



Summer Internship in the Herbarium

This summer, the Sewanee Herbarium was a hive of activity. Every available surface was covered in transect tapes, hand lenses, chalk, field guides, leaf samples, and, more often than not, dirt. Bright and early each morning at 7 a.m., the dedicated and sleepy researchers, myself included, filed in to meet post-baccalaureate fellow Callie Oldfield (C'15) and Dr. Jon Evans and head into the field. Our mission: to continue research that began with George Ramseur in the 1970s and has involved generation after generation of Sewanee students since.

I am an ecology & biodiversity major and forestry minor from Asheville, North Carolina. I was lucky enough to be involved with this summer's forest ecology surveys along with Ed Haubenreiser (C'16, eco-bio), Zach Loehle (C'17, eco-bio), and Emily Reidlinger (C'18, bio). We were charged with measuring, identifying, and mapping every tree in five one-hectare plots set up in 1978 in Franklin-Marion State Forest. Two of these hectares had not been resampled since 1978, while the other three were resampled in 1995 and 2005. Additional data collection at plots included sapling inventories, seedling and herbaceous cover samples, duff and soil depth measurements, soil nutrient samples, and hemispheric photos to measure canopy cover. Suffice to say, we had a busy eight weeks.

The first step was finding and setting up the plots using transect tapes and flags. Each hectare was sampled in 10m x 10m squares that were numbered 1–100. Dr. Ramseur had selected the five hectares to represent the variety of upland forest

types found in Franklin-Marion State Forest, including sloped areas around creeks and a particularly dense mountain laurel (*Kalmia latifolia*) plot. Navigating through the tight, clonal stems of the laurel was challenging, especially when coupled with sharp greenbrier (*Smilax* spp) and



American holly (*Ilex opaca*). Each hectare had its own challenges and quirks, from a corner converted to pine plantation to multi-tree fall events that involved climbing and scooting to get around.

Each of the researchers brought different knowledge and interests to the summer work. Callie, who had taken herpetology and entomology while a student, supplied identifications and fun facts about the various insects and reptiles that we saw and heard. Often, the most exciting moment of the day was prefaced with, "Oh wow, check this out!" One day, we found a

timber rattlesnake curled up and sleeping peacefully; several days later, we found another who was definitely *not* sleeping and let us know to stay far, far away. My contribution to the excitement was the innocent discovery of what turned out to be the rarest orchid in Tennessee, the small-whirled pogonia (*Isotria medeoloides*). The team worked well together because, although our career and research interests were widely varied, we all held a respect and appreciation for the amazing ecosystem that we were working in and the biodiversity that it sustains.

Identifying more than 40 tree species and sixty herbaceous species was already a learning curve, but the thing I learned the most about this summer was myself. Though I have known for many years that I wanted to be a botanist when I "grew up," this was my first experience with field research, keying out species using flora manuals and the herbarium, and spending any length of time in the forest with a scientific eye. I find myself appreciating every plant I see on my morning walk—and asking questions about the ones which are unfamiliar to me. In fact, when I returned to Asheville for a few weeks in late summer, I only lasted a day before purchasing a copy of *Flora of the Carolinas* and testing it out on the plants around my home.

With all the data collected, we now begin the daunting process of organizing and interpreting. One of our first projects was to create a map using GIS software with a circular point for every tree in the five hectares. By assigning different colors

(continued on back page)

First-Year Program Visits Fiery Gizzard



Picture this: a half-semester class in which freshmen gain an interdisciplinary perspective on how they fit into life on the Sewanee Domain. They arrive on campus two weeks before the start of the semester to read, discuss, journal, and blog. They are assigned to a professor in groups of about 15, with whom they attend plenary sessions, share meals, and explore local landscapes. It's called Find Your Place and goes by the acronym FYP, which can also stand for First-Year Program.

The pre-semester two weeks are intensive—each group meets every day for much of the day. Then, for the first half of the fall semester, they meet once a week for an afternoon. The goal is for each of these new students to gain an understanding of college-level academic skills, lifelong skills of balance and place, and respect for the community.

This year, English Professor John Gatta's FYP group consisted of students who had expressed an interest in reading and writing. His course was designed to focus on "literature of place." The group explored works of well-known and more local Sewanee writers, and they became acquainted with the Domain and the surrounding area. Among their activities were a hike into Lost Cove with geology professor Bran Potter and a canoeing excursion at Lake Dimmick. They visited the Grundy County Heritage Center and a Civil War burial site about which poet Marilyn Nelson wrote "To the Confederate Dead" while in residence at Sewanee.

I had the privilege of introducing the group to one of Sewanee's special places, Fiery Gizzard. In preparation for our hike, students read portions of the book *Fiery Gizzard, Voices from the Wilderness*, a series of essays that I wrote and that the Herbarium published last year.

"The Gizzard," which is part of South Cumberland State Park, is located about 15 miles from campus. Often professors take their classes there for lessons in biology, geology, and forestry. A hike to Sycamore Falls for a dip in the splash pool has been a popular outing for Sewanee students, faculty, and community members for years.

We packed a lunch and headed into the Gizzard in late morning. The students appreciated how quickly they felt surrounded by wilderness: the temperature dropped noticeably as we stepped down into the deep, narrow gorge, and the sound of Little Fiery Gizzard Creek drowned out noises from the parking lot above. A huge Canada hemlock tree standing guard outside Cave Spring Rockhouse came immediately into view. All of this happened within fifty feet of the trailhead.

We hiked past "doghole" mines, where mountain men had dug out enough coal to cook and heat their homes. Then we passed the confluence of the Big Fiery Gizzard Creek with the tributary that we had been following. We peered into Black Canyon and climbed one of the Chimneys where we took a few minutes to do some journaling. We unpacked our lunches at Sycamore Falls, where some of the students waded in the creek and we all admired a swarm of swallowtail butterflies puddling at the water's edge.

After lunch, Dr. Gatta invited the students to share their journal entries. One wrote about the rockhouse, another about an inchworm crawling through the leaf litter, and another about the network of roots underfoot. One student wrote about the joy of filling the page with his thoughts, without the pressure to "put out a paragraph."

Then Gatta led the group in a discussion of my essays, and I read part of one of them aloud. The students expressed an appreciation for the wildness of the place, its accessibility, and its vulnerability in a world where undeveloped land is becoming scarce.

About literature of place, nature writer Barry Lopez says, "I am someone who returns again and again to geography, as the writers of another generation once returned repeatedly to Freud and psychoanalysis. It is my belief that a human imagination is shaped by the architecture it encounters at an early age.

"A specific and particular setting for human experience and endeavor is, indeed, central to the work of many nature writers. I would say, further, that it is also critical to the development of a sense of morality and human identity."

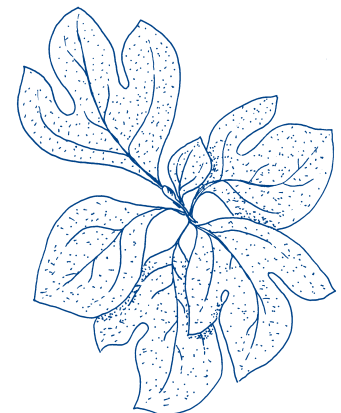
As the FYP students continue to get better acquainted with the landscapes surrounding Sewanee, I hope they will return to Fiery Gizzard. Like me, they may find inspiration there for their own writing.

—Mary Priestley

See sewanee.edu to learn more about the FYP program.

Google Barry Lopez *Literature of Place* to access his essay.

Fiery Gizzard, Voices from the Wilderness is available through amazon.com. Proceeds support the Sewanee Herbarium.



Fall Calendar of Events

IONA: Art Sanctuary Reading **Sunday, Oct. 4, 2 p.m.,** **Yolande and Robin Gottfried**

Yolande and Robin have been invited to join other contributors at this reading. Yolande will share some of her Nature Notes and articles for the Plant Press. Robin will read from his essay collection titled *Life as a Fish*. The reading is free and all are welcome. IONA: Art Sanctuary is located off Tennessee Hwy. 56 South, on Garnertown Road, 2.8 miles outside of Sewanee, Tennessee.

Sewanee Arboretum **Sunday, Oct. 11, 2 p.m., Margaret Woods**

Meet Margaret at the arboretum kiosk at the corner of University and Georgia Avenues for a tour of the arboretum with history in mind: when were these trees introduced? Where did they come from? And for what purpose? Which ones turned out to have a negative impact or unexpected consequences? And which have proven to be useful in landscape and garden or for other purposes? An easy stroll around the central campus

Abbo's Alley **Saturday, Oct. 17, 7:45–9 a.m.,** **Yolande Gottfried**

A guided walk through Abbo's Alley with the Herbarium's associate curator. This event ranks high on previous Family Weekend events! All are welcome to join in the walk. Meet in the Quadrangle for this easy outing. There are a surprising number of things to see and learn on a familiar trail.

Botanical Watercolor Workshop **Saturday, Dec. 5, 9–11:30 a.m.,** **Margaret Patten Smith**

This workshop led by Chattanooga watercolorist Margaret Patten Smith gives people of all ability levels an opportunity to try their hand at capturing beauty in watercolors. We'll be concentrating on Christmas colors—evergreens and traditional Christmas flowers and fruits. Participants are invited to bring in their own objects to paint, or choose from a variety provided. Bring your own painting materials and meet in the herbarium on the first floor of Spencer Hall. The workshop is free, but space is limited, so reservations are necessary (see below).

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. In nice weather, the group gathers at Stirling's Coffee House; otherwise, they meet in the Herbarium, Spencer Hall room 171.

All times are CST or CDT.

For more information on these events or to reserve a spot in the watercolor workshop, call the Herbarium at 931.598.3346. Directions are available at the Herbarium website, lal.sewanee.edu/herbarium.

Wear appropriate shoes on all of these walks. Risks involved in hiking include physical exertion, rough

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

WEBSITE

lal.sewanee.edu/herbarium

EDITOR

Mary Priestley
marypriestley@bellsouth.net

CONTRIBUTOR

Katie Kull
kullka0@sewanee.edu

CALENDAR

Yolande Gottfried
yottgfri@sewanee.edu

COMPOSITOR

Tammy Elliott

Drawings, by Mary Priestley, are of smilax, American holly, sassafras, flowering dogwood, and small whorled pogonia.

HERBARIUM BLOG

sewaneeherbarium.wordpress.com

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.

Friends of the Sewanee Herbarium

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.

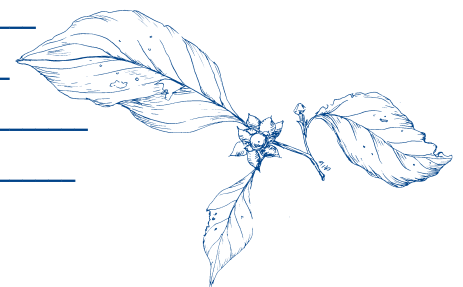
Name and Address (if different from that on the mailing label on the back):

Amount Enclosed: \$10.00 Other: \$ _____

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

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

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



Internship, continued from page 1

to different species and adjusting the size of each circle to represent the diameter of a tree, patterns begin to emerge on the landscape—chestnut oaks (*Quercus montana*) on ridges, dense areas of small sassafras (*S. albidum*) in canopy gaps, etc. We can also overlay seedling and sapling density maps to compare where young trees are in relation to their parents.

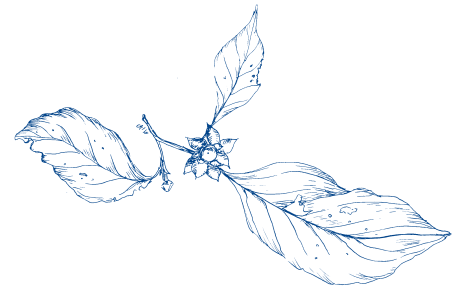
However, this is all just the tip of the iceberg. Incorporating all of the data into a map will give us an almost complete view of the forest as it is today, and the data from previous years can show us how it is changing. I am continuing to work on this project with Callie through an independent study. There are many hypotheses to

explore, and I am most interested in the dispersal of plants that are uncommon on the landscape. I'm excited for the opportunity to continue learning and see how the forest is responding to change.

—Katie Kull, C'17



 Printed on Recycled Paper



ADDRESS SERVICE REQUESTED

Sewanee, TN 37383-1000

Herbarium, Biology Department

THE UNIVERSITY OF THE SOUTH

SEWANEE