

The Plant Press

Volume I, Number 2

Newsletter of the Friends of the Sewanee Herbarium

Autumn, 1997

Conserving Biological Diversity in Southeast Tennessee

An important part of the Herbarium's expanded mission is the conservation of plant species in Southeast Tennessee. In keeping with this mission, the University has recently acquired a series of GIS (Geographical Information Systems) datasets from the Tennessee Wildlife Resource Agency's Gap Analysis Laboratory. ("Gap" refers to gaps in biodiversity protection.) They represent computerized maps of various coverages for Grundy, Franklin, Marion, and Coffee counties—including: roads, political boundaries, streams and water bodies, vertebrate diversity, rare and endangered species distributions, land-use, plant community types, etc.

This past summer, a number of faculty and students at Sewanee initiated a large interdisciplinary project to examine quality of life issues in Franklin County, particularly in relation to the environment.

Through funding from the Tennessee Conservation League and the TONYA Intern Program, I had two students (Elichia Wolliford Swann '97 and Madelaine Haddican '99) examine the effectiveness of the TN Greenbelt Tax Law as an incentive program for protecting biological diversity on private lands.

Utilizing our newly acquired GIS coverages, we have been able to determine where these Greenbelt enrolled properties lie in relation to hot spots of diversity and rare species distributions within Franklin County. We hope that these analyses will provide a catalyst for the development of cooperative stewardship agreements among landowners by organizations such as The Nature Conservancy and state conservation agencies.

—Jon Evans



New Brochures Promote Biodiversity on the Mountain

This fall, the Biology Department is introducing a new outreach effort, *Biodiversity on the Mountain*. This is a series of brochures whose purpose is to inform the curious observer about the living things with which we share our mountain-top home. The Herbarium is pleased to participate in this exciting venture. Four brochures are ready for release this fall, and more are planned for the future.

The first in the series, *Common Birds of Sewanee*, provides an introduction to our rich bird life. It covers a selection of birds, including those that frequent our feeders, as well as woodpeckers, hawks, and others.

Ferns of Sewanee is useful for identifying and learning more about these fascinating plants and where to seek them out.

The southeastern United States is renowned for its diversity of amphibians. *Frogs, Toads, and Salamanders* introduces many that inhabit this part of the Cumberland Plateau.

Have you ever picked up an acorn and wondered what oak produced it? Which hickory nuts are absolutely delicious—and which ones aren't worth cracking? *Nuts and Acorns of Sewanee* will help you answer these questions.

Events to mark the launching of the series are planned for Homecoming Weekend. See the Autumn Calendar for a description. The brochures will be available in the Biology Department as well as at other sites on the campus.

—Mary Priestley

The Plant Press is printed on recycled paper.

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

After the death of General Kirby-Smith in 1893, one of his former students, William Bonnell Hall, Jr., continued the botany course with little change. Hall graduated from the University in 1885 with three degrees: CE (Civil Engineer), BS, and MS. He stayed on for one year as acting professor of chemistry and geology & mineralogy, then left to pursue an MD degree. He returned to Sewanee in 1893 to teach physiology, *materia medica*, and botany in the Medical School. He also taught botany, physiology & hygiene, and physics and later became dean in the School of Arts and Sciences. In 1909, he was elected as the sixth vice-chancellor of the University and served for five years.

In 1908, Prof. Reginald I. Raymond was appointed instructor of botany and zoology and also taught geology and mineralogy. He taught in the Medical School in its final year (1909) and left in 1916. Raymond arrived at Sewanee with a BS from Tulane. Along with his teaching, he became a student. By 1912 he had completed three degrees (BA, BD, and MA) and received prizes in Hebrew, Biblical Greek, and divinity. Up until 1909 the School of Botany had offered a two- or three-term course and at times there were schools of biology and zoology. In 1910, the School of Biology included one term each of botany and zoology, with both emphasizing evolution.

R. C. Walker (MA, Sewanee) was acting professor of biology for two years beginning in 1915. An entry in the 1917-18 catalog, "In place of Biology 2, a higher Botany course may be given," is the first evidence of anything beyond an elementary botany course. T. L. Bailey (BS, South Carolina) filled in as biology instructor for one year (1917-18).

In 1918, Albert Gaylord Willey (BA, Dartmouth) began a 19-year tenure (1917-1936) which brought several changes in the biology program. In 1918-19 four biology courses were offered: general biology, botany, zoology, and bacteriology. By 1925-26, comparative anatomy, embryology, and a course in heredity and evolution had been added, and botany and zoology were not taught as separate courses, but included in biology.

In the days of Sewanee's Medical School (1893-1909) and Pharmacy School (1898-1909), botany was very important in the training of physicians and, especially, pharmacists. The loss of the medical program was a loss of a strong incentive for botany courses. In recent years, botany has been enhanced by the presence of the forestry program which began in 1924 when George Alfred Garrett (MF, Yale) joined the faculty as professor of forestry and engineering. Garrett, who later became dean of the Forestry School at Yale, began a course in general forestry and forest botany.

— George Ramseur

(To be continued)



Autumn Calendar of Events
Lake Eva—Oct. 11, 2:00 p.m.
Harry & Jean Yeatman

Fall flowers, especially those that "like to keep their feet wet," will be highlighted on this easy walk around the lake. We hope to see blue bottle gentian, white turtlehead, grass-of-Parnassus, three species of clubmoss, and several ferns. This visit on privately-owned land is by special permission. Bring your camera—this is a good photo opportunity! Meet in front of Woods Laboratories.

Nature Photography—Oct. 18, 10:00 a.m.—Charley Watkins

Fall color should be near its peak this weekend, and Charley, a professional photographer, will help us capture nature at its most brilliant. All levels of expertise and types of cameras are welcome. Bring a picnic lunch—we plan to have informal wrap-up at noon. Meet at the Lake Cheston Pavilion. Register with Mary Priestley.

Biodiversity on the Mountain Events—October 25

1. **Birdwatcher's Outing—7 a.m.—David Haskell.** We will be searching for birds that overwinter here, as well as late migrants. Meet in front of Woods Laboratories.
2. **Visit the Herbarium—9:30-10:00 a.m.** What is a Herbarium anyway? Answer this question for yourself: use the computer to look up specimens that interest you and then find them in the collection. Mount specimens; check out the GIS databases. Woods Laboratories, Room G-12, near the greenhouse.
3. **Dick Cove—10:00 a.m.—Jon Evans.** Tour Sewanee's old-growth forest: there is a wide range of large, mature trees and smaller ones creating a multi-layer canopy. Meet in front of Woods Laboratories.

* * * * *

Of course, digging of plants is prohibited on all our trips. For more information on any of the above, phone Mary Priestley. We hope to see you!

* * * * *

The wildflower above, *Aster paludosus* ssp. *hemiphericus*, drawn by Mary Davis, is blooming now around Lake Cheston.

Thanks for your Contributions!

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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*: _____

Summer Outreach Events—Report

The success of the spring wildflower walks led the Herbarium to offer a series of summer programs to continue to promote understanding of the work of the Herbarium and of biodiversity in the Sewanee area.

Dr. Edward Carlos of the Fine Arts Department most generously offered a short course in "Drawing Plants in the Field," dedicating it to his mother. Even though the early June weather was unseasonably cool and rainy, the event brought over 25 people from as far as Tullahoma and Tracy City. They sheltered in the Lake Cheston Pavilion as Dr. Carlos shared his thoughts on drawing as a way of centering and awareness and led the group through a series of drawing techniques, beginning with the outline of a leaf. Each student produced remarkably fine drawings in the three morning sessions, impressing Dr. Carlos himself.

A walk to Piney Point and a stroll around Lake Cheston were scheduled to coincide with the two sessions of the Sewanee Summer Seminar, and there was a good turnout of 20 or more participants, plus a few from elsewhere on the mountain, for each event. The weather was quite sufficiently hot as Dr. George Ramseur pointed out the plants of primary succession on the sandstone bluff—*Grimmia*, *Parmelia*, *Cladonia*, *Polytrichum*, farkleberry, and others—to his first (?) captive audience since retiring from teaching four years ago. Yolande Gottfried, with student summer

intern Geoff West, continued the theme of succession on another hot afternoon at the lake, observing the vegetation zones of floating plants like bladderwort, emergents such as cattails and water plantain, and any other shoreline plants that had escaped the untimely mowing for the July 4 celebrations the previous weekend. Dr. David Haskell was on hand to point out birds and identify frog calls and join in admiration of the colorful profusion of dragonflies.

A hardy half-dozen folks from Sewanee and Monteagle joined Dr. Jonathan Evans and Alex MacKinlay, a student researcher, on a hike in Dick Cove. The hot dry weather of late July illustrated well Dr. Evans' comments on water as the limiting factor for vegetation on the top of the plateau and on the possible adaptive advantages of

cloning in these seasonal drought conditions. Alex discussed her work on the regeneration of chestnut oak. The group followed the moisture gradient down onto the benches and then into the bottom of the cove, noting the increasing abundance and diversity of plants. There was abundant evidence of heavy browse by the deer that are funneled up through this one of the few gaps in the mountainside.

The success of the summer program is most encouraging for further outreach efforts.

—Yolande Gottfried

(Note: See "Autumn Calendar of Events," Page 3.)

SEWANEE

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