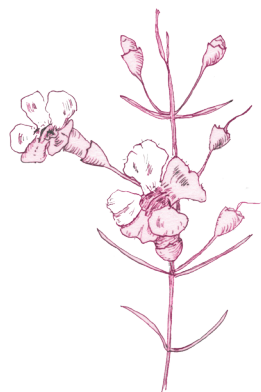




Post-Baccalaureate Fellow's Autumn Activities



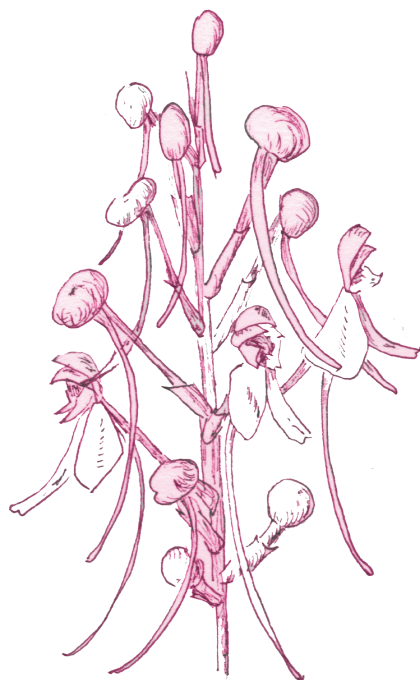
This past fall, I was involved in plant conservation work throughout the state of Tennessee as part of my post-baccalaureate fellowship, funded by the Oak Spring Garden Foundation. This work is part of the Sewanee Herbarium's connection to the Tennessee Plant Conservation Alliance (TNPCA), a coalition of institutions dedicated to conserving Tennessee's native plants and their habitats.

The first conservation project that I worked on was located in the Cherokee National Forest, where I assisted Dr. Mark Pistrang, a botanist with the U.S. Forest Service, with a survey of the only known population of *Agalinis plukenetii* in Tennessee. *Agalinis plukenetii* is also known as the Chattahoochee false foxglove and is listed as an endangered species in the state. I helped with a demographic assessment of the *A. plukenetii* population and assisted Dr. Pistrang in identifying other plant species found in the same habitat. We collected seeds from the site, and they will be used to expand the population next year.

My second project focused on the white fringeless orchid, *Platanthera integrilabia*, which was recently listed as a federally threatened plant species under the Endangered Species Act. This project was headed by Adam Dattilo, a botanist for the Tennessee Valley Authority, and Geoff Call with the U.S. Fish and Wildlife Service. Also involved in the project were:

Rebecca Byrd with the Atlanta Botanical Garden, Dr. Jennifer Boyd from University of Tennessee Chattanooga (UTC), and Paul Stockton, James Douglas, and Richard Underwood from the Tennessee Wildlife Resources Agency (TWRA).

The group met at an old, decommissioned power line site on the Cumberland Plateau from which about 50 *P. integrilabia* plants had been



collected the previous year. This year when we revisited the site, we found 44 additional flowering individuals that hadn't been collected. Our job was to dig up and then transplant these 44 individuals to a site owned by TWRA. Transplanting was necessary in this case because hardwoods can quickly recolonize the power line site and outcompete the orchid for light.

After carefully replanting and watering each plant in the new site, all transplants were tagged and GIS was used to make a map of the site. These were the first 44 of the *P. integrilabia* individuals that will eventually be planted at this location. As for future plants, Dr. Jennifer Boyd has around 100 plants that she

has been growing in the greenhouse at UTC and Rebecca Byrd has about 400 at the Atlanta Botanical Garden.

The third project that I have been involved with this fall was at the Cedars of Lebanon State Park. Dr. Andrea Bishop, a botanist from the Tennessee Department of Environment and Conservation, and Margie Hunter, who is the *Trifolium* (clover) project coordinator for the Tennessee Plant Conservation Alliance, were the leaders of this project, which consisted of planting 103 potted cuttings of *Trifolium calcaricum* (running glade clover) at separate sites around the state park.

Cedars of Lebanon State Park is very important because it protects a substantial portion of the Cedar Glades of central Tennessee. Running glade clover is listed as endangered in Tennessee and globally as critically imperiled. As of the year 2006, none of the current populations in Tennessee were in protected areas.

The project involved first collecting the plants, then planting them in groupings of three within a small fence to protect them from herbivores. Each plant was tagged, measurements were taken, and the coordinates of each site were recorded. All in all, the 103 cuttings were planted in four different locations, and the populations will continue to be monitored to track their success in the park.

—Shelby Meckstroth
Sewanee Herbarium
Post-baccalaureate Fellow



Sewanee Herbarium Collection Scanned

All 9,000 plant specimens in the Sewanee Herbarium were scanned this past fall by a crew from University of Tennessee-Chattanooga led by Dr. Joey Shaw. The Sewanee Herbarium is part of a consortium of Tennessee herbaria that has received funding from the National Science Foundation to digitize plant collections. The goal of the project is to have all Tennessee plant specimens scanned and part of a common database that can be used collectively within the state to inform research and conservation efforts relating the flora of Tennessee and, more broadly, the plant diversity of the southeastern United States. The database will be used to create an online Vascular Plant Atlas for Tennessee, such as are currently available for Florida and Alabama.

As part of the NSF grant, Drs. Joey Shaw (UTC) and Ashley Morris (MTSU) purchased portable digitizing equipment and assembled the student teams that have been visiting each herbarium and scanning their specimens. The consortium has already scanned most of Tennessee's ~850,000 herbarium specimens, with Sewanee's specimens being among the last that had yet to be completed.

Fortunately, all our plant specimens were already logged into a database, so it was just a matter of scanning and attaching barcodes to the specimen sheets.

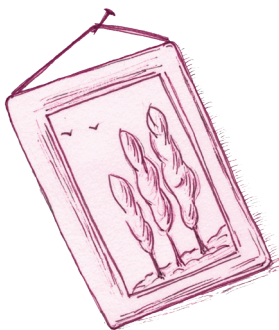
We had approximately 6,800 Tennessee specimens to scan and process, but we ended up scanning the entire 9,000-specimen collection. Shaw's team set up shop in the Herbarium for the weekend and was amazingly efficient. In the near future, you will be able to explore our collection for the flora of the Domain online, without ever having to open a herbarium cabinet!

The digitizing of Tennessee specimens is part of a larger effort by SERNEC (SouthEast Regional Network of Expertise and Collections), a consortium of 233 herbaria in 14 states in the Southeast USA, which is currently funded by the National Science Foundation. In turn, SERNEC is working to link their efforts with those of other regional herbarium groups and with the National Resource for Advancing Digitization of Biodiversity Collections.

While Sewanee's specimens are already in the database, others are not. Would you like to get involved by entering the data from digitized specimen labels? You

don't have to be a botanist to do it. And don't worry about making mistakes—they won't be incorporated, because two out of three people have to enter the same data from the same label before it will be saved. Go to the website [NotesFromNature](http://NotesFromNature.org) and create a log in. Select Plants and choose the specimen transcription option. After a two-minute tutorial, you can start to enter label data. The Notes from Nature folks say it best, "The digitized data you are creating will help advance research related to species extinction, ecosystem changes, environmental health, and even human health."

—Jon Evans and Joey Shaw



Herbarium Sponsors Botanical Art Exhibit

This winter, with snow and ice covering every surface and nary a flower in sight, venture to Stirling's Coffeehouse on the Sewanee campus for a herbarium-sponsored community botanical art exhibit titled "All Things Bright and Beautiful." The show is the latest in the herbarium's ongoing effort to cultivate connections between people and plants. Scheduled in February and March, it is timed to help bring the community out of the winter doldrums.

The exhibit opens with a reception the afternoon of Feb. 23, and hangs until March 21. It encompasses a variety of interpretations of botanical art in a range of media. Works include nature journal entries, cut paper, mixed media, stitchery, drawing, and painting. Artists are Sewanee students, community members, and friends. Some of the works will be offered for sale. Come by— get out of the cold, enjoy a cup of coffee, see some beautiful art, and dream about spring.

—Mary Priestley

We are grateful for our 2017 donors!
Look for the list in our next issue.

Friends of the Sewanee Herbarium

The Friends of the Sewanee Herbarium support the work of the Herbarium: education, research, and conservation. A \$10 annual contribution would be very much appreciated. The date of your most recent contribution is printed on your address label.

Name and address (if different from that on the mailing label on the back):

Amount enclosed: \$10 Other: \$ _____

Please mail checks (made payable to The University of the South) to:

Attn: Gift Records
The University of the South
735 University Avenue
Sewanee, TN 37383



Others who might like to receive *The Sewanee Plant Press*: _____



Winter Calendar of Events

Lunch and Learn

Lower Cravens Hall, Sewanee

Thurs., Feb. 1, noon, Mary Priestley

Program titled "The Cumberland Plateau, a Noah's Ark for Plants", sponsored by Sewanee's Center for Lifetime Learning. Light refreshments will be served. All are welcome. There is a \$2 charge.

Herbarium Tour and Mountathon

Sewanee Herbarium, Spencer Hall

Sat., Feb. 17, 9:30–11:30 a.m.

Mary Priestley

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.

Community Botanical Art Show

Stirling's Coffeehouse, Sewanee

Feb. 23–March 21

Sponsored by the Sewanee Herbarium. Opening reception Friday, Feb. 23. A range of artwork including pressed flowers, stitch work, journal sketches, cut work, paintings, and more by community members and students.

Winter Green

Village Trail, Sun., Feb. 25, 2 p.m.,

Yolande Gottfried

Get to know this new trail that runs from behind the School of Theology to downtown Sewanee. Ferns and mosses will stand out and there are interesting historical artifacts. Meet at the parking lot behind Hamilton Hall (School of Theology) for this easy walk.

Early Spring Wildflowers

Shakerag Hollow, Sat., March 17, 1:30 p.m.

Yolande Gottfried

It's St. Patrick's Day, a good time to look for early "green" in Shakerag Hollow. If you don't get out about now you might miss the beginning of the big show—spring ephemerals 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 group meets for nature journaling Thursday mornings 9–11. Come try it out—stick with it if you like. Bring an unlined journal (or a few sheets of unlined paper) and a pen or pencil. No experience needed. Meet in Woods Lab room G-10.

All times are CST or CDT. 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.

THE SEWANEE PLANT PRESS

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Tammy Elliott

Drawings, by Mary Priestley, include passionflower, Chattahoochee false foxglove, white fringeless orchid, running glade clover, hepatica, and bloodroot.

HERBARIUM PUBLICATIONS

Fiery Gizzard: *Voices from the Wilderness*

What If Trees Could Walk?

Trail Guide to Shakerag Hollow

HERBARIUM BLOG

sewaneeherbarium.wordpress.com

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ADDRESS SERVICE REQUESTED



Native Plant Cultivation on the Plateau



We at the University Farm, in partnership with the Herbarium, are in the process of developing resources for the cultivation of native medicinal and culinary plants on the Plateau (especially those that can be used in teas). The goals of this initiative are to promote high-value crops that are also native to the Plateau, identify cultivars of these crops

that grow well on the Plateau while meeting farmer's objectives, and increase education about native medicinal and culinary plants.

One element of this initiative will be the establishment of a "showcase" native plant cultivation area at the University Farm that will double as a research plot. Some of the plantings will include passionflower (*Passiflora incarnata*), mountain mint (*Pycnanthemum muticum*), sumac (*Rhus typhina*), echinacea (*Echinacea purpurea*), and elderberry (*Sambucus canadensis*).

The elderberry shrub produces two highly coveted crops: elderflowers and elderberries. Both are valued for their health benefits and unique flavors. Because it hasn't been grown commercially for very long, a vast bank of research on North American elderberry doesn't yet exist, making it one plant for which place-specific research on the Plateau could be especially

useful. The market for elder and other medicinal plants has expanded in recent years, and is expected to continue growth.

The Plateau has a history of using integrated agriculture; many of these native plants offer ecological benefits that allow them to fit into this ideology. For instance, elderberry is well suited to riparian zones, and can provide flood protection and improved water quality. Our overall hope is that the resources offered through this initiative will encourage production of high-value, low-input, native crops that will yield positive outcomes for the people and the ecology of the Plateau. For further information about the project, please contact sewaneevistaspec@gmail.com.

—Emily Heid