

The Plant Press



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Newsletter of the Friends of the Sewanee Herbarium

June, 1997

Our New Mission

Following a recent loss of herbaria, there has been a worldwide revitalization of herbarium collections that has resulted from an increased focus on plant biodiversity conservation and growing concern about global change issues. While herbaria were once viewed simply as repositories of pressed plant specimens utilized only by systematists, they now serve in a greater capacity as clearinghouses for the assimilation and dissemination of plant biodiversity information in a given region. Through the use of advanced computer database systems and the internet, it has become possible to make these collections of dried plant specimens come alive for a wide variety of new users.

In many respects, Sewanee Herbarium is riding the crest of this revitalization wave in the Southeast. We have expanded our traditional role of teaching and research and have moved strongly in the direction of conservation and outreach. We were among the first herbaria in the southeastern U.S. to develop a website, to computerize our collection information and to allow our collection databases to be searchable over the World Wide Web. We are a repository for all plant collections made in this four county area (Franklin, Marion, Grundy, and Coffee) by botanists with the TN Division of Natural Heritage, The Nature Conservancy, and the Arnold Engineering Development Center (AEDC-U.S. Dept. of Defense).

Our current research projects include a Flora of the Sewanee Domain and a Flora of AEDC. This summer we will be upgrading and updating our databases so they can be linked together and be made compatible with Sewanee's newly acquired ARCVIEW GIS (geographical information system) and GPS (global positioning system) technologies. We are excited about our expanded mission and look forward to your support and ongoing participation in our program.

- Jon Evans



The Staff - Photo by Charley Watkins

Who We Are

A staff of four, plus students, is associated with the Sewanee Herbarium. **Jon Evans**, Herbarium Director, is beginning his fourth year as Assistant Professor of Biology at Sewanee. He earned his Ph.D. in Botany from Duke University and spent two

years on the Ecology and Evolutionary Biology Dept. faculty at Rice University. He is teaching Introductory Biology, Conservation Biology, Plant Ecology, Plant Evolution and Systematics, and Island Ecology. His research, all involving undergraduates, is in the following areas: 1) the interface of science and policy: strategies for protecting biological diversity in Franklin County, TN, funded by the TN Conservation League; 2) the effect of dogwood decline on calcium cycling and songbird egg viability on the Cumberland Plateau; and 3) the effect of mammal and insect predation versus resource availability on the long-term population dynamics of oak species.

Director *Emeritus* **George S. Ramseur** retired in 1993 after teaching at Sewanee for 35 years. He is now working on the flora of Sewanee trails with Yolande Gottfried and helps direct work-study students in "Abbo's Alley" (the Sewanee Ravine Garden).

Mary Patten Priestley graduated from Sewanee and earned her M.S. in Biology from Middle Tennessee State University. She is entering her fifth year as Biology Department Laboratory Coordinator and Instructor and her second year as Curator of the Herbarium.

Associate Curator, **Yolande McCurdy Gottfried**, received her M.A. in Ecology from the University of North Carolina at Chapel Hill. Her thesis advisor was Dr. Albert E. Radford, which gives her a special connection with George Ramseur who was Dr. Radford's first Ph.D. student. She has lived in Sewanee for 15 years with her husband, Dr. Robert R. Gottfried, Professor of Economics, and their children.

The Sewanee Herbarium: Education - Research - Conservation

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Sewanee Tree Book

*Comparative Description
of the Native Trees of the
Sewanee Area*

Stephen Elliott Puckette
with Mary P. Priestley,
Karen Kuers,
and Thomas O. Hay

The "Sewanee Tree Book," as it is affectionately known, has been re-published. First written in 1949, it was designed to be a resource for forestry students. The new edition is intended for a more general audience as well as students. Harry Yeatman writes, "With the current emphasis on plant and animal diversity, identifying and protecting these organisms is very important... Steve Puckette's marvelous book is a real gift to all of us who love Sewanee and its trees." It may be purchased through the University Press (615) 598-1286. Cost \$12.

Botany at Sewanee

A Brief Look Back

Botany was not a prominent topic in the planning discussions among the founders of the school which was to become the University of the South. They were more concerned with matters such as the absence of malaria and the isolation from the evils of city life. While the site chosen, Sewanee, turned out to be a botanist's dream, the natural beauty of this section of the Cumberland Plateau and its plant diversity (especially the beauty of the early spring wildflowers) attracted the attention of many of the early residents. From the arrival of the

first students in 1868 until the appointment of General Edmund Kirby-Smith as professor of mathematics and acting professor of biology in 1875 there was no instruction in botany. A graduate of West Point, he had taught mathematics there for four years before the war. General Kirby-Smith is best known as the last Confederate general to surrender his troops at the close of the war between the states. He was president of the University of Nashville for five years before he came to Sewanee. Dr. Augustin Gattinger, the pioneer Tennessee botanist who came from Germany in 1849, published *The Flora of Tennessee* in 1901. Following a public appeal for information on Tennessee flora Gattinger says in the introduction to his book, "I soon received valuable contributions from my esteemed friend, the late Gen. E. Kirby-Smith, at Sewanee."



General Kirby-Smith's dual appointment was not unique. With only ten faculty positions, many held appointments in several schools. Although two student enrollment records list botany in 1877, the catalog does not mention the school of botany until 1878. The entire entry: "Gray's *Manual of Structural Botany* and *Systematic Botany* are used as guides to the course. Sach's *Morphological and Physiological Botany*, and Lindley's *Vegetable Kingdom* should be in the hands of students for reference," was not changed until 1887. At that time Baskin's *Elements of Botany* was added and the botany course was extended to two terms: "1. Vegetable physiology with lab work, and 2. Lab work and collection of an herbarium."

When the medical department (the relationship of school to department was the reverse of modern use) opened in 1892, Gen. Kirby-Smith's botany course was one of thirteen courses offered. The number of botany students for the earlier years is unclear, but from 1883 until he died in 1893 about 50 certificates of proficiency in botany were awarded. The certificate represented completion of a one or two semester course. - George Ramseur

-To be continued-

Spring Wildflower Walks - Report

The first major outreach program of the Sewanee Herbarium was a series of wildflower walks this spring, co-sponsored with the South Cumberland State Recreation Area (SCSRA) and with the Sewanee Outing Program. Each weekend during the month of April at least one hike was led by a member of the Herbarium staff.

In the SCSRA, our staff accompanied the Park's new interpretive specialist, Ray Eason, on his regularly scheduled hikes to such areas as Foster Falls, Grundy Forest, Collins Gulf, and Lost Cove Cave. It was a wonderful cooperative effort, allowing Ray, who is from western Tennessee,

to become more familiar with the local flora, and allowing folks interested in the local flora to become more familiar with the Herbarium. Our staff plans to continue helping out on SCSRA hikes when possible, at the invitation of Park Manager John Christof who is delighted with this association of the Park and the Herbarium.

The walks sponsored with the Sewanee Outing Program were in Sewanee's own incomparable Shakerag Hollow, where the spring wildflowers outdid themselves once again in diversity and abundance. It has been an unusually colorful and interesting season. - *Yolande Gottfried*

Summer Calendar of Events

Drawing Plants in the Field - 9:00 - 11:00 A.M., June 9, 10, 11, Edward Carlos, Fine Arts Department

The purpose of this short course is to initiate aspiring artists of any age into the meditational pleasures, insights, and technical knowledge of drawing representationally. Students will be exposed to the techniques of outline and three-dimensional drawing and shading.

There is no cost. A few materials will be required. To register, contact Mary Priestley.



Piney Point Walk, Primary Succession - 1:30 P.M. June 24, George Ramseur

The short (1 mile) walk to the bluff culminates in a spectacular view across Shakerag Hollow to Roark's Cove and beyond. Along the way, the trail passes sandstone outcroppings which support shortleaf pine, blackjack oak, reindeer moss, and other plants adapted to this dry habitat.

Lakeside Plants Walk - 1:30 P.M., July 8, Yolande Gottfried - A stroll around one of the local lakes in search of the lakeside and aquatic plants of the Sewanee Domain. Typical residents of these rich and complex habitats include wet-

land ferns, jewelweed, rushes, sedges, and aquatic plants, including arrowhead, bladderwort, and water-shield. Plant identification and ecological interactions will be explored.



Dick Cove Walk, Sewanee's Old-Growth Forest - July 23, 3:00 P.M., Jon Evans

Located on one of the north-facing slopes of the University Domain, Dick Cove has all the elements of a classic old-growth forest: there is a wide range of large, mature trees and smaller ones creating a multi-layered

canopy, along with a tremendous variety of herbaceous plants which carpet the forest floor.



For more information on any of the above, please contact Mary Priestley.

<p>June 9 - 11 Drawing Plants in the Field</p> <p>June 24 Piney Point Walk Primary Succession</p> <p>July 8 Lakeside Plants Walk</p> <p>July 23 Dick Cove Walk Old Growth Forest</p>
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Yes! I would like to be a Friend of the Sewanee Herbarium

The Friends of the Sewanee Herbarium supports the work of the Herbarium: education, research, and conservation. Members receive the quarterly newsletter, *The Plant Press*. Membership dues are \$10.00 a year.

Name (please print) _____

Street Address _____ City, State, ZIP _____

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Please make check payable to The University of the South. Dues and 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* : _____



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Asplenium montanum Willd. Mountain Spleenwort



The Herbarium's oldest specimens are a few mountain spleenwort fronds found in March, 1997, pressed between the pages of Gray's *Synoptical Flora of North America*, published in 1878. This copy was purchased in that year by The University of the South's first botany professor, Confederate General Edmund Kirby-Smith. The book now resides in the archives of duPont Library at the University.

Mountain spleenwort is a small, delicate, bluish-green fern which grows in drooping tufts, usually down and out of crevices of overhanging rocks. It roots in tiny pockets of acid soil in shaded, protected crannies of sandstone cliff faces.

Look for small (4"), slightly leathery, evergreen leaves, divided into six or more pairs of irregularly-shaped leaflets. A small number of elliptical sori (2 or 3 per leaflet) are located on the underside of fertile leaves. The sori contain spores, the propagules by which the fern reproduces. All ferns are perennials: the rhizome, or underground stem, lives for many years, producing new fronds each growing season.

There are a number of spleenworts on the

Domain, the most common of which is ebony spleenwort, *A platyneuron* (L.) B.S.P. One of the most interesting is walking fern, *A. rhizophyllum* L., whose long, attenuated leaves root at the tips, forming new plants. Shakerag Hollow is a good place to find this plant. - *Mary Priestley*

Reference: Cobb, Boughton, 1963. *A Field Guide to the Ferns*. Houghton Mifflin, Boston.

SEWANEE
The University of the South

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