

THE PLANT PRESS



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Newsletter of the Friends of the Herbarium

Winter 2001

Augustin Gattinger at Sewanee

Augustin Gattinger, physician, botanist, and geologist, is one of many remarkable people who have been acquainted with Sewanee over the years.

In February of 1849, Augustin Gattinger, an idealistic medical student at the University of Munich, Germany, was expelled from school and forced to emigrate to the United States. He had dared to participate in a student-organized celebration of George Washington's birthday. He and his wife sailed to America and settled in east Tennessee, where Gattinger set up his medical practice and began collecting plants and minerals. In 1858, he became resident physician to the Ducktown Copper Mines.

Gattinger might have lived out his days happily exploring the hills of Tennessee, but the Civil War interrupted these pursuits. The natives turned against him because of his opposition to disruption of the Union, and one night, fearing for his life, Gattinger fled on foot and without money down through the Ocoee River gorge. Forty miles away at Cleveland, Tennessee, he found the protection of the United States Army and was sent to Nashville, where his wife and daughters joined him. He spent the remainder of the war as an Army surgeon.

After the war, Gattinger served for five years as the Tennessee State Librarian, and during that time he had an unlimited pass to travel on the Nashville and Chattanooga Railroad. Using the pass, he made extensive botanical collections throughout the state and built up a large personal herbarium (plant collection).

He kept up an active correspondence with prominent botanists, but there was no one nearby with whom Gattinger could share his passion for plants. As he wrote in a letter to George Engelmann, "It has been my misfortune to spend thirty years of my life with these half civilized Tennesseans and up to now I have not seen a single living Tennessee botanist."

The situation was remedied when Gattinger met and became good friends with retired Confederate General Edmund Kirby-Smith, a mathematics and botany professor here at Sewanee. He visited and botanized with Kirby-Smith on several of his collecting trips. In a January, 1888, letter to Prof. Walter Deane of Cambridge, Massachusetts, he wrote of Kirby-Smith and the extensive flora at Sewanee, "I include today an autograph from General E. Kirby-Smith of Confederate notoriety. He is now a Professor in the University of the South at Sewanee. He would be a very able man to collect, but his work is in 'darts and fits.' He has a splendid range to go over right at his door!"

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Sewanee's Big Trees

The Herbarium is teaming up with Sewanee's Tree City to undertake a project to locate the largest tree of each species on the Domain of the University of the South. We are asking for the help of any and all interested people. The American Forestry Association began keeping a record of champion trees 60 years ago. Using total height, trunk diameter, and crown size as criteria, their National Register of Big Trees for the year 2000 lists 826 total species of trees in the United States, of which 733 species each have a recognized national champion. The list, which is described at <www.americanforests.org>, includes a redwood 26 feet in diameter, white oak and yellow-poplar about 10 feet in diameter, and a sourwood of nearly 3-foot diameter. A section from the trunk of the former national record-holding shortleaf pine is on display in one of the introductory biology laboratories in Woods Labs. That tree grew in Burke County, North Carolina, on land that belonged originally to George Ramseur's great-great-grandfather.

Shakerag Hollow certainly harbors a number of big trees. This winter, members of the Herbarium staff hiked down there to measure some of them. We found individuals with the following impressive diameters:

persimmon 54.5 cm (21.5")	witch-hazel 6 cm (2.4")
chestnut oak 105 cm (41.3")	basswood 99 cm (39")
cucumber magnolia 75.5 cm (29.7")	sycamore 89 cm (35")
chinquapin oak 103 cm (40.5")	redbud 16 cm (6.3")

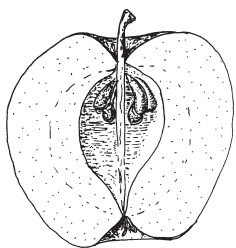
The largest tree that we have measured so far is a mammoth white oak that grows along Willie Six Street in Sewanee. Its trunk is an amazing 126 cm (49.6") in diameter.

The trees listed above are certainly grand old monarchs, but are they the biggest of their species growing on the Domain? Probably not. Sewanee's Big Trees need to be found. Everyone is encouraged to submit nominations to the Herbarium c/o Mary Priestley or e-mailed to <mpriestl@sewanee.edu>. The tree must be alive, but other than that, the sole criterion for championship will be the trunk diameter 1.4 meters (4.5 feet) above ground level. Submissions must include the name of the species, the diameter measurement, and a description of the tree's location.

By saluting these champions, the Herbarium and Sewanee's Tree City hope to focus on the importance of trees in our community. Results and updates will be published in *The Plant Press*, and Sewanee's Big Trees will be listed on the herbarium web site, with diameters, locations, and the names of the tree hunters who found them. ■

The Sewanee Herbarium: Education — Research — Conservation

Alumni Report



When The Plant Press was started in 1997 the herbarium staff had some ideas about what we wanted to do, and many of our ambitions have been fulfilled. My idea of a column about alumni has taken several turns and continues to evolve. I hope you have enjoyed these personal stories as much as I have enjoyed writing them.

Elizabeth McClatchey Brown '78 transferred to Sewanee from Southwestern (now Rhodes) in 1976. A discussion with her in botany lab led me to organize a summer field course in which she and five other students traveled from Sewanee to the Atlantic coast, studying unique plant communities along the way. With a biology major, three courses in forestry, and a summer job with the US Forest Service where she surveyed for damage by Southern Pine Beetle, Elizabeth was set on a course that involved plant and animal interactions.

The summer after graduating from Sewanee, she worked on an apple pest

management research project for the Mountain Horticultural Crops Research Station near Asheville, North Carolina. That fall, she moved back to her hometown of Atlanta, married Kemper Brown '76, and took a job with the US Geological Survey working on an urban surface water project. Elizabeth enrolled in graduate school at the University of Georgia and in 1980 received a Master's Degree in Plant Protection and Pest Management.

She and Kemper moved to Asheville, and Elizabeth went back to work at the Mountain Horticultural Crops Research Station, this time as Research Assistant in the Plant Pathology Department of North Carolina State University. To recommend optimal control for diseases, her work involved studying both the orchard environment and the epidemiology of disease-causing organisms. She spent time supervising the testing of fungicides. Her work on Brooks Fruit Spot disease culminated in 1987 with a paper that she co-authored with Dr. Turner Sutton entitled "Biology and Epidemiology of *Mycosphaerella pomi*, cause of Brooks Fruit Spot of apple," published in *Phytopathology*.

Elizabeth also studied Sooty Blotch and Fly Speck, two cosmetic diseases that cause southeastern apple growers considerable economic loss because of reduced fruit quality. She authored several papers on chemical control and time of infection of these diseases. Because of her 1995 paper entitled "An empirical model for predicting the first symptoms of sooty blotch and fly speck of apples," published in *Plant Disease*, growers first began using leaf wetness meters to determine when to apply fungicide sprays. Consequently, they have made the important move from a preventative fungicide schedule to more carefully timed applications, decreasing the amount of spray. Subsequently, her model was modified to accommodate regional conditions, and it is now used around the country.

Gerber Products Company became interested in her work because of their desire to eliminate pesticide residues in

baby food. In 1990, Elizabeth began working as a consultant for Gerber, designing and supervising minimal pesticide programs. "I loved doing my work in orchards and I always felt like I was applying ecology in an agricultural setting. You could not control a disease without understanding the organism causing the disease, and you could not understand the organism without understanding the orchard environment. I always felt blessed to have my solid science and liberal arts background from Sewanee, which helped me so much in my scientific writing. I was fortunate to have worked with a highly esteemed plant pathologist, Turner Sutton."

Kemper Brown, also a biology major, received an MBA from Tulane in 1997 and went to work for Georgia Power. In 1981, he opened his own business in Asheville. He has led the Electronic Office into becoming the leading computer systems integrator in western North Carolina, specializing in advanced commercial communications. According to Elizabeth, "He felt that his liberal arts education at Sewanee prepared him for critical thinking and communication in advance of the professional business training that he had."

Elizabeth accomplished a great deal while working only part-time from 1986-1999. Currently, she is home full-time with her family. She and Kemper are raising three boys, aged 15, 12, and eight, as well as managing a large garden. "I certainly enjoyed my work a lot as well as having our family, almost like having and eating the cake, too."

—George Ramseur

THE PLANT PRESS

The Sewanee Herbarium
Biology Department
The University of the South
735 University Avenue
Sewanee, TN 37383

WEB SITE

[http://www.sewanee.edu/
biology/herbarium](http://www.sewanee.edu/biology/herbarium)

EDITOR

Mary Priestley
(931) 598-3346
mpriestl@sewanee.edu

CONTRIBUTORS

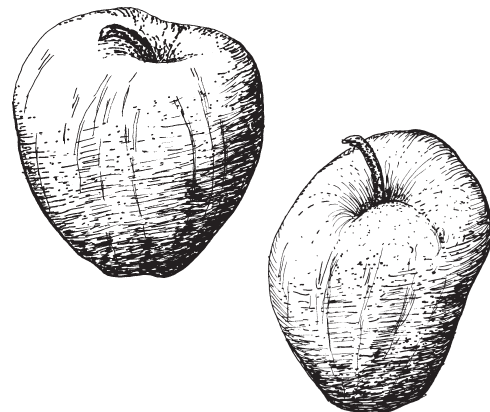
Jon Evans
(931) 598-1304
jevans@sewanee.edu

George Ramseur
gramseur@sewanee.edu

Yolande Gottfried
ygottfri@sewanee.edu

COMPOSITOR

Tammy Scissom



Winter Calendar of Events

These popular offerings have become perennial events!

Winter Botany

Saturday, Feb. 3, 1:00 p.m.
George Ramseur

Join us for a pleasant walk in the winter woods to seek out some Big Trees and learn more about them. George will introduce tree anatomy and overwintering strategies and give tips for identifying some of the more common woody plants. Meet at Morgan's Steep for an easy walk along the Bridal Veil Falls trail.

Search for the First Hepatica

Saturday, Feb. 17, 1:00 p.m.
Yolande Gottfried

It's Valentine's Weekend, and our hearts turn to wildflowers! Join us to look for the earliest bloomers. We may find Hepatica,

Bloodroot, Violets, or others. We will also search out and measure some Big Trees, a fun activity for all ages! Meet at Green's View for a two-mile moderate hike through Shakerag Hollow. In the event of snow, ice, or extreme temperatures, the hike will be canceled.

Botanical Drawing

Saturday, Feb. 24, 9:30-11:30 a.m.
Ann Seiters

Beginning and experienced artists are encouraged to enjoy this morning with Ann, who for years has nurtured the creative talents of adults and children. For your subjects, choose from winter flora and woody plants, greenhouse plants, or some that you bring in. Come with supplies for your

chosen medium, or use the pencils and paper provided. Meet in Woods Labs room G-9, located just behind the greenhouse.

Wildflower Identification

Saturday, March 3, 10:00-11:30 a.m.
Mary Priestley

Get a jump on learning to identify wildflowers in this early spring workshop. Become familiar with some of the basic plant identification terminology and the use of simple keys to identify herbarium specimens or early spring wildflowers. Bring a copy of *Newcomb's Wildflower Guide* and a hand lens (both available at the University Supply Store and Jill Carpenter Books), or use the materials provided. Meet in Woods Labs room G-9, located just behind the greenhouse.

For more information on these events, contact Mary Priestley at (931) 598-3346 or <mpriestl@sewanee.edu>.

Gattinger continued from page 1

In a letter that same year to renowned botanist Asa Gray, he mentioned finding both the rare filmy fern and our ubiquitous poison ivy. "Passing through Sewanee in the Cumberland mountains on my return and stopping at the University a few days I collected also several yet undetermined plants, and in the evening of my arrival I found *Trichomanes radicans* [filmy fern] on wet sand rocks overhanging a spring-cave [Polk Spring in Abbo's Alley]. I found but a small quantity and in spite of all searching for

the next 2-3 days I could not find any more. The too frequent contact with *Rhus Toxicodendron* [poison ivy] gave me an Excema that drove me back to Nashville."

Gattinger gave his plant collection to the University of Tennessee, and, because of his close friendship with Kirby-Smith, he presented his botanical library to Sewanee. Sadly, the herbarium burned, and the book collection has disappeared over the years. In 1901, Gattinger published *The Flora of Tennessee and a Philosophy of Botany*, hailed as the "first full record of the plants of

a very rich flora." A copy, autographed by the author, resides in the archives at Sewanee's duPont Library. The year 2001 marks the centennial of this publication by Tennessee's pioneer botanist.

—Mary Priestley

References:

Gattinger, Augustin. 1901. *The Flora of Tennessee and a Philosophy of Botany*. Gospel Advocate Publishing Co., Nashville, TN.

Oakes, Henry N. 1932. *A Brief Sketch of the Life and Works of Augustin Gattinger*. Cullom & Gurton Co., Nashville, TN.

Membership Application/Renewal

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.

Name: _____

Address: _____

City, State, Zip: _____

Amount Enclosed: \$10.00 Other: \$ _____

Please make check payable to The University of the South. Gifts are fully tax deductible. Send to:

Sewanee Herbarium
c/o Mary Priestley
735 University Avenue
Sewanee, TN 37383



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

Annual Report 2000

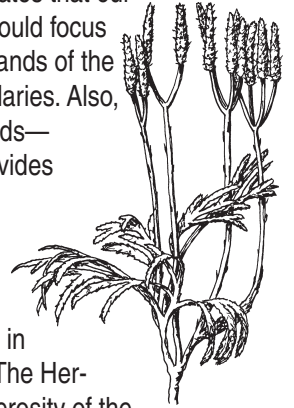
The year 2000 has been most significant for the Herbarium due to a number of grants received by a research group of University faculty and students from which the herbarium has benefited, both in facilities and in programs (see "News from the Herbarium" in the Autumn 2000 issue of *The Plant Press* for details). The new facilities were on view during the annual Herbarium Homecoming Open House. The floristic inventory of Sinking Pond was begun this fall with many hours in the field resulting in about 100 specimens collected and a basic familiarity with the study area that will be a strong starting point for continued work in the spring. This increased "presence" of the Herbarium has led to more contacts with students, staff, and even local government seeking assistance in plant identification. In the last case, Herbarium Staff have been asked to check proposed trail sites in the area for rare and endangered species.

Of the almost 4000 records in the herbarium collection database as of the end of October, 2000, 1568 are specimens from the Domain, representing about 700 plant species. About 700 new records were added to the database since the last annual report. Three special collections have also been received: New Zealand plants brought back by Forestry professor Scott Torreano; bryophytes from a survey of rare, threatened, and endangered nonvascular flora and lichens on Arnold Air Force Base in Coffee

County done by Paul G. Davison and D. K. Smith; and specimens from Wolf Cove in Franklin County collected by Richard K. Clements.

Efforts to complete the Domain Flora, a list of plant species found on the Domain, is ongoing. Our list of target species—those likely to occur here but not yet found—has been reduced by about 50. Half of these have been added to the Domain Flora, and half are species that have been eliminated from the list because they are not likely to be on the Domain. Of the remaining 275 or so species, about one-third are listed in Godfrey and Wooten's *Aquatic and Wetland Plants of Southeastern United States*. This indicates that our collecting activities in the coming year should focus on the cove bottoms and ephemeral wetlands of the plateau that are within the Domain boundaries. Also, about one-fourth of the total are graminoids—grasses, sedges, and rushes—which provides another focus for collection.

The seasonal offerings of hikes and workshops as announced in the ongoing quarterly newsletter, *The Plant Press*, drew about 200 people. The newsletter is in its fifth volume, with a circulation of 550. The Herbarium continues to benefit from the generosity of the nearly 200 supporting members in the Friends of the Herbarium.



—Yolande Gottfried

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SEWANEE

The University of the South

Herbarium, Biology Department
735 University Avenue
Sewanee, TN 37383-1000

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