



## Interns at the LAL, SEI and the Herbarium- Summer 2009

**D**uring the summer of 2009, the Landscape Analysis Lab (LAL), the Sewanee Environmental Institute (SEI) and the Sewanee Herbarium are engaged in more research projects and supporting more undergraduate interns than ever before.

A team of undergraduate students, which includes Angelica Tassoulas ('09), Karena Kwauk ('09), Ashley van der Lande ('09), Matthew Valentine ('10), and Robert Osbourne ('10), is working on a land use and water quality study for the Sequatchie River watershed in Tennessee. In collaboration with the Southeast Tennessee Development District, the LAL is developing a spatial database describing potential current and future sources of *E. coli* in the watershed. Although low levels of *E. coli* may be due to natural sources, the Tennessee Department of the Environment and Conservation is concerned with elevated *E. coli* levels attributable to animal waste and failures of on-site waste management systems (septic systems). These students are using computer mapping technology to quantify indicators of potential contamination, such as stream crossings used by cattle, and to locate new developments with septic systems.

At the LAL, we are focused on the numerous ways that human beings alter or degrade the natural environment. However, we do not often look at how nature, and the loss of nature, affect the human experience of the world. Scott Hardage ('10) and Angela Langevin ('10) are studying the relationship between humans and nature, using the Domain as the area of interest. Just as

John Muir had his summer in the Sierras and Henry David Thoreau had his two years on Walden Pond, Scott will be spending much time in the forests of the Domain, contemplating the role of nature in the human experience, documenting the natural beauty and ecological diversity of the Cumberland Plateau through photography and personal writing. Angela will study the "soundscape" of the Domain, systematically recording sounds



from the natural and built environments, to understand the influence of the soundscape on natural communities and on the human experience of nature.

Sean McKenzie ('11) and LAL volunteer Ann Bradley are continuing with the Sewanee Forest History Project. This is an on-going effort to compile all documents related to past and current land use activities on the Domain. The resulting database will allow us to understand how past land use decisions affect current landscape conditions and natural communities.

Allison Scherberger ('09) and Bentley Cook ('11) are working this summer as interns with the Sewanee Environmental Institute Pre-College Program. Running June 28 to July 11, the SEI Pre-College Program will introduce high school students to the Sewanee Domain and our diverse Environmental Studies Program. This year, there are 28 students studying with 12 supporting faculty and staff. Modules of study will include archaeology, biochemistry, botany, ecology, forestry, geology, GIS, environmental economics, and zoology. Outing activities such as hiking, caving, and canoeing will also be incorporated into the schedule, all aimed to introduce the students to the wonderful outdoor opportunities associated with the Domain.

The SEI is offering two undergraduate field intensive courses this summer: Anthropology 357 "Archaeology Field School" taught by Sarah Sherwood and Environmental Studies 220 "Reading the Landscape" taught by Jon Evans and David Haskell. Leila Donn ('11) is the intern and teaching assistant working with the Archaeology Field School. Both courses give students a unique glimpse into Sewanee's past, allowing them to explore how the Domain has been used extensively by people over time.

Finally, Alfire Sidik ('09) is once again back in the Sewanee Herbarium working as an intern this summer and then as a Herbarium/SEI Post Baccalaureate Fellow in the fall. Her primary responsibility will be to assist the Herbarium staff in the final preparation of the "Flora

(continued on p.4)

## Lost Cove – Worthy of the Acclaim!



**D**id you hear? Sewanee and The Land Trust for Tennessee have been awarded the 2009 Tennessee Governor's Stewardship Award for Excellence in Natural Heritage Preservation for the purchase of nearly 3000 acres in Lost Cove. The Cove will be permanently protected and used as a laboratory for education and research.

The Governor's Stewardship Awards are by definition the most prestigious conservation awards in the state. They recognize outstanding environmental projects and conservation measures and hold them up as examples to further the conservation of our state's natural resources.

According to the citation, "The outdoor laboratory will teach more about forestry, watershed protection, biology and geology. The project incorporates innovative conservation practices to protect Tennessee's rich wildlife diversity, abundant soil, forest resources and exceptional recreational opportunities."

We are just now beginning to delve into Lost Cove and savor the treasure – the Tennessee treasure – for which we are now stewards. This spring, herbarium staffers have had several forays into Lost Cove, revealing more wonders in this rich and botanically diverse habitat.

Each trip into the Cove is an adventure. Take the springtime junket in search of twinleaf (*Jeffersonia diphylla*). We had it on good authority that the plant inhabits Lost Cove:

Friend of the Herbarium Sanford McGee felt sure that he had seen it. Herbarium Director Jon Evans, volunteer Dale Hoagland, and curators Yolande Gottfried and I jumped into the Biology Department's trusty pick-up truck and headed down the one road into the Cove. We found a plethora of spring wildflowers, including acres of Virginia bluebells (*Mertensia virginica*). And then the truck got stuck.

I would have thought my days of pushing a truck out of sticky mud were long gone, but an excursion into Lost Cove is never without surprises. We got that truck out, and undaunted (or emboldened), we continued our quest for the twinleaf. When we found it thriving by the thousands on the lower slopes of the cove, you could hear our whoops all the way up the hollows. What a day – two new species for the Domain, and both prospering deep in Lost Cove.

About a month later, we got a call from Tennessee Natural Areas Botanist Todd Crabtree, who was eager for a trek into the Cove in search of the rare Huntsville vasevine (*Clematis morefieldii*). He had a feeling that it grew on some of the west-facing slopes. There are no roads into this area, so no truck to get stuck. Instead, the four of us (Todd, Jon, Yolande, and I) tramped into the cove on foot, down some old logging and four-wheeler tracks.

On the dry limestone outcrops we found fringetree (*Chionanthus virginicus*), Cumberland mock orange (*Philadelphus hirsutus*), and dwarf hackberry (*Celtis tenuifolia*), but no vasevine. After weeks of rain, the streams were full, the water tumbling down to enter Lost Cove Creek. Along the creek we discovered several herbaceous species, all new finds for the Domain, including Bishop's cap (*Mitella diphylla*), American dog violet (*Viola conspersa*), and cutleaf coneflower (*Rudbeckia lacini-*

*ata*). Another great day in the Cove! We didn't locate the vasevine, but I don't think even Todd was disappointed with that botanizing.

Just last week on a hunch, I ventured into the Cove to see if I could find American Columbo (*Frasera caroliniensis*) blooming. This unusual member of the gentian family produces a foot-wide rosette of leaves close to the ground that may live for several years. Then, late one spring, the plant will bolt to six feet or so, display a magnificent inflorescence consisting of a myriad of inch-wide creamy white blossoms. Similar to the "century plant," it then goes to seed and dies. I found the plants blooming by the hundreds and filling the powerline right-of-way that cuts through the Cove. Once more, without question, Lost Cove delivered!

Is your curiosity piqued? Want to come see for yourself why the State of Tennessee considers the preservation of Lost Cove to be an outstanding contribution to the welfare of the state's natural resources? Check our schedule of events, and plan to join us as our adventures in Lost Cove continue this summer and fall. No worries -- we'll do our best not to get the truck stuck again!

—Mary Priestley



# Summer Calendar of Events

## Sewanee Natural Bridge State Natural Area - Wed., June 24, 4 p.m., George Ramseur

Join botany professor *emeritus* Dr. Ramseur in an exploration of the vegetation around this 27-foot-high natural sandstone bridge. It is a short drive from Sewanee down the Sherwood Road (TN Highway 56) to the area, formerly part of the University Domain but deeded to the state in 1974. Meet at the Sewanee Market parking lot to carpool or caravan to the Natural Bridge for this short, moderate walk.

## Lost Cove, Sat., June 27, 9:30 a.m., Mary Priestley and Yolande Gottfried

Explore a section of the recent Domain acquisition in Lost Cove. This will be a moderately strenuous, off-trail hike of about 2 hours. Meet at Spencer Hall to carpool or caravan to the access point for the walk.

## Sewanee's Campus Trees Wed., July 8, 4 p.m.

We will lead a stroll among the trees of the Sewanee campus, giving tips on identification and tales about outstanding individuals, such as the "Moon Tree". Meet in front of All Saints' Chapel for this easy one-hour walk.

## MEGA-MOUNTATHON, a Jubilee Event - Sat., July 11, 9:30-11:30 a.m., Mary Priestley and Yolande Gottfried

Pressed plants are the "bread and butter" of the herbarium. Valuable for scientific reference, they are often objects of beauty. Come help us mount our backlog of specimens collected by such giants of Southeastern botany as Albert Radford and C. Ritchie Bell. Learn methods that have been passed down through generations and are still used today, and take home a guide to mounting pressed plants.

## Thinking Ahead – Jubilee Jamboree

Mark your calendar for the University Homecoming weekend, October 9-11, for which we've scheduled the highlight event for our Jubilee Celebration. Details to follow – please plan to join us!

All times are 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.

## THE SEWANEE PLANT PRESS

The Sewanee Herbarium  
Dr. Jon Evans, Director  
Biology Department  
Sewanee: The University of the South  
735 University Avenue  
Sewanee, TN 37383

### WEB SITE

<http://lal.sewanee.edu/herbarium>

### EDITOR

Mary Priestley  
[marypriestley@bellsouth.net](mailto:marypriestley@bellsouth.net)

### CALENDAR

Yolande Gottfried  
[ygottfri@sewanee.edu](mailto:ygottfri@sewanee.edu)

### CONTRIBUTORS

Jon Evans  
[jevans@sewanee.edu](mailto:jevans@sewanee.edu)  
Yolande Gottfried  
Nick Hollingshead  
Allison Scherberger

### COMPOSITOR

Tammy Elliott

*Drawings, by Mary Priestley, are of some Domain plants so far found only in Lost Cove: Bishop's cap, Columbo, Virginia bluebell, and twinleaf. The likeable lycopodium is more widespread.*

For more information on these events call Yolande Gottfried at (931.598.5327) and leave a message.



---

## 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 and Address (if different from that on the mailing label on the back):

---

---

---

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 Sewanee Plant Press*: \_\_\_\_\_

---

# Jubilee Jamboree



**T**he highlight event for the Herbarium Jubilee Celebration, scheduled to take place in conjunction with the University's Homecoming Weekend Oct 9-11, will feature the Fiery Gizzard section of the South Cumberland State Recreation Area (SCSRA). This is due to a happy conjunction of events and past history that link the Sewanee Herbarium and the Fiery Gizzard.

Many of George Ramseur's plant taxonomy class field trips were in the Fiery Gizzard. Some 233 specimens in the collection list Fiery Gizzard as the collection site. One of the students in those classes was Ross C. Clark, from whom the Herbarium has a number of specimens collected in 1962 and 1963. Clark went on to graduate school in

botany at the University of North Carolina at Chapel Hill and did a floristic study of the Fiery Gizzard gorges for his Master's thesis, choosing that place for this study because of his many visits while a student at Sewanee. He later completed his Ph.D. at Chapel Hill and has recently retired from teaching at Eastern Kentucky University. George Ramseur's Ph.D. is also from Chapel Hill, which creates a special bond between him, Ross Clark, and Sewanee.

Clark's study confirmed what many people have long known, that the Fiery Gizzard is a remarkable place. He found 604 species of vascular plants representing 105 plant families and described four forest types in this relatively small area, which is a very high degree of diversity of species and habitat. Yet, at the time, this area was not protected, and until recently, that remained the case for significant sections of the Gizzard, even though parts of it were included in the SCSRA. In 2009, the Friends of the SCSRA, working with the Conservation Fund, were able to arrange the purchase of 1250 acres running from below the bluff in the vicinity of Raven's Point down into the Fiery Gizzard Cove and up the bluff on the opposite side.

Therefore, it seems appropriate to have Ross Clark lead an excursion to the Fiery Gizzard as the highlight of

the Herbarium's Jubilee celebration, which will also include a reception in the new Herbarium facilities in Spencer Hall. Details will be announced in the fall newsletter, but circle Homecoming Weekend on your calendar, and plan to join us in Sewanee for this celebration.

—Yolande Gottfried

## Interns, continued from page 1

of the Domain" which we hope to submit as a manuscript for publication by the end of the year. The Herbarium staff has been actively collecting since the beginning of spring, focusing on Lost Cove and special habitats on the Domain such as limestone woodlands and glades. As of this month, the Flora of the Domain Project has documented well over 900 species of vascular plants!

—Nick Hollingshead, Jon Evans, and Allison Scherberger

♻️ Printed on Recycled Paper

# SEWANEE

THE UNIVERSITY OF THE SOUTH

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

ADDRESS SERVICE REQUESTED

