tendency. Japanese apricot (*Prunus mume*), another. A less familiar shrub, but one that is certainly a favorite among those privy to its charms, is *Chimonanthus praecox*, or wintersweet.

As the scientific name implies, wintersweet is precocious (the Latin *praecox* meaning early ripening). And as the common name implies, the flowers are sweetly fragrant—in the winter. And fragrant it is! As one person’s comments I read about this species put it, “there is truly nothing like it.” Just delightful.

Wintersweet is native to China and belongs to the plant family Calycanthaceae—the same family that our prized spring flowering native sweetshrub (aka sweet Betsy or Carolina allspice) *Calycanthus floridus* belongs to. Wintersweet has translucent multi-petaled yellow flowers, about an inch or so in diameter when fully opened, produced in great abundance. Typically the flowers remain unscathed through some pretty cold temperatures.

Winter flowering shrubs are often intensely fragrant, presumed so because of the scarcity of pollinators during the cold. Perhaps humans are displacing hibernating insects as the primary pollinator of wintersweet as we greedily bury our noses deep into flower after flower, savoring its most glorious scent.

— Paul D. Jones, curator, W.L. Culberson Asiatic Arboretum



## RHODODENDRON PRUNIFOLIUM (b)

It is somewhat fitting that *Rhododendron prunifolium*, the latest-blooming of our native azaleas, was the last of that group to be discovered and described by botanists. Native to the thickly vegetated, bottomland streams that crisscross the southern border counties of Georgia and Alabama, the plumleaf azalea proved to be a hard plant to find for centuries.

It was Roland Harper, one of the pioneering botanists of the Deep South, who first found the species in Randolph County, Georgia, in 1903. Working with one of Harper’s herbarium specimens from that trip, botanist John Kunkel Small decided upon the name *Azalea prunifolia* in 1913. In years to come, the species was reclassified as a member of the genus *Rhododendron*.

First displayed publicly at the Arnold Arboretum in 1918, *Rhododendron prunifolium* has garnered much horticultural praise for its stature (up to 20’), its long, elegantly protruding stamens, and its vibrant reddish-pink blooms, which come forth in mid-summer—appreciably later than its 27 native *Rhododendron* cousins, most of whom are early to mid-spring bloomers.

*Rhododendron prunifolium* is endemic to a very small portion of the deep South, and it has been noted in recent years that this limited range has made the species quite vulnerable to habitat disturbance. As a result, it is listed as a threatened species by both national and global plant conservation organizations. In our Blomquist Garden, a sizeable stand of this showy native can be found adjacent to the Fern Grotto Bridge.

— Stefan Bloodworth, curator, Blomquist Garden of Native Plants





 **AMPELASTER CAROLINIANUS** (c)

I am always interested in cool climbers, and climbing aster, known to us botanical types as *Ampelaster carolinianus*, is one of the coolest I know.

The prefix *ampel* means climbing; thus we have the genus “climbing aster.” This deciduous semi-woody plant grows long vine-like stems. These 6- to 8-foot-long sprawling stems may be attached to a trellis, arbors or fences, or allowed to ramble through shrubs. Unlike other vines, it has no way to attach itself, so it relies on whatever may be its closest garden companions.

*Ampelaster* is native to lowland marshes and moist areas throughout Florida and a few isolated coastal counties in Georgia, South Carolina and North Carolina. Easily adaptable to our garden soils, this climber thrives in full sun and has grown magnificently wherever I have planted it.

Its best attribute is its striking floral display during the fall. Like clockwork, climbing aster is covered with clusters of 1-inch flowers in November. I often recall these beautiful blooms because *Ampelaster* is one of the few plants blooming when leaves are changing to their autumn colors. The flowers have pinkish to purple ray petals that radiate out from the vivid yellow-orange disk flowers in the center. I have found this species to be a great late season nectar source for monarch butterflies and other native pollinators.

– Jason Holmes, curator, Doris Duke Center Gardens



 **JASMINUM NUDIFLORUM** (d)

Winter jasmine is a beautiful arching, versatile shrub that lights up the often drab winter landscape. This 3’ to 4’ tall plant has long arching stems that form mounds and can be used to cascade over rocks and walls or even up a trellis. The most endearing quality, however, is the beautiful, small bright yellow tubular flowers that brighten up the garden when most other plants are dormant for the winter.

Flowering occurs in the dead of winter here in Durham, from early January and even into March, when there is very little color from other flowers. This winter-flowering shrub can tolerate tough soil conditions and thrives in full sun but can take some shade as well. We have this plant grouped in a mass next to the fish pool in the terraces and as an edging along one of the paths.

Winter jasmine will lose its leaves in the winter, revealing its fine textured, mostly green stems in an often dull landscape. This feature also allows the yellow flowers to really show themselves off without being obscured by leaves.

Give this sprawling plant a lot of room, for it can be quite vigorous. Its arching stems often touch the ground and root in, forming a colony. In the spring, bright emerald-green and glossy leaves emerge, rounding out its appeal as a massing shrub. Qualities such as drought resistance and urban tolerance make this a most valuable shrub for any garden type.

– Michael Owens, curator, Historic Gardens



**Is there a plant at Duke Gardens that you’re curious about?**

**REQUEST A CLOSER LOOK AT IT BY WRITING TO FLORA AT [ORLA.SWIFT@DUKE.EDU](mailto:ORLA.SWIFT@DUKE.EDU).**



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Duke Gardens is enjoyed free of charge by more than 300,000 people annually. More than half of our operating budget comes from people like you, who value all that this world-class botanic garden has to offer.

Your membership dollars support every aspect of Duke Gardens, from inspired horticultural design to classes and free events for the community, children's programs and many resources that provide the best experience possible for visitors.

All Friends memberships are part of the Duke Annual Fund and are used entirely for the benefit of Duke Gardens. Duke alumni also receive reunion class gift credit. More membership information is available at [gardens.duke.edu](http://gardens.duke.edu) or by calling 919-684-5579. Thank you.

### MEMBERSHIP LEVELS

Duke students and Duke Gardens volunteers	\$ 25
Individual	\$ 50
Dual (spouses/partners)	\$ 75
Family (includes children under age 18)	\$ 100

#### All membership levels include:

- Education program discounts at Duke Gardens & other participating gardens
- 10% discount on Terrace Shop purchases
- Invitations to special Friends events
- Reciprocal admission benefits to nearly 300 gardens in the U.S.
- Flora magazine
- Annual report

### ADDITIONAL GIFT RECOGNITION SOCIETIES

*Terraces Society* \$ 250

#### Includes membership benefits above plus:

- Duke Gardens calendar
- 20% discount on Gothic Bookshop purchases (*valid membership card required*)
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*Membership  
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*Iris Society* \$ 500

#### Terraces Society benefits plus:

- Duke Gardens note cards
- 2 complimentary registrations for the Gardens' education program

*Pergola Society* \$ 1,000

#### Iris Society benefits plus:

- Complimentary Gardens parking

*Directors Society* \$ 2,500

#### Pergola Society benefits plus:

- Invitation to behind the scenes tour with director of horticulture

*Mary Duke Biddle Society* \$ 5,000

#### Directors Society benefits plus:

- 1 complimentary trolley tour with director, schedule permitting (reservations must be made at least 1 week in advance)

*Mary D. B. T. Semans Society* \$10,000

#### Mary Duke Biddle Society benefits plus:

- Invitation to reception/dinner with a featured guest speaker

*Corporate Friends* \$ 5,000

(Excludes matching program gifts)

- Flora magazine
- Annual report
- 1 free space rental at Sarah P. Duke Gardens or in the Doris Duke Center (Mon.-Thurs.) per availability within membership year