



## Cleistes Collections in Tennessee

**C**leistes is a genus of about 40 orchids that are native to South America. Two North American species, formerly considered members of this genus, were re-assigned to the *Cleistosiopsis* genus a few years ago, and recently a third species of that genus was named. So actually this tale of plant systematics is better titled “*Cleistosiopsis* Collections”—but what a mouthful!

Until now, it had been assumed that only one species, *Cleistosiopsis bifaria*, was what we see growing here on the Cumberland Plateau and adjacent Eastern Highland Rim, as well as in the Blue Ridge Mountains farther east. After all, the other two North American species are native to the Coastal Plain, which stretches along the coasts of the Atlantic Ocean and Gulf of Mexico.

But scientists have been intrigued by the presence of several Coastal Plain species in disjunct populations on the Highland Rim not far from Sewanee. So botanists Dennis Horn and Max Medley

thought the new Coastal Plain species, *C. oricamporum*, rather than the *C. bifaria*, might be the one that grows on the Highland Rim.

This fall the University of Tennessee (UT) Herbarium lent 28 specimens of what are labeled *C. bifaria* to our herbarium, and Dennis and Max came to look them over. The two made flower, stem, and leaf measurements of each plant and tentatively assigned the Highland Rim specimens to the new Coastal Plain species, *C. oricamporum*.

Before returning the specimens to UT, I looked through them and read the labels, each of which gives the name of the collector, as well as where and when the plant was collected.

The earliest specimen in the group was collected by UT botanist Stanley Cain in Sevier County in 1930. This predates the fire of 1934 that destroyed the UT herbarium. So where was this particular specimen on the night of that fire? Maybe it was on loan to another institution at the time, just as it was to us this fall.

The oldest post-fire specimen was collected by a D. Bain on Walden’s Ridge near Pikeville in 1935. “J.G.S. with students” collected a specimen in the Great Smoky Mountains National Park in June of 1937. It was identified by Harry M. Jennison, a UT botanist who two years later would publish the first flora of the Smokies. This specimen may have been the one that he used in compiling that flora.

Three specimens, collected in 1939 and 1940, were marked as gifts to the herbarium from Jesse Shaver, the author

of *Ferns of Tennessee*, published in 1954. Were these gifts among those made by botanists across the state and beyond to help the herbarium collection recover after the fire?

Shaver, who taught at Peabody College in Nashville (now part of Vanderbilt University), botanized throughout Tennessee. The frontispiece of his book is a photo of the rare filmy fern *Trichomanes boschianum*, taken at the Sewanee Natural Bridge.

The rest of the names on the sheets were all familiar: a plant collected by Paul Adams, founder of the LeConte Lodge; others by Eugene Wofford, DK Smith, Murray Evans, Jack Sharp, Tom Patrick, Leo Collins, Rick Phillippe, Roger McCoy, and Claude Bailey.

Dennis Horn’s name, along with several others, was on the newest specimen in the group, collected in May of 2015. He told me he had taken a group from UT—Prof. Ed Schilling, post-doctorate Ben Crain, and graduate student Jayne Lampley—to the site on the Highland Rim where the collection, now believed to be *C. oricamporum*, was made. Crain made the collection and documented everyone’s presence.

The visit from Dennis and Max helps to point out the importance of small regional herbaria like ours. We were glad to have a part in helping untangle this plant systematics puzzle and to have this glimpse into the history of Tennessee botany.





## Rare Plant Advisory Committee

Every three years the 12 members of the Tennessee Rare Plant Scientific Advisory Committee gathers with Tennessee's Natural Heritage Program staff and other botanists from across the state to review and modify the official state list of rare plants.

I was fortunate to follow Prof. George Ramseur on the Committee several years ago. Although my contributions to the discussion are few, Herbarium Director Jon Evans and I agree that my membership provides Sewanee with a worthwhile link to this body and their important work.

The Committee was formed in 1978, shortly after four botanists—Hal DeSelm, Eugene Wofford, Robert Kral and Leo Collins—created the first list of state rare plants. The Tennessee Rare Plant Protection and Conservation Act of 1985 gave the Department of Conservation (now the Department of Environment and Conservation) responsibility for publishing the official state list.

Currently, the Natural Heritage staff tracks 532 rare plant species, in three categories: endangered, threatened, and special concern. The Committee can informally assign “special concern” status to a plant, but the lists of endangered and threatened plants are voted upon by the state legislature.

We know of four species of endangered plants, the most imperiled category, that inhabit the Sewanee Domain: federally listed Morefield's leather flower (*Clematis morefieldii*), and state listed elf orpine (*Diamorpha smallii*), Cumberland rosinweed (*Silphium brachiatum*), and barrens silky aster (*Symphotrichum pretense*).

The Committee's most recent meeting was held this past December. During the weeks leading up to it, members were invited to suggest modifications, including changing the status of plants that are already listed and nominating new plants for inclusion.

The work may be as serious as it gets for a botanist—deciding whether or not a plant species, to be viable, needs special protection. The issues are varied. Members argue about the likelihood for individual populations to be decimated by log-

ging, invasive exotics, or development. How many populations in state parks or forests is enough to provide protection? Should trends in population sizes be considered for listing species? Is a plant dependent on other species that may also be in danger of extirpation?

Close to home, there was a discussion of the positive role of Tennessee Valley Authority's powerline rights-of-way. Late eighteenth century botanist André Michaux described the forests of the Cumberland Plateau as savannahs. Today, TVA's corridors are the closest that we have to that type of grassland, and members agreed on the merit of maintaining these successional habitats.

It was a day of hard work, occasional emotion, and much agreement among the botanists. As one of them put it, “We are Tennessee's botanists, making these determinations based on our collective knowledge, herbarium specimens, and Natural Heritage database information.”

The new list of rare species now goes to the state legislature for ratification, after which it will be published. The current list may be found by googling “Tennessee rare plants.”

## Thanks to Our 2015 Contributors!

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# Winter Calendar of Events

## Herbarium Tour and Mountathon

**Sewanee Herbarium, Spencer Hall, Sat., Feb. 6, 9:30–11:30 a.m., Mary Priestley**

Your chance to see where and what the herbarium is and to help in the work! Spending a morning mounting pressed plants can be a satisfying and fun experience. The finished product is always useful and often quite beautiful. Come help us mount our backlog of specimens. Learn methods that have been passed down through generations and are still used today, and take home a guide to mounting pressed plants. Meet in the Herbarium on the first floor of Spencer Hall. The main entrance is across from duPont Library and there is parking behind the library.

## Hunt for the Second Hepatica

**Shakerag Hollow, Sun., Feb. 14, 1:30 p.m., Yolande Gottfried**

The first hepatica was already spotted in December! Valentine's Day is known as Olde Groundhog Day by Appalachian traditionalists. We probably won't see a groundhog but we may see other signs of spring such as pepper-and-salt (harbinger of spring), star chickweed, toothwort, and maybe more hepatica. Meet at the Shakerag trailhead by the gates for this moderate-to-strenuous walk that may include a steep rocky section of the trail. Come prepared for muddy, wet, icy, and/or rocky conditions.

## Sewanee Garden Club

**Sewanee Herbarium, Spencer Hall, Mon., Feb. 22, 1:30 p.m., Mary Priestley and Yolande Gottfried**

The Sewanee Garden Club will hold its February meeting at the Herbarium for a program about the activities of the Herbarium and a chance to participate in mounting plant specimens. Garden Club meetings are open to all and include a short business meeting and refreshments.

## Early Spring Wildflowers

**Shakerag Hollow, Sat., March 19, 2 p.m.**

This is the last day of winter and it's time to head out to Shakerag Hollow. If you don't get out about now you might miss the beginning of the big show—bloodroot, trout lily, Dutchman's breeches, and spring beauties bloom early and fade fast. Meet at Green's View for this moderate-to-strenuous two-mile walk that may include a steep rocky section of the trail.

**Nature Journaling.** A nature journaling group, sponsored by the Herbarium, meets Thursday mornings, 9–11 in the Herbarium. An informal gathering, participants share observations and writing, and sketch plants or other natural objects. Everyone is welcome.

All times are CST or CDT.

## THE SEWANEE PLANT PRESS

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*Plant drawings, by Mary Priestley, are of barrens silky aster, rosebud orchid, Morefield's leather flower, elf orpine, and Cumberland rosinweed.*

### HERBARIUM BLOG

[sewaneeherbarium.wordpress.com](http://sewaneeherbarium.wordpress.com)

Wear appropriate shoes on all of these walks. Risks involved in hiking include physical exertion, rough terrain, forces of nature, and other hazards not present in everyday life. Picking flowers and digging plants are prohibited in all of the above-mentioned natural areas.

For more information on these or other Sewanee Herbarium events, please contact Yolande Gottfried at the Herbarium (931.598.3346) or by email at [ygottfri@sewanee.edu](mailto:ygottfri@sewanee.edu).

## Friends of the Sewanee Herbarium

The Friends of the Sewanee Herbarium support the work of the Herbarium: education, research, and conservation. A \$10.00 annual contribution would be very much appreciated. The date of your most recent contribution is printed on your address label.

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## Two Meetings of Interest

**M**incy Moffett, C'83, was in Sewanee last month to discuss the Georgia Plant Conservation Alliance and his hopes for starting such an alliance in Tennessee. Mincy has worn many hats since graduating from Sewanee with an economics degree. He now serves as an ecologist with the Georgia Department of Natural Resources. Jon Evans and I hope to attend the next meeting of the GPCA to learn more about what they do and how they do it.

The Tennessee Native Plant Society's field trip committee met in Sewanee just before the holidays to schedule the outings for 2016. Tennessee Natural Heritage Botanist Todd Crabtree chairs

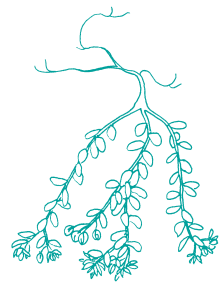
the group that includes Dennis Horn, Bart Jones, and Larry Pounds.

Since its founding in 1978, the Tennessee Native Plant Society has helped nurture the growing interest in wildflowers and other native flora while also working to protect Tennessee's native plant heritage and preserve it for future generations. Members include wildflower enthusiasts from all over the state.

Consider joining this worthwhile organization and/or tagging along on one of the field trips, all of which are open to the public. For more information, see [tnps.org](http://tnps.org).



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