

Navigating the Galaxy of Iris for the Home Garden

Bob Lyons, UDBG Volunteer and Interim Chair, Plant & Soil Sciences Department

Few plants hold as much affection among gardeners as the iris, and there are lots of them. Some have large, showy



flowers in many colors, others more understated; some grow in clumps, while others grow from rhizomes that spread just beneath the soil surface. How do you make the right choice for your garden? Horticulturists have developed a system of organization to make

sense of the vast world of irises. The three most noteworthy are the Bearded Iris, Siberian Iris, and Japanese Iris, which account for more than 75 percent of the commercial iris market.

Bearded Iris

This group enjoys enormous popularity, offering longevity and excellent garden performance. All iris in this group have a "beard," which is a toothbrush-like cluster of bristles at the base of each of the flower's three petals (also called falls). The beard may exhibit unique, contrasting colors or simply conform to a monochromatic color. Bearded iris

flowers come in just about any color, and range in size from a modest few inches to a big and billowy six inches. They need full sun for the best flowering; they also require well-drained soils because they grow from a specialized underground stem called a rhizome, which creeps and branches just beneath the soil surface, giving a mat-like appearance. It is

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TOP: Iris sibirica 'Caeser's Brother'
Photo: Melinda Zoehrer
INSET: Iris sibirica 'The Girl'
Photo: Chad Harris

Director's Corner John Frett



It's official. The UDBG has initiated a planning process which will result in a comprehensive, creative, and realistic plan for the next 10 to 15 years. This will include implementing a design for natural flow between gardens and

create cohesiveness among our many plant collections. Our strategic plan will not only ensure maximum effectiveness of the garden with regard to our educational mission, it will create a stronger sense of place to entice people to stop in to appreciate all it has to offer.

Studio Outside, a Dallas, TX-base landscape architecture firm, will be coordinating the effort. Tary Arterburn has 17 years of public garden master plan experience with gardens across the US. Supporting Studio are Richard Daley from EMD Consultants, a strategic business consultation firm; and Tevere MacFadyen from Main Street Design, an interpretative design firm. It is a great team that has already demonstrated energy and dedication to advance every aspect of the garden as a model for the best of science and practice: education, seasonal plant sales, home gardening, research, sustainability, and stewardship of natural habitats.

The process began in December with a three-day workshop. Our steering committee is comprised of

A variety of exercises led to establishing the basic needs and desires for the UDBG representatives from the UDBG staff, other UD units, students, UDBG volunteers and board members, and representatives from other gardens, all supporting the future vision of the garden. A variety of exercises led to establishing

the basic needs and desires for the UDBG. The next workshop will again involve the steering committee but also seek input from a broader segment of the student population, as well as neighbors such as the College of Health Sciences on the STAR campus and Athletics.

The process will be completed in June, resulting in a comprehensive master plan; implementation will be in stages. It is supported by Peter Krawchyk, vice president for facilities; Mark Rieger, dean of the College of Agriculture and Natural Resources; and Bob Lyons, interim chair, Department of Plant and Soil Sciences. All have contributed funds and support this process to assure the future of the UDBG and to make it an integral part of the university.

Also, the UDBG has received a grant from the American Alliance of Museums' Museum Assessment Program. These funds will allow us to make a framework for the garden to perform a self-evaluation of its collections in preparation for an external review by two experts. The process tasks the UDBG with reviewing and updating its collections policy, evaluating the curatorial procedures, and reviewing the plant collection to ensure it is aligned with the mission of the garden. Thanks to a very generous gift from Caroline Golt we are able to add an additional reviewer to maximize the effectiveness of the plant collections' review and assessment.

These are exciting times for the garden. It is very rewarding to see participants and partners so enthusiastic about the process and its potential for the future of the garden.

John Trutt



Hamamelis ×intermedia 'Sunburst' (Witch Hazel) flowers in March at Brookside Gardens. Plant will be available at UDBG's 2017 Spring Plant Sale. Photo: Melinda Zoehrer



Plant Profile: Disanthus cercidifolius

Anna Bower, 2015–2017 Curatorial Graduate Student

planted genera in the Hamamelidaceae, or witch-hazel, family: Corylopsis, Fothergilla, Hamamelis, and Liquidambar. Some of you may recognize the genera Distylium and Loropetalum, ubiquitous in gardens in the southern United States. The UDBG's Hamamelidaceae collection contains 85 accessions, representing 50 taxa in 12 genera. This includes Disanthus, a monotypic genera, consisting of a single species, Disanthus cercidifolius. While most renowned for its varying and rich fall foliage in shades of maroon, red, and orange, D. cercidifolius is a plant worthy of a place in everyone's garden.

While rare in the wild, *D. cercidifolius* can be found growing in mountain valleys in southeastern China and



Fall color of Disanthus Photo: Rick Darke

on the islands of Honshu and Shikoku in Japan. There are two Japanese names for the plant: maruba-no-ki (tree with round leaves) and beni-mansaku (red witch-hazel). However, the species was officially named in 1866 by Carl Johann Maximowicz, a Russian botanist and worldwide plant explorer, who traveled most extensively in South America and East Asia, particularly in southern Japan from 1860–1864. Maximowicz is best known for his comprehensive studies of Japanese flora and for publishing seven volumes of *Diagnoses Plantarum Novarum Asiaticum* from 1877 to 1893.



Disanthus cercidifolius plate from Curtis Botanical Magazine, Vol. XIII of the Fourth Series, 1917, London: L. Reeve & Co., Ltd.

The scientific name of the species originates from the Greek, *dis* (twice) and *anthos* (flower), referring to the paired flowers held back-to-back on the stem. Only the keen observer will appreciate the 12 mm wide, maroon-colored flowers as they emerge in the fall just as the foliage drops for the season. They resemble five-pointed starfish with petals tapering out towards the tip and are used for tea in Japan. The specific epithet, *cercidifolius*, alludes to heart-shaped leaves, reminiscent of those in the unrelated genus, *Cercis*. New leaves emerge bluish-green in the spring.

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Syringa: Old Plants, New Beginnings

Matt McDermitt, 2016-17 UDBG Annual Intern

f you drove down the lane in front of Townsend Hall last summer the lilac bed was a chaotic mass of woody plants—lilacs tangled with other ornamental shrubs. Today that same bed is a neatly graded and mulched plot sporting seven new lilacs and a number of rejuvenated shrubs.

The UDBG interns and volunteers, alongside seasonal gardener Jackie Perry, attacked the mass of plants to remove countless weeds, including 15-foot spicebushes and oaks that had moved into the center of the bed. We pruned the dead wood off the Syringa ×hyacinthiflora 'Evangeline' and cut back the overgrown masses of the Syringa meyeri 'Palibin' and Philadelphus ×virginalis 'Minnesota Snowflake'. Then we discovered that the entire bed was lined with a thick plastic sheet installed in the 1970s as a weed barrier. After meticulously removing this plastic layer by hand, we discovered that the soil underneath was low-quality, poorly drained clay. We tilled a heavy layer of compost into the bed to add organic matter and graded the area, finishing with a thick layer of fresh mulch. We planted seven new lilacs, a nice assortment of cultivars, including plants with interesting flower colors such as dark purple (Syringa 'SMSJBP7' [Bloomerang® Dark Purple Lilac]) and light pink (Syringa ×tribrida 'Lark Song').

Lilacs have been used in ornamental gardens since the 16th century and for good reason. Their spring and early-summer flowers are aesthetic and wonderfully fragrant. When the weather warms up in spring, come see the floral display and enjoy the fragrance.



Syringa ×hyacinthiflora 'Evangeline'. Photo: Rebecca Pineo



Syringa meyeri 'Palibin'. Photo: John Frett

Where Are They Now?

Laura Swain, 2016-2017 Annual Intern

UD graduate Kellie Cox is a Washington, D. C.-based botanical mural artist who has combined her love for design and horticulture into a career involving both. Between gallery shows and creating oversized public murals, Kellie is the director of buildings, gardens, and grounds at Tudor Place Historic House and Garden located in the nation's capital. She handles maintenance of the 5.5-acre historic gardens and buildings; oversees greenhouse production and garden restoration projects; and manages the plant collections database. In addition, she founded and teaches Art in the Garden there. Through this program, students of all ages and skill levels explore a variety of subjects and media while creating original art in the historic garden areas. She also illustrates new seed packs for the historic seeds sold in the museum shop.

Kellie's passion for plants and public horticulture is not much of a surprise considering that the native Delawarean was born the daughter of floral designers and worked at Gateway Garden Center in Hockessin, DE, throughout high school. While pursuing a dual degree at the University of Delaware in Landscape Design and Plant Science, Kellie worked as a UDBG summer intern in 2008. During that time, the interns helped to establish the Color Trial Garden along Roger Martin Lane that draws many visitors throughout the summer. In her final year at UD, she and a classmate designed the Wetlands Garden as an independent project supervised by former UD Landscape Design professor Chad Nelson.

After graduating in 2009, Kellie moved to Ithaca, NY, where she worked as a nursery manager for Motherland, Ltd., a wholesale green roof nursery. She later served as a landscape designer for a native plant nursery and landscape firm in Ithaca called Plantsmen Nursery. During this time, Kellie also helped to develop a botanical illustrations program at Cornell University. Between freelance work and a full-time position, she has kept up with her "nights and weekends" career, as Kellie refers to her art. From smaller art pieces in gallery shows to murals on moving vans and in parking garages, Kellie began to fuse her two areas of interest - public horticulture and botanical art. In 2014, Kellie moved to Washington, D.C., to accept a position as head gardener with the Heurich House Museum, where she redesigned an educational garden space for native plants and hops production. She says she plans to continue

building art and education programs to inspire the public.

As a current intern, it is inspiring to see the many opportunities and varying avenues that the field of public horticulture offers. In our interview, Kellie expressed her appreciation for the experiences that each position or freelance opportunity has given her throughout her career. To find out more about Kellie's art or to see her bold murals, go to www.kelliecox. com. This spring, look for Kellie's educational and fun Native Flora of Eastern North America: Coloring Book, based on one of her oversized botanical murals.



Kellie Cox in front of historic Tulip Poplar at Tudor House.



Commission on the Arts and Humanities DC Recycling Truck, 'Colors in the Night', driving out and about in Washington.



Navigating the Galaxy of Iris for the Home Garden

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not uncommon to find remnant stands of bearded iris in old gardens or abandoned homesteads, still reliably blooming each spring. Bearded iris are generally pest free, with the exception of the rhizome borer, which eats into the rhizome tissue and reduces it to mush. Removal of dead foliage at the base of the plants alleviates this problem. If your iris patch appears to produce fewer flowers over time, it may be a signal to divide the congested rhizome mat. Grab a sharp, pointed shovel and drive it into the mass of rhizomes. Repeat several times to lift out clumps, which can be transplanted or shared with friends. Bearded iris foliage, often described as "fans," arises from the rhizome. When dividing, make sure any rhizome division has at least one fan of leaves.

Siberian Iris

Many view the Siberians as the most versatile, durable and visually attractive, even when not in bloom. They flower after the bearded iris have finished and typically produce many more flowers per plant. Full sun is best but some shade will not hurt them. Siberians are a good choice if your soils are variable or experience periods of wet and/or dry. Simply put, they will live and perform despite challenging garden conditions. Siberians lack beards on their petals and exhibit smooth falls. Their flowers are often smaller in appearance than their bearded cousins, but make up for this by producing dozens of flowers/plant. They also lack the wide array of flower colors and color combinations that typify the bearded class. But in undaunted fashion, their blue and purple cultivars can be both intense and subtle, their white cultivars are clean and clear, and the newly emerging yellow cultivars can stop you in your tracks! The foliage of Siberians is generally considered to be much more attractive than that of the bearded. While still originating from rhizomes, their foliage growth resembles concentric rings, instead of dense mats, forming elegant and graceful circular clumps of tall slender leaves. When out of flower, Siberians are decidedly more attractive than bearded iris, and are valued for their statuesque appearance in garden designs. Propagation is really no different from the bearded iris. For Siberians, simply spade cut wedge-like pieces from the "rhizome pie" and transplant.

Japanese Iris

Japanese iris, another member of the beardless class, are the true aristocrats of the genus, at least in this author's opinion. They are known for their large, elegant flowers with stunning, artfully decorated falls. To say that their beauty is indescribable is an understatement, and perhaps the very reason for their popularity. Their rhizomes grow in a circular pattern, much like Siberians, but that's where the similarity ends. Japanese iris demand moist, organic, and acidic soils, along with full sun exposure. They are perilously susceptible to drought and will languish if these conditions are not met. Despite the challenge, having at least one Japanese iris elevates a garden's sophistication to new heights.















Rows left to right
Iris sibirica 'Banish Misfortune' Photo: Chad Harris
Iris ensata 'Angelic Choir' Photo: Chad Harris
Iris germanica 'Conjuration' Photo: Kelly Norris
Iris germanica 'Victoria Falls' Photo: Kelly Norris
Iris ensata 'Japanese Plum' Photo: Chad Harris
Iris germanica 'Static Electricity' Photo: Kelly Norris
Iris ensata 'Cascade Crest' Photo: Chad Harris



Disanthus prefers moist soils rich in organic matter. It needs a location with part-sun to shade and protection from the wind; it is hardy in USDA Zones 5–8. Unable to withstand prolonged droughts, it may require additional water in summer months. Because of its multi-stemmed nature, the plant requires little pruning other than removal of dead stems and will reach a mature height of 6 to 10 feet. Look for *Disanthus cercidifolius* at the UDBG's Spring 2017 Plant Sale.

A special thanks to Yoko Arakawa of Longwood Gardens for providing Japanese translations.



Fall color and flower of *Disanthus*Photo: Rick Darke

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GARDEN CLUB OF AMERICA AWARD

Barbara Tuffli (left), Chair of the Garden Club of America Horticulture Committee, presents to Dr. John Frett and Dr. Janine Sherrier (center), an award in recognition of the longstanding commitment to the education of the community and leadership in the field of horticulture. Dr. Frett was accepting the award on behalf of UDBG and Dr. Sherrier was accepting the award on behalf of The Plant & Soil Sciences Department. The award, presented to one or more individuals or an organization that have made a significant contribution to horticulture, was made by The Garden Club of Wilmington.



hoto: Debbie Lav





Save the Date

Wed., Apr. 5, 7–9 pm — Preview Lecture Wed., Apr. 12, 4:30–6:00 pm — Guided Walk Wed., Apr. 26, 4:30–6:00 pm — Patrons Only Thur., Apr. 27, 3:00–6:00 pm — UDBG Members only

Fri., Apr. 28, 3:00–6:00 pm — General Public Sat., Apr. 29, 9:30 am–4 pm — General Public



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BUDDING OPPORTUNITY



Cercis canadensis 'JN2' (The Rising Sun™ Redbud) flowers appear in spring. Plant will be available at UDBG's 2017 Spring Plant Sale.

Photo: Anna Bower



Persicaria amplexicaule 'Firetail'. Plant will be available at UDBG's 2017 Spring Plant Sale. Photo: Melinda Zoehrer

(Left) Bouteloua gracilis 'Blond Ambition'. Plant will be available at UDBG's 2017 Spring Plant Sale. Photo: Melinda Zochrer



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Visit the UD Botanic Gardens

UDBG is open to visitors everyday from sunrise to sunset; admission is free.

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