



The Latest on the Hart's-Tongue Fern

Hart's-tongue fern, *Asplenium scolopendrium* var. *americanum* (Fern.) Kartesz and Gandhi, is the rarest plant in Tennessee. The state's single known population, which inhabits a sinkhole on the side of the Cumberland Plateau a few miles southeast of Sewanee, has been of interest to botanists and plant conservationists since its discovery by a Major Cheatham in 1879.

A few years later, industrialist Richard Lodge, then a boy of nine or ten, first visited the population with British botanist R. Morton Middleton. Over the years, Mr. Lodge corresponded with various botanists about this rare plant and occasionally accompanied scientists to the sinkhole. The Lodge family has safeguarded this correspondence. A year ago, they donated it to the Sewanee Herbarium, and this spring the letters are being transferred to Tennessee's Division of Natural Heritage for safekeeping in the Tennessee State Archives.

In 1900, William Maxon, who would later become associate curator of the U.S. National Herbarium and president of the American Fern Society, visited the site with Mr. Lodge. He was taken with the plant, more common around the Great Lakes than here, as his description in *The Plant World* (vol. III, No. 9, 1900) suggests. "At a short distance it reminds one of [a narrow-leaved dock or wood-sedge] but a second glance only is needed to prove the emptiness of such comparison. The leaves are a thousand times more beautiful; the plant itself a picture of perfect grace... No other of our

northern ferns with which I am familiar, unless it is possibly Goldie's fern, carries with it a suggestion of such elegance."

Sometime in the early part of the 20th century, the population at the Tennessee site began to decline, possibly as a result of a flood. By 1934, it was down to two individuals. Subsequently, a Mr. Graves sprinkled the sinkhole with spores collected from ferns in Ontario, Canada. The population rebounded, but because of that act the native status of these plants has since been in question.



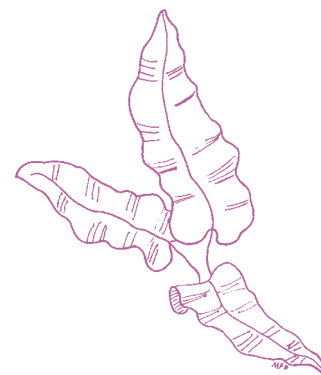
Nevertheless, it's a fascinating story about a truly rare plant in an unusual habitat. Dr. George Ramseur, founder of the Sewanee Herbarium, took an interest in the fern and visited the sinkhole several times, most recently in 2004. On one occasion he covered the plants with wire baskets to protect them from suspected herbivory. Three years ago, Henry Lodge (C'72), and I accompanied the current landowner, representatives of the Division of Natural Heritage and

the U.S. Fish and Wildlife Service, and Colgate University's Prof. James Watkins and his student Wes Testo on a visit to the site. On that day, two small ferns were spotted.

On a return visit this past summer, the two from Colgate found only one tiny plant. The decline in this population, although in itself too small to be of statistical significance, is consistent with findings in the other two small Southeastern populations and the more robust populations in the North. In a paper published in the *American Journal of Botany* <www.amjbot.org/cgi/doi/10.3732/ajb.1300150> Westo and Watkins attribute these declines to sensitivity to increases in temperature and drought associated with climate change and the fact that the plant competes poorly with other ferns.

Hart's-tongue fern is a federally threatened species, likely to become globally endangered in the foreseeable future. As Natural Heritage rare plant specialist Andrea Bishop commented, "It is sad news. I hope the plant can hang for a hundred more years."

— Mary Priestley





Welcome, William Shealy

My goal is to insure that we're not doing anything to diminish the diversity of the Domain. In fact, I want us to do what we can to foster that diversity. — William Shealy

Meet the University's new grounds manager, who started work this spring. Charged with maintaining the campus landscape, coordinating the arboretum, and designing and installing plantings for new buildings, William Shealy has his hands full. His 12-member crew mows grass, prunes trees, removes snow, picks up trash, and does whatever else is necessary to keep the grounds healthy and beautiful.

The father of two young daughters and husband of a librarian who is on the faculty at the University of Tennessee at Chattanooga, William commutes to Sewanee daily from his home at the foot of Lookout Mountain. "I'm very enthusiastic to be taking this position. I've been watching this job for availability for quite some time, and I'm glad to be within driving distance," he said when we conversed in mid-March.

William grew up in Erwin, northeast of Knoxville, and earned a degree in horticulture and landscape design at the University of Tennessee. While in college, he interned one summer on the Sewanee campus as part of a program instituted by then-grounds manager Monty Hawkins, also a UT graduate in horticulture.

A season working at LeConte Lodge in the Smokies led to a position managing Charit Creek Lodge in the Big South Fork. While wife Katie worked on her graduate degree in information science at UT, William had a job with Americorps, energizing Knoxville's backyard gardeners in alternative methods of urban farming. Katie's degree in hand, they headed to the University of Georgia, where William obtained a master's degree in landscape architecture and certification in historic

preservation. Immediately prior to coming to Sewanee, he was working with The Jaeger Company, a landscape architecture firm specializing in the management of historic landscapes.

William is interested in Sewanee from multiple perspectives. "First, this place is so much about the natural resources – the views, the amazing tree canopy, the clean water. Also, I want to get to know the cultural landscape, to understand how the campus has evolved. I want to know where Sewanee's traditions come from, put them in context, and make sure that the things that we do are in keeping with and respectful of this historic campus, set among beautiful natural resources.

"I like that the Sewanee campus is at that edge of 'managed' and 'wild' landscapes. This is a tiny community set among forests, and we grounds folks are at the interface between Sewanee's cultural and natural resources. I'd like to blur the lines even more between the campus grounds and the forest."

To that end, William envisions the campus being more hospitable to native species and wildlife. Although not a native plant purist when it comes to landscaping, he sees many opportunities for using natives in his plantings. As he explained, "We humans create conditions that require tough plants that aren't always natives. I'm okay with using exotic plants as long as they are not invasive. The campus is a cultural landscape, and there are plants that are culturally significant to this community – sometimes there aren't native equivalents."

William is a member of the American Society of Landscape Architects, which has taken a stand against using invasive exotic plants. He pointed out the ASLA's

Environmental Code of Ethics, which states, in part, "Non-native invasive species should not be introduced where those species could contribute to the degradation of the environment, and long-term maintenance and management programs should be established to control or remove non-native invasive species from land and water."

This spring, William is involved in the design and installation of plantings on the grounds of the new Sewanee Inn, and later he will do the same for the two new dormitories that are going up. "I think it's brilliant that we have been asked to do this work in-house. Because we are the folks who are going to be taking care of them, we can see that they are planted properly and will survive. In selecting plants and choosing the form of the landscape, we can make sure that it looks like Sewanee and is maintained well."

As Sewanee becomes an increasingly sustainable campus, it is clear that William's point of view and training will enhance and support the University's goals. Our campus landscape is in good hands, to the benefit of the entire Domain.

— Mary Priestley



For the latest botanical news from the Domain check out our blog:
sewaneeherbarium.wordpress.com

Spring Calendar of Events

Shakerag Hollow—Sat., April 5, 2:30 p.m., Nathan Bourne

Nathan is a Sewanee alum and experienced herbarium intern. This is Sewanee's "Mecca" for wildflower lovers, and the flowers should be diverse and abundant. Meet at the Green's View parking lot (past the golf course). 2 miles, moderate to strenuous, with one fairly challenging incline.

Roark's Cove—Sun., April 6, 2:00 p.m., Yolande Gottfried

A private property at the base of the plateau is being made available for a wildflower walk to see some species not seen on the upper plateau, such as Virginia bluebells (*Mertensia virginica*) and possibly some early shooting star (*Dodecatheon meadia*), as well as trilliums and much more. Meet at the Sewanee tennis courts parking lot (on Green's View Road behind the Sewanee Inn site) to carpool or caravan to the location of this easy to moderate walk.

Shakerag Hollow—Fri., April 11, 1:30–3:30, Yolande Gottfried

As part of the Trails and Trilliums program, the Herbarium is sponsoring an open-to-all "Welcome to Wild about Wildflowers"

Hike on the Shakerag Hollow Trail. This is Sewanee's "Mecca" for wildflower lovers, and the flowers should be diverse and abundant. Meet at the Green's View parking lot (past the golf course). 2 miles, moderate to strenuous, with one fairly challenging incline.

11th Trails & Trilliums April 11-13, 2014, Sponsored by the Friends of South Cumberland

Held at the historic Monteagle Sunday School Assembly grounds, featuring "Teddy Roosevelt," wildflowers and unique hikes. Please visit the Trails & Trilliums Facebook page and the website, trailsandtrilliums.org, for a detailed schedule of events.

Collins Gulf Wildflowers and Waterfalls Hike—Sun., April 13, 8:15–3:00, Mary Priestley

Part of Trails and Trilliums weekend, this hike is in the South Cumberland State Park. Wear sturdy footwear, pack water and lunch, and bring cameras! Meet at Citizens State Bank in front of the Monteagle Assembly at 8:15 to carpool, or meet at the Collins West trailhead in Gruetli-Laager at 9:00. 6 miles, moderate to strenuous with 600-foot elevation change.

(continued on p. 4)

THE SEWANEE PLANT PRESS

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Illustrations—Jack-in-the-Pulpit, Hepatica, Trillium, Bloodroot, and Hart's-tongue Fern—are by members of the herbarium's nature journaling group: Margie Gallagher, Alex Hoole, Maren Johnson, Jim Poteet, and Mary Priestley.

Friends of the Sewanee Herbarium

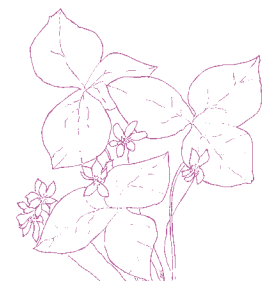
The Friends of the Sewanee Herbarium support the work of the Herbarium: education, research, and conservation. A \$10.00 annual contribution would be very much appreciated. The date of your most recent contribution is printed on your address label.

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

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

Calendar, continued from p. 3

For directions to the Collins West trailhead, contact the South Cumberland State Park Visitors' Center (931.924.2980).

64th Annual Spring Wildflower Pilgrimage, Great Smoky Mountains National Park, April 15-19

On Wednesday, April 16, Mary Priestley will lead a nature journaling workshop. She will also be the speaker at the welcoming luncheon. The author of children's wildflower guide, *William's Wildflowers*, she will talk about reading as a way to introduce children to nature. Please see www.springwildflowerpilgrimage.org/ for more information.

Garlic Mustard Pull—Sat., April 19, 9:00 a.m., Mary Priestley

Join in an attempt to control this invasive exotic plant that is threatening to take over

some sensitive areas of our forest. It is easy to pull (even good to eat when young and tender!). No equipment is necessary but work gloves would be a good idea. Meet at Morgan's Steep.

Piney Point—Sat., May 3, 1:30 p.m., Herbarium Staff/volunteers

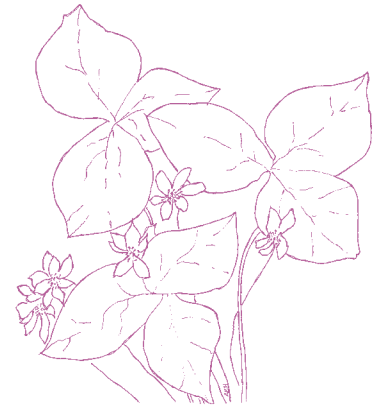
A distinctive community of plants grows on the sandstone outcrops along the trail to Piney Point, including the rare elf orpine *Diamorpha smallii*. A moderate one-to-two hour walk, meeting at the tennis courts at St. Andrew's-Sewanee School (beyond the football field).

The herbarium sponsors a nature journaling group that meets Thursdays, 9:00–11:00 a.m. led by Mary Priestley. All are welcome. Email Mary for more information.

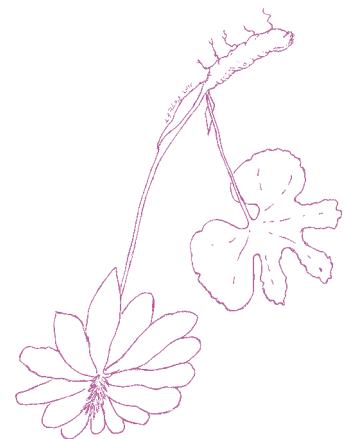
All times are CST or CDT.

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.

For more information on these or other Sewanee Herbarium events, please contact Yolande Gottfried at the Herbarium (931.598.3346) or by email at ygottfri@sewanee.edu. Directions are available on the Herbarium website, lal.sewanee.edu/herbarium/, under the calendar of events.



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