

Emily's Trilliums: Protecting a Remarkable Botanical Legacy

By: Janice Lancaster, Garden Manager: Emily Allen Wildflower Preserve, Piedmont Land Conservancy

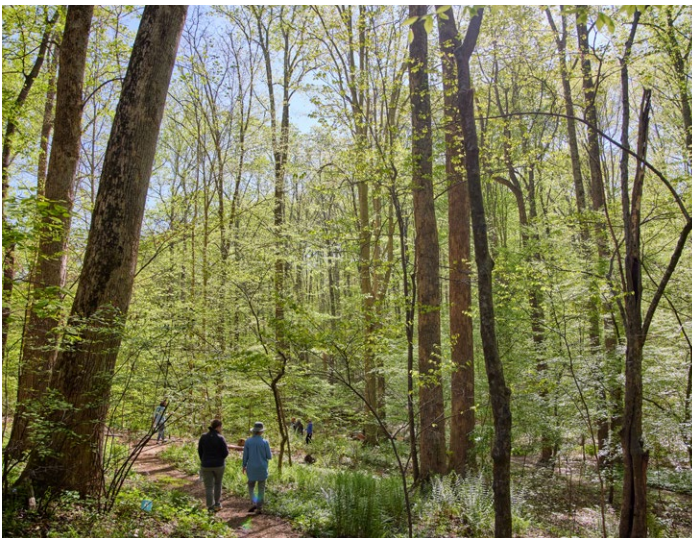


Figure 1. At the Emily H. Allen Wildflower Preserve, as many as 30 of the 35 known species of trillium native to eastern North America have grown together. (photo by Joey Seauwell)

When Emily Hines Allen (1926–2015) began collecting wildflowers, she could hardly have imagined that the wooded acreage behind her home in Winston-Salem would eventually become one of the most remarkable trillium gardens in the eastern United States.

At the Emily H. Allen Wildflower Preserve, as many as 30 of the 35 known species of trillium native to eastern North America have grown together (Figure 1). Some arrived as gifts or purchases; others were rescued from places threatened by development. Pale Yellow Trillium (*Trillium discolor*), for example, was among the plants Emily rescued from Jocassee Gorges in 1969. Over decades, the collection grew into far more than a private garden. It became a living record of Emily's fascination with trilliums and a place where their diversity, ecology, and reproduction could be observed firsthand.

Today, protecting that legacy presents a new challenge: trillium smut disease (*Urocystis trillii*) (Figure 2). The disease has forced the Piedmont Land Conservancy (PLC) staff and volunteers caring for Emily's garden to become detectives, experimenters, and, in the words of those involved, a "smut squad." Their work combines meticulous observation, sanitation, mapping, targeted fungicide applications, and a willingness to learn from each season's results.

It is an appropriate continuation of Emily's own approach to

gardening. She was never simply interested in having beautiful plants. She wanted to know them.

Emily's fascination with wildflowers began in 1961, when she found an unfamiliar plant along the creek on her family property. She carried a specimen to the Garden Club Council office, where she met May Reade Plaster, a well-known Winston-Salem wildflower expert. Plaster identified the plant as Showy Orchis (*Galearis spectabilis*) and told Emily, "You must have a rich place."

Plaster became Emily's mentor, and that encounter launched a lifelong botanical education. Emily began learning the plants of her property and the larger Southern Appalachian region, collecting plants, sharing them with others, and developing friendships with fellow wildflower enthusiasts.

Trilliums became a particular passion

Because so many species grew in close proximity at the preserve, Emily delighted in the possibility of natural hybridization. She referred to the reproductive activity among the plants as "hanky-panky," a phrase that survives today in the name of the garden's Hanky-Panky Trail (Figure 3). The preserve became an unusual place to see multiple trillium species growing together and potentially interacting genetically.

That extraordinary collection is now part of the responsibility assumed by PLC, which received the garden and residence from the

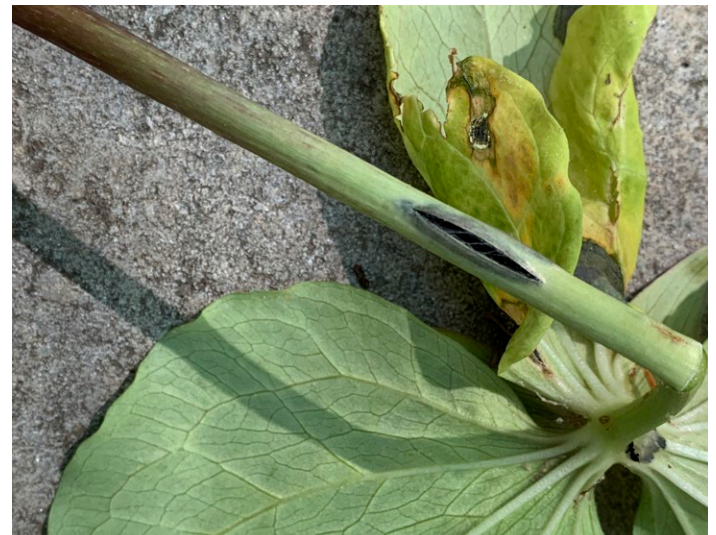


Figure 2. Trillium smut (*Urocystis trillii*) causes black lesions of sori to erupt through the stems. (photo by Sheilah Lombardo)

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Emily's Trilliums *continued*



Figure 3. A pollen-laden bee on a *Trillium grandiflorum*, with 'Bruce's White' *Creeping Phlox* (*Phlox stolonifera*) in the background. (photo by Janie Lancaster)

Allen family in 2014. Emily had already taken an important step toward protecting her legacy. In 2000, she and her family placed a conservation easement on the property, expressing her belief that the garden was "something greater than I am" and a legacy she could pass on to others. But conservation is rarely static. Protecting a collection can mean responding to threats that were not part of the original vision. Trillium smut is one of those threats.

Trillium smut disease

The disease is caused by a fungus whose resting spores persist in soil. As trillium roots or underground structures begin growing after dormancy, the spores can germinate and infect the emerging shoot before it reaches the surface. That biology makes the disease particularly difficult to manage. By the time symptoms are visible, infection has already occurred below ground.

The management team sought advice from plant pathologists and researchers familiar with related fungal diseases. One important clue came from the biology of the pathogen: trillium smut is closely related to smuts that affect agricultural crops such as onions and wheat. Because fungicides have been developed and tested for those better-studied diseases, Dithane was recommended as a possible treatment for trillium smut.

There was, however, an important complication. Dithane is not labeled for use in forests and had not been tested for sensitivity on the many native wildflowers growing in the preserve. Applying it broadly across a diverse woodland garden could create new problems while attempting to solve another.

Piedmont Land Conservancy's Conservation Advisor, Dr. Ken Bridle, therefore, began investigating newer systemic fungicides that might allow more targeted treatment. In 2025, a small group of trilliums representing different species were treated with Postiva. No fungicide damage was observed, giving the team enough confidence to expand the treatment program the following spring.

In 2026, the first trilliums emerging from the leaf litter in February were treated, with additional applications as more plants appeared. The goal was not simply to spray a few visibly diseased plants, but to protect as much of the core trillium collection as possible before infection could become established. At the same time, the volunteers continued searching for diseased plants. The work is painstaking. Armed with maps, disposable gloves, plastic bags, and frequently resanitizing their shoes with Physan, the volunteers move through the garden examining trillium stems. When they find a lesion diagnostic of smut, they record the plant's location and species, pull the entire stalk, and bag it for disposal (Figure 4). Timing matters: early in the season, disease



Figure 4. When EAWP's "Smut Squad" finds a lesion diagnostic of smut, they record the trillium's location and species, pull the entire stalk, and bag it for disposal. (photo by Henry Fansler)

symptoms are easier to distinguish, but later, normal trillium senescence makes diagnosis more difficult.

The 2026 results were encouraging. The peak appearance of smut lesions occurred in late April and May, near the end of the trillium flowering season. Far fewer diseased plants were found in treated areas than during the previous year, suggesting that the combination of sanitation, removal of infected plants, careful monitoring, and fungicide treatment may be having an effect.

But there is an important qualification: the spring of 2026 was exceptionally dry, with drought conditions prevailing through much of the trillium flowering period. Dry weather may itself have reduced fungal disease pressure. The absence of other fungal diseases in the garden this year provides another reason to be cautious about attributing the improvement solely to treatment.

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From the New Editor

Hello SABS Community!

This past spring I was asked by *Chinquapin* editor Lytton Musselman and SABS past-president Ashley Morris if I would consider taking over the editorship of *Chinquapin*. I was honored to be asked to serve SABS in this capacity and was eager to begin editing at the end of my academic year. During the spring, Ashley and Lytton solicited articles and Lytton taught me how to edit and assemble them as we co-edited Volume 32 (1). I am grateful to Ashley and Lytton for their outreach and for their help in assembling and editing this summer's issue.

I have been attending SABS and ASB events regularly for the past 18 years. While teaching at Campbell University in North Carolina, I have conducted research on the plants and botanical institutions of Hawai'i and the Southeastern US. My research on botanical institutions and their history has employed the use of newsletters throughout the twentieth century. I've found that these documents can preserve aspects of a scientific community beyond what is documented in peer-reviewed publications. In *Chinquapin*, the work that was started by Dan Pittillo in 1993 and passed through the editorships of Scott Ranger, Joe Pollard, and Lytton Musselman is incredibly important in documenting the historical governance, achievements, and passions of botanists in the Southeast. I appreciate each of these editors for continuously publishing this newsletter and I am honored to be taking part in this legacy.

The SABS Executive Board recently met on September 19 in Beaufort, NC. Plans were made for the upcoming meeting in Winston-Salem, NC and for future outreach by society. We will publish two newsletters per year in the spring and fall. I am excited that in this issue we feature writing from college faculty, conservation practitioners, graduate students, and undergraduate students from across the Southeast. This issue also features some new features like a botanical crossword puzzle from Mac Alford and a bryophyte haiku. The work of the Emily Allen Wildflower Preserve, the SABS field trip destination for the spring meeting, is also featured here. If you have ideas for future stories, or would like to push the boundaries of popular writing in botanical sciences, do not hesitate to email me with your ideas.

Happy Botanizing
Chris Havran



Figure 1. SABS Officers and Council Members on a hike in the Croatan National Forest on September 19, 2026. Pictured from left to right are: Steph Jeffries (SABS President), Kadrin Anderson (Member-at-Large), Matt Estep (Treasurer), Mac Alford (Recording Secretary), Jessica Budke (Membership Coordinator), Andy Walker (field guide), Jennifer Boyd (Castanea Editor-in-Chief), Ben Gabagen (Member-at-Large), Chris Havran (Chinquapin Newsletter Editor), and Jonathan Osborne (Student Representative).

2026 SABS Award Recipients

2026 John E. Fairey Biological Field Station Scholarship Recipients

Drew Crespo, The University of Tennessee at Chattanooga*
Alexis Evatt, High Point University
Dusty Prater, The University of Tennessee, Knoxville
Matthew Scott, The University of Tennessee at Chattanooga
Dane Shackelford, The University of Southern Mississippi
Roby Summerfiel, Western Carolina University*
Hannah Sykes, The University of Tennessee at Chattanooga*
Anna Lynne Welden, The University of Tennessee at Chattanooga*

*Scholarship report included in the current issue

2026 Earl Core Student Research Scholarship Recipients

Rebecca Beneroff, Bucknell University
Conservation and taxonomic assessment of a rare Appalachian endemic, *Penstemon canescens* (Planaginaceae)
Sarah Krementz, North Carolina State University
Integrating quantitative habitat data with habitat suitability modeling to predict and evaluate restoration sites for critically imperiled *Ludwigia ravenii* (Onagraceae)
Joshua Strode, Murray State University
Population genetics of a diploid glacial relict, *Draba ramosissima* (Brassicaceae), in the Appalachian Mountains and associated foothills

2026 Student Conference Travel Awards

Elijah Bradshaw	Ashlee McCarty
Emma Crouch	Clara Minnich
David Cyphers	Stephanie Oliphant
Thomas Dodson	Michael Rittmaster
Noah Garland	Catherine Schwartzmann
Archer Jones	Joshua Strode
Kayla Koory	Emma Terry
Taylor Long	Cassandra Vanmeter

2026 Rebecca Cook Travel Award Ingrid Jordan-Thaden, Murray State University

2026 Poster Presentation Award Michael Rittmaster, Emory University

2026 Oral Presentation Award Clara Minnich, Marshall University

Elizabeth Ann Bartholomew Award Wayne Barger, Southern Union State Community College

Dispatches from the Field

Happy fall! Hope everyone is finding time to get outdoors for field work, teaching, or recreational botanizing. Last June, I taught my Forest Communities field course for undergraduate Forest Management students, with one week at the coast and one week in the mountains. It's no secret that I am a huge fan of field courses. As some of our Fairey scholarship recipients attest, immersing oneself in a topic with likeminded people stretches both our brains and our comfort zones.



Figure 1. NC State students in Forest Communities (FOR 261) at the summit of Mount Mitchell, NC before they trek 6 miles to the South Toe River. Along the way, they document species and environmental data every half mile in order to create a map of the forested communities.

For me, a day-long field trip to Winyah Bay, SC with Dr. Bruce Coull ignited my passion for marine science and field studies (and taught me my first scientific name for a plant, *Spartina alterniflora* (now *Sporobolus*, which I'm working hard to accept). Nearly ten years later, I arrived at the Highlands Biological Station as a new graduate student to take Forest Ecosystems of the Southern Appalachians from two lifelong mentors, Tom Wentworth and the late Dan Pittillo. It was a formative experience—so much so that I have co-taught the

course 8 times since 2005 (pro tip: take good field notes; you may be teaching from them later). I always learn as much as I share.

Field courses have become even more critical as traditional natural resource education disappears from college curriculums. How many universities have lost field biology courses, victims of rising costs, shifts in funding priorities, and risk mitigation? Yet numerous studies have linked immersive field courses to student success, with wide-ranging benefits such as a sense of identity and purpose, critical thinking, self-efficacy, skill- and subject-based knowledge, retention and graduation rates in STEM fields, and professional connections.



Figure 2. NC State students in Forest Communities (FOR 261) coring some of the organic peat soils in the Hofmann Forest near Jacksonville, NC to understand the relationship between soils and plant communities.

The primary barrier to student participation is financial (both real cost plus opportunity cost from missing work), so the Fairey scholarship provides an important SABS student benefit. Spread the word! For would-be field course instructors, the juice is absolutely worth the squeeze. The chance to share amazing places and deep-dive into a topic with students is energizing and inspiring.

Get outside and learn something new!
Steph Jeffries



Diospyros virginiana @milopyne



Sassafras albidum @jchavran

SABS iNaturalist Group Announcement

By: Jonathan Osborne



Houstonia procumbens @iwokeupandchoseviolets

Howdy folks,

We're excited to announce the launch of SABS's new iNaturalist Community Project! You might be wondering why we've done this. iNaturalist has rapidly become one of the foremost citizen science resources in the natural sciences, and it has proven especially useful in the Southeast for documenting rare, threatened, and newly introduced species. The ease of the mobile app, paired with the detailed observation metadata available on the desktop site, makes it a reliable source of georeferenced occurrence records and phenological data.

Creating this Community Project strengthens our society in a number of ways. Your plant, algal, and fungal observations are automatically gathered into one place that any member can search, review, and annotate, building a research resource for the future of our society. You'll also be able to see who made a given observation and connect with them directly.

Once you've joined, you'll have access to our community leaderboards, member list, total observations, and total species observed. Since our soft launch in late July, just six members have already amassed 6,584 observations spanning 1,821 plant, algal, and fungal species! Tools like these make it possible to recognize standout observers and highlight notable finds across our remarkably diverse region.



Senega brevifolia @branwhew

Now for the kicker: this project is only as powerful as the community behind it! As a widespread, research- and student-oriented society, we want to create more chances for our members to network and connect. The more of you who take part, the more valuable this resource becomes.

So how do you join? Use your phone to scan the QR code here or on your computer, head to inaturalist.org/projects, search "Southern Appalachian Botanical Society," and click Join in the upper right corner. We can't wait to see what you find!

See you all out on the interwebs and hopefully in the field!



Marshallia grammifolia @steph_jeffries

John E. Fairey Biological Field Station Scholarship Reports

The Scholarship honors the life and contributions of John E. Fairey III by providing students access to the transformational educational experience of studying botany at a dedicated field station. It is one of the ways that SABS is committed to supporting student botanical research and education. Eight students were awarded the Scholarships in 2026. Four reports are included here while four more will be included in the spring issue.

Perigynia, Wasps, and Other Lessons from Highlands

Drew Crespo

University of Tennessee at Chattanooga

The opportunity to attend the True Sedge Workshop: A Weeklong Dive into the Genus *Carex* at Highlands Biological Station was one of the most rewarding botanical experiences I have had to date. Found within the Southern Appalachian Mountains of western North Carolina, Highlands Biological Station occupies one of the most biologically diverse regions in North America. The station has a long history of supporting field-based biological education and research, and unlike many biological stations that primarily focus on research, Highlands continues to offer immersive courses that provide direct instruction from experts actively working in their fields. Spending a week learning in such an environment was both a privilege and an invaluable part of my botanical training.

As a graduate student at the University of Tennessee at Chattanooga, my thesis focuses on documenting the vascular plant diversity of a large Tennessee State Park through a comprehensive floristic inventory. While this work has undoubtedly strengthened my identification skills across many plant groups, sedges remained one of the most challenging taxa I encountered. I routinely collected and pressed every *Carex* specimen I found, only to set them aside with the promise that I would key them “another day.” A notoriously difficult genus, *Carex*, contains hundreds of species characterized by subtle morphological differences, specialized terminology, and diagnostic features that often require mature material and close examination. It quickly became clear that if I wanted to produce the best possible flora, this was exactly the course I needed.

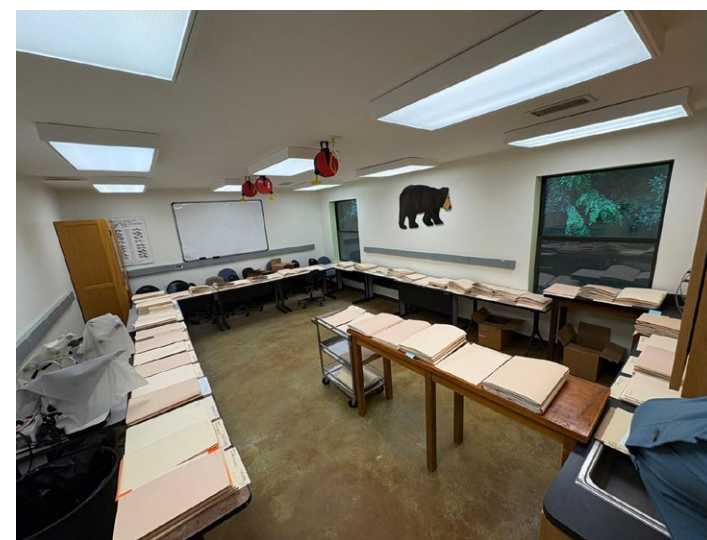


Figure 1. The *Carex* specimens from The Herbarium of the University of Tennessee at Chattanooga (UCHT) organized into their appropriate sections. These were utilized as a road map and reference material throughout the week to track our progress.

The first day of the course introduced the basic terminology tool set needed to properly undertake the keys and field time on the station's many trails. Dr. Joey Shaw, our instructor for the course, demonstrated his ability to make complicated botanical concepts approachable and engaging. Throughout the week, we worked extensively with herbarium specimens, freshly collected material, and reference collections assembled in the classroom. Rather than focusing immediately on species-level identification, we learned to recognize the major sections of *Carex* and understand the characteristics that unite and separate them. This approach transformed what had previously seemed like an impossibly large genus into a series of understandable and manageable groups.

One of the most valuable aspects of the course was the constant integration of field and laboratory experiences. Each day had a lab-style adventure of exploring new groups, starting with the “big easys” like sect. *Squarrosae* and *Lupulinea*, and eventually reaching groups like sect. *Griseae* and *Careyanea*. Then, depending on the weather, mornings or afternoons were spent exploring areas such as the Old Iron Bridge, Slickrock, and multiple bog systems. These excursions provided opportunities to observe sedges in a variety of ecological settings and reinforced the importance of habitat, growth form, and associated species in the identification process. I quickly learned that successful sedge identification is not simply about measuring structures under a microscope but also about developing an ecological understanding of the plants themselves. I also learned firsthand that the dense thatch of some *Carex* sections can provide an excellent napping spot for wasps. Remember to always inspect your thatch before reaching in for those



Figure 2. The class “sedging” in a wetland moments before the wasp attack.

perigynia! For the rest of the week, my hand was more swollen than the spongy perigynium of a member of sect. *Vulpinae*.

Beyond the technical skills and physical tax of “sedging”, I found tremendous value in interacting with the diverse group of participants who attended the workshop. Students, professional botanists, land

managers, and passionate naturalists all brought unique perspectives and experiences to the classroom. The camaraderie that developed over the week was one of the most rewarding parts of the experience. From sunset hikes with s'mores to collectively arguing over obscure perigynium characters, we enjoyed each other's company. Discussions frequently extended beyond sedges and into broader topics such as floristics, conservation, taxonomy, and the future of botanical research in the Southeastern United States. Being surrounded by individuals

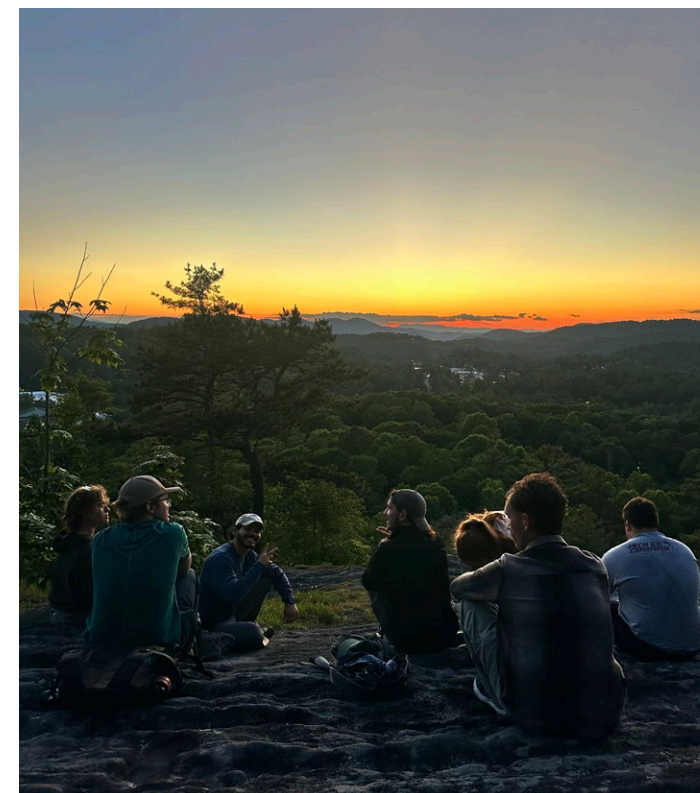


Figure 3. Some of the Sedge Crew at Sunset Rock after some camping stove s'mores.

who shared a deep enthusiasm for plants created an environment that was both intellectually stimulating and genuinely enjoyable. I can't wait to catch up with the sedge crew at ASB 2027!

I am sincerely grateful for the support that made this experience possible. Highlands Biological Station provided far more than instruction in sedge identification; it offered an opportunity to learn from exceptional botanists, work alongside passionate students and professionals, and immerse myself in one of the most botanically rich regions of North America. I returned to Tennessee with new skills, lasting professional connections, and, perhaps most importantly, the confidence to finally stop putting my *Carex* specimens aside for “another day.”

Exploring Floral Diversity at Highlands Biological Station

Roby Summerfield

Western Carolina University

In late May of 2026, I was granted the opportunity to immerse myself in a community of passionate botanical enthusiasts at one of the most uniquely biodiverse habitats in the Southern United States. Through the generosity of the John E. Fairey student scholarship, I traveled to the Highlands Biological Station in Western North Carolina



Figure 1. Roby Summerfield, Author.

to learn about the flora of the Blue Ridge region. In the week I spent at the station, I gained not only a vast understanding of the intricate ecosystem in this area, but a greater appreciation for the Appalachian Mountains I am so lucky to call my native home. I aimed to undertake this course through a unique lens, as a student studying both art and botany at Western Carolina University. Equipped with a passion for botanical illustration, each day stimulated excitement and curiosity in both floral exploration and artistic expression.

During our first day, our enthusiastic professor Dr. Paul Manos took us on a detailed tour of the station as we examined its botanical inhabitants. We discussed the scientific terminology used in leaf identification and how to pronounce and interpret Latin names by breaking down the root of the word. As someone fascinated by the small details, I found this especially interesting. Our walk around the grounds of the station took us through many trail systems where we discussed prominent species such as *Magnolia tripetala*, *Aesculus flava*, and *Tsuga caroliniana*. I was so inspired by our day that I decided to draw some of my favorite specimens from our discussions in the field as a record of what we covered. Throughout the week, I continued this routine in the evenings as I listened to the wilderness outside the dorm I stayed in.

On our second day, we hiked to Sunset Rock, where we learned about low elevation rock outcrops. As we walked, we were encouraged to collect specimens to study under the powerful microscopes in the station's lab. I had never utilized a microscope that provided such a close perspective into the anatomy of a plant. Dr. Manos taught us about monocot and dicot number patterns, modified petal structures, and compound leaf attachments. Gaining both field and lab experience was the perfect way to absorb the information we were studying.

The third day quickly became my favorite. We started the morning off at Dry Falls, where we spent time admiring the spray zone flora behind the waterfall. Our class spotted a small *Arisaema triphyllum* growing

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amongst a tapestry of mosses. From there, we visited an Acid cove and Rich cove forest before heading to Dulany Bog. This rich wetland ecosystem houses carnivorous plants such as *Sarracenia purpurea* var.



Figure 2. *Trillium catesbaei*.

montana. It was incredible to see such a dense population of this species; a first for me in a wild habitat.

On the fourth day, we hiked a couple miles to Shortoff Mountain, where we experienced a rainstorm in the upland/ridge hardwood forest. Despite speed hiking through the downpour, we were able to see various species of *Trillium*, including *T. vaseyi*, *T. catesbaei*, and *T. undulata*. These spring ephemerals were fascinating to study and observe in their short lifecycle above ground. In the lab we used digital dichotomous keys to identify unknown specimens, working together to form a conclusion based on structural evidence.

During our fifth and final day, we came across a wild, thriving patch of *Cypripedium acaule*, the perfect surprise to finish off an incredibly informative and exciting week. We regrouped one last time to finalize a complete list of the plants we saw during our time together, noting their location and common names. This list will continue to be a resource I come back to throughout my educational and professional career. When I returned home, I spent the next week creating hand-carved and printed Letterpress posters featuring specimens that stood out the most to me throughout the course. I referenced the pages of drawings I had created during my stay. My experience at the Highlands Biological Station was deeply meaningful, coming at a time in my life where I was given an opportunity to try new things and fully immerse myself in different and unfamiliar scenarios. I am beyond grateful for the support of the John E. Fairey scholarship and the Southern Appalachian Botanical Society.

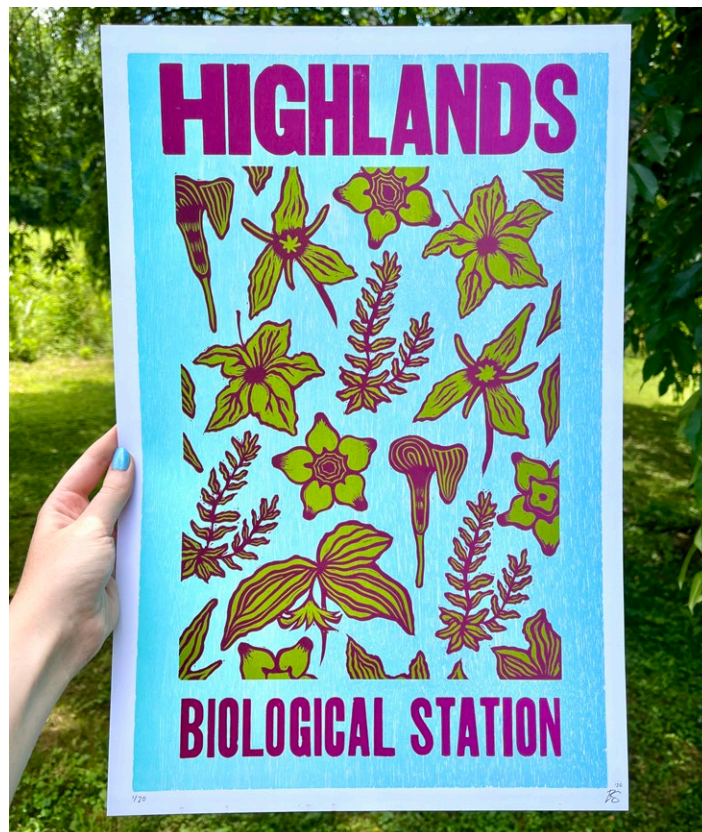


Figure 3. Highlands Biological Station Letterpress poster by Roby Summerfield.

Exploring the Genus *Carex*: A Week at Highlands Biological Station

Hannah Sykes

University of Tennessee at Chattanooga



Figure 1. Hannah Sykes, Author pictured with a 400-year-old Tulip Poplar (*Liriodendron tulipifera*) on a Highlands field trip!

Tucked away in the beautiful southern Appalachians of North Carolina is Highlands Biological Station, a field station of Western Carolina University. From my first introduction to the station, I could already tell that Highlands would offer a unique opportunity not only to learn about the world around me but to experience it away from city lights and among fresh mountain air. Having received the John E. Fairey Scholarship to attend a course on the genus *Carex*, I felt incredibly grateful for the opportunity to spend a week in this oasis. Even then, a week seemed far too short.

Coming from the University of Tennessee at Chattanooga, where I am pursuing my master's degree under Dr. Joey Shaw, I found myself in a unique position. As my advisor happened to be teaching the course I, and other members of my cohort, had come to Highlands to take. Despite this familiarity, everything felt very unique once the course began and students from different backgrounds, interests, ages, and experiences came together to contribute a wide variety of botany knowledge.

From our first introductions to each other and to the genus *Carex*, the rhythm of the course quickly fell into place. Mornings were spent on field trips collecting and observing specimens, afternoons were devoted to keying and learning the distinguishing characteristics of different sections of the genus, and evenings were filled with pressing plants. During these field trips, all 13 of us would pile into the Highlands van where we drove to sites throughout Nantahala National Forest. At each stop, we searched for sedges both large and small, from *Carex lurida* in section Vesicariae to *Carex austrolucorum* in section Acrocystis. It often felt like a botanical scavenger hunt as we wandered old Forest Service roads, hidden bogs, and mountain seeps in search of our targeted genus.



Figure 2. *Carex cumberlandensis*, showing the vertical lines of the perigynium characteristic of section *Careyanae*.

Once we returned from our field trips and settled back into the lab, we shifted our focus from finding plants to truly seeing them. We learned to notice every detail of our mystery specimens, from the transition between the body and beak of the perigynium, a modified bract that surrounds the ovary, to the texture of its surface. We examined whether the achene was broadly or narrowly trigonous or lenticular, measured the width of scales and length of bracts, and noted the arrangement

of male and female flowers. We trained ourselves to recognize even the smallest differences, developing an appreciation for the minute characters that separate one species from another.



Figure 3. A collection of photos taken to document the diagnostic characteristics of various *Carex* species and their taxonomic sections.

As the week progressed, my confidence with the genus grew alongside my ability to recognize the patterns and defining characteristics of each section of *Carex*. Because *Carex* is such a large and diverse genus, developing a strong understanding of key characters is essential for accurate identification in the field. Through countless hours of keying, I developed two complementary skills: first, how to efficiently work through botanical keys by recognizing subtle differences which could then be applied to specific botanical terminology, and second, how to internalize those defining characters so they could be recognized while working in the field.

Alongside the technical skills I developed, Highlands provided an exceptional environment for collaborative learning. Together, we asked questions, worked through difficult identifications, and learned not only from our instructor but also from one another's diverse experiences and perspectives.

Looking back on my week at Highlands, I can confidently say that I learned far more than I ever expected. I left feeling exceptionally confident in my understanding of the seemingly intimidating genus *Carex*, but I also left with new friendships, expanded botanical knowledge, and a stronger belief in myself and the path I have chosen. It was an experience that reminded me exactly why I fell in love with

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botany in the first place. I am deeply grateful to the John E. Fairey Scholarship for making this experience possible. I am confident that the knowledge, friendships, and experiences I gained at Highlands will continue to shape my passion of botany for years to come.

Reaching New Heights with Rock Outcrop and Cliff Ecology

Anna Lynne Welden

University of Tennessee at Chattanooga

The Cliff and Rock Outcrop ecology class with Dr. Laura Bogges and Gary Kauffman was a perfect example of what I have come to cherish most about my work as a Southeastern botanist: spending time in beautiful places, paying attention to tiny natural things with people who care. I have been studying Southeastern botany since 2023, first as a volunteer with the Tennessee Natural Heritage Program, then as a technician with the Southeastern Grasslands Institute, and now as a member of Dr. Joey Shaw's lab at the University of Tennessee at Chattanooga. These diverse and focused experiences have brought me to some truly breathtaking places throughout the region and have expanded my understanding of what this land, the only home I've ever known, was before my ancestors took such destructive liberties.

During this class, I learned that cliffs and rock outcrops serve as tiny, ecologically intact islands, harboring unique native species of plants and lichens that are adapted to harsh conditions. These harsh conditions suppress competition from the invasive and opportunistic species that have transformed so many of our other native plant communities. They are windows of resilience into the natural beauty and diversity that grace the Southeast and most especially the Southern Appalachians. During this class, we spent time rappelling off a cliff, standing at the heights of a high elevation rocky summit, and visiting granitic domes which epitomized this experience for me. These impossibly placed, insular ecosystems tip from the tops of the Blue Ridge mountains at a gentle grade that drops with the effect of an infinity pool. When you stand at the top of one of these spectacular places, the ground looks like it drops just beneath your feet, yet you can walk and keep walking towards the edge and watch it drop and drop before you. All the while,

tiny wonders of narrowly endemic plant species, bright brilliant edge-dwellers, greet you at every step.

Our teachers shared these wonders with us over and over. At beautiful place after breathtaking vista, their expertise was matched only by their enthusiasm to share it with us. I feel so grateful to be introduced to these places and their special plants by Gary Kauffman, who spent his entire career as a national forest botanist paying attention to them. His knowledge and love for the plant species of his home echoed my knowledge and love for the species of my home here in Chattanooga and it was a delight to spend time with him in the field.

Dr. Laura Boggess's approach to her "avocation" of cliff ecology also made a profound impression on me. As a young botanist, I have had the privilege to learn from several mentors who share my love for native plants, but not necessarily my reasons for study or my reverence for the subject. With Dr. Boggess, I felt that the spiritual aspect of my studies was not only welcomed but encouraged. So often in academia, particularly the sciences, spirituality, reverence, and wonder are not valid reasons for study and are even seen as unprofessional or irrelevant. This approach reduces wonderous places such as the granitic domes to mere arenas for scientific discovery, places to be described in the driest language possible — and this, coming from someone working to be fluent in botanical Latin. Dr. Boggess offered a welcome alternative, encouraging us to be in touch with our wonder, our curiosity, and our reverence as valid sources of knowledge.

Coming home to my thesis work, a vascular flora of a small but splendid state park in north Alabama, I felt refreshed and excited to meet the wonders in my own backyard. My study site, Desoto State Park, is home to its own insular ecosystems: sandstone glades, isolated wetlands, and river scours. While these ecosystems lack the sheer drama of a granitic dome, they too are windows into the pre-colonial past. As I work to develop my skills as a botanist and scientist, I am also working to develop my vision of the past and my hope for the future. I am learning to see hints of what the land longs to be, what it was before we cut down every tree, excluded fire, and introduced Chinese Privet. The Cliff and Rock Outcrop class introduced me to new ecological concepts, new plant species, and new words for the tiny reproductive parts of lichens, but the lesson that I carry into my own work above all is this: wonder is essential.

Emily's Trilliums *continued*

So the experiment continues

The management team plans to expand treatment into areas where diseased trilliums have been found beyond the primary treatment zone. They are also considering alternating fungicides in future seasons, an approach intended to improve control while reducing the possibility of fungal resistance.

For Emily Allen, the trilliums represented the joy of discovery—the thrill of finding something unusual, learning its identity, sharing it with others, and watching what happened when plants came together. Today, caring for those same trilliums requires a different kind of curiosity: careful observation, experimentation, documentation, and patience.

The challenge of trillium smut underscores an important truth about botanical conservation. Preserving a garden is not simply a matter of leaving it alone. Living collections change. Diseases arrive. Climate varies. Plants decline, reproduce, hybridize, and sometimes disappear.

The work now underway at the Emily H. Allen Wildflower Preserve is another chapter in Emily's story. Her legacy is not only the extraordinary collection she assembled, but the continuing commitment to understand, protect, and share it. The trilliums are still here, in remarkable variety and seeming abundance. And for those caring for Emily's garden, that persistence is reason enough to keep looking closely and to remain attentive to the complex fungal relationships unfolding beneath and around them.

SABS is working to schedule a field trip to the Emily Allen Wildflower Preserve during our upcoming spring meeting. You will be able to sign up for the trip during conference registration.

In Memoriam

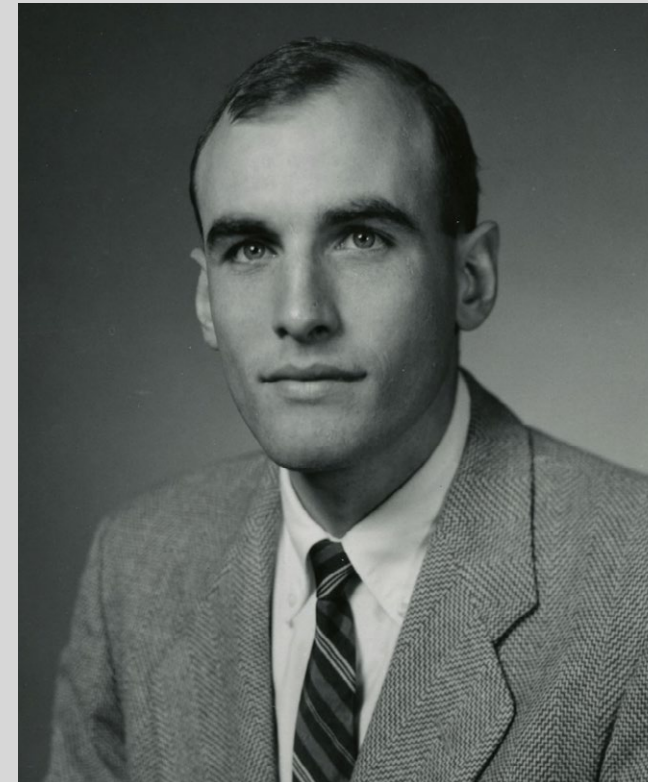
Dr. Arthur (Art) Cooper

By: Steph Jeffries

Art Cooper was President of the Southern Appalachian Botanical Society in 1968. He earned his Ph.D. in Botany in 1958 with an emphasis on Plant Ecology under Stanley Cain at the University of Michigan. He became a professor in the Department of Botany (1958-1971) and later the Department of Forestry (1976-2000) at NC State University. Art was one of the early founders of the Conservation Council of North Carolina, now the North Carolina League of Conservation Voters. He also served as the President of the Atlantic Coast Conference in 1994-1995. In addition, Art served as the President of the Ecological Society of America in 1980-1981. In 1982, Governor Jim Hunt presented the Governor's award to Dr. Cooper as the "Conservationist of the Year" for his outstanding service to the State of North Carolina.

Includes excerpts from Dr. Cooper's obituary at *The News&Observer*: (<https://www.legacy.com/us/obituaries/newsobserver/name/arthur-cooper-obituary?id=62092646>)

Photo used with permission from North Carolina State University Libraries: Arthur W. Cooper Portrait, ua100_099-002-cb0002_073-21148-001], Special Collections Research Center, North Carolina State University Libraries, Raleigh, North Carolina.



Dr. Jeremy Rentsch

By: J. Christopher Havran

This summer botanists in the Southeast mourned the loss of a vibrant member of our community, Jeremy Daniel Rentsch (1980-2026). An Ohio native, Jeremy earned his Ph.D. in Plant Biology in 2013 at the University of Georgia and was a postdoctoral science education researcher at the University of Colorado at Boulder from 2013-2015. After his postdoc, Jeremy began a career as Associate Professor in the Department of Biology at Francis Marion University. Jeremy engaged undergraduate students extensively in research on the genetic and physiological diversity of carnivorous plants in the Southeast. He was also involved in service to Botanical institutions in the Southeast. Jeremy was a fixture of ASB and SABS gatherings, where he served as Chair of the Southeastern Section of the BSA and Secretary of the ASB. Jeremy's life was celebrated by the Francis Marion community at a special service on October 24, 2026. An extensive In Memoriam for Jeremy will accompany his newest publication in the December issue of *Castanea*.

Dr. Rentsch's obituary can be accessed at the following link: <https://www.stoudenmiredowling.com/obituaries/jeremy-rentschi>.

Photo: Dr. Rentsch presenting at the awards banquet of the 2025 meeting of the ASB in Myrtle Beach. Used with permission of the ASB.





Figure 1. Is it Broomsage, Broomsedge, Old Field Broomstraw, Sedge Grass, Sage Grass, -- or what? Picture by Alan Weakley, Virginia.

The Weakley Reader What are common names for? Part II

By: Alan Weakley

In the last issue of *Chinquapin*, I began an exploration of “What are common names for?”. Here, I continue that, by presenting examples of common names that illustrate some of the complexities and cross-purposes that complicates our use of common names. In Part III, I’ll use these examples and others to explore the issues further.

***Symphytotrichum walteri* (Walter’s Aster, Walter’s American-Aster, Squarrose Aster)**

This has very generally been called Walter’s Aster. But a sometimes-asserted principle of standardizing common names is that generic common names should also be unique (and also then used as part of the species common name), so when most of the North American species of Aster were transferred to *Symphytotrichum*, some authors created and now use “American-aster” as the common name for *Symphytotrichum*, and hence “Walter’s American-aster” for *Symphytotrichum walteri* – but it makes for a pretty long common name. Some users of common names dislike naming species for people (“that species was around for a million years before Thomas Walter, so why should it be named for him!”), and prefer common names that describe the plant’s appearance, or habitat, geography. Additionally, when treated as part of the genus *Aster*, *Symphytotrichum walteri* was called *Aster squarrosus*, and the “translated common name” Squarrose Aster was sometimes used, referring to the squarrose leaves – but that name is also used for *Symphytotrichum ericoides*, in that case (confusingly or contrastingly) referring to the squarrose phyllaries!

***Geum radiatum* (Spreading Avens) and *Geum geniculatum* (Bent Avens)**

These are examples of the difficulty of translating Latin names into English. What’s “spreading” about *Geum radiatum*? -- not the avens, but the veins of its terminal leaflet. But would we want to call it “radiate-veined avens”? What’s “bent” about *Geum geniculatum*? -- not the avens, but the style in the flower. But would we want to call it “kink-styled avens”? Maybe we’re stuck with these “translated common names”, but I’ve suggested Cliff Avens and Brookside Avens as alternate common names based on the distinctive habitats of these two rare species. That then that gets us into the issue of whether common names should be unique only within a regional geography or worldwide; there are certainly other *Geum* species in the world that grow on cliffs or brooksides.

***Asimina triloba* (Pawpaw, Common Pawpaw, Indian-banana, Açiminier [French], Jasminier [Cajun French])**

Well, here’s a diverse handful of common name problems! Across most

of its range in eastern North America, this species is the only *Asimina*, so should we just call it “Pawpaw” (which is also a kind of misnomer, as that name also refers to the tropical papaya)? Or should “Pawpaw” (unmodified) be the common name for the genus? Common names using the adjective “common” are often problematic, as almost every plant is uncommon, rare, or even endangered somewhere, and in fact the “Common Pawpaw” is ranked as Imperiled in New York, Iowa, and Florida, making its conservation in those states sound a bit nonsensical – “help us protect the Imperiled Common Pawpaw!”. In recent years, some sources have also steered away from common names including “Indian”, for several reasons. Were the peoples here before European colonization “Indians” or “native Americans”? -- isn’t “Indian” a misnomer based on the confusion between the East Indies and the West Indies? And is there a culturally derogatory implication in a name like “Indian-banana”? -- a sense of falseness, or wildness, a banana only good enough for “Indians” – not a true, proper, cultivated, and completely right banana? And then we have the two French common names, reminding us that for common names to have utility for some purposes, we need to have them in EACH language. “Açiminier” connects us back to the scientific name, while “Jasminier” is one of those names that makes one shake one’s head at the oddness of humans – what about *Asimina triloba* reminds one of *Jasminum*? But, since this plant was used substantially by indigenous peoples, can we redeem that questionable “Indian-banana” by using the indigenous name for *Asimina triloba* as an authentic, indigenous “North American common name” rather than a name referring to tropical fruits like bananas, papayas, and mangos? It turns out that we (sort of) already have! The Algonquian/Powhatan word for *Asimina triloba* was something pronounced very similarly to “asimina” – so the scientific name and the French common name are both closely based on AN indigenous name. Unsurprisingly, of course, given the diverse languages present in eastern North America in 1500, many other (and completely different) names were recorded for this useful plant.

***Anatherum virginicum* (Old-field Broomstraw, Broom Sedge, Sedge Grass, Sage Grass, Broom Sage, Broom Grass, Paille jaune (Cajun French))**

Growing up in Virginia, I knew this plant as a young child as Broom Sage. Later, I saw it referred to as Broom Sedge – which suggests that rural Virginia accents made “sedge” sound like “sage” and someone decided it was better shown in writing as “Broomsedge”. Then we have the seemingly oxymoronic “Sedge Grass”. In modern botanical application based on “book larnin’”, many have tried to clean up the usage of graminoid common names by restricting the use of grass to the Poaceae, sedge to the Cyperaceae, and rush to the Juncaceae, but etymology and common usage begs to differ. “Sedge” is derived from Old English “secg”, meaning “sedge,

(continued on page 15)

The Biblical Image of Cedar of Lebanon was the Source of Names Given by Early Settlers

By: Lytton Musselman



Figure 1. Author by a large Cedar of Lebanon in a preserve called Cedars of God near the town of Bsharri on Mount Lebanon.

Alan Weakley has shown that professional taxonomists can benefit from looking at common names. Although the names may be “common,” determining their origin is not always easy. I want to pursue one source of common names in the early history of botany in the United States. These are names which are based on the Bible, both the Old Testament and the New Testament. In these early days of our history, immigrants were encountering plants they’d never seen before. What to call them in English? A source of plant names they were familiar with was the Bible. I want to pursue some of these names in this and other articles, starting with the Cedar of Lebanon.

But we do have cedars, you might argue. They are called cedars, but there is no native cedar in the United States. In the South, we have red cedar (*Juniperus virginiana*), Atlantic white cedar (*Chamaecyparis thyoides*), and numerous other plants with the common name “cedar”. But they are not true cedars. These plants earned their monikers because of perceived resemblance to plants in a book early settlers knew well.

True cedars are in the genus *Cedrus*. Three species are recognized, although some botanists consider them to be one wide-ranging species. These are *Cedrus atlantica* native to the Atlas Mountains of the Maghreb; *Cedrus deodara*, a Himalayan species widely planted in Virginia including my neighborhood (they are perhaps the most widely planted cedar in the United States); and lastly, the topic of this

paper: the fabled Cedar of Lebanon, *Cedrus libani*. This species occurs on the Lebanon Ridge, in a small population in Cyprus, in a smaller population in Syria; and forests of the species in eastern Turkey.

Cedar of Lebanon is mentioned about seventy times in the Bible, only in the Old Testament. It is mentioned more than any other forest tree which is intriguing considering it never grew within the traditional boundaries of Israel. But in a region of the world where forests were limited, Cedar of Lebanon was famed for its beauty and its utility. Cedars are still the largest of any indigenous tree in the Middle East though the populations on Mount Lebanon are a



Figure 2. Mature female cones. Developing staminate and pistillate cones also present, but difficult to see. Shouf Cedar Preserve, Mount Lebanon.

fraction of what they were in Bible days. These massive trees were likely the largest living things that generations of people saw during their lifetimes.

The legacy of cedar of Lebanon not only in the Bible but in other ancient documents as well as folk botany is extensive. For example, it is mentioned in the Epic of Gilgamesh. It is planted in suitable climates around the world. In Cedar of Lebanon’s eponymous homeland, however, little of the original forest remains. Today, only about 3% of the original forest remains on Mount Lebanon.

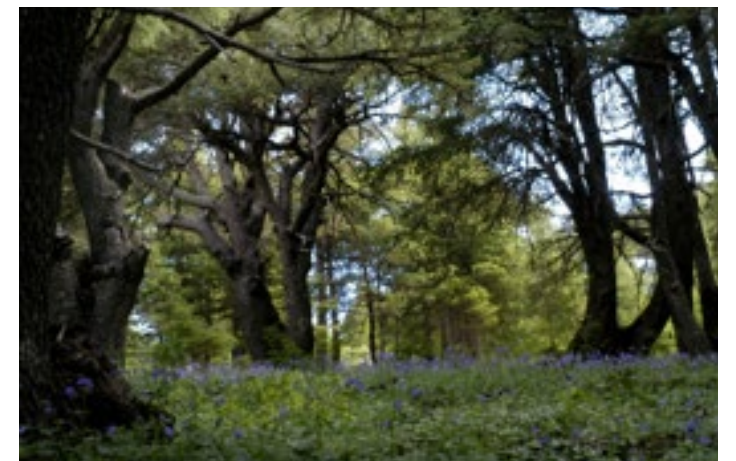


Figure 3. Mature cedar stand at the Shouf Cedar Preserve. The blue flowers in the understory are *Geranium libanoticum*.

Brandon’s Botanical Brainteasers

Vol 4.

By: Brandon Wheeler

As summer draws to a close, I’m excited to announce the winner of the years previous brainteasers and, as a result, our current leader in the brainteaser standings. This installation was near and dear to my heart, for reasons I’ll explain after the reveal! Our answers for last time are as follows:

- 1) *Platanthera ciliaris*- Yellow Fringed Orchid
- 2) *Lobelia cardinalis*- Cardinal Flower
- 3) *Osmunda spectabilis*- Royal Fern
- 4) *Vernonia noveboracensis* – New York Iron Weed
- 5) *Helianthus giganteus* – Giant Sunflower

The outlier here is *Platanthera ciliaris*, which does not have a name (scientific or common) that refers in some way to a Major League Baseball team (the St Louis Cardinals, Kansas City Royals, New York Mets/Yankees, and the San Francisco Giants). I understand that maybe the botany newsletter isn’t the format for waxing poetic about sports, but for me there’s nothing quite like a day at the ballpark. The crack of the bat, the buzz of the crowd, I can’t get enough of it! For complicated reasons, I’m a dedicated Colorado Rockies fan despite their constant mediocrity and overall ragtag nature. If you’re a fan, I hope you’re enjoying the 2026 season as we come down to the home stretch! Congrats to Archer Jones, who aced the plants and the category, rocketing to the top of the leaderboards! Archer will be atop the standings as we head into fall, but it is anyone’s game and the competition is wide open!

The rules of the brainteaser remain the same as ever- below are five plants. Four are connected in some way, and the final is an outlier. Send the names of each of the plants, identify the one that doesn’t quite fit, and let me know your guess on the theme! Submit your answers by email to branwhee@unc.edu or a postcard addressed to Brandon Wheeler Campus Box 3375 Chapel Hill, NC 25799-3375. If you’d like to see these photos in large and in living color, heads to the Chinquapin archives on the SABS site for a .pdf of the newsletter. And I’ll leave you with a hint- turn on the radio!

All photos by Brandon Wheeler



Botany Boxes

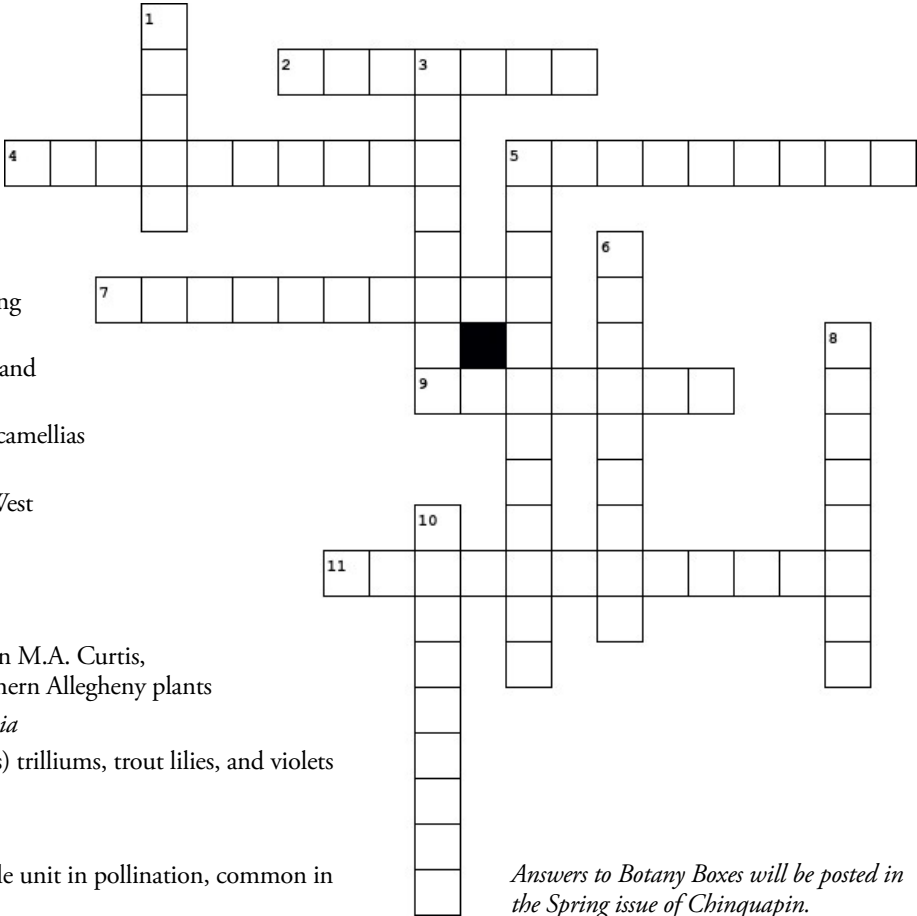
Edited by: Mac Alford

ACROSS

2. Precise term for the “thorns” of roses
4. Genus of crustose lichens with a species named after Dolly Parton
5. This element is a cofactor in the oxygen evolving complex of photosynthesis
7. A bony disk subtending the achenes in *Scleria* and important in their identification
9. French botanist and explorer who introduced camellias to the U.S. and named *Magnolia macrophylla*
11. Genus of Ericaceae that is the state flower of West Virginia, the state where SABS was founded

DOWN

1. First name of botanist and Episcopal clergyman M.A. Curtis, revered by Asa Gray for his knowledge of southern Allegheny plants
3. Specialized “false flower” of the genus *Euphorbia*
5. Seed dispersal by ants, found in (among others) trilliums, trout lilies, and violets
6. Common Carboniferous fossil of horsetails
8. Genus of the peat mosses
10. A coherent mass of pollen transferred as a single unit in pollination, common in orchids and milkweeds



Answers to Botany Boxes will be posted in the Spring issue of Chinquapin.

Bryophyte Haiku
by Adeline Kruse, Campbell University
Bryophyte cool shade
Rhizoids hushing the damp rock
A chlorophyll sponge



Photo of *Anacamptodon splachnoides* used with permission of Jessica Budke.

Weakley Reader *continued*

reed, or rush” and derived from an Indo-European root meaning “to cut” – in reference to sharp leaf edges. “Grass” and “sedge” likewise have origins that do not encourage precise application (“growth” and “a plaited cord or rope”, respectively), so the correlation of the words and formal taxonomy of plant families is not encouraging. Indeed, that is reflected in the many common names that defy the scientific taxonomy: Twig-rush for *Cladium* (Cyperaceae), Sawgrass for *Cladium* (Cyperaceae), Woolgrass for *Eriophorum* (Cyperaceae), Woolgrass [again] for *Scirpus cyperinus* (Cyperaceae), Broomsedge for *Anatherum* (Poaceae), Beak-rush for *Rhynchospora* (Cyperaceae) – the list goes on.

To be continued in Part III!

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In this issue:

- Emily Allen Wildflower Preserve
- SABS News and Awards
- 2026 Fairey Scholarship Reports – Part I
- The Weakley Reader: Common Names – Part II
- Southeastern “Cedars”
- Botanical Brainteasers
- In Memoriam

Consider sending an article for your newsletter.
Contact the editor Christopher Havran at: havran@campbell.edu

Thank You to Outgoing Editor Lytton Musselman

By J. Christopher Havran

This past summer's issue of *Chinquapin* was coedited by Lytton Musselman and me. It was the last issue that Lytton was involved in editing and I wanted to take the time to thank him for his service to SABS and to the readers of our newsletter. Lytton took over the editorship of *Chinquapin* in 2023 and continued to facilitate the publication stalwart features like Botanical Brainteasers, Earl Core reports, and Fairey Scholarship reports. He also supported new authors who wrote about the history of southeastern botany, southeastern plants, and connections between the southeastern and global floras. As editor, Lytton was enthusiastic about encouraging authors to write about plants. I know I would not have written my three articles without his encouragement and deadlines.

In the short time I've been involved in the newsletter, I have learned that the continuous recruiting, editing, arranging, and publishing of articles is no small task. I hope you will all join me in thanking Lytton for the work he did to edit *Chinquapin* for the past three years. I'm grateful for all the work that Lytton did to make popular botanical writing available to our community of southeastern botanists.

Thank you, Lytton!!

Attention Graduate Students!

Would you like to get more involved with SABS? We are seeking a current graduate student to serve as the Student Representative on the SABS Executive Council. Volunteer terms are one year but may be extended. The Student Representative is primarily responsible for social media posts on Instagram and Facebook platforms. They are expected to attend both the Spring (in conjunction with the ASB Annual Meeting, March 31-April 3, 2027, Winston-Salem, NC) and Fall Executive Council meetings, with some support for travel expenses. Contact Steph Jeffries (ssjeffri@ncsu.edu) for more information.