

CLAYTONIA

Newsletter of the Arkansas Native Plant Society

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An Audience With The Queen

By Theo Witsell

Craig "Coondog" Fraiser and I recently spent two long hot days in the Springfield Plateau section of the Ozarks exploring sinkhole ponds and two anonymous spring-fed stream gorges*. We had hoped to find some new species for Arkansas – Virginia sneezeweed (*Helenium virginicum*), forked aster (*Eurybia furcata*) and tall larkspur (*Delphinium exaltatum*), but struck out on all counts. But deep down, unspoken even, we were both secretly hoping to discover a new population of the showy lady's-slipper orchid (*Cypripedium reginae*), far and away the rarest and most seldom-seen lady's-slipper in Arkansas. It is so rare, and so spectacular, that it often goes by its other name: The Queen.



Showy lady's-slipper orchid (Cypripedium reginae).
Photo by John Pelton.

As we hiked up the rugged canyon of our first stream, we searched likely habitat for forked aster (bases of bluffs and limestone ledges with an accumulation of rich, moist soil), but to no avail. But the scenery was spectacular and the water was among the cleanest and clearest I've ever seen in Arkansas. So clear, in fact, that the depth could be deceiving, turning what looked like a knee-deep step into a cold, take-your-breath-away belly-deep plunge. Rare and uncommon plants abounded along the stream, with cascades of running strawberry bush (*Euonymus obovata*) spilling from blufftops, and sheer walls peppered with the grey-green foliage of the littleflower alumroot (*Heuchera parviflora* var. *puberula*). The rock ledges along the stream banks were loaded with plants that indicated the presence of groundwater seepage: golden ragwort (*Packera aurea*), umbrella sedge (*Fuirena simplex* var. *simplex*), shining coneflower (*Rudbeckia fulgida*), bishop's cap (*Mitella diphylla*), grass-of-Parnassus (*Parnassia grandifolia*), and bristly-stalked sedge (*Carex leptalea*). In the woods along the stream we also found "new" populations of several rare species including satin brome (*Bromus nottowayanus*), blue cohosh (*Caulophyllum thalictroides*), and butternut (*Juglans cinerea*). Even the sand grape (*Vitis rupestris*), by far the rarest of our native grapes, with its wide, folded leaves, was found growing in the gravel of the stream bed.



The rugged limestone gorges of the Springfield Plateau provide habitat for many rare species. Photo by Craig Fraiser.



The hanging garden, high above the stream, keeping the Queen safe from her enemies. Photo by Craig Fraiser.



Surveying the bluffs is best done from the stream channel, but watch out for leeches, be sure to keep your pack out of the water, and always take a waterproof bag for your camera and phone! You'll fall in eventually. Believe me, I speak from experience. Photo by Craig Fraiser.

The streams we were traveling in were deeply incised, forming dramatic “box canyons” with bluff walls and narrow floodplains, making walking in the stream channel the most convenient, and perhaps the safest, avenue for travel. Signs of roaring spring floods (dead leaves crammed head high in the branches of shrub thickets, occasional logjams against trees high above the water, and high, steep-walled gravel bars up against deep, scoured, bedrock-bottomed pools) spoke to the fact that the streams, while they are lazy and docile in the summer, can have an excitable mean streak during the wet season. All along, as we waded in the cool water, we scanned the bluffs for the telltale seepage indicators, which would tell us to be on the lookout.



The Queen and her court. Photo by Craig Fraiser.

To get to our second stream, we descended over 300 feet down into its gorge from an adjacent ridgetop (there are no roads that cross this particular stream due to the rugged and inaccessible terrain). When we reached the valley floor we arbitrarily decided to go upstream. The water was cold and still running in early August, indicating that springs supply a good portion of the flow. After about a mile of slipping and sliding up the creek, necks craned to survey the bluffs, I did a double-take. There, 16 feet up on a sheer limestone wall, was a small, lush “hanging garden”, perhaps five feet wide and three or four feet front-to-back, obviously kept moist by the gentle emergence of groundwater. Against the wall of the bluff, at the back of this secret garden, were ten of the largest lady’s-slipper orchids I’ve ever seen! The biggest were perhaps three feet tall, with leaves eight or ten inches in length. The specific epithet, *reginae* (the Queen), is aptly given.

President Elect On the Move

To the Arkansas Native Plant Society members:

Over the summer I made the difficult decision to accept a position in Missouri and, in July, resigned from Arkansas State University and moved to central Missouri. My spouse had taken a position with a research firm in Fulton, Missouri and I had the opportunity to work on a research project in Jefferson City. After too many years of interstate commuting, we decided this was our chance to work and live at the same address (after last year's low point, which involved simultaneous ownership of 2 houses, and rental of 2 separate apartments, we were ready to simplify our lifestyle). Now we're back to 1 house which is a novel concept after 10 years.

Even though I'm no longer employed in Arkansas, I am continuing to work on research projects in Arkansas, and I'll always consider Arkansas as home. I look forward to serving ANPS during the next year, and continuing to both work with, and enjoy Arkansas plants. I hope to see all of you at the fall meeting in Mammoth Spring, Arkansas.

Staria Vanderpool, President Elect
Arkansas Native Plant Society



Marbled seed (Onosmodium bejariense), an interesting species in the borage family, occurs in scattered locations in Arkansas, typically in dry, open habitat. There are three varieties known from the state. Var. bejariense is known only from dry blackland prairie and chalk outcrops in Little River and Hempstead County; var. hispidissimum is concentrated in the blackland prairies of southwestern Arkansas; and var. subsetosum, while not uncommon in limestone and dolomite glades in the Ozarks, is very rare in the Ouachitas, where it occurs in shale barrens. Photo by Craig Fraiser. Garland County.

The unique and fragile microhabitat supporting this small population was remarkable in itself, as was the assemblage of associate species present – the Queen's court. There were a few small, arching shrubs of ninebark (*Physocarpus opulifolius*) and the uncommon alternate-leaved dogwood (*Cornus alternifolia*). And a number of seepage-loving herbaceous plants: spotted cowbane (*Oxypolis rigidior*), grass-of-Parnassus, bristly-stalked sedge, shining coneflower, bearded shorthusk grass (*Brachyelytrum erectum*), and even eastern columbine (*Aquilegia canadensis*). Everything must have been just perfect... just the right amount of light, the required mycorrhizal fungi to assist the orchids in obtaining nutrients, just the right amount of water, and the inaccessible site itself... a fortified castle to protect the Queen from her enemies, like hungry deer and greedy poachers.

The day, which was hot and humid with thunder clapping in the distance, suddenly seemed brighter with our discovery and I felt somewhat lighter as we slogged back down the creek and up the steep slopes out of the gorge. We didn't find what we had really set out to find, but we got a number of nice surprises along the way and got a rare audience with The Queen, something I think we'll both remember for a long, long time.

** The names of these streams are not disclosed here because of the unfortunate and continued poaching of lady's-slipper orchids, especially the Queen slipper, from the wild by collectors. Several historical populations in Arkansas are now gone because all the plants were dug out. Carl Hunter once told me that, at one time, he knew of five sites for the species in Benton County, but that all of them had been lost to poachers. Today no populations are known to survive in the northwestern part of Arkansas, and only four are known in the entire state..*

Dr. Henry "Rob" Robison Retires After 37 Years at SAU

After 37 years as Professor of Biology at Southern Arkansas University at Magnolia, Dr. Henry "Rob" Robison has retired from teaching, at least in the formal setting. Dr. Robison is well-known for his work on fishes and crayfishes of Arkansas, but knows a thing or two about plants too... particularly rare and endemic ones. He is co-author of two impressive books: *Only in Arkansas* (a study of the animals and plants endemic to the state) and *Fishes of Arkansas* (the definitive work on the subject). He has also published a number of scientific papers, mentored many students over the years, and been active in the Arkansas Academy of Science.

We wish Rob the very best in his retirement and hope to see him at more ANPS meetings and field trips. Blue skies, Rob. Blue skies...

PLANT OF THE ISSUE: CREEPING ST. JOHN'S WORT



Specimen of *H. adpressum* collected in the Grand Prairie by F. Leroy Harvey in July 1884 and housed at the U of A Herbarium in Fayetteville.

Creeping St. John's wort (Hypericum adpressum). Globally rare and in Arkansas! Channel scar depression ponds along Alum Fork, Saline County. 2006. Photo by John Pelton.

Back in June, Brent Baker, research botanist at the U of A Herbarium at Fayetteville (UARK), was out looking for rare plants at the Railroad Prairie Natural Area in Prairie County when he came upon something he didn't expect to find. To his amazement, there before him in a ditch along the abandoned railroad bed of the Rock Island Railroad, in an area of low, unplowed tallgrass prairie, was a small colony of one of the rarest plants in Arkansas—one that hadn't been seen in eastern Arkansas in almost 125 years! It was creeping St. John's wort (*Hypericum adpressum*) and he was, justifiably, pretty excited.

This was, in a sense, the *second* time he had found this species in the Grand Prairie. Six months before, back in January, Baker

was sitting by his microscope in the herbarium at the U of A, painstakingly checking the identity of all the St. John's wort specimens for the upcoming *Atlas of the Flora of Arkansas*. He came across a specimen labeled as *Hypericum sphaerocarpum* (round-fruited St. John's wort) that had been collected in July of 1884 by F. Leroy Harvey, then botanist at the U of A. The location on this specimen label read simply "Grand Prairie. E. Ark.". But something about the plant didn't look right for *H. sphaerocarpum*. Besides, this was noticeably out-of-range for this species in Arkansas – the kind of long-distance outlier that warrants a second look at the specimen.

Baker had been working through the species folders in alphabetical order, starting with *Hypericum adpressum*, represented at UARK by a single Arkansas collection made in 2006 from Saline County by Theo Witsell. At the time, this

PLANT OF THE ISSUE: CREEPING ST. JOHN'S WORT

Saline County collection was believed to be the first of this species from Arkansas and was published as a state record (first collection from the state) in the summer of 2007 in the inaugural issue of the *Journal of the Botanical Research Institute of Texas* (formerly *Sida*). Baker did a double-take and realized that this 1884 specimen was not *H. sphaerocarpum* as the label said, but matched the 2006 Witsell collection. This was a major find. Not only did it establish that there was, at least at one time, *H. adpressum* in the wet grasslands of the Grand Prairie, but *H. adpressum* is a globally rare species considered to be a very high conservation priority in every state where it occurs.

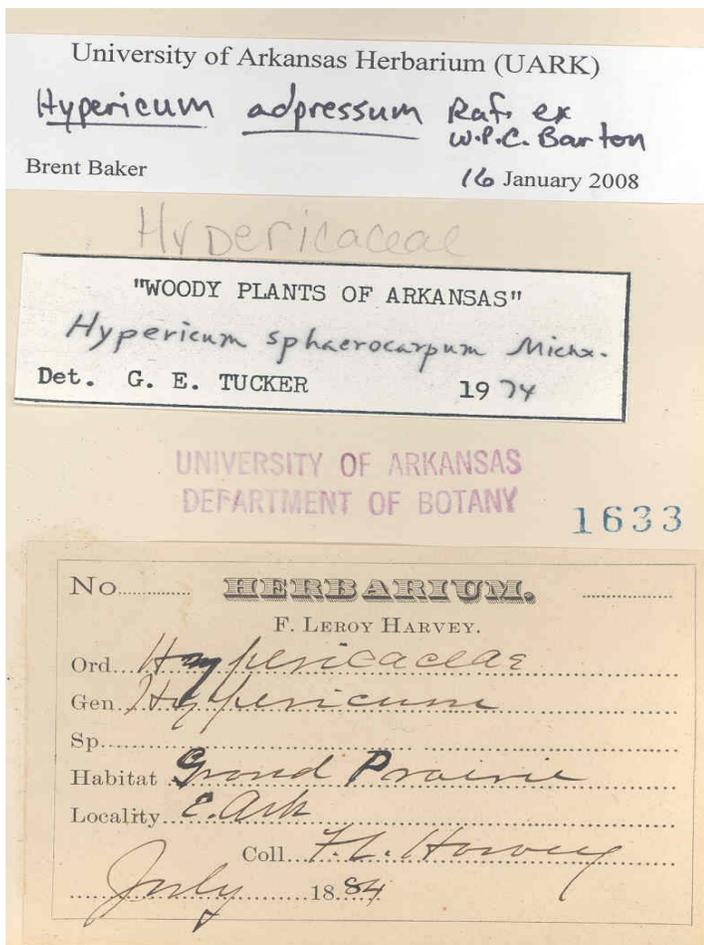
Then, Baker, under contract with the Arkansas Natural Heritage Commission to update older rare plant records from natural areas in the Grand Prairie, found the real live plants still growing in the region! This turn of events is exciting in many ways, but it really goes to show the value of botanical specimens, especially old ones. Nearly 99.9% of the grasslands in the Grand Prairie have been destroyed since Harvey's day, and his collections provide some of the few clues as to what was there historically, before the prairies were decimated (like his Grand Prairie collections of snowy orchid [*Platanthera nivea*], which has never been found in Arkansas again). It was this Harvey collection that alerted us to even the remote possibility that creeping St. John's wort might be found in this region of the state. And it was the search image Baker had from examining the Harvey specimen that allowed him to know it when he saw it in the field.

After Baker returned to Fayetteville and emailed Witsell to let him know about the discovery, Witsell hightailed it to the Railroad Prairie to search other marshes on the natural area. This led to an additional site being found, not far from Baker's site. Both populations are small and, now that they have been accurately mapped and counted, will be carefully managed and monitored into the future. These events also highlight the importance of even tiny protected remnants of original vegetation like the Railroad Prairie. They are precious and are worth the effort it takes to protect and manage them.

—Theo Witsell



Creeping St. John's wort requires open, seasonally wet habitat and is specifically adapted to precipitation-driven ponds and swales with a zone of fluctuating water. The habitat above is a rare type of channel scar pond on an old (abandoned) stream terrace of the Alum Fork of the Saline River in Saline County. *H. adpressum* forms a ring around the edge of such depressions where water keeps competition from other species down. Photo by John Pelton.



ABOVE: Labels on the Harvey specimen—from 1884 to 2008. The lower label is the original, in Harvey's handwriting (identified only to genus). The more recent ones above are annotation labels (labels attached by experts who have examined the specimen)—one from 1974 identifying the specimen as *H. sphaerocarpum*, and Baker's 2008 label with the *H. adpressum* annotation. Such labels, especially on older specimens, tell the history of that specimen.

SPRING 2008 ANPS GENERAL MEETING MINUTES

Comfort Inn Convention Center
Harrison, Arkansas
April 5, 2008

Linda Chambers called meeting to order at 8:35 pm. Linda thanked Staria Vanderpool and Jean Ann Moles for their efforts in organizing our 2008 Meeting. Linda announced having Vascular Flora books for sale and also reported the sale of 33 T-shirts.

Minutes: Maury Baker made motion to accept the Fall 2007 General Meeting Minutes as published in the *Claytonia*, Staria Vanderpool seconded and all agreed.

Treasurer's Report: Jerry McGary presented the treasurer's report. He went over the financial records beginning October 7-April 1. He explained in detail the expenses for distributing the Carl Hunter books. He announced the approval of our 501(c)3 non-profit status. Maury Baker made motion to approve, Susie Teague seconded and all were in favor.

Membership Report: Maury Baker announced 375 members. He attributed a number of new members to the distribution of our ANPS Brochures. He reminded everyone about the dues.

Old Business: Maury Baker explained the structure of the By-laws and the need for changing terminology to provide more flexibility in awarding scholarships, awards, and grants. The proposed amendment was presented in the *Claytonia* as required. The board recommended approval. Eric Sundell made a motion to approve, Linda Chambers seconded. All agreed.

Linda Chambers announced the book-plate design for the Carl Hunter books was ready to be applied to the books. Barbara Baker, Maury Baker and Theo Witsell will apply the book-plates. They will be distributed to the Public Libraries.

New Business: Brent Baker presented a follow up on his work with the Arkansas Vascular Flora Project. He requested a donation to help complete printing of the AVFP Atlas. Theo Witsell suggested ANPS give a donation of \$5,000.00 for this project. Susie Teague made motion to approve, Meredith York seconded and all approved.

Eric Sundell reminded everyone of Earth Day and requested help with the booth at the Clinton Library.

Linda Chambers requested conclusion of the meeting. Maury Baker made motion to adjourn, Eric Sundell seconded and all approved.

Respectfully Submitted,
Susie Teague

NEW MEMBERS

The following new members have joined the ANPS since the last issue of *Claytonia*, from February to August 2008:

New Members

Carol Bantle (Royal, AR)
Thomas Bruce (Little Rock, AR)
Phil & Jan Bullington (Maumelle, AR)
Shelley Buttgen (Berryville, AR)
Carlton Cagle (Fayetteville, AR)
Carol Chappell (North Little Rock, AR)
Cindi Cope (Fayetteville, AR)
Nancy Dockter (North Little Rock, AR)
Laetitia East (Little Rock, AR)
Grady Ford (Little Rock, AR)
Jack & Claudia Hamilton (Little Rock, AR)
Sue Hollis (Kansas City, MO)
Cody Hooks (Little Rock, AR)
Frank James (Maumelle, AR)
Paula & David Knighton (White Hall, AR)
Barbara Landrum (Hot Springs Village, AR)
Katherine Matthews (Scott, AR)
David Moore (Rolla, MO)
Roselie Overby (Oak Grove, LA)
Esta Lee Pattie (Lead Hill, AR)
Millicent Phillips (Marshall, AR)
Ann Porter (Harrison, AR)
Kathleen Redd (Mandeville, AR)
Chuck Robinson (Parkville, MO)
Darcia Routh (North Little Rock, AR)
Joanna Seibert (Morrilton, AR)
Lynn Senn (Little Rock, AR)
Lisa, Charles, & Max Vargo (Royal, AR)
Sharron Walter (Paron, AR)
Claire Whiteside (Harrison, AR)
Kathleen H. Wittmann (Franklin, AR)

New Life Members

Virginia Alexander (Conway, AR)
Bill Beall (Fort Smith, AR)
Cheryl Lavers (Jonesboro, AR)
Norman Lavers (Jonesboro, AR)
Larry Lowman (Wynne, AR)
Mary Reuter (Berryville, AR)
Lynn Senn (Little Rock, AR)
John Simpson (Hot Springs, AR)

We welcome these new members to the ANPS and hope to see them at the Fall Meeting!

FIELD TRIP REPORTS

Lost Valley Field Trip, ANPS Spring Meeting in Harrison, April 5, 2008

By Eric Sundell

*Under the beech wood tree
Who loves to lie with me?
And turn his merry note
Unto the sweet bird's throat?*

*Come hither, come hither!
Here you'll find no enemy
But winter and rough weather.*

Burnetta Hinterthuer and Brent Baker led a large group of us to Lost Valley for one of the most exquisite and spectacular rich woods wildflower shows I've ever seen. The spring perennials were at high tide: toothwort, hepatica, phlox, rue anemone, yellow bellwort (the largest, showiest one), yellow dog-tooth violet, several real violets (blues and yellows), wood betony (a locally common purple form). Two kinds of trillium were open: Ozark wake robin, which ages from pure white to an alluring pink, and one of the purple nosebleeds, the scarcer one, *Trillium sessile*, in both its familiar purple and less familiar yellow forms. Even the wildflowers not yet in bloom were tantalizing—mayapples and two species of waterleaf, in particular, proclaimed that high tide would last at least another couple of weeks.

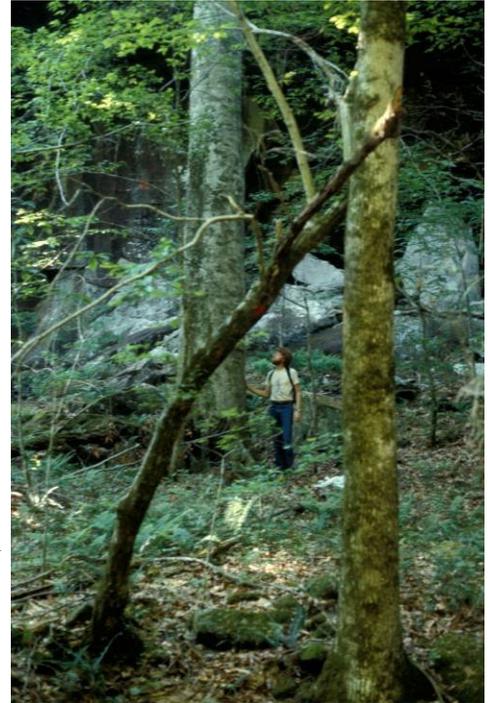
The setting for these floral fireworks was hardwood forest dominated by beech trees. No tree in North America is more impressive than a large, smooth-barked beech. Trees can reach 70-80 feet and rarely even 100-120, with trunks 2-3 feet in diameter. In former times, diameters of 4 feet were not uncommon. In *A Natural History of Trees of Eastern and Central North America*, Donald Culross Peattie describes the beech, in almost any landscape, as the finest tree to be seen: "Far down the aisles of the forest the beech is identifiable by the gleam of its wondrously smooth bark, not furrowed even by extreme old age." In autumn, beech leaves turn a bright golden yellow. In winter—more or less as we saw them on April 5th—the gray, skin-tight bark of even the most massive trees is set off against a web of branches tipped with slender, lustrous brown, inch-long buds, the longest winter buds of any North American tree. In the understory, the young beeches aren't conventionally deciduous—their bleached leaves hang on the branches through the winter, and you can spot the saplings from the highway just as clearly as you can the dogwoods in early spring. Except on Crowley's Ridge, beech populations in Arkansas are uncommon and scattered—for several years Don Crank has searched unsuccessfully for his first beech tree of Garland County.

Worldwide, there are 8-10 species of beech, all in the Northern Hemisphere and most of them in Asia. Europe has a single

species, *Fagus sylvatica*, that's widely grown in American gardens, especially in copper, weeping, and corkscrew forms. North America also is home to a single species, our own *F. grandifolia*, that ranges from eastern Canada south to Louisiana and Texas. With sugar maple and yellow birch, the American beech dominates the central northern hardwood forests of Ohio, Indiana, and southern Michigan. In the 19th century, beechnuts were one of the favorite foods of the passenger pigeon. Rebecca Rupp in a florid natural history and lore of North American trees, *Red*

Oaks and Black Birches, lists beechnuts at the top of the birds' menu, and Audubon's portrait of a pair of passenger pigeons places them on beech boughs beside a cluster of withered leaves, i.e., during mast time. The clearing of those great beech forests especially in the north central states is thought to have been as decisive as slaughter to the extinction of the passenger pigeon. Disjunct islands of beech trees grow at relatively high elevation in the mountains of eastern Mexico, where they occur with a number of species we're familiar with here in the southeastern forests, like sweetgum, black cherry, trumpet vine, yellow jessamine, and poison-ivy.

Beech trees in North America are sufficiently abundant to have acquired their very own parasite, the highly specialized *Epifagus virginiana*, or beech drops. The genus is monotypic—though there are other species of beech in the Northern Hemisphere, there are no other beech drops. Like the mycotrophic Indian pipes we saw during the Hot Springs meeting last fall, the plants have no chlorophyll. They're root parasites, penetrating and living within and upon the roots of the host trees and drawing from them all the nourishment they need to sustain their brief annual activity above the ground. In late summer and fall, delicate, succulent stems emerge from the soil to flower, and then



Old-growth beech (Fagus grandifolia) at Dismal Hollow Research Natural Area, in Newton County, where beech trees were protected from logging by bluffs and grow nearly five feet in diameter. Photo: Gayle Garrison/ANHC.

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set and disperse seeds—the tiny, purplish flowers are pretty under a lens; the pollination system is apparently complex, involving two different kinds of flowers with different functions. The stems desiccate and shrink through the winter to form tough, wiry, blackened skeletons, persistent enough for us to find them under the larger beech trees about six months later during that glorious walk through Lost Valley.

Beech trees are imperiled by a blight called beech bark disease, caused when an exotic (non-native) scale insect attacks and weakens the bark, allowing a pathogenic fungus, an ascomycete of the genus *Nectria*, to invade and often kill it. More damage can occur when other insects and fungi penetrate the wood beneath the dead bark. Heavy infestations of beech bark disease in the Northeast have caused high mortality in beech stands. The scale insect, *Cryptococcus fagisuga*, was introduced into Nova Scotia in the 1890's. The disease was first recognized in Nova Scotia in 1920 and in the U.S. in Massachusetts in 1929. The scale insect is now known throughout New England, New York, and New Jersey and continues to spread to the southwest. It was discovered in Great Smoky Mountains National Park in 1994. Perhaps there's reason for optimism in the fact that some trees in heavily infected stands seem to be resistant to the beech scale and remain vigorous and disease free.

Tales from the Border (of Missouri and Arkansas): A Trip to the Tallgrass Prairie Preserve in Oklahoma

By Linda S. Ellis

This is the tale of another border, the one between Oklahoma and Kansas and the ANPS field trip to the Nature Conservancy's Tallgrass Prairie Preserve. On Saturday May 31st, 2008, Joe Woolbright, our master prairie manager and Joe Neal, birder extraordinaire, led us on a trip to the 45,000 acre Flint hills



Photo by Linda Ellis.

grassland which is as much a research site for prescribed fire applications and free-ranging bison management as a botanical preserve.*

This was my second trip with the ANPS group to the preserve as a similar event was organized in September, 2006. The two experiences were radically different since the previous fall trip was during the worst drought in 50 years and this spring was the wettest in the same time span.



Poppy mallow (Callirhoe), Tallgrass Prairie Preserve. Photo: Linda Ellis.

Joe Woolbright said the first section we journeyed through was recently acquired by the Nature Conservancy and it had a completely different look to it than longer-held areas of the prairie that had undergone prescribed fire management. It had obviously been grazing land for cattle as the populations of bitter, unpalatable forbs, referred to as “increaser” species far outnumbered the “decreaser” species or those that ruminants prefer. For example, one of the most prevalent species in this section and throughout the park was *Asclepias viridis*, commonly called antelope horn or spider milkweed. This plant, when broken, exudes the toxic, white sap for which the family is known and is avoided by grazers. Another very prevalent species was *Psoraleidium tenuiflorum*, commonly known as slimleaf scurf pea. The abundance of this purple flowered legume surprised me as I had always considered plants in the Fabaceae (bean and pea family) to be a favorite of ungulates. This plant is reported to be poisonous to cattle, however, which accounts for it remaining untouched. I also saw other bitterly aromatic species similarly avoided like yarrow (*Achillea millefolium*) and mexican hat (*Ratibida columnifera*) in this new section of the park.

In the original part of the Tallgrass Prairie Preserve, the plants we encountered included pale pink showy evening-primrose (*Oenothera speciosa*) in abundant numbers, sky blue Carolina larkspur (*Delphinium carolinianum*), the hot pink flowers of sensitive brier (*Schrankia uncinata*), bright yellow green thread (*Thelesperma filifolium*), orange butterfly milkweed (*Asclepias*

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tuberosa) and the delicate white blooms of *Callirhoe alcaeoides* or pale poppy mallow. Each turn of the road revealed a full spectrum of colors arranged at random creating a rich display for the botanist's or artist's eye.

What I didn't see was any sign of the standard prairie species that I expected like pale purple coneflower (*Echinacea pallida*) or beebalm (*Monarda fistulosa*). Apparently, during the debilitating drought of the previous years, the bison were left on the preserve and, although they live almost exclusively on grasses, in extreme need or in winter, they will eat almost anything. I think the combination of severe drought and 2,500 hungry bison have decreased species diversity on this preserve at this time and it may be a while in recovering.

I also wondered about the lack of Indian paintbrush (*Castilleja coccinea*) on the park as I had seen it blooming along roadsides we passed that day. The TGPP, I found out, has conducted a comprehensive fire management program under the direction of Bob Hamilton, director of science and stewardship for the Nature Conservancy. The patch burn method that has been implemented there has aided in-depth research on prairie chicken recovery. Burning, however, is a major setback to the Indian paintbrush and now it is not listed as occurring in the park at all**.

The birders among us were kept busy with some interesting sightings. The most frequently seen bird that day was the Dickcissel. I had heard this bird has been in serious decline in recent years due to pesticide usage and habitat loss in Mexico and northern South America where it migrates in winter. I hope the large population we saw on the preserve indicates a comeback for this species. They were everywhere. Joe Neal got his spotting scope on an Upland Sandpiper which was typically perched on a fence post and also spotted a Prairie Chicken on the cattle grazed section. As much as I like botanizing and birding, one can get whiplash trying to do both at once.

Our day ended not with sunset but with more rain followed by more rain Sunday all the way back to my border. Having visited tallgrass preserves all across Missouri and in other states, I must say I enjoy the greater species diversity on an ungrazed prairie but the dramatic experience of being in the middle of a bison herd makes a trip to the Tallgrass Prairie Preserve a must.

* For further information, go to the Nature Conservancy in Oklahoma website (www.nature.org) and click on the Tall Grass Prairie Preserve link. Especially interesting is a series of articles called "Across the Fence" written by TGPP volunteer Bill Rinehart for the Pawhuska newspaper.

** Editor's note: Similar declines in Indian paintbrush have been seen in some Arkansas prairies managed exclusively with fire, but the incorporation of summer or fall haying as a management tool has resulted in the dramatic reappearance of

this species on several sites, even on prairies that have seen little to no paintbrush for several years. Seasonality of burning is also evidently a factor, with spring burning negatively affecting the paintbrush more severely than fall burning.

Trip to Lake Leatherwood and Ninestone, Carroll County

By Burnetta Hinterthuer

The Ozarks Chapter of the Arkansas Native Plant Society visited Carroll County on May 17th. In the morning, we visited Lake Leatherwood with Brent Baker leading the hike. Others were Linda Ellis, Frank and Mary Reuter, Don Mills, Jim Dudley, Rick Hinterthuer, Adam Hinterthuer, Ginny Masullo, Annie Littell, Steve Holst and myself. We took a trail that begins in a low floodplain and leads up to a ridge glade. Since we were going on to Ninestone in the afternoon, we did not hike the entire trail. But, we were very happy to find a new site for false hellebore (*Veratrum woodii*—a state species of conservation concern), along the upper woodland trail. This turned out to be the second known site for the species in the county. Many of the more common wildflowers seemed to have benefited from the abundant rain this spring. The waterfall was cascading over the shelves and looking beautiful as usual. Judith and Don said that it never stopped flowing throughout the year. A group of birders including Joe Neal and Joe Woolbright had visited in the morning.

The spring's abundant rainfall was in evidence at Ninestone as well. We walked out to the glade site where we saw the first Barbara's buttons (*Marshallia cespitosa* var. *cespitosa*) of the



There is no mistaking the wide, pleated foliage of Wood's false hellebore (Veratrum woodii), a rare species of rich woods in the Arkansas mountains. Photo by Linda Ellis.

FIELD TRIP REPORTS

Seeds of American Bellflower Needed for Research Project



Barbara's buttons (Marshallia cespitosa var. cespitosa), just beginning to bloom. Photo by Craig Fraiser.

year opening up, with many others promising they would soon follow. Two species of false dandelion (*Krigia dandelion* and *Krigia biflora*) were in bloom along with coreopsis, sandwort, yellow star grass, sedum, phacelia, and false garlic, which were widespread over the glade. Judith described having found great Indian plantain (*Arnoglossum muhlenbergii*) at a woodland site and will report to ANHC as a new county location. A fringe tree in the front yard was in full bloom and smelled great as well. One of the most startling finds of the day was in the seep area where a beautiful copperhead snake lay hidden by the surrounding previous season's leaves. I finally noticed it after stepping over for the second time. Thanks again to Judith and Don for welcoming us at Ninestone.



Widow's cross (Sedum pulchellum). Photo by Craig Fraiser.

We are studying the genetic basis of reproductive isolation in *Campanulastrum americanum* (Campanulaceae) (synonym = *Campanula americana*; common name = American Bellflower) both in the field and in the greenhouse at the University of Virginia. We identified you as Arkansas native plant enthusiasts who might be willing to help us in our endeavor.

As part of our ongoing research, we are hoping to obtain seed from populations throughout this species' range (essentially the eastern half of the U.S.), and have been very fortunate to have found volunteer collectors representing most areas therein. These collectors will collect a small amount of seed on our behalf later this summer/fall and send it to us here in the Biology Department at the University of Virginia. However, we have been unable to find willing volunteers anywhere in the state of Arkansas.

Therefore, I am writing to you now in the hope that you may know of someone who might be willing to collect seed (a few seed pods from each of 20-30 individuals) from a population anywhere in the state of Arkansas. The seeds from a given individual could be stored together, but the seed from separate individuals would need to be kept separate. Of course, to make this process as easy as possible, we would be very happy to send our collecting protocol and collection and mailing supplies to willing parties.

Thank you. Any help you might be able to offer would be greatly appreciated.—Brian Barringer / Department of Biology / University of Virginia / Charlottesville, VA 22904 / bcbarringer@virginia.edu



ARKANSAS NATIVE PLANT SOCIETY FALL 2008 MEETING & PLANT AUCTION

OCTOBER 24-26, 2008

MAMMOTH SPRING, ARKANSAS

The fall meeting of the Arkansas Native Plant Society will be held the weekend of October 24, with Mammoth Spring as the base for our meeting and field trips. Plan now to join the Arkansas Native Plant Society in Mammoth Spring this weekend. It's been several years since the group met in the north part of the state for the fall meeting, so we'll have a chance to see the diversity of fall wildflowers and the fall foliage display.

The community of Mammoth Spring is located on the Spring River at the Arkansas/Missouri border at Mammoth Spring, the 10th largest spring in the world (for more information about the region visit the website at: <http://www.mammothspringar.com/home.html>). The spring is the source of the Spring River, a popular float stream, and a well known rainbow trout fishery. The area is noted for the scenic beauty and relaxed environment. Nearby communities include Hardy (<http://www.oldhardytown.net/content/index.html>) and Cherokee Village (<http://www.sracc.com/>).

Natural features of the region include forested (cedar) glades, open glades, upland oak hickory forests and woodlands, prairie, and wetlands. Two features of the fall meeting include the aquatic and wetland plants of Spring River, and plants of Rock Creek Natural Area (a dedicated state Natural Area embedded in the Harold E. Alexander State Wildlife Management Area). Rock Creek Natural Area includes a series of calcareous seep-fen and dolomite glade plant communities associated with Rock Creek. It contains one of the highest concentrations of rare plant species in Arkansas, and includes examples of one of the rarest plant communities – calcareous fens. Notable fall-flowering plants include Riddell's goldenrod (*Solidago riddellii*), grass-of-Parnassus (*Parnassia grandifolia*), purple leaf willowherb (*Epilobium coloratum*), cardinal flower (*Lobelia cardinalis*) and big blue lobelia (*L. siphilitica*).

Field trips being planned include a range of difficulty, from paved trails through Mammoth Spring State Park, to slippery and wet (aquatic plants of the Spring River). Final details of field trips will be published on the ANPS website. Full information about field trips will be available Friday evening at the meeting.

LOCATION

Meeting events will be held in the historic Episcopal Church building, located at 575 Main Street, adjacent to the City Park, in Mammoth Spring. It is easily located. If you enter from US 63 (the north or south), turn west at the three-way intersection of US 63 and Main Street. From the west, Arkansas Hwy 9 becomes Main Street. Parking is available at the Episcopal Church building, the park, and adjoining streets.

If you need information about the city, Mammoth Spring State Park or other area sites, check with the staff at the State Park Visitor Center, located to the east of US 63, as you enter Mammoth Spring.

REGISTRATION

Registration costs \$5.00 and occurs on-site Friday from 5:00 PM to 7:00 PM, at the Episcopal Church building (575 Main Street). At the registration table we'll have sign-up sheets and trip information for various field trips. Registration will also be available Saturday evening.

A NOTE ABOUT THE FIELD TRIPS

Up to date information will be provided at the Friday evening program. If you would like to lead a field trip on Saturday or Sunday, please contact the editor or Staria Vanderpool and let us know. If anyone would like to arrive early and visit some of the areas, then lead a fieldtrip to that area, please get in touch with Staria Vanderpool. This area has not been explored as thoroughly as some regions of the state, so we don't have many people who are familiar with the area. The more trips the better...

AGENDA

Friday, October 24th

5:00 – 7:00 pm: Registration

7:00 pm: NATIVE PLANT AUCTION – FUNDRAISER

This year's event begins at 7PM on Friday evening with our annual native plant auction in the Episcopal Church building. This popular fundraiser is great for those who want grow and

culture natives in their own gardens. The informal auction offers plants lovingly grown by our members; these plants have not been taken from their native location unless threatened by habitat destruction. Items such as books, seeds, crafts, homemade jams, garden tools, carved wood items, etc. are often featured as part of the auction. Proceeds from the auction support scholarships and research activities by young botanists studying Arkansas plants.

If you have items to donate for the auction, simply bring them to the meeting and give them to one of the organizers. To fuel auction participants, we will provide coffee, soft drinks, and snacks. We appreciate members who bring snacks to share.

Saturday, October 25th

8:30 am: Field trips depart from designated sites.

Please pickup a fieldtrip sheet at the meeting on Friday night. Some trips will be held concurrently in the morning and will be offered again in the afternoon, so people should be able to make two of these half day trips.

7:00 pm: Evening Program: Dinner is on your own, then at 7, we meet again at 575 Main Street, Old Episcopal Church building, for our evening program.

After a break for refreshments the Society's business meeting will follow.

Sunday, October 26th

8:30 am: Field trips depart from designated sites.

CONTACTS

If you have places in the region that you want to share, questions about the meeting, or need assistance, contact StariaVanderpool (870.926.5793) or by email (StarVand@gmail.com). You may also contact the editor, Theo Witsell at 501.831.7473. We look forward to seeing you all in Mammoth Spring in October.

ACCOMMODATIONS

Mammoth Spring Lodge, U.S. Hwy 63, at the Arkansas/Missouri state line. We have 20 rooms blocked for the meeting, for the conference rate of \$66.00 for a single, with doubles, and family suites also available. Contact the lodge for rates for larger rooms. ANPS participants will receive a 15% discount (to get this rate, you need to show a copy of the newsletter). **Room blocks will be in place until October 1.** Reservations may be made by phone (870.625.0099) or web (www.mammothspringlodgemotel.com). A continental breakfast is served from 6:00 – 10:00.

Other lodging in the area includes:

Riverview Motel, located off Hwy 63, on the south side of town. Rooms at the Riverview Motel range from 48.00 + tax to

\$62.00 + tax. Upstairs rooms are described as larger, with a spectacular view of the river. In-room coffee is provided, but does not include breakfast. Reservations may be made by calling 870.625.3218.

Jewel's Log Cabins. Six new log cabins are available for rent. These are located directly across US 63, behind the Cedar Mall Flea Market. Cabin rental ranges from \$85.00 + tax to \$129.00 + tax. Cabin rental is based on the number of people in the party, with 3 cabins accommodating up to 6 people, and 3 cabins accommodating up to 8 people. Each cabin includes a stove, refrigerator, and microwave. Linens are provided, and minimal cooking gear. Call Dan at 870.625.0521 to reserve a cabin. He recommends that reservations could usually be made up to 2 – 3 weeks in advance of a planned visit.

Roseland Inn Bed and Breakfast, located at 570 Bethel Street in Mammoth Spring, provides 4 bedrooms, at \$60.00 + tax. Reservations may be made by calling 870.625.3378, or emailing the owner at Roseland@socket.net.

Camping: Camping is available during the summer season from the following businesses, but they may not be open after Labor Day. Contact them if you are interested in camping. Flooding during the 2008 spring damaged numerous riverside campgrounds, which may or may not be open this fall.

Riverside Resort
Harold Chaffin
63 North, South of Mammoth Spring
Mammoth Spring, AR - 72554
(870) 625-7501

Southfork Resort
Chris and Julie McCollum
7230 Hwy 289 N
Mammoth Spring, AR - 72554
(870) 895-2803

Additional accommodations are available in Hardy and Cherokee Village (16 scenic miles south of Mammoth Spring, off Hwy 63 and Hwy 412).

DINING

Several restaurants are located in or near Mammoth Spring. Thayer, Missouri is approximately 3 miles north of Mammoth Spring, accessed by US Hwy 63. Other restaurants are found in the Hardy-Cherokee Village area, south of Mammoth Spring, and in West Plains, Missouri, approximately 35 miles north of Mammoth Spring, on US Hwy 63.

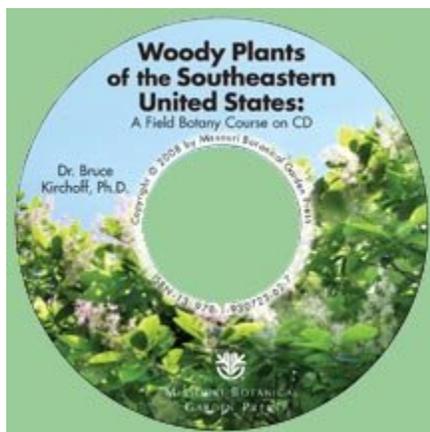
- Fred's Fish House, 225 Main Street, Mammoth Spring
- Hog Wild Pizza, 201 Main Street, Mammoth Spring
- Out of the Way Café, 365 Main Street, Mammoth Spring
- Woods Riverbend Restaurant, 80 Main Street, Mammoth Spg.
- Stateline Restaurant, Hwy 63 North, Thayer, Missouri.
- Sonic Drive-In, Hwy 63 North, Mammoth Spring
- Warm Fork Restaurant, 210 Risner Street, Thayer, Missouri
- Dairy Queen, Junction Hwy 63 and Hwy 19, Thayer, Missouri
- The Whistle Stop Café, 101 Chestnut Street, Thayer, Missouri

REVIEWS

Woody Plants of the Southeastern United States: A Field Botany Course on CD

By Bruce Kirchoff, Ph.D.

Missouri Botanical Garden Press. \$27.



In the heat of an Arkansas summer, wouldn't it be pleasant to take a botanical field course in tree identification in the air conditioned, chigger-free comfort of your living room? This is now possible with a new "publication" (2008) from the Missouri Botanical Garden, *Woody Plants of the Southeastern United States: A Field Botany Course on CD*. It is so chock-full of excellent color photographs, you can study both beginner and intermediate tree identification without stepping outside. You slip the CD into the computer and let your mouse do the walking! If the course takes you all summer, you won't have to test your mettle on a real tree until fall, when the highs are back into the 70's and 80's, the black gums are in full color, and the oaks are offering mature acorns for study aids. The CD is part of the "Image Quiz family of programs," whose goal is to "increase understanding of complex subjects through visual learning." To a great extent, it works. Hundreds of critically detailed pictures can make the study of tree identification faster and easier.

The disk comprises two separately authored "modules," what I'll call the "main program" (created by Bruce Kirchoff, Ph.D., of University of North Carolina Greensboro) and "Text & Images" (created by Alexander Krings, of North Carolina State University in Raleigh). If the CD is a dendrology course, then the main program is the textbook, and Text & Images supplements it like a lab manual. The main program includes 3 species lists arranged by family, genus, and common name as well as a slate of advanced spelling, timing, and testing features. And of course there's a tutorial on how to run the program and make use of all its bells and whistles. This review will deal mostly with the main program.

The species list for the main program includes some 250 kinds of trees, shrubs, and woody vines, each one illustrated by between 2 (Table Mountain Pine) and 39 (Hornbeam) images. Most species have 1-2 dozen. Here are picture counts for some Arkansas plants: Red Maple 20, Sugar Maple 25, Silver Maple 13, Box Elder 26; White Ash 16, Green Ash 20; Parsley

Hawthorn 7, Pasture Haw 9; American Elm 24, Slippery Elm 14, Winged Elm 22; Blackgum 30; Persimmon 17; Japanese Honeysuckle 11; Chinese Privet 4; Callery Pear 38. The pictures are bright and sharp and for the most part judiciously selected, showing habit (form), bark, buds, leaves, flowers, and fruits. Attention to critical detail is everywhere: bark of older trunks and younger branches compared; upper and lower leaf surfaces contrasted in a single frame; twigs and buds standard for most of the trees; for Red Mulberry, the tiny branch scar beside the terminal bud as well as the arching lateral leaf veins perfectly illustrated. Included are pictures of enormous interest but nonessential for purposes of identification—oak catkins, for example—a nice touch of enrichment. The most thoroughly treated species, with 20-30+ images, do tend to become repetitious and could be pruned. Rarely do key characters go unillustrated—in a quick sampling of the main program's images, I found only one instance: missing are the little pitch pockets in the bark of Shortleaf Pine by which it can be readily distinguished from Loblolly. Similarly, the program is marked by a high degree of accuracy, and I noticed only one species mislabeled: pictures of "European Privet" were of Chinese Privet, Arkansas' Public Enemy No. 2. There are of course some important, even diagnostic field characters for which a few words are worth a thousand pictures: the aroma of a bruised Sassafras twig, the taste of the inner bark of Slippery Elm. And finally, range and habitat, essential information for students of tree identification, are not illustrated or described and should be worked into a future edition. A virtual textbook can be extremely clever, and here the lessons are probably less routine and more enjoyable in 3-dimensional cyberspace than they might be on 2-dimensional pages: pictures can be scrambled, they can be advanced manually or at varying speeds, they can be mixed with other species—there is a lot to explore.

When you have finished your homework, the program challenges you with both quizzes and tests. The quizzes especially are a lot of fun and, depending on your time settings, very challenging: you can choose Image Naming, Image Comparison (Do the two pictures represent the same or different species?), or Image Verification (Is the name suggested correct or not?). And you get feedback! Clever students are rewarded with five different praise responses: "Good job!" "Great!" "Excellent!" "Affirmative!" and "Way to go!" On the other hand, the slacker receives only a single, monotonously repeated response: "Your answer is incorrect. Would you like to try again?" (It would be fun here to encourage better study habits with a few more colorful negatives: "You've gotta be kidding!" "Give me a break!" "No way!" "Ohhhhhhh, sorry!" "Tsk! Tsk!")

A drawback to the main program—this one serious—is that the images are not supported by text. There is no reference to diagnostic features—even when they're illustrated—by which a particular species can be distinguished from its closest allies or

REVIEWS

look-alikes. For example, although white ash and green ash fruits are clearly shown, no description is offered to highlight the rather subtle difference between them that is one of the surest ways to tell those two difficult species apart. There are no arrows, like in the Peterson bird guides, to direct your attention to the key characters. Your powers of observation must be keen, and you'll need to supplement them with another reference work that tells you what to look for—a field botany *guide* rather than just a *course*. For this reason, it is not unfair to say that the main program tends to be least helpful when you need it most: to tell the toughest species apart, like White and Green Ash, Cherrybark and Southern Red Oak, Hackberry and Sugarberry, Blackgum and Persimmon, Red Mulberry and Basswood.

The All Pictures/No Text problem with the main program is mitigated by the CD's ancillary module called "Text & Images." Here, families and genera are technically described, with key characters in clickable blue

font. Thus a read-and-click through the description of, say, the genus *Quercus* (the oaks), gives you instant images of leaves, acorns, twigs, leaf scars, terminal bud clusters, bark, and more. (These images are from the website www.bioimages.vanderbilt.edu and require an Internet connection to view.) Although Text & Images does not solve or even address the problem of telling certain exasperating species pairs apart, it's nonetheless an informative and enjoyable supplement. A list of species follows each genus. And technical references are provided.

Short of a technical floristic work, it's doubtful that any treatment of the woody plants of the Southeast would provide satisfactory,



Green ash (Fraxinus pennsylvanica). Photo by Carl Hunter.

comprehensive coverage of Arkansas species. Because we're so much on the geographic fringe of things, regional or local species, however important or intriguing they seem to us, tend to disappear—for example, Ashe's Juniper, Sandbar Willow, Vernal Witch Hazel, Cedar Elm, Nuttall Oak, Durand Oak, Maple Leaf Oak, Black Hickory, Texas Sophora, and Western Soapberry. (That both authors of the current CD live and work in North Carolina doesn't help.) Another group that gets short shrift in a general work is that of the taxonomic troublemakers: large, complex genera like hawthorns, plums, grapes, azaleas, and blueberries—in the current work, the Arkansas casualties include 18 hawthorns, several plums, 5 grapes, all 3 wild azaleas, and 3 kinds of blueberries (or 1 if you lump them into *Vaccinium corymbosum*). But this would be expected even in the heart of Dixie. What one does not expect in a floristic study of the "Southeastern United States" is a sizeable group of no-shows comprising species common or at least occurring both in Arkansas and the Southeast generally: what happened here, for example, to Southern Catalpa, Water Hickory, Chinkapin, White Mulberry, Carolina Ash and Pumpkin Ash, Swamp Cottonwood, and several shrubs and vines? Finally, and also unaccountably, three economic and ecological giants from the Atlantic and Gulf Coastal Plains—indigenous below our southern border—are missing: Slash Pine and Longleaf Pine, and Live Oak. I could find no statement explaining the criteria for inclusion of species in the main program. And I could find no explicit geographic description of "the Southeastern United States." (Is Arkansas in or merely close?) I could have overlooked these specifications in the CD's cyberspace, but whether missing or only tucked away in a corner, they are specifications that are absolute requirements of any floristic effort and should be clearly and prominently communicated to the user. (In the "Text & Images" module, Alexander Krings states that his area of coverage is identical to that of Alan S. Weakley's on-line *Flora of the Carolinas, Virginia, and Georgia, and Surrounding Areas*, where "surrounding areas" include Tennessee and Mississippi but do not cross the Mississippi River into Arkansas. For whatever reason, Krings' species list does not precisely match Kirchoff's, and many of the species cited above as AWOL from the main program are in fact enumerated in Text & Images and in some cases illustrated with a few photographs.)

To buy or not to buy? *Woody Plants of the Southeastern United States* was developed more for academic users than for amateur naturalists. The program can serve as a great backup to a dendrology textbook and help prepare undergraduates for the weekly ID quiz. Then again, the numerous pictures are among the best you'll find on the Internet or in any woody plant manual or guidebook, and the program drawbacks are minor, especially if you own a companion Hunter's *Trees, Shrubs, and Vines of Arkansas*. So if you're an ANPS member looking for a rigorous "Field Botany Course"—or at least for some tutoring—on woody plants, for \$27, the CD is a pretty good bargain.

—REVIEW BY ERIC SUNDELL

Emerald Ash Borer Confirmed in Missouri, 30 Miles From Arkansas Border—Ash Seed Collection Effort Underway

Editor's Note: *This is bad news. I just learned of this recently, and it is only a matter of time before this destructive pest arrives in Arkansas. There is a national effort (The National Ash Tree Seed Collection Initiative) being made to collect germplasm (seed) from all native species of ash (across their ranges) as a safeguard against their extinction (in the event that this pest cannot be contained and ash trees in North America are decimated). There is a simple but important protocol that needs to be followed. For more information, visit <http://www.mi.nrcs.usda.gov/programs/pmc.html>. There are five species of ash known from Arkansas: white ash (*Fraxinus americana*), green ash (*F. pennsylvanica*), blue ash (*F. quadrangulata*), Carolina ash (*F. caroliniana*), and pumpkin ash (*F. profunda*). All are threatened. Please help in this effort if you can.*

LAKE WAPPAPELLO, MO—State and federal officials are working overtime to determine the extent of an emerald ash borer infestation at Lake Wappapello and develop a strategy for containing the problem.

The infestation came to light July 23 when U.S. Department of Agriculture (USDA) scientists discovered seven suspicious beetles on traps at the U.S. Army Corps of Engineers' Greenville Recreation Area in Wayne County. Officials with the USDA confirmed the identity of the insects Friday.

Collin Wamsley, state entomologist with the Missouri Department of Agriculture, said his agency and the Missouri departments of Conservation and Natural Resources are prepared to deal with the infestation. Before proceeding, however, both state and federal agencies need to determine the its extent.

"Although it is a disappointment to find the early detection of the emerald ash borer, it is not a surprise," said Wamsley. "We have been preparing for an event like this for some time. Right now, we are doing what we can to determine the location of the emerald ash borer. We hope to have that information soon and begin the next steps in battling this pest."

Wamsley said the first steps that will be taken include conducting visual searches for emerald ash borers and placing more traps around the initial detection site. This is under way. The results of these surveys will dictate further actions.

The emerald ash borer is a small, metallic green beetle native to Asia. Its larvae burrow into the bark of ash trees, causing trees to starve and die. While the emerald ash borer does not pose any direct risk to public health, it does threaten Missouri's ash tree

populations. Ash trees make up approximately 3 percent of forests and 14 percent of urban trees in Missouri. Since no ash trees in North America are known to be resistant to the pest, infestations are devastating to these tree species.

Missouri is the ninth state to have a confirmed emerald ash borer infestation. The pest was first found in Michigan in 2002. Since that time, seven other states (Ohio, Indiana, Illinois, Maryland, Pennsylvania, West Virginia and Virginia) have confirmed infestations. Missouri is the farthest south and west of any other known emerald ash borer infestation.

The emerald ash borer trapping effort that revealed the infestation is part of a monitoring program started in 2004. It is Missouri's contribution to a nation-wide early detection effort coordinated by USDA in partnership with the Missouri departments of Agriculture, Conservation and Natural Resources and the University of Missouri.

Emerald ash borer traps are purple, prism-shaped devices with sticky outer surfaces. The borers are attracted by the color and by chemical scents that mimic a stressed ash tree. Insects that land on the traps are stuck and can be identified by periodic checking. So far, emerald ash borers have not shown up on any other traps throughout the state.

Although adult emerald ash borers are strong fliers, they are less likely to travel long distances when plenty of host trees are available nearby. However, they can move long distances on firewood and nursery stock. State officials urge Missourians not to transport firewood from one site to another. Instead, they suggest that campers buy firewood locally.

"The discovery of this highly destructive pest at a campground is a strong indication that it probably arrived in firewood," said Conservation Department Forest Entomologist Rob Lawrence. "If people knew how devastating this insect can be, they would never consider bringing firewood from out of state."



Emerald ash borers are small, green wood-boring insects that leave "D"-shaped holes in the bark of ash trees. If you suspect you have located an infestation in Arkansas, contact Paul Shell at the State Plant Board at 501.225.1598.



Photos courtesy USDA Forest Service and Bugwood Network.

Upcoming Field Trips and Events

SEPTEMBER 20th – CHESNEY PRAIRIE NATURAL AREA. Join prairie guru Joe Woolbright for a day of botanizing (and birding) on the largest tallgrass prairie remnant in northwest Arkansas (near Siloam Springs). The Arkansas Natural Heritage Commission has just added 22 acres of high-quality mesic prairie to the natural area, making it more than 80 acres. See the two-acre sod transplant and look for rarities like downy gentian and white-flowered goldenrod in the prairie. Meet at Chesney Prairie Natural Area at 10:00 AM. Directions can be found at www.naturalheritage.org. Call Joe at 479.427.4277 if you have any questions.

SEPTEMBER 27th – GARNER HOMESTEAD (GARLAND COUNTY). Join Susie Teague for a field trip to the botanically rich Garner Homestead, located on Highway 128. This property was homesteaded by Susie's Great Grandparents during the mid 1800's and still belongs to members of her family. Mill Creek runs through the property and there is an area of old growth forest. See plants such as the rare false hellebore, wild ginger, stary campion, large lobelia, ashy sunflower, and many others. The field trip will begin at 9:00 AM. contact Susie for directions and to reserve a spot. Email: cedarcreekns@sbcglobal.net or Phone: 501.262.9695 or Cell: 501.282.7475.

SEPTEMBER 27th – MOUNT MAGAZINE. Join Brent Baker on an expedition on Mount Magazine, one of the most unique botanical sites in the state and the state's highest peak. Exact trail to be determined. Plan for at least moderately difficult trails and pack a lunch. To sign up or for more information call Brent at 479.970.9143 or email bfb2001@hotmail.com.

OCTOBER 4th and 5th—ARKANSAS AUDUBON ADULT ECOLOGY CAMPS at Ferncliff Conference Center in west Little Rock. Workshops run from 10 a.m. Saturday to 4 p.m. Sunday. Accommodations are available at Ferncliff for out-of-townners. The workshop on edible plants is full, but there are still a few slots left for the following workshops: 1) **Mushrooms and other fungi: how to identify, collect, cook, and avoid.** Jay Justice, longtime President of the Arkansas Mycological Society, instructor. 2) **Trees of Arkansas: learn to identify (and appreciate) our native trees.** Eric Sundell, instructor. Interested? Check it out at www.arbirds.org. And save the date.

OCTOBER 11th – PINNACLE MOUNTAIN STATE PARK. Join Eric Sundell for a 2-3 hour hike on the Pinnacle Mountain Base Trail in Pinnacle Mountain State Park just west of Little Rock. Focus will be on woody plants and fall composites. Meet at 1:00 PM at the West Summit Trail/Base Trail trailhead (the one at the base of the mountain accessed off Hwy 300, across the parking lot from the Kingfisher Trail. If you have questions call Eric at 870.723.1089.

OCTOBER 24th-26th – ANPS FALL MEETING. Join us in Mammoth Spring for our fall meeting, annual plant auction, and

field trips. Details on pages 11 and 12 in this issue.

OCTOBER 31st-NOVEMBER 2nd – OZARK CHAPTER MEETING. Contact Burnetta Hinterthuer for details. Email: bhintert@nwacc.edu, phone: 479.582.0317.

NOVEMBER 1st – ALLSOPP PARK. Eric Sundell will lead a hike into the depths of Allsopp Park, one of Little Rock's oldest and more botanically interesting city parks. See an interesting mix of native woodland species and invasive plants, some quite uncommon in the state. Meet at the west end of the Allsopp Park Promenade on Kavanaugh Blvd. at 1:00 PM. If you have questions call Eric at 870.723.1089.

FIELD TRIPS NEEDED—As always, we need people to lead field trips to interesting areas. We know you have sites you want to take people to. Please contact the editor if you are willing to lead a trip in your area.

TALKING PLANTS WITH A FOUR YEAR OLD

By Theo (and Annaleah) Witsell

Kids are pretty funny. Annaleah, my four year old daughter, sometimes helps me collect, press, and process dried plant specimens for work. We play a little game while she helps me sort specimens where I tell her little facts about each species and ask her to repeat after me the family or scientific name of each species. These names can be a real mouthful even for me and we both have a lot of fun with it. I'll say the name and she'll "repeat" it back, semi-phonetically, using a strung-together series of words that she knows. This can be hilarious, especially if she is in the right mood, and is great fun for both of us. I wrote down some highlights from a recent round as she said them so I wouldn't forget them like I usually do:

Me: "Annaleah, this is an Ozark gourd. A long time ago these were grown by Native Americans and they still grow on gravel bars along the mountain rivers. The family is the Cucurbitaceae. Can you say Cucurbitaceae?"

Annaleah: "That's easy Daddy. Cucumber taste a bee!"

Me: "Great! Look at this beard-tongue. It smells like dirty feet."

Annaleah: (giggling) “Huh? Dirty feet?!!! Let me smell... YUCK!”

Me: “Yep, and it’s in the figwort family – the Scrophulariaceae.”

Annaleah: “Cough drop berry office knee!”

Me: “Ha! That’s fantastic... What about this tree-of-heaven? If you break the leaf stalk it smells like peanut butter and it will grow out of a crack in the sidewalk. Its family is the Simaroubaceae.”

Annaleah: “Huuuhhhh??? Simmer blue basement see?”

Me: (laughing hysterically) “Yes! Alright! And check this out... this one lives in the water and it eats bugs.”

Annaleah: (visibly skeptical) “Nuh-uuuhhh... plants don’t eat bugs!”

Me: “This one does. No kidding. It catches them down in these little things here. It’s a bladderwort, in the Lentibulariaceae.”

Annaleah: (giggling) “Limp very hairy fairy tree!”

Me: (almost crying now I’m laughing so hard) “O.k. O.k. Here’s a log fern. It grows in special kinds of wetlands called seeps. The family is the Dryopteridaceae.”

Annaleah: “Dew drop Terry daisy E!”

Me: (laughing) “Pretty much! Good job. Now how about this quillwort? It’s sort of like a fern but lives in the water and makes little spores down here in the base. It has its own family, the Isoetaceae.”

Annaleah: “I saw a tasty bee!”

Me: “You’re funny. Now, come look at the flowers on this Dutchman’s pipe.”

Annaleah: (betrayed by her attention span) “No!”

Me: “Aw c’mon! Please?”

Annaleah: (running off) “I don’t even LIKE plants!!!”



Goat's beard (Aruncus dioicus). Photo by Craig Fraiser.

Arkansas Native Plant Society Membership Application

Please check the appropriate box below.

Membership Categories:

- \$10..... Student
- \$15..... Regular
- \$20..... Supporting
- \$25..... Family Membership
- \$30..... Contributing
- \$150... Lifetime Membership (55 and over)
- \$300... Lifetime Membership (under 55)

- New Member
- Renewal
- Address Change

Please make checks payable to “Arkansas Native Plant Society”.

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The purpose of the Arkansas Native Plant Society is to promote the preservation, conservation, and study of the wild plants and vegetation of Arkansas, the education of the public to the value of the native flora and its habitat, and the publication of related information.



CLAYTONIA

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