For all of us, this has been a spring unlike any other. Spring still happened, despite our absence from the Garden. Here is a little taste of the beauty from last year.

On the forest floor hepatica’s delicate blooms are a welcome sight early in the year. Their evergreen leaves and underground rhizomes give them an energy boost to flower earlier than most. Their bright flowers provide a colorful contrast to the brown leaf litter, and, thus, attract early flying solitary bees and flies who are rewarded with rich pollen (hepatica doesn’t produce nectar).

Hepatica
Anemone

The dappled leaves of the trout lily catch the eye before the delicate yellow flower is visible. Like many spring wildflowers, the trout lily has developed strategies to adapt to potential bad weather. The flower closes on cloudy days when the main pollinators (bees) cannot fly, and also at night. Asexual reproduction is the dominant means of survival, since sexual pollination rarely results in fertile seeds. Some colonies of trout lilies have been found to be several hundred years old.

The diminutive spring beauty (Claytonia virginica) carpets the forest floor of the Rich Cove Forest Exhibit. This is a true spring ephemeral, once the trees leaf-out completely, this plant disappears. Spring beauty is geographically wide-spread, and is an important early source of nectar and pollen for over 100 pollinator species. One native bee, the spring beauty bee (Andrena erigeniae), relies almost exclusively on its nectar and pink pollen.

Wild columbine is an excellent spring wildflower to add to your landscape, especially if you want to attract hummingbirds. The brilliant red and yellow flower is a beacon to our ruby-throated hummingbirds who sip nectar from the long flower spurs. It is the spurs that give this plant its scientific name. They were thought to resemble eagle talons, and the Latin word for eagle is aquila.
Dear Friends,

All of us are navigating challenges we have never faced in our lifetimes. We hope you are well, safe and protecting yourselves and your families. You are precious to us and are our first concern.

We have done all we can to make certain that, when life allows us to return to some level of normalcy, your SCBG will be there for everyone. The University decision to close access to recreation areas, including the SCBG, was made upon consultation with law enforcement and emergency management personnel, and in accordance with the Governor’s Executive Orders. This decision was not made lightly, but we must ensure the safety and health of our visitors. The SCBG hosts over 2000 visitors on an average spring day, and the vast majority use the same short trails and gathering areas. Given the rising demand for outdoor recreation, we expected the number of visitors to rise far above normal levels. In addition, reduced staffing levels makes our ability to handle maintenance issues, and respond to safety situations, impossible. The health of our employees and their families is also important to consider.

Clemson University officials regret that this temporary closure is necessary and will continue to monitor the COVID-19 pandemic, ensuring the University’s recreation spaces are reopened as soon as conditions allow. We appreciate your patience, support and understanding. For additional information on Clemson University’s response and policy, please see the resources at https://clemson.edu/coronavirus/

I can’t thank the staff enough for working many, many long hours above and beyond the call of duty at the onset of the pandemic to ensure that the Garden continues to thrive. Event cancellations have left us with less contact with you, and we all miss that greatly. We have stayed engaged through our social media, and have even hosted some virtual classes such as the Virtual Melody Garden for our youngsters, and are working on developing new ways to provide educational content. Please stay informed and stay engaged by liking our Facebook or following us on Instagram. You will find discussions and ideas for continuing your love of gardening and nature on these sites.

The cancellation of all of our events has obviously put us in a challenging situation. Our Spring Plant Sale is our largest revenue generator for the SCBG. A majority of our Friends memberships also occur at the sale. This will no doubt put a great strain on the financial resources that we depend upon for maintaining the Garden. The loss of rentals, education class revenue and gift shop sales are another great concern. These will only be a few of the challenges we will face in the months to come but rest assured, we can overcome them. When I began at the SCBG back in 2010 we had a skeletal crew and a very small budget, and we have grown despite the challenges we inherited.

We will always grow, together, it is what a Garden for Life does! The staff that we are blessed with are all here to serve, because this is where they want to be—above anywhere else. We all believe in the Garden, we all believe in our community and we all are eagerly awaiting the day when we can welcome each other on the trail, in the classroom, and in the Garden. When we return, the Garden will be bursting with the color, scents, sounds, and tangible bounty of life. Please take care of yourself, your family, and thank you, from the bottom of our hearts, for the support that you have shown, and continue to show, to make this a Garden for Life.

~ Patrick

150 Discovery Lane, Clemson University
Clemson, SC 29634-0174
phone: 864.656.3405
email: scbg@clemson.edu
www.clemson.edu/scbg
The **South Carolina Botanical Garden (SCBG)** will open trails and outdoor exhibits to the general public beginning Monday, May 4, 2020. Until further notice, the hours of operation will be 9:00 AM till sunset. Guests are **required** to adhere to social distancing guidelines provided by SCDHEC, the CDC, and Clemson University. SCBG staff and the Clemson University Police Department will monitor visitation to ensure that we are operating at a reduced capacity, and visitors are in compliance.

Park only in open parking spaces, not in spaces with traffic cones. Do not remove or otherwise disrupt cones that have been placed in parking spaces. If the SCBG reaches capacity the gates will be closed until spaces become available. Parking is limited to half of the designated spaces. Parking is available at the Caboose parking lot (on the left after entering the main entrance gate) and the parking lot downhill from the Bob Campbell Geology Museum and SCBG Visitors Center. All visitor facilities will remain closed at this time (Visitors Center, Bob Campbell Geology Museum, Hayden Conference Center and Hanover House, and all public restrooms). The picnic area will remain closed until further notice.

Botanical Garden Drive will be open from the main entrance gate off Perimeter Road, to the large parking lot below the Bob Campbell Geology Museum. The drive through the Arboretum to the Hanover House and Hayden Conference Center will be closed to vehicular traffic, and there will be no parking in those locations.

The SCBG will be operating with only horticultural grounds staff present. Please do not approach or interact with staff you might see in the Garden, there are no visitor service representatives to assist you at the SCBG. If you need emergency assistance during your visit, please call the Clemson University Police Department at: 864-656-2222.

**Things to remember when visiting the SCBG**

- Stay home if you are sick or think you have been exposed to the COVID-19 virus.
- There are **NO PUBLIC RESTROOM FACILITIES OPEN**
- Bring hand sanitizer with at least 60% alcohol as soap and water are not available on site.
- There will be no water fountains or other potable water available.
- Maintain social distancing at all times: at least 6 feet of distance between you and other visitors that are not members of your household. Do not congregate with other families or visitors and do not approach others during your visit. Wear a cloth covering over your nose and mouth.
- **ALL DOGS MUST BE ON A LEASH AND RESTRICTED TO TRAILS WHERE THEY ARE PERMITTED.** Do not allow your pets to approach other visitors.
- There are no picnic facilities open at the SCBG.
- Stay on designated trails during your visit.
- Contact the Clemson University Police Department or call (911) if you have an emergency (864-656-2222).

The **Clemson Experimental Forest (CEF)** continues to recover and repair damage due to the recent storms and EF-3 tornado. The CEF will be opening the Fants Grove area to the general public beginning Monday, May 4, 2020. Guests will be required to adhere to social distancing guidelines provided by SCDHEC, the CDC and Clemson University. CEF staff and local law enforcement agencies will monitor visitation to ensure compliance. Avoid parking in areas that are beyond capacity. Crowded parking areas may be closed without notice. All picnic and gathering areas are closed at this time.

All other areas of the CEF are to remain closed until further notice. Due to the recent EF-3 tornado and related weather events, crews are working daily to ensure all roads and trails are clear and free of damaged or downed trees from the recent storms.

Closed areas: Issaqueena Recreation Area, Keowee Heights/Doyle Bottom Rd, and Waldrop Stone Falls, among other areas, remain closed due to recovery efforts. As areas are cleared and deemed safe, announcements will be made regarding the opening of specific areas.

**Things to remember when visiting the CEF:**

- Stay home if you are sick or think you have been exposed to the COVID-19 virus.
- There are no public restroom facilities- please plan your visit accordingly.
- There is no potable water available.
- Maintain social distancing at all times, do not congregate with other families or visitors and do not approach others during your visit.
- All dogs must remain under the control of the owner at all times. Do not allow your pets to approach other visitors.
- There are no picnic facilities open.
- Stay on designated trails during your visit.
- Know your location at all times. Maps are available online at our webpage: www.clemson.edu/cef
- If you need emergency assistance during your visit, call 911.
We were off to a great start this spring, the Garden was good shape as we entered the shut down. A new xeric/desert and boulder bed was completed at the drop off area in front of the Visitor’s Center. We added a new exhibit to the Natural Heritage Garden: a Scrub Ridge Habitat. We raised and amended the beds along the picnic area paths, and we were in the process of revamping the Dwarf Conifer Garden. We were preparing to set out plants along the Highway 76 fence-line, to re-establish the screen removed by the burial of power line. We suspended this project until we are able to keep the new plants watered.

Before the staff were asked to remain at home, we had a frantic week emptying greenhouses and planting. All the tropicals were placed out in the Garden in protected, high shade areas, where rain will hopefully be enough to keep them happy. Annuals were planted en-mass throughout the landscape. As long as temperatures remain above mid 40’s and we get rain once or twice a week, we may return to a beautiful showing of color. There will be a lot of catch-up work to be done, and those of you who volunteer with us will be in high demand to help with cleanup when we are cleared to return. Can’t wait to see you. I’m thinking positive, and can’t wait to see you all back in the Garden.

~Kathy Bridges, Garden Manager

As a large and mostly developed botanical garden, with a very small horticulture staff, we rely extensively on volunteers and workers to assist with daily maintenance. Here are some very impressive numbers from last year:

Community service hours- mostly from students on campus who have either gotten in a little trouble, or are in fraternity or sorority groups

<table>
<thead>
<tr>
<th>Total hours</th>
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<tbody>
<tr>
<td>1,727</td>
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Business students- a percentage of their grade is based on community service hours

<table>
<thead>
<tr>
<th>Total hours</th>
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<tbody>
<tr>
<td>1,323</td>
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Pendleton High School, School to Work Students

<table>
<thead>
<tr>
<th>Total hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
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Student Interns

<table>
<thead>
<tr>
<th>Total hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
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</tbody>
</table>

Volunteers- our wonderful group of local volunteers and Master Gardeners. WOW!! Thank you all!

<table>
<thead>
<tr>
<th>Total hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,177</td>
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Produce donated to Clemson Community Care

<table>
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<tr>
<th>645 lbs.</th>
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</thead>
<tbody>
<tr>
<td>5,535 lbs.</td>
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</table>

As a Garden, we hire approx. 25 students from Clemson per semester. They average about 10-15 hours a week, with more than 60% of them being part of the Federal work study program.
Garden News

Save the Date

SCBG Fall Plant Sale

Friends of the Garden Sale
Friday, September 4th
2–6pm

Public Sale
Saturday, September 5th
9am–1pm

Make-up Date / Second Chance Sale
Saturday, October 3rd
9am–1pm

Summer Programs & Events

As you know, the future for in-person classes and events is very unsettled for this summer, and even into the fall. As we are able, we will begin to move classes to an online format, use our Facebook page more extensively to deliver educational content, and work with other Extension units on educational projects. Since the situation is so fluid, we will not publish programs in this edition of the Garden’s Gate. Please check our calendar and Facebook page regularly for updated information.

We are beginning to post educational information and activities, as they are developed, on our webpage at: https://www.clemson.edu/public/scbg/education/youth-and-family-programs.html

Garden Educator, Allison Jones, partnered with Making It Grow to produce some educational segments for their program - these can be found here: https://www.scetv.org/television/programs/making-it-grow

If you are interested in native plants, and would like to join the South Carolina Native Plant Facebook Group, please send a request to the group.

If you have school age children in your lives, we also have a SCBG Junior Naturalist Facebook Group, please send a request to the group.

The Melody Garden for very young children has already transitioned to an online format and is listed on our calendar and Garden Facebook page.

It is our fervent wish to get back to the Garden, and to in-person classes, but the health and safety of everyone is of paramount importance to us.

~ Susan Chandler, Allison Jones, Rebecca Smith, Kendra Vincent, Sue Watts, James Wilkins
Garden Educators
BCGM TEMPORARILY CLOSED Owing to COVID-19 Pandemic

The BCGM has unfortunately, had to temporarily close its doors owing to the COVID-19 Pandemic. Numerous research projects involving Clemson University students and volunteers had to be put on hold, and plans to continue developing new exhibits focused on ‘Theropod Dinosaurs’ and ‘Turtle Evolution’ are currently delayed indefinitely. Our annual Earth Day Celebration, planned for April 19th, had to be cancelled as well. Please read more below if you would like to financially assist the Museum during these difficult times and please check our Facebook page for updates on when we will be reopening, and suggestions for educational and fun activities to help keep kids entertained during these unusual times.

BIRD BRAINED BCGM Curator Publishes Research on the Evolution of Avian Intelligence

Along with 36 colleagues from across the globe, BCGM Curator Dr. Adam Smith co-led a study that is soon to be published in the scientific journal ‘Current Biology’. The study focuses on the evolution of brain size throughout the more than 150 million years of avian evolutionary history—sampling more than 2000 species including the flightless dinosaurian ancestors of birds, extinct species of archaic birds, and all types of modern birds from ostriches to sparrows. The study uses CT scan data (aka CAT scans) to peer inside the skulls of both modern and ancient birds and measure how large their brains were relative to their bodies (Figure 1). Smith and colleagues found that birds have experienced rather intense periods of brain size increase, much like the great apes did much later in evolutionary history. As overall brain size is tightly linked with intelligence, it turns out that calling someone ‘bird-brained’ is actually quite a compliment!

Please Help Us to Maintain Your Geology Museum

The BCGM would like to offer our sincere thanks to the following people who have recently made generous donations to the BCGM: Lloyd and Charlene Shoemaker; Barb Bittenbirder; Susan Creamer; Russ Hebert; Jonathan Anderson; Randy Holbrooks; and Paul and Judy Benson.

The Museum is experiencing a financial shortfall owing to our COVID-19 related closure (since March 16th) and we would be most grateful for the support of our community. If you would like to make a donation of any size or type to the BCGM to assist us with our ambitious research and educational efforts, please contact Curator Dr. Adam Smith via email at bcgm@clemson.edu. Alternatively, contribute directly by choosing “Geology Museum” from the drop-down menu at https://cualumni.clemson.edu/give/scbg or email us to discuss the projects we have planned and how you can contribute. Also see our Facebook page and our website (www.clemson.edu/geomuseum) for details regarding upcoming special exhibits and events.
Our newest exhibit, recently added to the Natural Heritage Garden, is pictured left: a Scrub Ridge Habitat. This exhibit is located just off the main trail near the Sandhills Exhibit.

Scrub ridges are one of the most endangered ecosystems on Earth. Since these high and dry ridges are prized for commercial development and citrus cultivation, many have been lost. Also, fire, which is essential to their survival, has been supressed.

Scrub ridges function as ecological islands, providing a unique habitat that is very different from the surrounding landscape. Many of these ridges, particularly in Florida, were actually islands when sea levels were higher. Scrub communities form on deep, very well-drained sands; they are “desert-like” habitats, with little to no organic matter. Unlike sandhill habitats, scrub sand is white, sorted from more darkly colored sand, and deposited in the distant past. These sand deposits are found on the rims of Carolina bays and sometimes adjacent to blackwater rivers, such as the Little Pee Dee.

**Endemic Species**

Today these ridges are host to a vast array of plants and animals found nowhere else. Even many of the dominant species such as Scrub Oak (*Quercus inopina*) or Ashe’s Calamint (*Clinopodium ashei*) can be found nowhere else and in no other habitat. Many scrub endemic species are considered federally endangered or threatened, including Garrett’s Scrub Balm, Blushing Scrub Balm, Short-leaved Rosemary and Etonia False Rosemary. Scrub ridges are generally named for the most dominant species in the landscape: Longleaf Pine-Turkey Oak Scrub Ridges, Rosemary Scrub, Low Oak Scrub and Sand Pine Scrub.

**Chemical Warfare**

Some plants grow cooperatively, but others take a much more devious approach and poison the ground to deter their neighbors. Florida Scrub Rosemary is one such species that practices allelopathy, producing chemicals that retard the growth of other species near them, thereby reducing competition for limited resources. This strange plant, related to Rhododendron, grows on scrub ridges from South Carolina to Florida.

**A Fragrant Habitat**

No other Southeastern habitat is as full of species in the mint family as the scrub. Here many of the dominant species can be mints that reach the size of shrubs. Three groups are typical of this habitat: False Rosemary (*Conradina*), Calamints (*Clinopodium*), and Scrub Balms (*Dicerandra*). Many of these species are restricted to a single sand ridge complex and their distribution teaches us about the connections and isolation of the ridges in the past.
Rebirth through fire
Scrub is very flammable, but it burns infrequently, perhaps only every 100 years or so. However, scrub communities depend on fire for persistence. Sand Pine reproduction depends on the release of seeds onto the bare ground produced by fire, even though fire kills the parent trees. Many plants such as the scrub balms and rosemary, need fire for successful reproduction from seed, again, even though the adult plants are killed. Oaks and most of their woody associates resprout vigorously following fire. Without periodic fire, oak scrub will slowly grow into tall, unproductive habitats, with little space for the unique smaller species.

You can visit scrub habitats in South Carolina at Woods Bay State Park in Sumter County and Little Pee Dee Heritage Preserve in Dillon County. In Georgia, visit Ohoopee Dunes Wildlife Management Area to experience this habitat. In Florida, Archbold Biological Station, Highlands Hammock State Park and Oscar Scherer State Park are all great places to get an introduction to Florida Scrub.

Recent Storm Damage

The tornado and storms that swept through Seneca and Oconee County in the early morning on April 13th also did significant damage to trees in the SCBG. No one was hurt, and no buildings or structures were damaged, but 35 trees fell as a result of high winds combined with saturated soil. The majority of the damage was on the Class of ‘62 Trail (the trail below the Cadet Life Garden and Caboose) and in the Schoenike Arboretum.

Many of these trees were enormous specimens, including one of the largest red oaks (Quercus rubra) in the Garden and several large white oaks (Quercus alba). Although some collection trees were lost as a result of the large hardwoods falling, we were fortunate that the damage was no worse to our woody plant collection.

~ Dave Rife, Arboretum Manager
Captivating and beautiful spring wildflowers are the lynchpin of a complex and delicate world balanced between plants, insects, and other animals. I was catapulted into this world when I became aware of this new beautiful book from the Indiana Native Plant Society, *Wake Up, Woods*. This work was published in October, 2019 by Rubber Ducky Press and is available at many large booksellers, and even in Kindle form. According to their website, this book is targeted at children 5 to 10 years old, however, I found it enchanting, fascinating, and thoroughly thought-provoking. These sentiments are shared by other reviewers, including Richard Louv, author of *Last Child in the Woods*, who writes: “An enchanting peek into the splendor that awaits us outdoors.”

This is a simple book in concept, each double page spread is dedicated to one or two native plants. The text includes the plant’s common and scientific name, a short *es* verse, and a single paragraph about the plant. The illustrations are both incredibly beautiful and also very informative. The plants appear in the book chronologically, but the timing is specific to Indiana, and therefore different from the timing in South Carolina. The strength in this book is that it looks beyond the featured native plant to the role it plays in the ecosystem in which it lives. The illustrations make the connections between the insects and animals that interact with each plant and highlight the mutualism that exist between both. This simple book prompted me on a journey of discovery to learn more about the bees, butterflies and ants featured in *Wake up, Woods*.

For example, I had not given much thought to the insects that pollinate spring wildflowers. At this chilly time of year, bees are less evident than in the summer, but they are still important to plants. For example, this book prompted me learn more about the spring beauty bee, which led me to discover the existence of pink pollen! I also was not previously aware that a significant number of bees are specialists who rely mainly on one particular type of pollen for survival. While searching for more information about the spring beauty bee, I came across this picture (left) of the bee in action, covered in pink pollen. *Wake Up, Woods*, gives a wonderful insight into the vast diversity of native bees including trout lily and violet mining bees, bumblebees, carpenter bees, and sweat bees. Other pollinators include beetles, flies, and hummingbirds, and they are also featured in the detailed illustrations.

Butterflies also rely on some spring wildflowers as host plants for their caterpillars. My humble garden violets, for example, are the host plant of the family of great fritillaries (Great Spangled Fritillary, Variegated Fritillary, Falcate Orange Tip, and more). These butterflies in particular, are quite secretive. Instead of laying their eggs directly on the plant, they deposit them in the leaf litter next to the plants. Then, at night the caterpillars crawl to the leaves to feed, and so are rarely seen on the violet. Other butterflies and their host plants included in *Wake Up, Woods* are Cutleaf Toothwort, the host plant to the endangered West Virginia White Butterfly, and the Columbine host to the Columbine Duskywing.
Ants are a key component of the insect/plant interactions in the forest and also featured heavily in *Wake Up, Woods*. Ants disperse the seeds of many woodland flowers, a process known as myrmecochory. Bloodroot, trout lilies, spring beauty, Dutchman’s breeches, wood poppies, and trillium are among the spring wildflowers that have elaiosomes to attract ants. Dr. Eleanor Spicer Rice, author of *Dr. Eleanor’s Book of Common Ants*, is worth quoting at length as she describes the industrious winnow ant and their pivotal role in forest ecology.

The winnow ant has very long legs, and you can watch her. She looks like she walks on her tiptoes everywhere, and she likes to pick up seeds of herbaceous plants. And these plants produce this coating on the seed called an elaiosome. It has lipids and proteins in it that the ants need to feed to their babies. When they smell that they go nuts. They have to have it. So they grab the seed, and they eat off that elaiosome. And then they take the seed, and they’ll either throw it away in their trash pile – because ants are very neat, they have a little garbage pile which has a lot of nutrients in it because it has decaying bugs and bug poop and stuff – or they’ll put it under the soil in their nest. And so they are planting these seeds. And they found that if you take the ants out the forest, the wildflower and herbaceous plant abundance and diversity can decrease by as much as 50 percent.

*Wake Up, Woods* is a treasure - a simple, and yet simultaneously very sophisticated, depiction of the ecology of the woodland floor.

~ Sue Watts, Educator

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**Bloodroot**  
*Sanguinaria canadensis*

**Cutleaf toothwort**  
*Dentaria laciniata*

**Halberd-leaf violet**  
*Viola hastata*

**Wood poppy**  
*Stylophorum diphyllum*
Red Buckeye
*Aesculus pavia*

Red Buckeye (*Aesculus pavia*) is a native plant that can grow as a substantial shrub or a small tree which grows 12 to 25 feet tall. This woody plant is a colorful addition to the landscape, adding interest to the garden as its leaves and flowers begin opening early in the year. At the SCBG there are specimens throughout the Garden, several (pictured above) are located behind the Carriage House. This year, the leaf and flower buds began swelling in late February, and the leaves were beginning to break open in early March, at a time when there were very few other signs of spring around. By early April, the flowers and leaves were almost completely unfurled, and the display was spectacular.

I am particularly fond of the red buckeye since it reminds me of the horse chestnut trees I grew up with in England (*Aesculus hippocastanum*). Indeed, both plants belong to the same family, *Aesculus*, and share similar characteristics. Like the horse chestnut, buckeye leaves are palmately compound, and leaves, twigs and branches are arranged opposite each other. The tubular flowers are arranged in panicles about 6 - 10 inches and are red, instead of the yellow/pink of the horse chestnut. As children we spent many happy hours playing the game of conkers with horse chestnut seeds, which very much resemble the buckeye (https://en.wikipedia.org/wiki/Conkers).

In nature, this plant is found in the understory of woodlands, often in moist areas, and sometimes along stream sides and on pond banks. Thus, in the garden, red buckeye grows best in shade and moist, well-drained soils, but it will tolerate some sun, and is soil and pH adaptable. The specimens photographed above are in a relatively sunny area and seem to thrive. This is a deciduous plant that drops its leaves in the fall. Once the leaves are gone, the texture of the bark and the shape of the trunk(s) are a pleasing accent to the landscape.

If you want to attract hummingbirds to your garden, red buckeye is an excellent choice. The early flowers coincide with the migration of our ruby-throated hummingbirds back to South Carolina and therefore provides an excellent early nectar source. Hummingbirds, bees, and butterflies are highly attracted to the striking red flowers. The red buckeye also provides shelter for wildlife, particularly birds. Buckeye seeds are generally avoided as a food source by animals, and can be fatal to humans if ingested. Native Americans knew of these dangerous characteristics and crushed up the seeds to stun fish to enable them to be caught more easily. Early European settlers used the plant to create an early soap substitute.

For more information on the red buckeye, and to find other research-based garden information on many, many topics, visit Clemson’s Home and Garden Information Center at https://hgic.clemson.edu/. 
Twenty Minutes with Nature

by

David W. Bradshaw

Garden Naturalist

We go out individually into The Garden with the assignment to find a place which naturally attracts us. Our purpose is to develop “consensus” (with-senses) as we connect with Nature. We are told that each of us have 48 senses beyond the familiar sight, hearing, touch, taste and smell. When we are consciously aware of multiple senses simultaneously, a combined feeling of excitement and serenity results. We speak of this feeling as having gained “permission” to recognize ourselves as an integral part of Nature. By doing so, we learn about ourselves as we learn about Nature.

The assignment also says that we are to return in twenty minutes. So, I walk rapidly. My goal is to visit the beech grove, to realize consensus and perceive permission, and to carefully determine if my perception changes as I develop consensus.

The bright sun warms the ice blue sky; not a breath of wind is blowing. But the harsh crunch of gravel under-foot grates on my nerves as do the loud snaps of breaking twigs. Even the crackling of the dry leaves seems harsh, sending squirrels scampering away and scolding me for disturbing their search for nuts.

I reflect on my assignment as I walk, wondering if I really have enough time to reach my destination, complete my assignment, and return to the group in only twenty minutes. My mind chatter casts doubts, and I am uncertain whether I truly understand what I am suppose to do or if it is even possible.

My nerves seem to be raw and frayed from my uncertainty and the noisy disturbance of my passing. “I certainly do not feel permission to be here!” My senses are working overtime for I can clearly hear my own voice in my ears even though I have not spoken aloud.

“What have you asked?” That same clearly discernible voice has spoken. Surprised, I pause in my tracks.

Stunned by the question, I realize that I am intruding on Nature as I rush ahead. I have been so destination-oriented that I have failed to consider the impact of my passing. People ask permission to pass across personal property as opposed to trespassing.

“Why should my passage through Nature be different?”

I suddenly realize that every day my passage through life impacts everything around me.

“May I pass this way without disturbing you?”, I ask.

“Come”, I hear in reply.

I step more gently now. The leaves seem more soft and muffled; the squirrels continue their searching. Birds sing in the trees nearby. In the middle of the path a small patch of bare ground catches my eye. I wonder why this spot is virtually bare of leaves. Kneeling, I search for clues. Tiny seeds of every description catch my attention. Their intricate designs and colors are fascinating. Some are tiny ovals, others have symmetrical angles with spiked projections, and I collect them in the palm of my hand. What a precious gift I have received! I express gratitude.

“Now I feel permission. I am experiencing consensus.” And yet my mind chatter again casts doubts. “Are you sure, or do you just want to believe you have permission to pass this way?”

Silently a red-shouldered hawk flies up to perch on a limb just at eye level and only a few yards away. I gasp at the beauty of this magnificent bird. I have been an avid birdwatcher all my life but have never been given such a close look at this bird. I see him blink his eye and tilt his head as if waiting for me to respond. I marvel at the intricate patterns of white and gray bands in his feathers and the rich cinnamon red feathers on his shoulders. He is not disturbed in the least by my presence.

“Thank you,” I hear myself say aloud. Now I truly feel that I have permission to be here.

The hawk leans forward, spreads his wings, and gently floats off to a nearby tree.

I return to the group, never reaching my intended destination. I have, however, accomplished my task. I have walked among Nature with consensus. I have learned seeking permission makes me acutely aware of my surroundings. I am reminded that wherever we go, we impact all those around us in the passing. I also realize that it is not so important what our destination may be but how we make the journey.

I rejoin the group and ask how long I have been gone. Exactly twenty minutes have elapsed. I feel as if I have spent a day communicating with Nature. Now I realize another lesson I have learned from Nature. It is not so important how much time we may have but how we choose to use it.
Plants for the 21st Century

Many of us have heard the story of how the great American chestnut was wiped out by blight in the early 20th century. What was once one of the largest components of American forests, in both size and population, was reduced to just an occasional basal sprout, rarely able to grow enough to reproduce. But have you heard about the other American chestnut? More humble than its colossal cousin, Castanea pumila, is a smaller, shrubbier chestnut native to the Southeast. It is commonly known as dwarf chestnut, or chinquapin by its Native American name, and can be found growing on dry ridges mixed in with oaks and hickories. Complementing its smaller stature, chinquapins also have smaller fruits, which look essentially like miniature chestnuts. Despite their size, they make for some very good forage for both wildlife and patient humans, and their flowers are very pollinator friendly. Unfortunately this species is also very susceptible to chestnut blight. Unlike the American chestnut, however, the chinquapin is frequently able to fruit from the sprouts from which it regrows. Both species of chestnut have been the focus of different efforts to breed blight-resistant varieties, and the SCBG has been lucky enough to get involved with one of these projects. This past winter a local breeder named Joe James shared some of his blight-resistant seeds for us to grow. Early this spring we started growing hundreds of tiny chinquapin seedlings that we plan to plant throughout the Garden, and to eventually offer for sale. And, of course, we will be watching for any outstanding individuals in this bunch. We are excited to be a part of this effort to secure a bright future for this important native, and we hope you will enjoy watching these new seedlings grow with us! ~ Trenton Miller, Collections Manager