In the last issue of The Garden’s Gate, I told you a little about the origins of the Garden and the significant role that Dr. T. Senn played (and continues to play) in its development. Dr. Senn would be the first to point out that many people have had a hand in making the Garden what it is today. One of the key players is Dr. David Bradshaw, who was Director of the Garden from 1977 until 1992.

Dr. Bradshaw joined the Horticulture faculty at Clemson in 1977 straight out of graduate school at Virginia Polytechnic Institute. In the preceding years, the duties of tending the Garden had been shared by faculty — including Fred Thode, Pat Fulmer, Gordon Halfacre, John Floyd, Jeff Lewis, Landon Miller, and Alta Kingman — all under the oversight of Dr. Senn. When Dr. Bradshaw arrived on the scene, Dr. Senn recognized his enthusiasm and recruited him for a “tour of duty” at the Garden.

At this time, the Garden was little more than a collection of plants for teaching and research. It was not much of a destination. But all that was about to change. In the last newsletter, I mentioned that Dr. Senn started one of the first hortitherapy gardens in America. Well, that was flourishing at the time Dr. Bradshaw arrived. “We had 45 employees. Fifteen that were physically challenged, fifteen mentally challenged, and fifteen who came from tough home situations. Black, white, male, female - all between about sixteen and twenty-one years old. And that was our work force,” says Bradshaw.

Even though none of them had been trained to work with folks with these kinds of challenges, Dr. Bradshaw, along with two full-time employees — Jim “Sonny” Crawford and Jim Crampton — somehow managed this group. Over the next three years they built trails, the Meditation Garden, the Hortitherapy Garden, and more.

In 1981, things changed when Dr. Senn retired and the hortitherapy grants (which were funding the work force) ended. “The grant providers wanted all their stuff back. Lawnmowers, rakes, shovels — everything. We were left with virtually nothing, and we had a budget of a couple of thousand dollars a year” Bradshaw recalls.

It quickly became clear to Dr. Bradshaw that a new approach was necessary. He held the first ever plant sale at the caboose, selling seedlings and divisions of plants from the Garden. He started the Volunteer Program with the help of Glenn Franklin, and he started the Friends of the Garden program and an endowment.

“I was told we needed at least $10,000 to start an endowment. So I started hoarding small donations to the Friends account until we had the money, only to find out that we couldn’t use Friends money for the endowment,” Bradshaw shares. “It was through the help of folks like Chuck & Betty Cruikshank and Mrs. Fuller that we were able to survive at all.” Their volunteer efforts and donations were truly sustaining the Garden. In fact, sales of the botanical paintings done by Mrs. Fuller finally created a core endowment. Along the way, John Bodiford, our Senior Horticulturist, and Mac Sprott, Grounds Maintenance Manager, were hired as full-time staff and are with us still today.

There were many amazing, humorous, inspiring, and heart-warming tales shared along the way, but there just isn’t enough room here to include them all. But I do want to mention three more significant steps that were taken under Dr. Bradshaw’s leadership. First, he grew the Garden, from less than 60 acres when he joined the team, to 256 acres. He did this by incorporating the 75 acre Schoenike Arboretum into the Garden, as well as including about 75 acres of pasture land from the dairy. He also garnered land that was previously used for poultry research (currently where the turf plots are located). With all that land bundled together, Dr. Bradshaw then put together a team to develop a master plan to present to CU Administration. In 1988, he took the plan to the Board of Trustees and President Lennon, and they dedicated the 256 acres as the Clemson University Botanical Garden.

I didn’t get to talk about the Board of Advisors, Flower Day, the Hayden Conference Center, and all the other areas developed while Dr. Bradshaw was here. Never mind the festivals and events that were put on (with the leadership of the Garden’s next full-time employee, Ernie Denny). Suffice to say that when Dr. Bradshaw stepped down in 1991 to focus on academic research, he had made a significant and enduring impact on the Garden.

He’s still involved — helping with the Heirloom Vegetable Garden and doing our First Friday’s Nature Walk, which, if you’ve never had the pleasure of taking with Dr. Bradshaw, you truly owe it to yourself.

Hoping your summer is swell (not sweltering), and I wish you all well.

Onward and upward,
Garden News

Garden Club Members

Of our relationships, few have the history and value of those we have with the garden clubs in our area. There are a half-dozen that claim the Garden as their homebase, meeting here socially and supporting the Garden in various ways. Much good work has been done through these relationships. In a milestone effort to show support of the Garden, the Clemson Garden Club has risen to the challenge of having all of their members become Friends of the Garden. In addition, they are working with Garden staff to recruit volunteers and exploring areas of the Garden to focus their resources.

Under the leadership of past-president Jodie Allen, the club formed a committee (chaired by Shirley Bennett) and came up with a fun and easy way to watch their effort flourish; each new member gets a leaf on a tree. Once this mission is fulfilled, we will have somewhere close to 50 new members! Not only will this generate some much-needed funds and volunteer hours, it infuses the kind of positive energy that is so important to us. So, to the entire Clemson Garden Club, we say “thank you.” You’ve set a new standard.

Clemson Garden Club members: Ann Brown, Sue Pulliam, Judy Benson, Anita Fredman, Myrtle Diefendorf, Jodie Allen, Shirley Bennett, Cathy Turner (not pictured - Sara Gilliland)

Interpretive Signage

The first round of Garden interpretive signs from last year’s efforts are finally in the ground. They’re full-color and relatively inexpensive to produce (about $50 for the sign plus the stainless steel backing obtained via federal surplus, and the cost of posts). We’ll be able to easily update them thanks to digital imaging, but these signs should last at least 3 years.

Sixteen new signs were produced, and we have lots of ideas for additional interpretive signs. Let us know what you think!

Children’s Programs

Sprouting Wings staffers Bill Jordan, Allison O’Dell, and Kendra Vincent were busy with summer camps at York Place and in the Garden in June. The theme for the camps was ‘Nature as a Food Source’, and the group of Sprouting Wings kids from Central Elementary visited the CU Student Organic Farm in the ‘Bottoms’, Happy Cow Creamery, the Happy Berry Farm, the Roper Mountain Science Center for a ‘Tropical Trek,’ as well as investigating one of our local waterfalls.

The Children’s Garden area has benefited from another significant gift from the Master Gardeners of the Foothills, which has supported a number of new plantings, particularly in the area around the Sprouting Wings greenhouse and in the planters near the Nature Center.

South Carolina Botanical Garden
150 Discovery Lane, Clemson University
Clemson, SC 29634-0174
Phone: 864-656-3405 Fax: 864-656-6230
Email: scbg@clemson.edu
www.clemson.edu/scbg
Programs & Events

For Registration: Call 864-656-3405, scbg@clemson.edu, or www.clemson.edu/scbg

August 21-
PLANNING A FALL VEGETABLE GARDEN
South Carolina’s climate gives us plenty of time to grow both cool- and warm-season vegetables and herbs, and fall gardens are often very productive. Plan and plant now for a continuing fall harvest of specialty lettuces, greens, edible flowers, and herbs for fall vegetable gardens. We’ll talk about how to select vegetables and herbs that do well in autumn, winter, and beyond. Create a beautiful, enjoyable, and productive ‘kitchen garden’ by focusing on successive cropping and small-scale cultivation this fall.
Fee: $15 ($10 for SCBG members & volunteers)
Thursday, Aug. 21, 10:00 am - 12 noon
Location: Nature Learning Center

August 23-
PETER RABBIT’S SALAD GARDEN
Specialty lettuces, greens, edible flowers, and herbs are perfect choices for a family-friendly salad garden. Growing greens with a diversity of colors and textures make eating salads fun! Participants will learn the basics of growing fall salad vegetables and sow a veggie container garden to take home. This program is designed for an adult and child pair, but individuals are also welcome.
Fee: $25 per container ($20 for SCBG members & volunteers)
Saturday, August 23, 9:00 am - 11:00 am
Location: Nature Learning Center & Sprouting Wings Greenhouse

Sept. 11-
BASICS OF GARDENING IN THE UPSTATE
Whether you’re new to the Upstate or new to gardening, this presentation is designed to get you started gardening in the Piedmont. Beginning with a brief overview of our Zone 7b climate, we’ll discuss site considerations, soil evaluation (and amendments), plant selection, and suggestions for how to create an attractive landscape that won’t tie you to your garden. Education Director Lisa Wagner will share her experiences gardening and learning from other gardeners in the Upstate.
Fee: $7 ($5 to Friends of the Garden, Museum, and volunteers)
Thursday, 10:00 - 11:30 am, Sept. 11
Location: Hayden Conference Center

September 15 -
HARVEST MOON NIGHT HIKE
The full moon that occurs closest to the fall equinox is called the Harvest Moon. It is often particularly luminous because of the moon’s position relative to the horizon. Join naturalist Lisa Wagner for an evening hike in the garden. Experience the sights, sounds, and sensations of a full moon night. Please wear walking shoes and clothing appropriate for walking in the woods. Flashlights are not needed.
Fee: $7 per family (up to 5) ($5 for SCBG members & volunteers)
Monday, Sept. 15, 7:00 pm - 9:00 pm
Location: Meet at the Discovery Center parking lot

BEGINNING JEWELRY MAKING
Envious of a friend’s beautiful handmade jewelry? Join this introductory class that helps you design and make the unique pieces that will have all your friends talking. You’ll learn the basics of closing a necklace, what string to use, how to use crimping pliers, and more.
Fee: $35 including materials
Location: Campbell Geology Museum
Must pre-register by calling 656-3405 one week before class.
Dates: Friday, July 11: 6pm - 8pm
Wednesday, July 16: 10am – 12noon
Friday, July 18: 2pm – 4pm
Saturday, August 9: 10am – 12noon
Saturday, August 16: 10am – 12noon
Saturday, August 23: 10am – 12noon

ADVANCED JEWELRY MAKING
Learn how to make some of the more complicated pieces you never thought you could! Work with multiple strands and beads, and learn the basics of color composition to create beautiful original pieces. If you’ve taken Beginning Jewelry Making, or have a good handle on jewelry making basics, then you are ready for this exciting class.
Price: $45 including materials
Location: Campbell Geology Museum
Must pre-register by calling 656-3405 one week before class.
Dates: Wednesday, July 16: 2pm – 4pm
Friday, July 18: 6pm - 8pm
Saturday, August 9: 2pm – 4pm
Saturday, August 16: 2pm – 4pm
Saturday, August 23: 2pm – 4pm
We’d like to introduce you to Kathy Bridges, the newest member of our staff. Kathy joined the team in early May to serve as the Landscape Manager, and she is a welcome addition to the team.

Kathy had an extraordinary childhood living abroad and traveling all over the world, visiting just about every continent except Australia. When it came time for her to start high school, her father hung up his traveling shoes and moved the family to Cincinnati, where Kathy finished high school. She then attended Cincinnati State where she earned an Associate Degree in Ornamental Horticulture. She then began working for Frank’s, the largest independent chain of garden centers in the world.

To our good fortune, Kathy moved to Upstate SC in 1997. “My brother is an architect in Easley and my parents were looking for a place to retire, so he showed them Keowee Key and they decided this is where they wanted to be. It was time for a change for me as well, so I bought some land and moved on down here, too,” says Kathy.

Kathy spent the next few months driving all over the Tri-County area looking for a good fit for her skills, but all she could find were retail jobs. “I’d just left retail and really wanted to get away from the retail hours so I could spend time with my son on the weekend,” she tells us. After having driven through Keowee Key almost every day, it dawned on her that “this place could use a little help.” So, she approached the management about a job and she joined the team there. Over the next decade, she worked with a small crew or on her own to help keep the entry ways, country club, and other high-profile areas looking good. “I also got to work with the Lake and Hills Garden Club, and there was a Grounds Committee at Keowee Key who helped as well.”

Things were going along fine when she got a prompt to check out the job posting for the Landscape Manager position at the Garden. “I think what interested me most was that I would be working with people who were true plants people – I guess you’d say plant geeks. More than once I’d come back from a nursery all excited about some cool new plant I found and my co-workers looked at me like I was nuts.”

Her role at the Garden is varied, but as with her work at Keowee Key, her areas of focus are the high-visibility gardens such as the Discovery Center, Museum courtyard, the Hayden Conference Center, and the entry plantings. “I’m really just trying to help wherever I can, cleaning up areas and trying to keep things looking nice. I’d really like to add a little more color to the Garden,” she says.

When asked what some of her early impressions of the Garden are, she said, “I’m impressed by the number of visitors we have. We have our regulars and you almost get to know them, but then we have people coming here from all over the country. Just the other day I met a couple from Illinois and they are the grandparents of my son’s best friend from back in Cincinnati. Everyone is so friendly and happy. It’s a great place to work.”

Todd Steadman
Associate Director
Garden Education: Learning more about plants

To some people, plants are a green blur, a magnolia looking much the same as a tulip poplar, or an oak tree. For others, they’ve become familiar friends and individually distinctive. I enjoy recognizing Southeastern native plants whether here or abroad, and learning about indigenous plants elsewhere in the world, and feel richly rewarded in the process.

I think that understanding something about what you’re seeing, whether you’re in a garden or out in the community, enriches our appreciation of gardens, natural areas, and landscapes. What sort of environment is its native one - where did the plants come from? Are they native to Upstate South Carolina or Alberta, the mountains of Korea or China? What kinds of visitors are attracted to its flowers? What is its life cycle and growing habit?

At the Garden, we encourage people to look more closely at plants, connect with their stories, and hopefully, to learn more about them. Traditional botany can be taught in a somewhat daunting way, with plenty of botanical terminology, plant anatomy, and physiology. But botanical garden education (both at our garden and elsewhere) usually takes an inquiry-based approach, engaging learners through observation, questions, and exploration from a whole plant perspective. Similarly, the popularity of Naturalist Certificate programs and Master Naturalist programs reflects a strong interest in learning more informally about the broader natural world.

On a recent garden-visiting trip to England, I was fascinated by the depth of knowledge of many gardeners, with the intricacies of provenance and origin of plants quite evident in gardens such as RHS Wisley and Wakehurst Place. I heard many garden visitors knowledgeably discussing plants using their scientific names, making connections with plants growing in their home gardens. A focus on species diversity rather than cultivars was also evident in the specialty nurseries I visited, an interesting contrast to what’s offered in many nurseries and plant centers here. So many of our plant labels require extensive internet searches to reveal their parentage or background!

The diversity of flowering plants is remarkable, reflecting the myriad habitats on our planet. Plant characteristics have been shaped by factors such as climate, soils, and competition for resources, as well as a vast array of insects, other animals, and microorganisms. Learning about these things is fascinating, and plant characteristics are key to better understanding plants in our gardens and landscapes.

Whatever your level of expertise, have some fun comparing the intricacies of different flowers when you’re next out in the garden or in the woods – flower structure is the key to plant identification and classification, and the perfect place to start learning how to better identify plants.

For example, notice the differences in these flowers.

The yard-long bean, Vigna unguiculata, is in the Pea family (Fabaceae).

Flowering tobacco, Nicotiana spp., is in the nightshade family (Solanaceae), along with tomatoes and many other plants.

St. John’s Wort, Hypericum spp., is in a smaller, much less common family, the Clusiaceae.

Lisa Wagner
Director of Education
www.naturalgardening.blogspot.com
This September marks the 10th anniversary of the Campbell Geology Museum's opening at its new location in the SCBG. Prior to that time, the museum’s collections were available for viewing on a limited basis in the Geology Department in Brackett Hall. Mrs. Betty Newton was responsible for creating the museum as it was in Brackett Hall, and she had a vision for a new structure that was completed after her untimely passing in early 1998. Bob & Betsy Campbell provided funding for the museum’s new building, and they also donated a significant collection of minerals and fossils, display cabinets, and specimens for resale. Paul & Judy Benson donated a large collection of gemstones that were faceted and polished by Paul’s father, Paul Benson, Jr. Other major donations were made by Tom Heard, The Henry Family, Nancy Holloway, Robert Schabillion, Ben & Susan Smith, Clayton Smith, Kermit Watson, and Ben & Ann Wheeler.

Prior to the new museum’s opening, Carolyn Rebbert was hired as the first director. She, along with volunteers like Ben & Ann Wheeler and Alfred Newton, moved the entire collection from Brackett Hall and organized the displays in time for the grand opening in September 1998. Dave Cicimurri joined the staff as the Curator of Collections in spring of 1999, and Christian Cicimurri came on board as the Curator of Education in the fall of 2000. Carolyn moved on to another museum in the fall of 2001, but Chris and Dave continued to help the museum evolve over the next four years, and a major icon, a replica Smilodon fatalis (saber-toothed cat) skeleton, was installed in early 2002. Darlene Evans joined the staff as Museum Manager in the winter of 2005, just in time for a major overhaul of the museum’s display gallery and lobby that winter. Late in 2006 Todd Steadman joined the SCBG as Associate Director and assumed the position of Museum Director.

The museum has had the support of many volunteers over the past 10 years, and hundreds of hours have been contributed by individuals like Renee Benett, Paul Benson, III, Roger Carpenter, Susan & Cory Dodgens, Claire Hentz, Herb Jones, Marge Koboski, Ron Miller, Thomas Rendle, Fred Sias, Dorris Sias and Steve Sokol. Many other people, too numerous to name, have helped with educational programs, curatorial projects, and administrative tasks. We thank each and every person who has helped the museum transform into what it is today – what has been achieved would have been more difficult to accomplish if not for your donations of time, money, or specimens.

As the museum enters its second decade in the SCBG, much more work remains to be done. Museum staff are looking forward to the day when a full-time director is on board, as this person will play a major role in the financial stability of the museum. Several years ago, the museum took the initial steps towards accreditation, and we hope to become one of a handful of institutions in South Carolina to obtain this “badge of honor.”

It is ironic that the current museum is at the same point that the original facility was 10 years ago - out of space. Over the coming years, museum staff, in conjunction with the advisory board, plans on exploring options to expand in order to provide additional storage space, an appropriate educational space, and a specimen preparation/conservation space. As always, we will keep you, our friends, posted on what happens at the museum, and we look forward to your continued support.

David Cicimurri
Curator of Collections
Every gardener has favorite plants, and keeping notes on them is particularly useful for tracking performance in the landscape, as well as serving as a reminder for next year. Here are some seasonal favorites with notes on sun and soil requirements and characteristics of the plants we hope you’ll find helpful in planning your landscapes.

Prepared by Lisa Wagner, Director of Education.

**Bottlebrush buckeye**
*Aesculus parviflora*
Horsechestnut family (Hippocastanaceae)
Partial shade to sun
Average to moist, well-drained soil
Native to Southeastern U.S.
- multi-stemmed, suckering, deciduous shrub, 6-10 ft tall spreading to 15 ft.
- requires little care, tolerates some drought
- masses of creamy white flowers in 12” spikes in June
- palmately compound leaves with 5-7 leaflets, turning yellow in fall
- excellent specimen shrub when it has room to spread; striking in flower

**Sassafras**
*Sassafras albidum*
Laurel family (Lauraceae)
Full sun to partial shade, average soil
Native to Eastern U.S.
- small to medium-sized deciduous tree, with fragrant leaves of three shapes: mitten-shaped, entire, and three-lobed
- tolerant of a variety of soil conditions; drought-tolerant
- small showy greenish-yellow flowers appear in spring from attractive overwintering flower buds; male and female flowers borne on separate trees
- lovely yellow to orange fall color
- fleshy dark fruits relished by birds; twigs and branches browsed by deer; one of the host plants of spicebush swallowtail caterpillars

**Indian grass**
*Sorghastrum nutans*
Grass family (Poaceae)
Full sun
Average soil
Dry to average moisture
Native to central and eastern U.S.
- tall clump-forming warm season perennial, up to 5 ft.,
- large plumes of striking golden flowers & seedheads in fall
- attractive native grass to use ornamentally in perennial beds
- very tolerant to drought and a range of soil conditions
- seeds are eaten by birds and small mammals
- major component of tall-grass prairie vegetation
Calendar of Events

JULY
- 10: Featured Artist Reception, 5:30 - 8:00 pm
- 16: Beginning Jewelry Making
  Advanced Jewelry Making
- 18: Beginning Jewelry Making
  Advanced Jewelry Making

AUGUST
- 9: Beginning Jewelry Making
  Advanced Jewelry Making
- 16: Beginning Jewelry Making
  Advanced Jewelry Making
- 21: Planning a Fall Vegetable Garden
- 23: Peter Rabbit’s Salad Garden
  Beginning Jewelry Making
  Advanced Jewelry Making

SEPTEMBER
- 11: Basics of Gardening in the Upstate
- 15: Harvest Moon Night Hike

ONGOING

Vinyasa Yoga with Anita Reina-Nunnelley
Wednesday: Times: 6:00 - 7:15 pm
Location: Hayden Conference Center
Drop-ins: $12 per class ($50 for 5 classes)

Nature Walk with David Bradshaw
First Friday: Times: 7:00 am April - October
Location: Meet at the Caboose parking lot

Campbell Geology Museum - FREE
Third Weekend: Hours: Wed. - Sat. 10am - 5pm, Sun. 1 - 5pm

Fran Hanson Discovery Center
Daily: Hours: Mon. - Sat. 10am - 4pm
- Featured Artists Gallery
  July - August: handmade quilts by Suzanne Edwards de Vargas
  Fuller Gallery
  Paintings by Elizabeth Belser Fuller

To register by phone call 864-656-3405 with Visa, MasterCard or Discover. Make checks payable to ‘CU/SCBG’ to register by mail.

To mail in registration, please list your name, address, phone, number, and email along with the date and name of the program. Send with the program fee to:

South Carolina Botanical Garden
Attn: Program Registration
150 Discovery Lane - Clemson University
Clemson, SC 29634-0174