

CLAYTONIA

Newsletter of the Arkansas Native Plant Society

Vol. 30 No. 1

Spring/ Summer 2010

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ANPS Donates \$5,000 to Expand Warren Prairie Natural Area



Warren Prairie Natural Area is one of the most botanically diverse and unique sites in Arkansas's System of Natural Areas. Rich with plant species, the site is a mosaic of pine flatwoods and savanna, saline soil barrens, grasslands, marshes, oak forests and woodlands, and bottomland sloughs. Photo courtesy of The Nature Conservancy.

At the Fall Meeting the ANPS membership voted to donate \$5,000 of the Society's funds to the Arkansas Field Office of The Nature Conservancy (TNC) to help expand Warren Prairie Natural Area. This expansion opportunity, which will more than double the Natural Area's current size of 2,129 acres, came about after more than two years of negotiations between TNC, the Arkansas Natural Heritage Commission (ANHC), and the landowner (Plum Creek Timber Company). Warren Prairie is one of Arkansas's most unique natural areas, with a mosaic of pine flatwoods and savanna, saline soil barrens, grasslands, marshes, oak forests and woodlands, and bottomland sloughs. More than 440 plant species are known to occur on the area, including 16 species of conservation concern. Rare animals including Henslow's Sparrow, Gulf Crayfish Snake, and Northern Crawfish Frog also depend on the habitats there.

This new acquisition will protect a number of habitats of conservation concern, but focuses on loblolly pine flatwoods, a habitat type that is declining rapidly throughout its range as remaining natural sites are clearcut, plowed into tall rows (bedded), sprayed with herbicide, and converted to intensively-managed pine plantations. These flatwoods are among the highest priority conservation targets for both TNC and the ANHC and are identified as a priority in the Arkansas Wildlife Action Plan administered by the Arkansas Game and Fish Commission. This area around the existing Warren Prairie Natural Area provides one of the best remaining opportunities in Arkansas to protect a large intact block of the Pine Flatwoods Ecosystem.

The core of Warren Prairie Natural Area was a 304 acre tract purchased by TNC and the ANHC in 1983. Since then, the ANHC and TNC have purchased fee title or conservation easements on more than 1,825 additional acres, in ten separate purchases. Most of these purchases were funded by money from the Natural and Cultural Resources Council but also from the State General Improvement Fund, 1/8 Cent Conservation Tax, and grants from the U.S. Fish and Wildlife Service and National Park Service. This new purchase, at 2,427 acres, is the largest single purchase ever at Warren Prairie, and will more than double the size of the natural area. Since our Fall Meeting, this land has been purchased by TNC for a total of \$3,356,200. To date, ANHC has secured enough funding from State funds and Federal Forest Legacy Program funds to purchase 2,107 of these acres from TNC, which leaves approximately \$450,000 that TNC must raise to pay back money it borrowed to complete the purchase. A total of \$100,000 of this amount has been raised so far by TNC, including the \$5,000 from the ANPS.

In addition to the decision to donate \$5,000 the membership agreed to a fundraising initiative to give members the opportunity to contribute individually. A mailing with detailed information will follow this issue of *The Claytonia*. In the mean time, take a trip down to Warren Prairie this year and enjoy an area that the ANPS helped to protect! A map and driving directions are available on the ANHC's website at www.naturalheritage.org.



Pine Flatwoods are home to many rare plant species that depend on an open, savanna-like structure (which allows sunlight to reach the ground), periodic fire, and soils that are wet half the year. Photo courtesy of The Nature Conservancy.

New Species of Leatherwood Found in Arkansas

By Theo Witsell

Last Spring's issue of *The Claytonia* featured a newly described species of mint from the Ouachitas and Ozarks (Ozark hedge-nettle or *Stachys iltisii*). This issue continues that trend with ANOTHER "brand new" species from the Ozarks, this one a shrub! What an exciting place to live where, despite nearly 200 years of botanical exploration, Arkansas continues to turn up plant species that have never even been described! This most recent species made its debut in a paper published by Aaron Floden, Mark Mayfield, and Carolyn Ferguson in the latest issue of the *Journal of the Botanical Research Institute of Texas*.



*Ozark leatherwood (*Dirca decipiens*) in flower in the early spring. This newly described shrub is known for certain only from one population in Kansas and two in Carroll County, Arkansas. It likely also occurs southern Missouri and other sites in the Arkansas Ozarks, including one in Independence County, but the specimens from these sites lack the reproductive features necessary for proper identification. Photo courtesy of Aaron Floden.*

PLANT OF THE ISSUE: Ozark Leatherwood (*Dirca decipiens*)

So what is this overlooked gem? It's new species of leatherwood known only from a few sites in Kansas, Arkansas, and most likely Missouri! This new species, named *Dirca decipiens*, was discovered on a bluff in a wild section of the Overland Park Arboretum (Johnson County, Kansas) by Aaron Floden in the late 1990s. It differs from Arkansas's common (and only other) species of leatherwood (*Dirca palustris*) in several respects. These include 1) its sessile (stalkless) fruits that do not project out beyond the bracts beneath the fruits (vs. fruits stalked from 7 to 20 mm in *D. palustris*), 2) its white to light tan bracts (vs. dark brown in *D. palustris*), 3) its lobed calyx (vs. unlobed in *D. palustris*), 4) its uniformly hairy leaves and stem (vs. usually smooth in *D. palustris*), and 5) the presence of trichomes (hairs) on the tips of the fruits (vs. hairless in *D. palustris*).



Leaves of Ozark leatherwood. Photo courtesy of Aaron Floden.

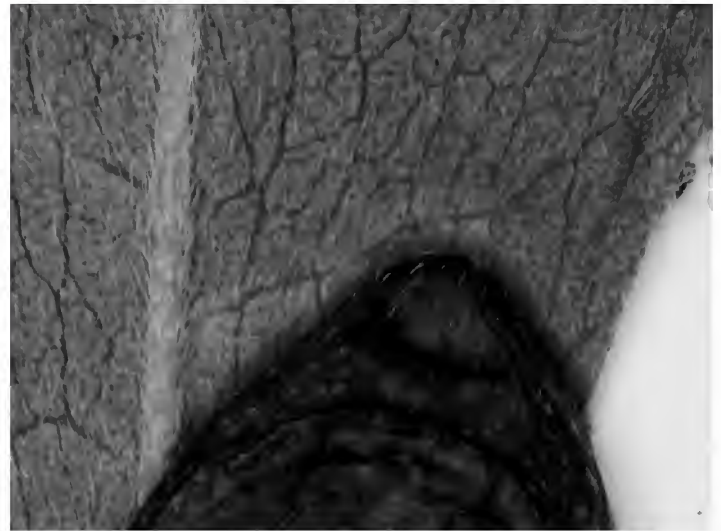
The following, more technical key is modified from one presented in the paper by Floden, Mayfield, & Ferguson:

1. Inflorescences on elongating peduncles, projecting out of the involucre bracts; adaxial surface of involucre bracts with dark brown, rarely light brown tomentum; calyx unlobed, the margin crenate, undulate, or erose; leaves usually glabrous, rarely somewhat uniformly pubescent; fruit with trichomes absent on the apex..... *D. palustris*

1. Inflorescences remaining essentially sessile, glomerulate within the involucre bracts; adaxial surface of involucre bracts with white to light tan tomentum; calyx mostly 4-lobed, the margins entire to crenate; leaves and stems always uniformly pubescent to tomentulose; fruit with trichomes present on the apex..... *D. decipiens*

In addition, *D. decipiens* begins blooming about a week after adjacent populations of *D. palustris* and occurs in drier sites. Both confirmed sites for *D. decipiens* in Arkansas occur around dry northeast-facing limestone bluffs above streams.

It should be noted that Floden's realization that *D. decipiens* was distinctly different than *D. palustris* came about in part from careful field observation, but in part from growing plants from various localities in a common garden. This, while seemingly an obvious technique for plant taxonomists to employ, is



Lower leaf surface (background) showing dense hairs and tip of fruit (foreground) showing hairs. Photo courtesy of Aaron Floden.

perhaps not used enough by modern botanists. Molecular genetic (DNA) studies conducted by Floden et al. suggest that *D. decipiens* is most closely related not to *D. palustris*, which is its closest geographic neighbor in the genus, but to *D. mexicana*, a rare species known from one site in Tamaulipas, Mexico.

So how did a plant as large as Ozark leatherwood escape notice all this time? Floden offers three likely contributing factors: 1) its extreme rarity, 2) the availability of relatively few herbarium specimens (due to limited collecting of early spring flora), and 3) a lack of careful observation, particularly of living material, by previous workers in the genus. In fact, he says, "the specific epithet *decipiens*, deceiving, was chosen because of the long-standing misinterpretation of the morphology that defines this species as unique from its geographically close neighbor." He goes on to make the point that "this discovery underscores the importance of continued biological collecting and study of museum collections, even in relatively well-studied regions, so that we may be able to better appreciate biodiversity."

Well said!

A NEW WOODY SPECIES!— IN MY BACKYARD!

By Larry Lowman

Even though we Arkansans live in a relatively "well explored" region, botanically speaking, the occasional discovery of a new species within Arkansas flora continues to occur, as the pages of this publication have attested on a regular basis. However, most of the "newbies" are grasses, sedges, or herbaceous plants; discoveries of new woody species of shrubs or trees are extremely infrequent. So it was with great interest and intrigue that I became aware early in the spring of 2009 of a new woody species supposedly found in my home county.

Many of you are aware that major changes have occurred recently for me, including the sale/closure of my former nursery/landscaping business in eastern Arkansas on Crowley's Ridge, and my relocating a year and a half ago to northwest Arkansas, on a tract of very secluded beautiful land in Carroll County. Early last spring I began exploring my land and areas nearby to discover in more detail my botanical surroundings. I was delighted to discover much of my land was home to hundreds of Ozark trillium (*Trillium ozarkanum*), and I hoped other scarce or rare things would be present, and perhaps along the way I could voucher a few new species for Carroll County in the Arkansas Natural Heritage Commission Herbarium. Carroll County was already among the 10 most collected counties in the state, so I wasn't anticipating a lot of new discoveries.

In early April, an old nurseryman friend of mine emailed me from Kansas, to enquire about my new existence. When he found out I was in Carroll County, he communicated again, explaining that he worked as a volunteer now at the Overland Park Arboretum in Kansas, and he had recently become aware of a "new" species of leatherwood (*Dirca* sp.). He was privy to the proposed name of the new species; he communicated that to me, along with the knowledge that at present, the new species was known only from a natural population within the Overland Park Arboretum (far eastern Kansas), and two sites in Carroll County, Arkansas. He was not able to give me much to go on as far as morphological differences between the "new" species and the typical native leatherwood (*Dirca palustris*). Since I had recently located a healthy and abundant population of leatherwood on a neighbor's land within a few hundred feet of my boundary, I was excited. And, as it happened, the leatherwoods were just this moment coming into flower (April 12th).

So I immediately emailed botanist Theo Witsell at ANHC, to see what he knew about the "new" species. He confirmed that my friend was indeed giving me accurate information. The new species name had not yet been published, but was scheduled to be published in the fall of 2009, so it was sort of "unofficial" to



Larry with a large plant of Ozark leatherwood (Dirca decipiens) on a steep slope at the base of a bluff in Carroll County. September 2009. Photo by Theo Witsell.

discuss it by name. But since I was already informed of most details, and was seeking to identify local leatherwood populations at a critical time for proper I.D. (flowering time), Theo provided enough info for me to morphologically distinguish the new species. After further inquiry and my further solicitations, he was able to find and share the collection location of the two sites in my county for the new species. The first one was a well known location for a leatherwood population on the opposite side of the county from me, scarcely a couple miles from the Missouri border. But the second site . . . to my astonishment, the site location data might just as well have been the directions to my new homestead!

Armed with the new knowledge, I eagerly visited the leatherwood site I had discovered. Initially, I had estimated maybe a couple of dozen plants of varying ages. Now, looking

more closely at the site, and penetrating further into the area, I discovered there were easily a couple hundred of them, some very young and healthy seedlings, as well as handsome mature specimens six to eight feet high. A leatherwood of this size is a lovely creature, a refined miniature of a graceful tree. Steyermark (author of the original *Flora of Missouri*) indicates a leatherwood of this size could easily be a century or more in age. My amateur examination of the flowers and stems made me suspect that the trees here (I was beginning to call it "the leatherwood grove"), were not fitting the morphology of the new species. So I collected some samples and shipped them off to Theo. After a few days, I decided to investigate other areas nearby that seemed like similar habitat to the "leatherwood grove." I located another site with just a few leatherwoods about a half mile further east. The two individual specimens I examined up close did not bear blossoms. I visited the leatherwoods again regularly, noting the developing fruit. Everything in "the grove" was uniformly similar. But, when I revisited the small population a half mile away, and searched out an older specimen with fruit, I immediately noted a pronounced morphological difference! The fruits were virtually sessile (a trait I was alerted to and watching for), and the fruits all had a slight constriction at the end, providing a nipple-like appearance. This had to be it! So I collected and sent specimens to Theo. The massive population I first located turned out to be regular *Dirca palustris*, and the few isolated specimens (less than 2 doz) that I found at the second site turned out to be the new species, *Dirca decipiens*.



Habitat for Ozark leatherwood, at the base of this limestone bluff (on both sides of the road). Carroll County, Arkansas. Photo by Theo Witsell.

It was utterly delightful for me, at the very first, simply to find leatherwood growing wild nearby. It did not occur in the woodlands near where I grew up in north central Arkansas, or

where I lived on Crowley's Ridge for the last 35 years. At my former nursery I had grown a couple of young specimens which I'd gotten from Mary Ann King, but they were too young to blossom. So even without the excitement of the new species, seeing the leatherwoods blossom in native habitat last spring would have been a special pleasure. But I never dreamed, on first discovering leatherwood nearby, it would develop into such a memorable event!

My repeated visits to check up on the leatherwoods had another consequence: nearly every time I tromped into the sites another very exciting plant revealed itself. One visit I became aware that several of the canopy trees were basswood (*Tilia americana*), a tree species not often encountered in Arkansas woodlands. Another time I delighted in finding a huge colony of Ozark spiderwort (*Tradescantia ozarkana*) tucked in a secluded cove (and made certain to revisit when they were in flower!). The spring ephemerals in the vicinity were awesome: abundant bloodroot (*Sanguinaria canadensis*), wild ginger (*Asarum canadense*), both yellow and white troutlilies (*Erythronium rostratum* and *E. albidum* respectively), columbine (*Aquilegia canadensis*), green violets (*Hybanthus concolor*), and Dutchman's breeches (*Dicentra cucullaria*) especially impressed me. As the season progressed and foliage unfurled, two more very scarce species revealed themselves—blue cohosh (*Caulophyllum thalictroides*) and running strawberrybush (*Euonymus obovatus*). The latter two turned out to be county records for Carroll County, and both are known from only a handful of other counties in Arkansas.

So what do I think about my new environment? I think I'm gonna like it here! And hopefully, soon enough things can be arranged for me to lead a field trip for ANPS members to share a few of my neighborhood's special treasures.

PHOTO OF THE ISSUE!



*Expert field trip leader Eric Sundell gets passionate about invasive alligatorweed (*Alternanthera philoxeroides*) on a recent ANPS field trip to Murray Park, along the Arkansas River in Little Rock. Photo by Susie Teague.*

FALL 2009 ANPS GENERAL MEETING MINUTES

Petit Jean Mountain, Arkansas
Winthrop Rockefeller Institute
October 17, 2009

Jean Ann Moles called meeting to order at 8:55 pm.

Minutes: Mary Ann King made motion to accept the Spring Meeting Minutes and Brent Baker seconded, all were in favor.

Treasurers Report: Jerry McGary passed out the latest financial report. He explained all new transactions and reported the purchase of a digital projector and speakers. There were no scholarships awarded. Jerry reported \$1,447.00 made from the Plant Auction. New T-shirt expenses will be on next quarter's report. Mary Ann King made motion to accept the Treasurer's Report, Ray Erickson seconded and all were in favor.

Membership Report: Maury Baker gave a current report on ANPS Memberships. He reported 396 Household Memberships, 85 are Family Members which gives us a total of 481 members and of that 121 are life members.

T-shirts: Brent Baker reported the sale of 14 T-shirts with proceeds of \$210.00. Theo Witsell suggested selling T-shirts online and opened a discussion for selling other items with the ANPS logo. Theo will investigate marketing T-shirts and hats on ANPS website.

Scholarship Report: Brent Baker read the Thank You card from Kelley Freeman-Nelson for the Grant she received. The Scholarship/Award Committee recommended a Grant in the amount of \$750.00 to be awarded to Dulcinea Groff. Susie Teague made motion to accept recommendation, Meredith York seconded and all approved. Brent reported sending out Scholarship/Award Application Packets and Scholarship/Award Application is now on ANPS website now and asks everyone to check out the ANPS website. The deadline for application is February 15, 2010.

Newsletter: Theo Witsell requested more field trips and reports for newsletter.

New Officers: Staria Vanderpool announced nominations for Vice President as Sandy Davies and Secretary/Historian as Susie Teague. Brent Baker made motion to accept, Eric Sundell seconded and all were in favor. Staria gave thanks to President Elect Jean Ann Moles and turns the meeting over to Jean Ann as new President.

Old Business: Jean Ann Moles reported our presence during the Garland County Fair and thanked Maury and Barbara Baker for help with the booth. Jean Ann announced to everyone about our booth at the Arkansas Flower and Garden Show coming up

in February 2010. This will be a manned show and volunteers are needed.

New Business: Eric Sundell opened with discussion for donation to the Nature Conservancy for the Warren Prairie Conservation Area. This was a very lengthy discussion with many stipulations to the donation. Bill Shepherd made motion to donate a gift of \$5,000.00, Carolyn Minson seconded and all were in favor.

Martha Wyre made motion to adjourn at 9:58 pm., Theo Witsell seconded and all were in favor.

- Susie Teague

Delzie Demaree Research Grant Awarded

By Brent Baker,
Awards & Scholarship Chair

At the Fall Meeting of the Arkansas Native Plant Society, the membership voted to award a \$ 750.00 Delzie Demaree Research Grant to Dulcinea Groff, a graduate student at the University of Central Arkansas. Groff is working on her Master's degree under the direction of Dr. Richard Noyes. For her thesis research, she has been studying the evolutionary relationship between two native species of fleabane, *Erigeron strigosus* and *Erigeron tenuis*, members of the composite, or sunflower, family (Asteraceae) with small, daisy-like flowers, and both widespread in Arkansas. Recent molecular work by Dr. Noyes has shown that these two species may be more closely related within their genus than previously thought or indicated by their morphologies (forms and structures). Groff is continuing the research by studying the DNA sequences of local populations of these species. Specifically, she is interested in a special subset of *E. tenuis* populations that reproduces asexually by unfertilized, yet viable seeds which germinate to produce clones of the mother plant. She hopes to elucidate the relationship of these plants to the more typical, sexually reproducing members of both species, testing a hypothesis that these atypical plants are actually derived from past hybridization between them.



Delzie Demaree with Bill Shepherd in a Miller County canebrake. 1974. Photo by Bill Shepherd (taken with time delay).

Letter from Scholarship Recipient

Since the most recent issue of the Claytonia, we received the following letter from Kellie Freeman Nelson, a student at Arkansas State University who received an Aileen McWilliam Scholarship from ANPS.

Dear Arkansas Native Plant Society,

I would like to take this opportunity to express my deep appreciation for your generous gift in the form of the Aileen McWilliam Scholarship that you presented to me.

As an older student who had the responsibility of the care of the home, kids, and working a job part time, this gift enabled me to finish my final semester of my undergraduate program. However, this gift did much more than simply help me pay for my classes. Please let me explain:

This scholarship represented much more than the financial support; it became clear to me that I was supported in my academic endeavors to reach my goals and dreams. I realized that there were people who wanted me to succeed! Having this “vote of confidence” from people that are outside of my immediate family was very strengthening to my own confidence in myself.

I thought long and hard on what I would use the scholarship money for. I wanted to be able to use it in the wisest possible way and I really wanted to be able to take the benefits with me as I pursued my Master’s degree. So I used part of the money to enroll in the class called “Medical Mycology,” which I thoroughly enjoyed! And I used the remainder to purchase a small net book with I could use for my classes as a graduate student. This is a very small laptop computer (but less expensive) and not only am I using this for taking notes in my classes, but I also use it to keep track of all my responsibilities as a teaching assistant for Botany lab and Plant Taxonomy lab! This makes helping the students so much easier. If there is a question of some type of plant ID and we cannot seem to quite definitively confirm an identity of a plant, we can go online on my net book and look it up in the USDA plant ID base or another website. I also can keep track of all the assignments and grades of the students and be able to quickly access them if needed. I love this little computer! And I think of how truly blessed I am each time I use it.

So thank you so very much not only for your generous gift, but even more so for the “vote of confidence” you have given me. Someday I WILL have my Ph.D. and my love for botany will plan an important part in those studies.

Respectfully and Sincerely,

Kellie Freeman Nelson
Arkansas State University

NEW MEMBERS

The following new members have joined the ANPS since the last issue of Claytonia, from September 2009 to February 2010:

New Members

Randall Adams (Magnolia, AR)
Cindy Barry (Mount Ida, AR)
Bob Brewer & Jonna Hussey (Fayetteville, AR)
Sue Crane (Hot Springs Village, AR)
Bland Currie (Wilmot, AR)
Patricia M. Cromwell (Mountain Home, AR)
Richard Emmel (Little Rock, AR)
Marge Ericson (Hot Springs Village, AR)
Ben Fluharty (North Little Rock, AR)
Judith Griffith (Berryville, AR)
Cindy & Dewayne Hancock (Little Rock, AR)
Susan Frey (Prairie Grove, AR)
Debby Haines (Little Rock, AR)
Marsha Heien (Stuttgart, AR)
Dawn Jackson (Conway, AR)
Dr. Douglas Jeffries (Clarksville, AR)
Dr. Dunn Jones (Conway, AR)
Pat & Joan L. Kenady (Hot Springs Village, AR)
Erin Leone (New Blaine, AR)
David Lyon (Little Rock, AR)
Kay Motsinger (Roland, AR)
George Oleson (Winslow, AR)
Autumn Olsen (Fayetteville, AR)
Robert Pekel (Rogers, AR)
Lynn Phillips (Siloam Springs, AR)
Daryl Revelle & Suzanne Bennett (Springdale, AR)
Kathie Riedel (Hot Springs Village, AR)
Bill & Emily Robertson (Bella Vista, AR)
Rob & Jackie Robinette (Conway, AR)
Gale Booth Stewart (Little Rock, AR)
Melissa Terry & Flint Richter (Fayetteville, AR)
Beverly Vlassek (Hot Springs Village, AR)
Layne Wagoner (Hot Springs Village, AR)

New Life Members

Ann Gordon (Chester, AR)
Don Higgins (Morrilton, AR)
George Oleson (Winslow, AR)
Lynn Phillips (Siloam Springs, AR)
Kathleen Redd (Mandeville, LA)

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

ANPS at the Arkansas Flower and Garden Show

By Jean Ann Moles

The Arkansas Native Plant Society had a booth for the first time this year at the Arkansas Flower and Garden Show. The show is always the last weekend in February. The 2010 show was held February 26-28, 2010 at the Statehouse Convention Center in Little Rock. The ANPS booth was in a high traffic area which is what every exhibitor hopes for.

I talked myself hoarse each of the three days. The honey smoothies that the Arkansas Beekeepers always sell at their booth fixed me each evening.

A thank you goes to Mary Ann King, Eric and Milanne Sundell, Karen Seale, Sandy Davies and Lois Wilson. They also did a turn staffing the ANPS booth. Mary Ann provided photos as did Lois Wilson. Mary Ann also contributed a \$100 gift certificate to the Arkansas Flower and Garden Show Silent Auction in the name of ANPS.



Our Fearless Leader, ANPS President Jean Ann Moles, braves the crowds at the 2010 Arkansas Flower and Garden Show at the Statehouse Convention Center in Little Rock.

Arkansas's Newest Herbarium Becomes Official

By Theo Witsell

The Arkansas Natural Heritage Commission is pleased to announce the official recognition of its herbarium by Index Herbariorum, the database of worldwide herbaria that is maintained by the New York Botanical Garden. Herbaria (the singular is *herbarium*) are collections of scientific plant specimens used for identification and research purposes. Each herbarium specimen is pressed, dried, mounted on archival acid-free paper, and has an accompanying label with detailed information on the location, habitat, and date of the collection. As part of the official listing, each herbarium is assigned an identifying acronym (ours is ANHC). This acronym is basically a shorthand way to refer to the collection. When a specimen is cited in a scientific publication, it is followed by the acronym of the herbarium (or herbaria) in which that specimen is deposited. For example, when the type specimen (i.e. the specimen on which a new species description is based) of the new leatherwood, *Dirca decipiens*, was cited in the paper by Floden et al., it appeared as:



Herbarium specimen of downy gentian (Gentiana puberulenta) from the ANHC Herbarium. One purpose of this collection is to voucher, or document, rare plant occurrences in the Natural Heritage Commission's database of species of state conservation concern. Photo by Jonelle Doughty/ANHC.

the specimen on which a new species description is based) of the new leatherwood, *Dirca decipiens*, was cited in the paper by Floden et al., it appeared as:

Dirca decipiens A. Floden, sp. nov. TYPE: U.S.A. Kansas. Johnson Co.: Overland Park Arboretum, S side of Wolf Creek on buff, under *Quercus* sp., *Cercis canadensis*, *Carya ovata*, with *Staphylea*, *Asimina*, *Corylus*, *Erythronium albidum*,

Maianthemum, *Polygonatum*, *Arisaema*, *Aquilegia*, 2 Apr 2007, A. J. Floden, L. Nevling & M. Mayfield 162 (holotype: KSC; isotypes: BRIT, KANU, MO, NEB, NY, OKL, TENN, TEX, UARK, US).

The acronyms listed after the types represent the herbaria where they were distributed. If another researcher wants to examine these specimens, they can look up the acronyms on the Index Herbariorum website and get the full names of each herbarium, as well as contact information and a staff directory for each. Though the ANHC Herbarium has been gathering specimens since 2003, it only recently collected more than 5,000 specimens, the minimum number required for listing in Index Herbariorum.

The Herbarium of the Arkansas Natural Heritage Commission consists primarily of specimens collected in the course of statewide ecological and biological inventory work conducted by the Arkansas Natural Heritage Program. Many of the specimens represent species that are rare in the state or were collected from rare or unusual habitats. The goals of the collection are 1) to provide a reference collection for work performed by Natural Heritage Commission staff and their conservation partners, 2) to house voucher specimens for rare plant records in the database of the Arkansas Natural Heritage Program, and 3) to voucher plants of ecologically sensitive or otherwise significant lands, including those contained within the State's System of Natural Areas. While most specimens are from Arkansas, special care is being made to assemble a collection of plants from surrounding states that are not presently known in Arkansas but are likely to be found here.



Specimens are stored in metal cabinets to keep out insects and moisture and are arranged according to families and species. Photo by Jonelle Doughty/ANHC.

The full Index Herbariorum listing for the ANHC Herbarium can be viewed at <http://sweetgum.nybg.org/ih/herbarium.php?irn=159338>.

ARKANSAS NATIVE PLANT SOCIETY

SPRING 2010 MEETING

APRIL 16-18, 2010

DAYS INN
17701 INTERSTATE 30
BENTON, ARKANSAS

REGISTRATION

Registration costs \$5.00 and occurs on-site Friday from 5:00 p.m. to 7:00 p.m. at the Days Inn. At the registration table we will have sign-up sheets and trip information for various field trips. Registration will also be available Saturday evening.

During the registration period refreshments will be provided (potluck style). We always appreciate members who bring items to share.

AGENDA

Friday, April 16th

5:00-7:00 p.m. Registration at Days Inn

Dinner is on your own

7:00 p.m. Evening Program: "THE FLORA OF SALINE COUNTY"

Theo Witsell & John Pelton will give a detailed and heavily illustrated report on the more than five years of field work they conducted to document the plants and habitats of Saline County. Saline County includes portions of both the Gulf Coastal Plain and the Ouachita Mountains and is among the most botanically diverse counties in Arkansas, with more than 1500 species! Hear about (and see) rare habitats like igneous glades, shale barrens, floatant marshes, and channel scar depression wetlands. And see photos of the 25 species of native orchids known from the county as well as rare plants like Pelton's rose-gentian, which is known only from Saline County, Arkansas and nowhere else on Earth!

This will be followed by a brief slide show highlighting the field trip destinations for Saturday and Sunday.

Saturday April 17th

8:30 a.m. Field trips depart from the Days Inn

1:30 p.m. Field trips depart from the Days Inn

Dinner is on your own.

7:00 p.m. Evening program

The ANPS is fortunate to have a number of skilled photographers among the membership and Saturday's program will present an opportunity for photographers in the Society to show their work documenting the native flora of the state. Time will be limited to two hours, so please contact Theo Witsell (501.831.7473) IN ADVANCE OF THE MEETING if you would like to show some photos. We will have both a digital projector and a slide projector available for use.

The Society's business meeting will follow the program.

Sunday, April 18th

8:30 a.m. Field trips depart from the Days Inn

ACCOMODATIONS

A special rate has been arranged at Days Inn (501.776.3200). The rooms being held for ANPS are under "Plant Society". Room rates are \$59 plus tax. Pets can stay for an extra \$5. Free breakfast hot bar for those staying at the motel. Easy access to the interstate. Lots of eating places within a two block area

Additional motel lodgings in Bryant at Exit 123. No special rates have been arranged:

Holiday Inn Express (501) 847-0900

Hometown Hotel .com (501) 653-0123

Comfort Inn and Suites (501) 653-4000

LaQuinta Inn and Suites (501) 847-9494

CONTACTS

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jam26@sbcglobal.net

DRIVING DIRECTIONS

(FROM THE EAST)

Coming from the east side on the state on Interstate 30, take exit 118, go past Brown's Country Restaurant, go under the overpass, circle right, at the traffic light turn right. At the second traffic light once you are over the overpass, turn right (you will see Lincoln Square on your right and TLC service station in front of you). When you turn right you will be on Military Road. At Burger King turn left (you will still be on Military Road) at Taco Bell turn right. At the bottom of the hill you will see IHOP on your right and Colton's Steak House on your left. Turn into Colton's parking lot and you will see Day's Inn.

(FROM THE WEST)

Coming from the west side of the state on Interstate 30, take exit 117 and stay on the service road, go past Wal-Mart. If you miss the Days Inn sign, go to Colton's Steak House, turn right in the Colton's parking lot and you will be a short distance from the Days Inn parking lot.



Jointweed (Polygonella americana), Louisiana goldenrod (Solidago ludoviciana) and elegant blazing-star (Liatrix elegans) at Poison Springs Natural Area. Photo by Meredith York.

Notes from the Editor

Why Warren Prairie is Worth the Investment

The first time I walked out into Warren Prairie I couldn't believe that I was in Arkansas. Dense stands of dwarf palmetto and prairie grasses transitioned into open pine savannas, patchy grasslands, Carolina ash swamps, and cypress and overcup oak sloughs. Marshes full of arrowhead, spider lilies, sedges, and rushes alternated with dry prairies, glade-like outcrops of saline subsoil, and loblolly pine and post oak savannas. Dry shortleaf pine and blackjack oak woodlands sat on windblown mounds that formed during desert-like conditions several thousand years gone. I thought I was in Florida. To the botanist and plant enthusiast, or to any nature lover for that matter, the landscape is impressively diverse, changing almost impossibly from one acre to the next. Where else in Arkansas can you see prickly pear cactus growing within feet of spider lilies?



Pineywoods dropseed (Sporobolus junceus), a rare grass known in Arkansas from just two sites, one of which is Warren Prairie Natural Area. This species grows in open pine savannas that burn occasionally to keep them open. Photo by Scott Simon.

Certainly not all places are created equal. Some remnants of our natural landscape are exceptional and jump out immediately when we ask ourselves "which places must be preserved?" Warren Prairie is such a place. For me it will always be a place of discovery. I've been there scores of times over the last 15 years but always find something new and surprising with each return visit. It was here that botanists from the past like Delzie Demaree and Dwight Moore made surprising discoveries like Texas sunnybells (*Schoenolirion wrightii*), barrens silky-aster (*Symphyotrichum pratense*), geocarpon (*Geocarpon minimum*), white-top sedge (*Rhynchospora colorata*), and Louisiana log fern (*Dryopteris ludoviciana*). And it is here where globally r

rare plants like barbed rattlesnake root (*Prenanthes barbata*) were found new to the site only recently, despite steady visits by botanists going back at least 80 years.

The Pine Flatwoods Ecosystem of southern Arkansas, of which Warren Prairie is a part, contains a treasure trove of biological diversity but this richness is being lost or degraded on an alarming scale and at an alarming rate. This loss is, as the famous ecologist Edward O. Wilson often says, "not reversible". Once a site is degraded past a certain point, it will not be the same again.

There are few places in southern Arkansas where there are still sizable, landscape-scale pieces of the pine flatwoods ecosystem left to protect. And these are going fast as changes in the timber industry put increasing pressure on them to be converted from natural pine flatwoods with impressive variations in microtopography, hydrology, and soils, to intensively managed plantations. If we want to preserve decent-sized pieces of intact pine flatwoods with the full complement of species they support, it is literally now or never.

This is why, when my wife and I were deciding where we would invest in conservation this year, we chose the Nature Conservancy's Warren Prairie expansion campaign. I hope that you'll consider making a donation, in whatever amount you can afford, to help permanently protect this most unique landscape.



Open grasslands within the pine flatwoods are a hallmark of the saline barrens of the Gulf Coastal Plain and are the primary habitat for several rare plant species. Warren Prairie has the largest examples of this rare habitat in Arkansas. Photo courtesy of The Nature Conservancy.

News and Announcements

FIELD TRIPS NEEDED! We always need people willing to lead field trips, so please contact the editor about any trips you might want to lead in your area. Remember you don't have to be an expert in the local flora to lead a good trip!

WE NEED YOUR CURRENT EMAIL ADDRESS!!! Please check your email address in the directory and let us know if yours is not current. There have been a lot of requests for electronic copies of the Claytonia (as a full-color pdf file, usually from 1-2 MB in size), but it seems that many of the emails we try to send come back to us.

PLEASE PAY YOUR MEMBERSHIP RENEWAL DUES!!! If your mailing label says "09" then you are about to stop getting the newsletter. Please renew your membership. We'd hate to lose you.

ANPS DONATIONS ARE TAX DEDUCTIBLE!!! It is tax season and we'd like to take this opportunity to remind everyone that ANPS is now a 501 c3 non-profit organization and would be happy to take your tax deductible donations all year long.

ARKANSAS AUDUBON SOCIETY'S HALBERG ECOLOGY CAMP. Is there is an 11 or 12 year old in your life who might enjoy hands-on, outdoor study of mammals, snakes, birds, bugs, botany and geology? If so, please remember that every summer AAS offers two one-week sleepover ecology camps at Camp Clearfork in the *Ouachita Mountains west of Hot Springs*. This year's dates are **June 13-18 and 20-25**. Read all about it at www.arbirds.org or contact Liz Fulton at efulton114@sbcglobal.net or 501-663-9380.

ARKANSAS AUDUBON SOCIETY'S ADULT NATURAL HISTORY WORKSHOPS. It's never too early to sign up for a weekend workshop at beautiful Ferncliff Camp in Ferndale, just west of Little Rock. All three of the '09 workshops will be back by popular demand: *Basic Birding with Dan Scheiman*, *Edible Trees & Plants with Tamara Walkingstick*, and *Native Tree Identification with Eric Sundell*. In addition, a fourth workshop is in the works. So save the weekend of **October 2-3!** For more information go to www.arbirds.org or contact Eric Sundell at esundell42@gmail.com or 870-723-1089. To register, contact Barry Haas at bhaas@sbcglobal.net.

Upcoming Field Trips and Events

FRIDAY APRIL 16th to SUNDAY APRIL 18th. ANPS SPRING MEETING. BENTON, ARKANSAS. SEE DETAILS THIS ISSUE!

SATURDAY APRIL 17th, 9:30 A.M. LOST VALLEY (BUFFALO NATIONAL RIVER, NEWTON COUNTY). Meet Burnetta Hinterthuer and her students in the parking lot at Lost Valley. We will hike the trail, stopping often to observe the wide assemblage of spring ephemerals. Bring a sack lunch. If you arrive after 9:30 a.m., you will easily be able to catch up with us as we are going to be taking photographs and walking at our usual pace. Please contact Burnetta at 479-582-317 for more information.

SATURDAY, MAY 1st. ARKANSAS VALLEY PHYSIOGRAPHIC REGION—PARIS, ARKANSAS (LOGAN COUNTY). Join ANPS's Expert Botanist Eric Sundell and ANPS Members Sid & Jeanette Vogelpohl for a Spring version of last fall's field trip on the Vogelpohl's 50-acres home-site. The 50 acres includes Hartshorne Sandstone outcrops that cause a 200-foot change in elevation. Plant beds around the house incorporate native plants with family favorites; in a woodland setting. Walk throughout the 50 acres along crisscrossing paths that include an 80-foot bridge over Short Mountain Creek. A superb view of Mt. Magazine. 70+ different trees. Meet at the house (2480 South Highway 309) at 9:45 AM; bring a lunch. For more detailed directions or more information, please contact Sid Vogelpohl at 479-963-1528 or email svogel1@centurytel.net.

SATURDAY MAY 1st. POSSUM TROT REVISITED, AGAIN (OZARK NATIONAL FOREST, NEWTON COUNTY). If anyone is interested in going to Possum Trot, please contact Burnetta Hinterthuer at 479-582-0317 for more information. The hike is strenuous and even more so with all the large limbs and trees that were knocked down during the ice storm. Bring water, lunch, and wear sturdy shoes. We will meet at the Nail church parking lot at 10 a.m., just off Hwy. 16, between Deer and Fallsville. The hike will take a minimum of four to five hours.

SATURDAY MAY 22nd, 10 A.M. COLE FORK (OZARK NATIONAL FOREST, SYLAMORE RANGER DISTRICT, STONE COUNTY). Meet at the intersection of Hwy 14 and Hwy 341 (south end of Push Mountain Road) just a few miles east of Big Flat if coming from the west ; if coming from the east (Allison and Mountain View) the intersection will be west of Fifty-Six. Bring lunch, but there will be options for supper in Big Flat or Mountain View. Call Jackie Leatherman 424-5101 for information. When Burnetta went on this trip about eight years ago, she saw seven species that she had never seen before. Right now, at least three of these are only known from Stone County. Due to the sensitive ecology of this area, this trip will be limited to a certain size, so call early and reserve a spot.

SATURDAY MAY 22nd. TWO RIVERS PARK (WEST LITTLE ROCK, PULASKI COUNTY). 1 P.M. Meet at the first parking area across from the first trailhead. The park is a bit tricky to find: you turn north off Ark 10 on Pinnacle Valley Road toward Maumelle Park but continue east on County Farm Road past the county farms to Two Rivers Park. Eric will be standing in the middle of the road to flag people down. Call him at 870-723-1089 if you need directions—he'll have that cell phone with him at the park. We should see Mississippi kites by the dozen swooping low over the marshes hunting dragon flies. And a few

plants, too. We'll be looking out especially for the pipevine in bloom with its intriguing fly-trap flowers.

SATURDAY JUNE 12th. ARRINGTON CREEK (BUFFALO NATIONAL RIVER, NEWTON COUNTY).

Join Arkansas Natural Heritage Commission Botanist Brent Baker for a hike into the magnificent "Arrington Creek Canyon" on the Buffalo National River near Boxley. We'll meet at 9:30 am at the Boxley Trailhead parking area of the Buffalo River Trail on the west side of Highway 21 at the south end of Boxley Valley (approx. 2 ¼ miles south of the intersection of Highways 21 and 43 at Boxley). We will then carpool to the small 'pull-out' parking area trailhead on County Road 25. We will hike on a small section of the Buffalo River Trail, down a steep north-facing slope into a narrow, beech dominated valley along a rocky stream (Arrington Creek). This secluded little valley is gorgeous! We'll have lunch on the terrace of the creek and then hike up the south-facing slope to see some nice limestone glades/bluffs. This hike will be about 3 miles long and is rather strenuous, so please keep this in mind and wear sturdy shoes. Pack a lunch and plenty of water. Plan for at least 4 hours on the trail. **NOTE:** Please sign up for this hike by calling Brent at 479.970.9143 or emailing him at btb2001@hotmail.com. This is to ensure that you will be expected at the first meeting area and are not accidentally left behind!

SATURDAY AUGUST 28th. ROADSIDE BOTANY AND KING'S RIVER SANCTUARY.

Meet at 10 a.m. at the McDonald's parking lot in Berryville, Arkansas. We will drive the county roads checking out the flora of the ditches and by-ways. Last summer, we were amazed at the diversity of the plants inhabiting these areas. In addition, we will check on the spread of the pincushion flower (*Scabiosa atropurpurea*) and

sweet everlasting (*Pseudognaphalium obtusifolium*) populations and their spread in Carroll County. We will eat lunch in Berryville, check on the earleaf gerardia (*Agalinis auriculata*) population at Saunders Heights and then visit the Sanctuary at King's River. Steve Smith has been monitoring the glades of the Sanctuary and we will be conducting an inventory of the plants. That night we will have a picnic and bonfire if the weather cooperates. Please contact Burnetta if you are planning to attend one or both parts of this field trip day to Carroll County and we can coordinate car-pooling and other activities of the day.



ANPS members head off to explore the rich flora of Cedar Creek Canyon on Petit Jean Mountain at the Fall 2009 Meeting. Photo by Susie Teague.

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".

NAME(S) _____

ADDRESS:

Street or Box _____

City _____

State _____ Zip Code _____

Telephone _____ - _____ - _____

Email address _____

Please cut and send this form along with any dues to:

**Maury Baker, Membership ANPS
29 Pandilla Way
Hot Springs Village, AR 71909-7121**



CLAYTONIA
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Please check your mailing label! The calendar year is the membership year. If your mailing label says 09 or earlier it is time to renew! (Life members have an LF.)

Please fill in the information form on the opposite side of this page and send it with your renewals, applications for membership, changes of name, address, email, or telephone numbers to the address on the form: **[Not to the editor]**. Thank you.

PLEASE SEND SUBMISSIONS/ SUGGESTIONS TO:
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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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Newsletter of the Arkansas Native Plant Society— Spring/ Summer 2010
AVAILABLE ONLINE IN FULL COLOR AT www.anps.org

CLAYTONIA

Newsletter of the Arkansas Native Plant Society

Vol. 30 No. 2

Fall/Winter 2010

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In Memoriam: Dr. Dan Marsh (1933—2010)

By Theo Witsell

Dr. Daniel Lee Marsh, 77, long-time ANPS member and retired professor of biology at Henderson State University, died on Monday July 26, 2010. He was born on June 2, 1933 in Jonesboro. Dan was a mentor to many botany students, young and old, formal and informal. He will be remembered for his gift of inspiring those around him to appreciate and seek to understand the wonders of the natural world. Dan was knowledgeable about many aspects of the Arkansas flora but was especially expert in some of the most difficult and under-appreciated groups of plants—the mosses, liverworts, and hornworts. Dan loved being in the field and was a gifted teacher in both the classroom and in the woods.

Dan had a big interest in the smallest plants and was fond of crawling around on his hands and knees in interesting habitats engaged in what he referred to as “belly botany”. He was the state’s foremost authority on the bryophytes and, in his usual good-natured humor, refused to call them “the lower plants” as most botanists do. Instead, he referred to the vascular plants as “the higher algae”. Dan had a wonderful sense of humor and once told me a story about how he and three or four other grown men were doing some “belly botany” in a cemetery in south Arkansas, looking specifically for a tiny plant called “little people” (*Lepuropetalon spathulatum*). Someone, a law enforcement officer as I recall, stopped and asked them what the hell a bunch of grown men were doing crawling around in the cemetery. Dan replied, “Why, we’re just looking for the little people”.

Dan was widely known for a remarkable experience he made for himself when he was a young man. In 1954, when he was 20 years old, he completed a 1,200 mile, 94 day hike around the border of Arkansas to learn about the ecology and flora of the state. Dan undertook this epic journey at the urging of his professor and mentor, Dr. Delzie Demaree, after he fell on hard financial times and had trouble paying his college tuition one semester. Dan had many rich stories of his adventures on this walk, where he met a lot of interesting people and subsisted in large part on what he shot along the way,



*Dr. Daniel L. Marsh, Professor Emeritus of Biology at Henderson State University and ANPS member.
Photo by John Pelton*

including snakes. Newspapers across the state followed his progress and he became somewhat of a celebrity as he walked, with people coming out to meet him and invite him to dinner and hear about his adventures. The story of his walk was especially inspiring to many young people, myself included.

At a memorial celebration held in Greenwood on 1 August, it was announced that Dan was to be commemorated by having a new species named after him. One of his former students, James (Jimbo) Bray, now a professor of botany at Blackburn College in Carlinville, Illinois, and two co-authors just named a new species of liverwort *Fossombronina marshii* in honor of Dan. The article describing this species was just published and can be found in the August 2010 issue of *Phytologia* at:

[http://www.phytologia.org/Phytologia%20PDFs/92\(2\).pdfFiles/92\(2\)230-232StotlerFossombronina.pdf](http://www.phytologia.org/Phytologia%20PDFs/92(2).pdfFiles/92(2)230-232StotlerFossombronina.pdf).

In the article, entitled *Fossombronina marshii* (Marchantiophyta), a new liverwort species from Arkansas, the authors mention that “this species is named in honor of Daniel L. Marsh, Professor

Emeritus of Biology, Henderson State University, Arkadelphia, AR whose field excursions in Arkansas throughout his teaching career were inspirational to his students.”

Dan will be sorely missed by many of us in the ANPS.



Dr. Marsh often led field trips for all manner of students of botany. From left: Bill Shepherd, Joe Liggio (TX), Bob Clearwater, Dr. Marsh, Theo Witsell, and Jared Kyzer. Polk Creek vicinity, Ouachita National Forest. Sometime in the early 2000s. Photo by John Pelton.

Ark. Gaz. 5/26/54
**Hiker Encircles
 State in 94 Days
 On Nature Study**

Paragould, May 25 (AP).—A 20-year-old college student today completed a 1,200-mile walk around the borders of Arkansas and then headed for his Jonesboro home to get “a shave, a haircut and a bath—in a tub.”
 Dan Marsh trudged up to the “Welcome to Arkansas” sign on this state’s side of the bridge across the St. Francis River nine miles east of here at 8:55 a. m. He was only 55 minutes behind the scheduled he outlined for himself when he left on his marathon stroll 94 days ago.
 When Marsh set out on his journey February 21, he told newsmen he expected to be back at the bridge which links Arkansas and Missouri at 8 a. m. today.
 The biology student at Arkansas State College made the trip to study plant and animal life in the state, and said he uncovered some rare finds. For

instance, Marsh said he found heather growing on Rich Mountain near Mena in West Arkansas. Heather is supposed to grow only in Scotland.
 Marsh spent less than \$100 during his travels, and most of that went to bolster a diet of wild plants, animals and reptiles.
 The young student left with a 60-pound pack and a rifle. He cut the pack’s weight to 50 pounds while still on the Mississippi River levee and had reduced it to 35 pounds when he returned to his starting point.
 Marsh met his parents, Mr. and Mrs. John Marsh of Jonesboro, at the Clay County town of St. Francis last night and gave them his .22 caliber rifle.
 Marsh, who spent his last night on the road at the farm of Waco Hester near St. Francis, said he was forced to detour around the Bull Shoals and Norfolk reservoirs in North Arkansas, and thus added about 50 miles to the trip, which he had estimated previously at 1,150 miles.
 Marsh wore only one pair of boots for the entire trip. He averaged 16 miles a day on the walk.
 Marsh said he intends to write a book about his experiences on the trip.

Newspaper clipping from the Arkansas Gazette, May 26, 1954, one day after the conclusion of Dan Marsh’s long walk around the borders of Arkansas. Incidentally, the reference to his observation of Scottish heather on Rich Mountains was something of a misquotation by the reporter. The plant in question was in fact jointweed (*Polygonella americana*), an uncommon low shrub of arid sands and rock outcrops in the southern United States, but locals that Dan met on Rich Mountain claimed that it was Scottish heather. Jointweed can still be found on sandstone outcrops at the top of Rich Mountain along the Talimena Scenic Drive.



POISONED: He Cls

UNIVERSITY OF ARKANSAS HERBARIUM

Photocopy of a University of Arkansas at Fayetteville Herbarium specimen of jointweed (*Polygonella americana*) collected by Dan Marsh in the spring of 1954 during his 1,200 mile walk around the state’s border.

SOUTHWEST ARKANSAS POLK COUNTY
Polygonella americana
 (as *Heather*)
 OUACHITA MOUNTAIN REGION: OUACHITA MOUNTAINS, RICH MOUNTAIN: 2-3 miles NW. of MENA, (basaltic sandstone). Elevation about 2250 to 2500 feet.
 Date: 1954
 Collector: Dan Marsh

NOT ENOUGH BOTANISTS!: WORKSHOP ASSESSES NEED FOR BOTANISTS IN THE UNITED STATES

By Nancy Morin

The Chicago Botanic Garden and Botanic Gardens Conservation International co-organized a workshop to help assess botanical capacity in the U.S., held at Chicago Botanic Garden on September 29 and 30, 2009. The workshop included approximately 40 participants from academic, governmental, and non-governmental organizations and agencies including the federal government, universities, botanical gardens, professional societies, the Flora of North America Project, and NatureServe. The workshop was part of a one-year grant-funded project. Its purpose was to discuss results of a nationwide survey of the collective ability of U.S. institutions and individuals to advance plant science education, research, and application; to identify gaps in capacity; and to recommend a plan of action to fill those gaps.

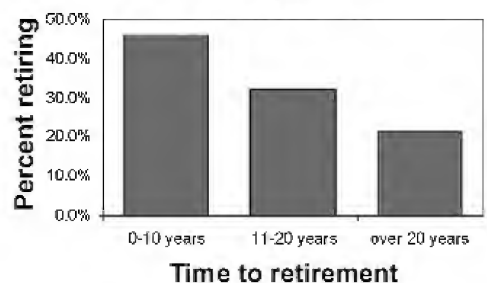
At the time of the workshop, the survey, which was conducted online with invitations to participate widely distributed within the botanical community, had resulted in 1,141 responses. Additional professional groups were still being invited to participate. Responses were analyzed by Barbara Zorn-Arnold, research associate at Chicago Botanic Garden, according to their category of work (government, non-government, academic). The workshop participants discussed the following preliminary findings:

- Almost 40 percent of the faculty surveyed indicated that botany courses, primarily botany, taxonomy, and ethnobotany, had been eliminated at their institutions. Graduate students said that field botany, restoration ecology, and biogeography courses should be added. Federal government and non-government organizations said botanical resources needed to meet their goals were lacking. Botanists were identified as the staff and faculty most needed across all groups. Lack of botanical resource was considered to be due to lack of financial support as well as lack of available staff time.
- Of the faculty respondents, 30 percent said they taught a botany course, and 20 percent said they taught field botany. Nearly 17 percent said no botany classes were offered in their department; respondents indicated that the number of full-time botany faculty had decreased whereas the number of part-time positions had increased in their department. Botany, ecology, and systematics were identified by 20 percent as the top three fields most needed in their department.
- When asked to name their top three choices for employer, graduate students selected botanic gardens, universities and colleges, or conservation-based NGOs as one of their top three, although 41 percent said universities were their first choice. The

If we do not invest in botanical capacity now

- **The United States will lose nearly half of its workforce with botanical expertise within the next decade. Without botanists, public lands and the nation's natural heritage cannot be efficiently or effectively managed.**
- **The United States will lack critical expertise needed to strategically plan and successfully implement projects to mitigate the effects of climate change on habitats, biological diversity, and ecosystem services. This will lead to significant and unnecessary costs while exposing the nation's natural heritage to dramatic losses.**
- **The United States will be unable to address critical challenges such as prevention and control of invasive species – adding to the billions of dollars already spent.**
- **The United States will continue to lose its international scientific competitive status.**
- **The United States will lose future opportunities to improve food security, cure disease, naturally sequester carbon and produce carbon-neutral biofuel.**

Retirement of botanists at federal agencies



Nearly 50% of federal botanists surveyed (N=147) will retire within 10 years.

Evidence of current gaps in botanical capacity: research and management

Bureau of Land Management (BLM)—charged with managing biological resources on 40% of all public land, but employ just over one botanist per 4 million acres (equivalent to having one person responsible for all plants in Connecticut). Of 105 BLM survey respondents, 94% said their agency did not have enough botanically trained staff to meet current needs.

US Geological Survey (USGS)— provides the science to guide management of nearly 400 million acres of public lands. All USGS survey respondents said their agency did not have enough botanically trained staff to meet current needs. A preliminary assessment of USGS scientists at centers in the western US, where most public lands are located, shows that wildlife scientists outnumber botanical scientists by over 20 to 1.

top three areas they thought would have the most job openings were climate change, horticulture, and plant genetics.

- Botanists in the federal government chose lack of staff with appropriate botanical training, lack of research materials, and lack of financial support as the top three resources limiting their agency in its plant conservation and management responsibilities. A total of 90 percent said they did not have enough botanically trained staff to meet their needs. A total of 80 percent said lack of perceived need within their agency was the main obstacle.
- The workshop participants discussed strategies to address this lack of botanical capacity. They concluded that efforts were needed (1) to increase public understanding of the importance of plants in the environment and the need for botanists who study and can increase our understanding of plants; (2) to urge the establishment of more botany positions within government agencies and NGOs; and (3) to use whatever leverage was available to encourage academic institutions to maintain or increase the courses they offer in basic botany, field botany, and systematics.

For more information about the survey and results, contact Andrea Kramer, Executive Director, BGCI-US, Chicago Botanic Garden, andrea.kramer@bgci.us.org. A series of workshops funded by the National Science Foundation to assess capacity in systematics across all organismal fields is also underway. For more information contact Patrick Herendeen, Chicago Botanic Garden, pherendeen@chicagobotanic.org.

Evidence of future shortfalls in botanical capacity: education and training

Loss of botanical degree programs: In 1988, 72% of the nation's top 50 most funded universities offered advanced degree programs in botany. Today, more than half of these universities have eliminated their botany programs and many, if not all, related courses. Advanced degrees earned in botany are down 17% in the last decade, while biology degrees have grown by 60%.

Decline in botanical course offerings: Nearly half of the over 400 university faculty who completed the survey said botany courses in their department had been cut in the past 5-10 years. A majority of faculty and graduate student respondents were dissatisfied with botany courses offered by their college or university.

Nancy Morin is a plant taxonomist specializing in Campanulaceae. She has been on staff at the Missouri Botanical Garden, American Public Gardens Association, and the Arboretum at Flagstaff, AZ. She is currently an author, editor, and business manager for the Flora of North America Association. Contact: Nancy Morin, Flora of North America Business Office, P. O. Box 716, Point Arena, CA 95468, Nancy.Morin@nau.edu, phone: 707-882-2528.

Additional Resources: Read the survey report in brief at www.bgci.org/files/UnitedStates/BCAPReportInBriefGov.pdf. Botanic Gardens Conservation International also sent a letter to the U.S. Office of Science and Technology Policy in response to a nation-wide request for information on grand challenges of the 21st century. Read the letter at www.bgci.org/files/UnitedStates/OSTPgrandchallengesRFI_botanicalcapacity.pdf.



Sticky hedge-hyssop (Gratiola brevifolia). Alum Fork of the Saline River. Photo by John Pelton.

MID-SOUTH NATIVE PLANT CONFERENCE RETURNS TO MEMPHIS

(Memphis, TN – June 22, 2010) After a 13-year hiatus, the **Mid-South Native Plant Conference** returns to Memphis **October 8 through October 10, 2010**. With the theme “Natives and Beyond: Sustainable Plants, Gardens and Communities” the conference brings a world-class roster of nationally acclaimed horticulturalists, botanists, and other environmental experts to Memphis. The conference is hosted by Dixon Gallery and Gardens, 4339 Park Ave., Memphis, TN.

The purpose of the 2010 native plant conference is to promote awareness of the use of plant choices, horticultural practices and garden designs that work with nature and have a positive environmental impact. Attendees will have the opportunity to immerse themselves in sessions with world-class speakers who will provide the tools necessary for safe and ecological gardening to increase their own sustainability.

On the evening of October 8th, the event will be kicked off with **Felder Rushing**, author, former Extension Service urban horticulture specialist for Jackson, MS, and syndicated columnist, speaking on “How to Grow Natives in an Urban Setting” and tours of the Dixon gardens including the recently redesigned woodland gardens by **Dale Skaggs**, Dixon’s Director of Horticulture.

Saturday, October 9, will be a full day of distinguished speakers, many never having spoken before in the Memphis area. Key note speaker, **Dr. Peter Raven**, president emeritus Missouri Botanical Garden and designated by Time magazine as a “Hero for the Planet” will speak on “How Many Plant Species will Survive the 21st. Century: The Role of Gardens.” After Dr. Raven, the conference will present the following sessions:

C. Colston Burrell, garden designer, award-winning author, and teacher from Charlottesville, VA. “Great Natives for Tough Places”

Ann English, landscape architect and rainscapes specialist of Montgomery Co., MD. “Storm Water Landscapes: Rain Gardens and other Strategies for Improving Water Quality”

Rick Lewandowski, director of Mt. Cuba Center, Greenville, DE. “Nurturing Gardens Inspired by Nature”

Don Shadow of Shadow Nurseries, Winchester, TN. “New and Useful Native Plants for Mid-South Gardens and Landscapes”

An optional guided field trip through Overton Park’s Old Forest and private garden tours will be offered on Sunday, October 10. **Cost is \$100 with registration prior to September 1, 2010 and \$125 after** and includes light evening refreshments, continental breakfast, box lunch and on-site vendor access. For additional details access www.dixon.org or contact Emily Halpern at ehalpern@dixon.org call (901) 356-0830.

NEW MEMBERS

The following new members have joined the ANPS since the last issue of Claytonia, from March to July 2010:

New Members

Mark Black (Uvalde , TX)
Sallyann Brown (Rogers , AR)
Terry & Judy Butler (Pangburn , AR)
Ann Cooper (Little Rock , AR)
Linda Glass (Harrison , AR)
Rebecca Hardin & Butch Hinton (Little Rock , AR)
John T. Harris (Rogers , AR)
Lynda Kass (Hot Springs , AR)
Anita Long (Conway , AR)
Stephen Marquardt (West Fork , AR)
Annette Miller (Houston , AR)
Greg & Pati Mitchell (Fayetteville , AR)
David Oakley (Springdale , AR)
Melody Parsley (Little Rock , AR)
Ellen Repar (Little Rock , AR)
Dave & Tricia Sorensen (Mabelvale , AR)
Fred & Carol Stiffler (Little Rock , AR)
Joe Stuckey (Doddridge , AR)
John & Fatemeh Sutherland (White Hall , AR)
Ralph Weber (Bentonville , AR)
Dick Wilson (Joiner , AR)

New Life Members

Karen Seale (Little Rock , AR)

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

HIGHS AND LOWS IN THE WHITE RIVER HILLS: ON THE TRAIL OF DEMAREE, MOORE, PALMER, AND HARVEY

By Theo Witsell

I'm always up for a treasure hunt. Ever since I was a kid I've been fascinated by them. Divers going after sunken treasure... archaeologists looking for ancient artifacts... biologists looking for new or rare species in remote corners of the world... The nature of the treasure is more or less unimportant so long as the journey to find it is exciting and challenging and has an element of adventure. Despite my childhood dreams I've never found any pirate loot or hidden tombs but I have had some good times (and some success) trying to relocate populations of rare plants based on old historical museum specimens or literature reports.

plant collector employed by Harvard University who collected extensively in Arkansas in the 1920s and 30s; Dwight Munson Moore, U of A professor who collected extensively from the 1930s to the 1970s; and Delzie Demaree who collected extensively from the 1920s to the 1980s). Fortunately, Arkansas specimens from all of these collectors exist in various herbaria and are available for study. Sadly though, these specimens are the only surviving clues as to what the flora of some areas of Arkansas were like before they were flooded, paved, mined, or otherwise altered.



Attempting to relocate the sites of these historical collections is often challenging if not frustrating or even downright depressing. Many of the areas where these early collectors worked have since been destroyed or degraded so much that they no longer provide suitable habitat for the target species. Oftentimes the precise locality of the collections was not recorded, making it next to impossible to relocate the site. In other cases, some historical research

I recently had the good fortune to join some colleagues from the U.S. Army Corps of Engineers for three days of rare plant surveys on Beaver Lake in Benton and Washington counties in northwestern Arkansas. Part of our mission was to visit a known site for the federally threatened plant Missouri bladderpod (*Physaria filiformis*) and discuss management of the glades where it occurs, which are being overrun with invasive plant species, most notably Japanese honeysuckle and tree-of-heaven. Also on the agenda was a trip up to the northern end of the lake to see if some rare tree species known from that area in the past were still present. I also wanted to try to relocate some historical sites for several rare plants that were collected long ago from bluffs along the White River.

PLANTS OF ARKANSAS

Family Gramineae
Genus Elymus
Species riparius Wiegand
Common or Local Names

Locality Natural Sidewalk, Washington County
Habitat

Light Exposure Alt
Soil-Color Texture pH
Collected by D. M. MOORE Date 7/17/47
Identified by No. 47009
Form UA-249-10M-11-4-1154-C-20

Historical specimen of riverbank wild rye (*Elymus riparius*) collected by Dwight Moore from the "Natural Sidewalk" in Washington County in 1947. Photos by Jennifer Ogle/ UARK Herbarium.

or careful study of topographic maps or aerial photos can narrow the search area to a reasonable size and probability of success.

In Arkansas there are several botanists who are of special note when it comes to significant historical plant collections. Francis Leroy Harvey, botany professor at the University of Arkansas in the 1870s and '80s; Ernest Jesse Palmer, a



River bluffs along the White River support many rare plant species, some of which are typically found much further west. The flora of these bluffs has been negatively impacted by several large lakes built on the White River but some still support rare species. Salt's Bluff on Beaver Lake. Photo by Troy Morris.

These bluffs are very interesting botanically but have also experienced a great deal of habitat destruction as nearly all of the upper White River Valley in Arkansas was flooded to build several large reservoirs (Beaver Lake, Table Rock Lake, Bull Shoals Lake, and Norfolk Lake). In the areas flooded by these lakes, only the tops of these bluffs escaped inundation and many of the plants that grew on them declined or died out once the dams were built. All is not lost though, and there are still a number of interesting species to be found above the high-water mark around the lakes.

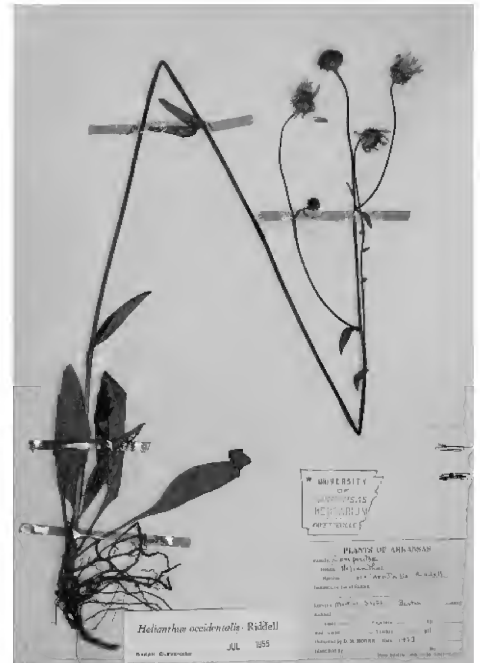
I drove up to Rogers to the Corps of Engineers office where I met with three enthusiastic field companions: Troy Morris, forester with the Little Rock District, and Jared Trammel and Alan Bland, both rangers at the Beaver Lake Office. We briefly discussed the rare plants known from Beaver Lake and I told them about a number of historical collections of other rare species collected by Harvey, Palmer, Demaree, and Moore that I believed were made on, near, or (now) under the lake.

My new friends from the Corps helped me understand right away that there was no point in trying to relocate the many rare plants I was interested in that were collected at or near the community of Monte Ne prior to the construction of the lake. This resort community was completely flooded by the lake and, while an area on the shoreline still bears the same name, the sites of the historical collections were almost certainly long gone. They were similarly skeptical that I would be able to find anything of interest remaining at a site called Martin's Bluff. Some of this site, they told me, is still above the lake but it is heavily impacted by sunbathers and swimmers, who use it as a site to jump into the lake. It was not uncommon, they told me, to have hundreds of people at the site on some summer weekends and most of the area was now stripped of all but the most weedy vegetation. This was unfortunate as there were several specimens of western sunflower (*Helianthus occidentalis* subsp. *occidentalis*) collected there from 1937 to 1945. This species is known from very few



Riverbank wild rye (Elymus riparius) on north-facing bluff above the "Natural Sidewalk" in Washington County. Still present in July 2010. Photo by Troy Morris.

Western sunflower (Helianthus occidentalis) specimen from "Martin's Bluff, Benton County" collected by Dwight Moore in 1937. A site visit in July 2010 unfortunately found that all good habitat for this species at this site has been destroyed. Photo by Jennifer Ogle/UARK Herbarium.

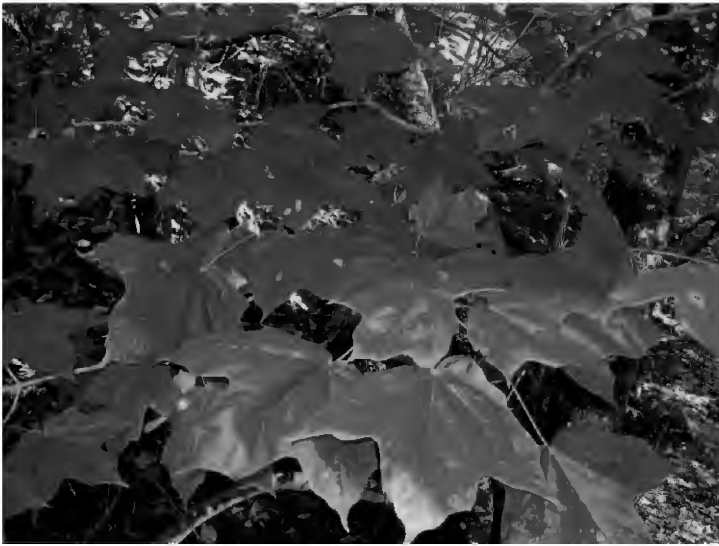


other sites in Arkansas and no other ones in Benton or Washington counties.

Once we finished up at the Missouri bladderpod site, we headed off to a place called the "Natural Sidewalk" in Washington County to try to relocate a population of riverbank wild rye (*Elymus riparius*), a grass known from just a handful of sites in Arkansas. This species had been collected from this locality on July 17th, 1947, back when the White River ran free and the lake's construction was still more than a dozen years off. To my knowledge no one had gone looking for it there since. Supposedly the Natural Sidewalk got its name from a smooth, flat ledge of rock that formed a trail along the bluff where people could walk. If this feature escaped the lake, we couldn't find it or at least couldn't see it or get to it by land, where we walked up a steep slope along the Corps of Engineers boundary from a nearby lake access. But once we



Powdery cloak fern (Argyroschisma dealbata), a species of dry limestone outcrops named for the talc-like white powder on the underside of its fronds. July 2010. Photo by Troy Morris.



Rare in Arkansas, black maple (above) and rock elm (below) both still persist on Corps of Engineers land in Benton County. These are two of the rarest species of trees in Arkansas and are both listed as species of conservation concern by the Arkansas Natural Heritage Commission. Black maple is presently known in Arkansas only from a small area of Benton County. July 2010. Photos by Troy Morris.



got past the weedy zone that marks the area between the current water level and the high-water mark of the lake, things began to get interesting.

This was a north-facing bluff, which are generally more moist and rich than south-facing ones and in no time we were walking among large specimens of black cohosh (*Cimicifuga racemosa*) and other rich woods species. I spied a wild rye grass but the heads weren't nodding over, so that ruled out the one we were looking for. A closer look revealed it to be the common Virginia wild rye (*Elymus virginicus*). As we made our way up the slope further we came across an even larger wild rye plant, with large bushy seed heads. Again, though, the heads were erect, and larger than the Virginia wild rye. This was *Elymus glabrifloris*, another common species. Strike two. Then we spotted a small patch of another species, this one bright green with long nodding heads. This was it! Even though we were up

high on the bluff and the site where Moore probably collected his specimen back in 1947 was now somewhere under the lake, the species had survived at that site. A quick GPS point, a voucher specimen, and some field notes later, and we were on our way with spirits lifted.

We pressed on toward the west end of the bluff, working our way along the top, staying just far enough back to have safe footing. As we went, we examined some more glade openings below us and found an even less common species of wild rye. This one very graceful with delicate seed heads on long slender stems that arched out over the bluff. This was Mackenzie's blue wild rye (*Elymus glaucus* ssp. *mackenzii*). This species is a western one, and the cluster of populations in the Ozarks is more than 500 miles away from the main range of the species. The *Flora of North America* recognizes these Ozarkian populations as being distinct from those in the main range and assigns them to ssp. *mackenzii*. This was only the second time I had seen this and I was elated. High on our finds thus far, we decided to hike on down to the lower part of the bluff on its west side. As we did we were rewarded with more good finds – a small population of Virginia avens (*Geum virginianum*), a yellow-flowered eastern species just recently discovered to occur in Arkansas (from Carroll County) and some small specimens of a hawthorn that, while they were not yet sexually mature, may be the Kansas hawthorn (*Crataegus coccinioides*), which was collected in Arkansas just twice before, from Washington and Benton counties in the 1920s by Palmer.

The following day we used a boat to access sites from the water. You'd be amazed how fast a party barge full of revelers can put on life jackets when you approach them in a Corps of Engineers Ranger boat with blue police lights on top. It is impressive. We went north to a thin band of Corps land above the lakeshore where plants of black maple (*Acer nigrum*, or *A. saccharum* var. *nigrum* if you prefer), the rarest maple in Arkansas, had been seen years before. After some searching, and the examination of countless sugar maples, Troy shouted out that he had found it. Sure enough, within a stone's throw of the water, on a rocky slope, he had found several small trees with huge three-lobed leaves and large leafy stipules. This was the elusive black maple, a "lifer" plant for me. Not long after, I discovered a few trees of rock elm (*Ulmus thomasii*), unquestioningly the rarest elm in the state, growing right on the shoreline. These trees even had beaver damage on the trunks but seemed to be holding their own in spite of it.

The rest of that day and the next went on in a series of highs (like our discovery of powdery cloak fern [*Argyrochosma dealbata*] above the water line on Salt's Bluff more than 80 years after it was collected in the vicinity by Demaree) and lows (like our visit to Martin's Bluff to have my hopes of finding Moore's western sunflower dashed like waves on the now bare rocks of the bluff). All in all though, we made a number of significant discoveries and rediscoveries and these should help the Corps know about significant species and areas on the lands they manage.

Now, if only we could find that population of Skinner's false foxglove (*Agalinis skinneriana*) collected from "Northwest Arkansas" by Harvey in the 1880s...

SPRING 2010 ANPS GENERAL MEETING MINUTES

Days Inn
Benton, Arkansas
April 17, 2010

Jean Ann Moles called meeting to order at 8:45.

Minutes: Minutes from Fall 2009 meeting were presented for approval. Meredith York made motion to approve, Ray Erickson seconded and all accepted.

Treasurers Report: Jerry McGary gave the financial report and complete explanation of all transactions. Susie Teague made motion to accept financial report, Meredith York seconded and all were in favor.

Scholarship Report: Brent stated there was nothing new to report at this time.

Membership Report: Maury Baker reported that the membership is 424 households, (513 individual members). 122 of these are lifetime members. Maury reminded members of membership dues.

Officers: Jean Ann Moles announced Brent Baker as Chair for Nominating Committee. Vice President and Treasurer will be up for nomination at the Fall 2010 Meeting.

Presidents Report: Jean Ann Moles has been contacted by Garland County Fair Association for obtaining a booth at the 2010 Garland County Fair. Jean Ann talked about her presence at the 2010 Arkansas Flower and Garden Show and requests our presence at the 2011 AF&GS. Jean Ann presented Lois Willms a T-shirt for her help with the 2010 AF&GS.

Warren Prairie Natural Area: Theo Witsell gave an update on donations for the Warren Prairie Natural Area acquisition. This portion of the Warren Prairie Natural Area has been purchased. At this time ANPS members have donated \$3150.00. Theo announced that the dedication of the new portion of Warren Prairie Natural Area is to be held on May 3, 2010 and all ANPS members are invited.

Fall Meeting: Ray Erickson announced that the Fall Meeting will be held in Magnolia, September 17-19. Ray talked about Logoly State Park and other areas of interest in and near Magnolia.

Jean Ann Moles calls to adjourn meeting at 9:10 pm. Susie Teague made motion to adjourn, Martha Wyre seconded and all were in favor.

NATIVE PLANT GARDENING WORKSHOPS IN CONWAY

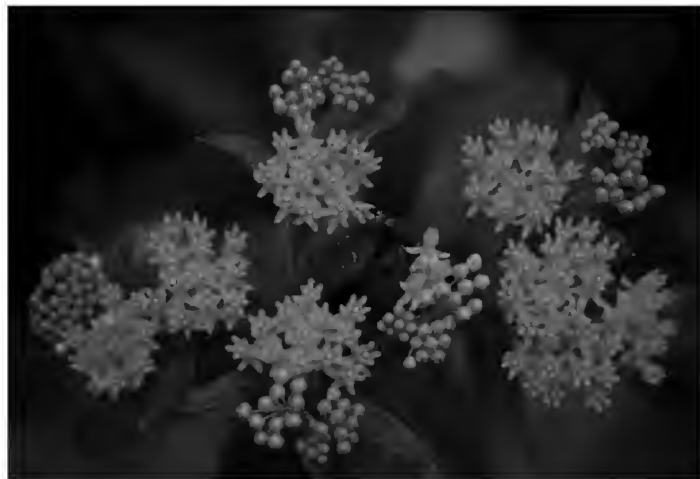
CONWAY — A native plant gardening workshop will be presented by the Faulkner County Cooperative Extension Service on Tuesday, Sept. 28; Tuesday, Oct. 5; and Thursday, Oct. 7, at the Natural Resources Center Building, 110 S. Amity Road in Conway.

The workshop includes five presentations in three sessions, which will begin at 6 each evening and will cover information about how a “native plant” is defined and how to successfully incorporate native flowering plants and trees into the home landscape. Instructors will also address the interdependence of native plants with native birds, butterflies and other insects and how to reduce the need for pesticides and other garden chemicals.

Workshop instructors will be Joyce Hardin, professor of biology at Hendrix College and former curator for the Hendrix greenhouse and herbarium; Eric Sundell, retired professor and founder of the University of Arkansas at Monticello Herbarium; Lucinda Reynolds and Jane Gulley, both Master Gardeners and frequent speakers at horticultural events; and Larry Lowman, former nurseryman and naturalist, who has designed and installed display landscapes using native plants at several Arkansas Game and Fish Commission sites.

The workshop fee is \$30 for all three sessions. The registration deadline is Monday, Aug. 23.

For more information or to request a registration form, call Kami Marsh at the Faulkner County Cooperative Extension Office at (501)329-8344 or Mary Wells at (501) 472-4548.



Butterfly milkweed (Asclepias tuberosa) is the only orange-flowered species of our native Arkansas milkweeds. It is beautiful, drought tolerant once established, and is an excellent choice for a sunny garden anywhere in Arkansas. Like other native milkweeds, it is a host plant for the Monarch Butterfly. Photo by Bob Clearwater.

ARKANSAS NATIVE PLANT SOCIETY FALL 2010 MEETING

SEPTEMBER 17-19, 2010

By Ray Ericson
ANPS Vice President

Location; Quality Inn, Magnolia
411 East Main Street
Magnolia, Arkansas
1-870-234-3612 or 1-870-234-5121

The meeting will start Friday night at 7:00pm at the Quality Inn, in Magnolia, Arkansas. There is a meeting room there that will seat 75 people. There is a block of rooms reserved for members. Ask for the rooms reserved for "The Arkansas Native Plant Society". The cost is \$68.00 per night. There will be a registration desk set up in the meeting room which is located to the right of the entrance down a short hallway. The meeting room is on the left. Information for the field trips will be available that evening with a short description of the trip. At the present there are three separate trips planned with repeats of the trips. More information on them will be furnished then and possibly some more trips.

During the evening registration there will be some refreshments available. If you want to, please bring along any favorite snack or trail mix or whatever. Any donations will be appreciated. I realize most of you will be traveling a long distance across the state so do not be overly concerned about supplying goodies for the group.

AGENDA

Friday, September 17th, 2010

Registration from 5:00pm to 7:00pm

Dinner is on your own. A list of local restaurants will be attached at the end of this agenda.

The AUCTION will take place starting at 7:00pm. There will be, I hope, a plethora of books, plants, homemade jellies, jams, and assorted other items for auction to benefit the ANPS. It should be time of "friendly" bidding for wanted items. I will have something later on the site for the auction.

Saturday, September 18th, 2010

Meet at the front lobby of the hotel at 8:30am for field trips. They will depart from the parking lot of the hotel. Field trips

will depart again from the parking lot of the hotel at 1:30pm and will be to some of the same locations as in the morning.

Lunch and dinner are on your own at any of the local restaurants.

The evening meeting will take place at 7:00pm. The business meeting will take place starting at 7:00pm. Please be there and be prompt so you do not miss anything and have a chance to add to the discussion. Be sure to bring along any data you need for any proposals you want to make to the entire body.

Sunday, September 19th, 2010

We need to check out in this morning, unless you plan on staying an extra night. The field trips will depart from the parking lot of the hotel at 8:30am. They will be some repeats of the previous day's trips.

FIELD TRIPS

Tentative plans (these subject to slight modifications) are for two trail hikes at Logoly State Park (Crane's Fly Trail and Spring Branch Trail), one at a sand barrens site on a recent addition to Poison Springs Natural Area near Chidester, and one at a sweetbay seep and bottomland forest near Cale. Several bits of information regarding the field trips:

- 1) Please bring the mosquito, tick, chigger spray of your choice as all three are abundant in South Arkansas.
- 2) Please bring your own water bottle or drinks for a three to four hour walk/hike at any of the sites we are considering for the fall meeting. Only one of the sites under consideration has drinks and water available plus bathrooms access.
- 3) Please wear or bring hiking boots or shoes that you can get wet or that are waterproof, because if it rains, in some place the trail could have some water on it or there could be muddy areas. If it rains heavily, there can be as much as six (6) inches of water in some spots on one of the trails.
- 4) In Chidester, which is adjacent to Poison Springs Natural Area, there are two eating places, Charlie's One Stop which has Bar-B-Que, cold sandwiches and seating inside. It has no gas pumps in front versus the other One Stop in Chidester and the

Chidester Café which has specials, hot orders, and inside seating and there is also a convenience store with gas pumps.

ACCOMODATIONS

There has been a block of rooms reserved for the Arkansas Native Plant Society. The rate is \$68.00 per night. There is a free breakfast bar for those staying at the motel. Next door is Andy's Restaurant. Across the street is Joe's Pizza and Pasta. There are other restaurants close by.

Other accommodations in town are:

Magnusson Hotel across the street that is presently undergoing renovations and these may or may not be completed by September. The number of it is 1-800-237-6122 or 1-870-234-6122.

Holiday Inns and Suites, located at 1604 East Main Street in Magnolia. The phone number there is 1-870-234-5161.

CONTACTS

Ray Erickson, Vice President
1-870-921-4950 (home)
1-870-904-5613 (cell)
1-870-695-3561 (work)
hogskinner47@Yahoo.com

DRIVING DIRECTIONS

If you come into Magnolia from the north as most of you will be doing, drive south on U.S. 79 to where it joins US82. Go past Wal-Mart (on your left) and turn right on East Main Street at the first light past Wal-Mart. There will be a Walgreens on the immediate right. Turn right immediately after passing the Walgreens. The Quality Inn will be on the left after going through two traffic lights (one at McDonald's and the second at TAPS- a dance studio). The motel will be up the hill on the left across from the Magnusson Motel and the First Baptist Church.

If you come into Magnolia from the east on US82, go through the traffic light at the intersection of US 79 and US82. US82 in town is the same as Main Street. Follow the above instruction to get to the Quality Inn.

If you come into Magnolia from the west, go east on US82 to the intersection of US79 and US82. Turn south on US79/US82 and go south to the intersection where US 82 turns east. Turn right here at the Walgreens and follow East Main to the motel.

RESTAURANTS

Amigo Juan
2430 North Dudney Road

Backyard Barbeque Co.
1407 East Main Street

Bayou Bistro
1210 North Jackson

Cancun Mexican Restaurant
301 East Main Street

Chen Chen
309 North Fredrick

China Star Supper Buffett
621 East Main Street

Dairy Queen Brazier
501 East Main

Domino's Pizza
1645 East Main

Flying Burger
1898 West University

Mule's Cantina
100 South Washington

Old Feed House
1600 East Main Street

Pizza Hut

Pizza Inn
915 East Main Street

PLUS there is the usual range of "fast food" restaurants. You can find the majority of them along Main Street in Magnolia. If you are interested in one of the restaurants-fast food or otherwise, please ask, since Linda and I have eaten in all of them at one time or the other.



White turtlehead (Chelone glabra). Saline River south of Benton, Arkansas. This species was known in Arkansas only from seeps on Crowley's Ridge in Greene County until it was discovered in a sandy seep in southern Saline County a few years ago. The groundwater-fed wetland where it occurs is home to many other rare species and is the southwestern-most location known in North America for the white turtlehead. Photo by John Pelton.

FIELD TRIP REPORTS

TALES from the BORDER (of Arkansas and Missouri)

By Linda S. Ellis

A Field Trip to the North Fork of the Saline River

This is the story of the border crossing I did last April and a run down to Benton, Arkansas for the quarterly meeting of the ANPS. The group was treated to a wide choice of habitats to visit but the Sunday morning trip to the North Fork of the Saline River with Theo Witsell leading was a rare experience. Theo had located a number of mountain oxbows or abandoned channel scar wetlands along the river and some neglected glades during his degree studies in Saline County and had done a thorough and methodical survey of this area. The field trip participants got to see the results of the glade restoration project there on the North Fork and hike through the flora along a couple of the oxbows.

We started out from Benton and went up highway 5 to a dirt road used to access the site. It was a fairly serious journey into the area as we went through 3 gates and had to cut a few storm flattened small pines out of our way to get in to the acreage. A primitive camp existed by the river where we parked and gathered our packs for the hike.

The first section we traveled through was the restoration area for a glade/savannah complex where controlled burns had reduced the understory and encouraged grasses and forbs. Two violets, lobed violet (*V. palmata*) and blue violet (*V. sororia*), were new species for me and two-flowered melic grass (*Melica mutica*), a species I had not come across before, had established itself



*ANPS members hike along an unnamed tributary of the North Fork of the Saline River, past a stand of twisted sedge (*Carex torta*), an early-flowering species that inhabits the rocky channels of mountain streams. Photo by Linda Ellis.*



*ANPS members examine a colony of eastern featherbells (*Stenanthium gramineum*) on a wooded terrace of the North Fork of the Saline River. Photo by Linda Ellis.*

along the road. Also on my list of plants I'd not seen before was small-flowered vetch (*Vicia minutiflora*), soft thistle (*Cirsium carolinianum*) still in tight bud and, much to my surprise, umbrella plant (*Eriogonum longifolium*) which is very rare in Missouri. Part of the section being restored had been freshly burned and some of the woody debris was still smoking so we by-passed that area and descended to the bottomland where the oxbows could be found. Along a narrow stream channel, we came across an expanse of *Carex torta* commonly called twisted caric sedge. The channel led us down to a wetland complete with cypress trees, their knees arising in the still dark water and a cliff bordering the flat that had a lovely, white flowered tree called silver bells or *Halesia carolina*. Part of the flat between the cliff and the river sported clumps of two species of lady's-slipper orchids (*Cypripedium kentuckiense* and *Cypripedium parviflorum* var. *pubescens*) that were still in bud and apparently somewhat late in flowering this year. The plant know as "Quaker ladies" to me or *Hedyotis caerulea* spotted the ground and newly emerged shoots of sensitive fern (*Onoclea sensibilis*) made a very interesting understory collection. As we

News and Announcements

worked in a circle back toward the cars, Theo pointed out a colony of plants with grass like leaves called featherbells or *Stenanthium gramineum* that used to be in the lily family (Liliaceae) but has been moved into the death camas family (Melanthiaceae).

As interesting as this habitat was, I am quite sure that our visit occurred during the most hospitable time of year. Nature probably festoons the place with swags of green briar and poison ivy in summer and the mosquitoes are probably only slightly smaller than your Diana fritillaries. Oh, and let's not forget the water moccasins. We did see water moccasins. Theo should be appreciated for his endurance and tenacity as he surveyed that area in all seasons.

It is always fun to see plant species I haven't encountered before and especially fine to study them with plant minded folks. I'm sure I'll be crossing the border again soon to learn more about the flora of Arkansas and enjoy the company of the ANPS.



The North Fork of the Saline River, downstream from Paron, Arkansas. The four forks of the Saline River (North Fork, Alum Fork, Middle Fork, and South Fork) flow out of the Ouachita Mountains before joining to form the Saline River near Benton where it flow into the Gulf Coastal Plain. The North Fork is a unique blend of mountain stream and lowland river with baldcypress trees growing right at the bases of rocky bluffs. Photo by Scott Simon.

FIELD TRIPS NEEDED! We always need people willing to lead field trips, so please contact the editor about any trips you might want to lead in your area. Remember you don't have to be an expert in the local flora to lead a good trip!

WE NEED YOUR CURRENT EMAIL ADDRESS!!! Please check your email address in the directory and let us know if yours is not current. There have been a lot of requests for electronic copies of the Claytonia (as a full-color pdf file, usually from 1-2 MB in size), but it seems that many of the emails we try to send come back to us.

PLEASE PAY YOUR MEMBERSHIP RENEWAL DUES!!! If your mailing label says "10" then you are about to stop getting the newsletter. Please renew your membership. We'd hate to lose you.

ANPS DONATIONS ARE TAX DEDUCTIBLE!!! It is tax season and we'd like to take this opportunity to remind everyone that ANPS is now a 501 c3 non-profit organization and would be happy to take your tax deductible donations all year long.

Upcoming Field Trips and Events

AUGUST 20th (FRIDAY). LECTURE BY DOUG TALLAMY IN FAYETTEVILLE. Professor and Chair of the Department of Entomology and Wildlife Ecology at the University of Delaware and author of *Bringing Nature Home: How to Sustain Wildlife with Native Plants* will talk about his book as well as how you can incorporate native plants in your landscape. Book signing begins at 6 PM. Lecture begins at 7 PM at the U of A Global Campus / 2 East Center St. / Fayetteville. Sponsored by Washington County Junior Master Gardeners, Fayetteville Natural Heritage Association, Illinois River Watershed Partnership, Fayetteville in Bloom, and the Osher Lifelong Learning Center. Cost is \$15 per person (\$10 for members of sponsoring organizations). Proceeds will benefit Fayetteville in Bloom and the Washington County Jr. Master Gardeners. Contact: Cindi Cope 479-521-0934 or copecindi@aol.com.

AUGUST 28th (SATURDAY): CARROLL COUNTY ROADSIDE BOTANY AND KINGS RIVER SANCTUARY. Meet at 10 a.m. at the McDonald's parking lot in Berryville, Arkansas. We will drive the county roads checking out the flora of the ditches and by-ways. Last summer, we were amazed at the diversity of the plants inhabiting these areas. In addition, we will check on the spread of the pincushion

Upcoming Field Trips and Events

flower (*Scabiosa atropurpurea*) and sweet everlasting (*Gnaphalium obtusifolium*) populations in Carroll County. We will eat lunch in Berryville, check on the earleaf gerardia (*Agalinis auriculata*) population at Saunders Heights and then visit the Sanctuary at King's River. Steve Smith has been monitoring the glades of the Sanctuary and we will be conducting an inventory of the plants. That night we will have a picnic and bonfire if the weather cooperates. Please contact Burnetta Hinterthuer (479.582.0317 or email bhintert@nwacc.edu) if you are planning to attend one or both parts of this field trip day to Carroll County and we can coordinate car-pooling and other activities of the day.

SEPTEMBER 17th-19th (FRIDAY-SUNDAY). FALL 2010 ARKANSAS NATIVE PLANT SOCIETY MEETING AND PLANT AUCTION IN MAGNOLIA. See article in this issue for more details..

SEPTEMBER 28th, OCTOBER 5th, and OCTOBER 7th: NATIVE PLANT GARDENING WORKSHOP, CONWAY, AR. 6 PM. This workshop includes five presentations in three sessions. Presenters include Eric Sundell, Joyce Hardin, Larry Lowman, Jane Gulley, and Lucinda Reynolds. Cost is \$30 for all three sessions. **DEADLINE FOR REGISTRATION AUGUST 23rd.** See article this issue for more information.

OCTOBER 2nd (SATURDAY): MEDICINAL PLANTS OF LOGOLY STATE PARK (McNEIL, AR) 9 A.M. – 12 P.M. Have you ever wondered what your great-grandparents used for fever? Have you ever thought about the gifts of knowledge about our native plants that the Indians passed on to us? Have you ever considered just knowing a little more about the uses of plants by local people from years gone by? If any of these questions or similar ones have crossed your mind then we have a workshop at Logoly State Park suited for you. There will be a guided tour on the trails with interpretation of the plants located along the trails with emphasis on the plant names, common and scientific, and their uses by our ancestors. There will be a hike so good walking shoes are recommended. The class will start at 9:00am and end at 12:00 noon. Workshop size is limited to twelve. A minimum age of twelve is recommended without parents. Cost for the workshop will be twenty-five dollars (\$25) to cover the cost of the handouts, book, and the workshop. Contact: 870.695.3561 or email logoly@arkansas.gov.

OCTOBER 16th (SATURDAY): EDIBLE PLANTS OF LOGOLY STATE PARK (McNEIL, AR) 9 A.M. – 12 P.M. Have you ever thought about being lost? Have you ever wondered about what you could eat out in the woods and fields? Have you ever wondered about the plants the Native Americans and early settlers used for food from the forest and natural areas? If the answer to any of these questions is yes, then we have workshop tailor made for you. We will be going on a trail hike and looking at the plants found throughout the park. Emphasis will be on identification, common and scientific names, and uses

of the plants found along the trails and waysides of Logoly State Park. Good shoes are recommended for the hike. The cost of the workshop is twenty-five (\$25) dollars. The cost will cover the cost of the handouts and book. The workshop will run for three hours from 09:00am until 12:00 noon. The recommended minimum age without a parent is twelve. Class size is limited to twelve. Contact Logoly State Park to pre-register. Contact: 870.695.3561 or email logoly@arkansas.gov.

OCTOBER 2nd & 3rd (SATURDAY & SUNDAY): 2010 ARKANSAS AUDUBON SOCIETY NATURAL HISTORY WORKSHOPS will be offered at Ferncliff Presbyterian Camp in Ferndale west of Little Rock. Topics are Edible Wild Plants with Tamara Walkingstick, Basic Birding with Dan Scheiman, Native Tree Identification with Eric Sundell, and (currently full) Arkansas Butterflies with Norm and Cheryl Lavers. Cost is \$130 (without lodging) to \$170 (with lodging) per workshop. For more info, go to www.arbirds.org or contact Eric at esundell42@gmail.com or 870-723-1089.

OCTOBER 8th & 9th (FRIDAY & SATURDAY): MID SOUTH NATIVE PLANT CONFERENCE. MEMPHIS, TN. The theme is "Natives and Beyond: Sustainable Plants, Gardens and Communities." See article this issue or call 901-356-0830 for more information.

OCTOBER 9th (SATURDAY): CHESNEY PRAIRIE NATURAL AREA. 9:30 A.M. Join Joe Woolbright of Ozark Ecological Restorations for a walk on the trails at Chesney Prairie Natural Area near Siloam Springs, Northwest Arkansas's premier tallgrass prairie remnant. The tour will include a walk on the Couch Tract, a recent addition to the natural area that includes a stretch of Sager Creek. Meet at the Natural Area at 9:30 a.m. For a map and directions visit http://www.naturalheritage.com/natural-area/detail.aspx?map_num=2 or call Joe at 479.427.4277. Joe will have signs up at critical road junctions the day of the trip.

OCTOBER 10th (SUNDAY): LORANCE CREEK NATURAL AREA. 2:00 P.M. Sunday, October 10th: Lorraine Creek Natural Area. Dr. Eric Sundell will lead a field trip to Lorraine Creek Natural Area south of Little Rock. Meet at 2:00 pm at the Natural Area parking lot. The walk will be down the paved trail through upland Coastal Plain woodlands, out the boardwalk into a magnificent groundwater-fed swamp, and beyond. For a map visit http://www.naturalheritage.com/natural-area/detail.aspx?map_num=39. From Little Rock, take Interstate 530 (old U.S. Highway 65) south approximately 10 miles, exit at Bingham Road (Exit 9). Turn left (east) on Bingham Road, cross over the interstate, and continue through a residential area. At the first "Y" in the road, go right on Bingham Road. At the second "Y" in the road, bear right on Border Lane and the Lorraine Creek parking lot is approximately 100 yards on the right.

CONTINUED ON NEXT PAGE

OCTOBER 23rd (SATURDAY): OZARK CHINQUAPIN HIKE IN THE OZARK NATIONAL FOREST, WEDINGTON UNIT (WEST OF FAYETTEVILLE). Join Dr. Fred Paillet, Adjunct Professor in the Geosciences Department at the U of A, as he leads a hike along trails near Lake Wedington to learn about and see Ozark chinquapin. The group will see living Ozark chinquapins as well as remains of Ozark chinquapin trees killed by the chestnut blight, which Dr. Paillet has shown arrived in the area in 1957. Also hear the latest on efforts restore chinquapins in the Ozarks. The hike will be 2 to 3 miles in length, on established trails. Email fredp@cox.net to reserve a spot and get more details.

OCTOBER 25th-29th (MONDAY-FRIDAY): 37th NATURAL AREAS ASSOCIATION CONFERENCE, OSAGE BEACH, MISSOURI. This national conference comes back to the Ozarks for the first time in 15 years! Great lineup of workshops, presentations, and field trips for those interested in protecting, managing, and restoring natural areas. For more information or to register, visit <http://www.naturalarea.org/10Conference/>.

NOVEMBER 5th & 6th (FRIDAY & SATURDAY): OZARK CHAPTER FALL OUTING TO HARMONY MOUNTAIN. Join the Ozark Chapter for their fall plant auction and potluck dinner on Friday night, hike on Saturday if weather permits and business meeting. Contact Burnetta Hinterthuer at 479.582.0317 or email bhintert@nwacc.edu for more information.



Arkansas bear-grass (Yucca arkansana), a true desert species found in glades and barrens in Arkansas. A tough plant for dry rock soils. Photo by John Pelton.

Arkansas Native Plant Society Membership Application

Please check the appropriate box below.

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Please fill in the information form on the opposite side of this page and send it with your renewals, applications for membership, changes of name, address, email, or telephone numbers to the address on the form: [Not to the editor]. Thank you.

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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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AVAILABLE ONLINE IN FULL COLOR AT www.anps.org**