



Orchids on the Mountain

Jonathan Ertelt graduated from Sewanee in 1978 with a degree in philosophy and received his Masters in Education with an emphasis on science education from Peabody at Vanderbilt in 1999. He was at Cheekwood for nine years and the National Aquarium in Baltimore for a year and a half, then became greenhouse supervisor and lecturer at the University of North Carolina at Charlotte before taking over the supervision of the greenhouses at Vanderbilt. Jonathan makes his home in Nashville with wife Bonnie and son Sam. His love of plants pre-dates all of that, as you will learn from this article that he contributed. —MPP

When I was first exploring botany with Dr. Ramseur, and then later exploring plant systematics (taxonomy), I was already growing a wide variety of plants. I even grew and flowered a few orchids in my various dorm rooms. However, the native orchids eluded me for the most part. I remember seeing the occasional rattlesnake plantain as I walked the wooded paths around campus.

The year I took systematics, I remember Dr. Ramseur pointing out a greenish plant growing in a patch of sphagnum during one of our mountaintop forays and suggesting that I should have a look at that flower. I practically did a dance around it I was so thrilled—but it was an understanding lab group that year, and others were happy for me as I excitedly keyed out *Isotria verticillata* (Muhl. ex Willd.) Raf., the large whorled Pogonia. (Although I was thinking that it was the smaller of the two species in this genus, I do seem to remember it being pedicellate, so I'm recalling it and checking the text descriptions at the same time.) I don't think that it was until the summer after I graduated that I saw the *Spiranthes* orchids in the grass around Lake Cheston. Two species, I believe, one with short spikes with two ranks of flowers spiraling

up the flower stem, the other slightly taller with only one rank of flowers doing the same spiral dance.

None of these were corsage flowers—while the *Isotria* would barely have covered my thumbnail, a bouquet of a half



Orange-fringed Orchid at Lake Dimmick

dozen of the small *Spiranthes* wouldn't do as much. But they were orchids, mysterious and exotic even if not as large as their more well-known tropical

counterparts, rare and beautiful just by their linking to that family name. It was a thrill to find them and a thrill even to be looking. I saw other native orchids during that time, but no others on the Mountain.

I remember seeing the showy Orchis, *Galearis spectabilis* (L.) Raf., during the Smoky Mountain Wildflower Pilgrimage one spring. I remember very clearly finding *Calopogon barbatus* (Walt.) Ames, commonly called the bearded grass-pink, during our spring break systematics trip, in a drainage ditch in northern Florida. But other orchids on the Mountain remained hidden, despite what I thought was pretty constant vigilance on my part.

Two years ago a new species revealed itself to me and caught me completely by surprise. I knew that color orange as soon as I caught a glimpse of it out of the corner of my eye. After lunch at Shenanigans I was glad to be able to go back to that spot on the entrance road and share the orange-fringed orchid, *Platanthera ciliaris* (L.) Lindl., with my wife Bonnie and my son, Sam.

This year we went back up, with all good intentions of just enjoying what the Mountain and the Domain had to offer us

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A Busy and Productive Summer Internship



Large Whorled Pogonia

This summer I received the Yeatman Biology Research Assistantship to work in the Sewanee Herbarium under the direction of Yolande Gottfried and Dr. Jon Evans. As a rising sophomore at the University of the South, I found this experience to be both enlightening and exciting. I was first introduced to the herbarium last year as a work-study student and from this experience I have gained invaluable knowledge about the work involved in maintaining and running a herbarium. I am now familiar with the routine that a collector must follow to arrive at the final product of the mounted specimen with its all-important documentation. In the herbarium, I spent my days collecting, mounting, systematically sorting, and entering specimens in our computer database.

My summer internship at Sewanee has been a hodgepodge of valuable and memorable experiences. A good deal of my time was spent working with our specimens from the Carolinas, which make up our Permanent Loan Collection from the herbarium of the University of North Carolina at Chapel Hill.

You may wonder how our herbarium has plant specimens on loan from Chapel

Hill. Before Dr. George Ramseur came to teach at Sewanee in 1958, he received his Ph.D. from there. He was the first Ph.D. student of Dr. Albert E. Radford, one of the authors of the *Manual of the Vascular Flora of the Carolinas*, which we use for much of our plant identification. Many of the specimens that Dr. Ramseur collected for the *Manual* are native to the high mountains of North Carolina, which was the area of focus for his dissertation. Ultimately, Dr. Ramseur's work with plants and his relationship with Dr. Radford led to the permanent loan of Carolina specimens from the UNC Herbarium to the Sewanee Herbarium.

Yolande and I also completed some key database updates. At the end of the 2006 spring semester, we converted our computer databases into Microsoft Access from FileMaker Pro. With the help of our lab fellow, Nick Hollingshead, we were able to systemize the data efficiently. Nick, who is located in Colorado, was available through phone and e-mail to answer our endless list of questions and help us with any problems that we encountered along the way.

Many of the problems were nomenclature-related: many plant names have been revised over the years, so old and new names had to be reconciled. I spent many days making the appropriate updates to names that had recently changed and synonymizing all the scientific names. With Nick's help, I have learned to work with both Microsoft Access and ArcGIS (Arc Geographic Information System) computer programs to create a map that shows the distribution of plant collection sites on the Sewanee Domain. It has been a rewarding experience, and I have learned a lot about databases.

The work I have done this summer will assist in running floristic analyses and creating the "Flora of the Sewanee Domain" manuscript, which we hope to complete this fall. In the midst of database work, I have also been able

to collect plants in Sewanee and the surrounding areas with both Yolande and Mary Priestley. I have learned a lot about different species of plants and their habitats. Collecting plants in the field can also be a pleasing experience when you discover a plant that is new to an area.

During the summer, I also had the good fortune of attending tree walks led by Dr. Karen Kuers and Dr. George Ramseur, hosted by the Sewanee Herbarium. One morning, Mary and I accompanied Dennis Horn to document new locations for the rare Huntsville vasevine, *Clematis morefieldii* Kral, which was discovered in Tennessee only recently. (A population was located on the Domain during the summer of 2005. See *Sewanee Plant Press* fall '05.) Although we were unable to spot the *Clematis*, we did find several rare plants, including smoketree, *Cotinus obovatus* Raf.; Cumberland rosinweed, *Silphium brachiatum* Gattinger; and the elusive Canadian milkvetch, *Astragalus canadensis* L.

With all the work I was able to do with this internship, I have gained new respect for the environment. I plan to resume my educational journey with Dr. Evans's Plant Evolution and Systematics class this fall. I am eager to apply what I have learned through this internship to further my knowledge of botany.

—Alfire Sidik, C'09

The Herbarium has been blessed with a "never-ending succession" of talented and energetic students, including Alfire Sidik, a sophomore from St. Louis who plans to major in biology. This fall, we welcome back 2006 graduate Leighton Reid for a post-baccalaureate fellowship. —MPP

Autumn Calendar of Events

The "Rez" at St. Andrew's-Sewanee School Sun., Sept. 17, 2 PM, Yolande Gottfried

The one-mile "Otter Limits" trail around the campus lake leads through fall wildflowers, diverse woodlands, and scenic views. Meet in the parking lot behind the gym at St. Andrew's-Sewanee School to carpool to the trailhead. This will be a moderate 2-hour walk.

Bird Walk

Sat., Sept. 23, 7:30 AM, David Haskell

Get up with the birds and join an ornithology professor at one of Sewanee's best bird-watching spots. Meet at Morgan's Steep for this easy walk. Cancelled in the event of rain.

Abbott Cotten Martin Ravine Garden

Sat., Sept. 23, 8:00 AM, Mary Priestley

Mary will lead her traditional "Guided Walk through Abbo's Alley" on Sewanee's Family Weekend. All are welcome to participate. Meet in the campus Quadrangle (beside All Saints' Chapel) at 7:45 a.m. for this easy one-hour walk.

Piney Point

Sat., Sept. 30, 1:30 PM, George Ramseur

"Piney Point is a striking promontory that boasts a sweeping view out over Shakerag Hollow and Roark's Cove. Along the way, the trail passes over sandstone outcrops populated by reindeer moss, shortleaf pine, and, especially in the fall, a variety of wildflowers" (*Go Take a Hike* by Mary Priestley and John Benson, 2004). This is a moderate 2-mile round-trip

walk beginning at the Shakerag trailhead at the University gates.

October Watercolor Class — TBA

As we go to press, we are in the process of scheduling this event. Look for information in the *Sewanee Mountain Messenger* or on our website.

Beckwith's Point Trail

Sat., Oct. 28, 10:45-Noon, Jon Evans

This is the new trail that makes a loop with the Shakerag Hollow Trail. This walk will be an out-and-back trip to the overlook on the new part only, which skirts the bluff above the Hollow, crossing several wet-weather streams (most with bridges). Meet at the Shakerag trailhead at the eastern University gates for this easy to moderate walk.

Lake Dimmick

Sun., Nov. 5, 2:00 PM, Mary Priestley

Also known as Day Lake, this beautiful 80-acre reservoir is one of three on which the Sewanee community depends for its drinking water. This late autumn hike offers a chance to see the lake and some of its varied plant habitats and learn about its history. Meet at St. James' Church in Midway to caravan to the entrance to the lake on Caldwell Road. 2 miles, easy to moderate.

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



Slender Lady's-tresses

THE SEWANEE PLANT PRESS

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Drawings are by Mary Priestley.

plants are prohibited in all of the above-mentioned natural areas.

For more information on these events contact Yolande Gottfried at the Herbarium (931.598.3346) during regular business hours or by e-mail at ygottfri@sewanee.edu.

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:

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for that day. But, although it was a month earlier, I was hoping once again to spot that brilliant almost fluorescent orange color. Bonnie and Sam waited patiently as I walked back to search over the area, having carefully pulled the car off the road. Alas, the flowers, or even the hint of a growing spike, were not to be spotted. The main foliage is low and so well blends in with the surrounding grasses that I could have been looking right at the plant and not have known it.

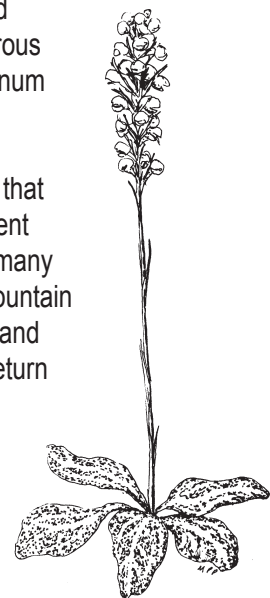
Disappointed, I headed back to the car, looking along the slight slope off the road as I walked, to see what else I might see in the way of wildflowers. Fifteen feet from the car, I spotted a pair of roundly oval, slightly hairy leaves, with a stem arising from the center. I could scarcely believe my eyes. Then I saw another, and another, this one with a seedpod developing! Here was a population of pink lady-slippers (*Cypripedium acaule* Ait.), many more than

a dozen plants, since at least a dozen had stalks indicating that they had flowered this past spring!

I know it's been close to 30 years since this mountain Domain was my home, but for this orchid population to become established here since I left? They couldn't have been there when I was in school. Surely they would not have been missed. Surely Dr. Ramseur would have taken the systematics class to see such a treasure! I asked Mary Priestley if she was aware of it and she was, though she couldn't say how long they had been there. She did remember asking Dr. Willie Cocks if he knew about them when he did some landscaping of those embankments, and he did. I wasn't aware of the landscaping. As for the lady-slippers, I did kind of guess that a population that size would have had to have been noticed before. Sure would be nice to know when they were first seen there.

I probably didn't push too hard as an undergraduate to try and find all

the orchids on the Mountain. And even now, almost 30 years later, there are undoubtedly some still waiting to be found. (My first walk around part of Lake Dimmick, made last fall with Mary, and seeing the numerous pockets of sphagnum moss, virtually assures me of finding orchids in that area on subsequent trips.) There are many aspects of the Mountain that draw alumni and their families to return time and again. For those who are interested in botany and botanizing, orchids should definitely be added to the list.



Rattlesnake Plantain

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