



CLAYTONIA

NEWSLETTER OF THE ARKANSAS NATIVE PLANT SOCIETY

Winter 1997/98

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From the President's Desk

We will sadly miss Kathleen Peek who died on
Saturday, November 22, 1997.

Positive notes: Cindy Osborne (ANHC) has compiled some of the forms to be used in monitoring the Natural Areas. She will continue the process for the other areas. I have forwarded the information to those who have volunteered to monitor areas. I hope others will continue to offer. I will keep you posted as to the remaining areas.

Mina Marsh is getting information ready for me so we can pursue the project that she and John Pelton were working on. As soon as I receive that material, we can move forward.

John Pelton has agreed to chair the committee to work with the next Wildflower Symposium. Carl Hunter, Lana Ewing, and Lois Wilson have been appointed to the nominating committee and will present their slate at the Spring Meeting in Monticello.

I have ordered three copies of *Keys to the Flora of Arkansas*, have asked Dr. Smith to advise me as to how to buy copies *An Atlas and*

Annotated List of The Vascular Plants of Arkansas for you to be able to purchase these items at the Annual Meetings. Hand lens and metric rulers will also be available. Dr. Jewell Moore has offered to lead discussions at the Meetings to help us better use the "Keys".

Since you did vote to make an annual contribution to "Conservation", I plan to appoint a committee composed of a member from each geographical quarter of the State to make recommendations to the Board as to the best use of these funds.

Wayne Owen, botanist for the Ouachita National Forest, has offered to plan a Rare Plant Conference. Tom Foti, John Logan, Wayne and I have a preliminary meeting in early December. Wayne is experienced in this area and I am very excited about the value of the Conference to the flora of Arkansas. If the ANPS is willing to sponsor the Conference, it will probably be held early in 1999. I will keep you informed.

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SPRING MEETING

WHEN: APRIL 24, 25, 26

WHERE: MONTICELLO

DETAILS: IN NEXT CLAYTONIA
SEE YOU THERE

AREA OF CONCERN: Many of you have heard that Dr. Smith has asked for early retirement. If approved, the Herbarium at the UARK will have a new curator which, apparently, will be Dr. Johnie Gentry. Regardless, the Herbarium is supposed to be moved to the Biomass Building. The major concern appears to be for the long-range program of taxonomy and of the future of the Herbarium at the UARK. I do believe that the best place (but perhaps not the only place) for the Herbarium is at the UARK. Dr. Gary Tucker, Communications Chairman of the ANPS has composed a letter to Dr. Dwight Talburt, Chairman of the Biology Department. Dr. Tucker's letter is printed next in this Claytonia. I have taken it upon myself to endorse this move on behalf of the ANPS. I expect that you will "let me know" if you disapprove of this action. I suggest to you that you may want to compose your own letter and mail it to Dr. Talburt. Individual letters should have better effects than a mass mailing of one letter.

This may not be the fanciest President's note you ever received; however, I felt that you would want a report of our activities and plans. To the Executive Board, let us have a Board Meeting about 5:45 PM prior to the Spring Meeting. It may be necessary to modify the time to accommodate Steve and Cathy Marak who must come from Fayetteville.

To the membership, I believe that my job as President is to carry out the plans that the Executive Board establishes and I believe the job of the Executive Board is to carry out your plans, but as Dr. Eric Sundell said "Let us have fun".
Don Crank, President



LETTER TO DR. TALBURT

December 1, 1997

Dr. Dwight Talburt, Chair
Department of Biological Sciences
631 Science Engineering Building
University of Arkansas
Fayetteville, AR 72701

RE: Future of Herbarium and Plant
Taxonomy Degree Program at University of
Arkansas

Dear Dr. Talburt:

Recently we learned that Dr. Edwin B. Smith will probably retire from the University of Arkansas (University) in the not so distant future. This letter is written out of our concern for the plant taxonomy program in the Biology Department (Department) as it is expressed in teaching, research, degree offerings, and the herbarium.

Today there is a critical shortage of plant taxonomists and taxonomic literature to facilitate plant identification on a worldwide basis. Arkansas has few taxonomists and a meager base of taxonomic literature. This is not the time to retreat, however, and we must have a plant taxonomy program at the University.

Many institutions have abandoned taxonomy out of interest for newer specialty fields. That is a dangerous trend, however, and we must not follow that path in Arkansas. We need to complete a systematic inventory of Arkansas's plant species; produce a state flora with descriptions, illustrations, and keys; and continue to train students in plant taxonomy.

State agencies often play a major role in inventorying natural diversity and in making that information available to the public in many states. The Arkansas Natural Heritage Commission conducts natural diversity inventories, but its small budget does not allow much effort annually. The agency has very little political support, and that makes University

activities critical. The University has a responsibility and can play a critical role in helping to inventory and preserve the state's biota before it is gone. Furthermore, the University must continue to train taxonomists for employment by state and federal agencies.

The University herbarium is the major plant collection in the state, and its curator occupies a unique role. The herbarium and its staffing must be continued and utilized in research, teaching, and graduate training. Although it is not a large collection, the University herbarium is an extremely valuable collection. A reduction in its status from a working collection to a static museum collection would be short sighted. Some researchers think that the days of plant taxonomy and a herbarium are long past, but plant systematics certainly is a relevant study for the modern university.

The old Department of Botany and Microbiology is a thing of the past, but the study of botany is not. We encourage you and other Department members build on what you now have and develop an improved program in plant taxonomy. This will require a full-time taxonomist position and support for the herbarium. If University funding is inadequate, outside funding should be sought. Find a young, newly trained taxonomist who has an interest in students, field work, and herbarium work and give him/her the necessary support to develop a program. The smaller institutions of higher education will send students to the University for training in taxonomy if a program is available and if they can get some reasonable financial support.

Dr. Smith has worked for years toward production of a state flora, and his *Atlas* and *Keys to The Flora* represent major contributions toward that goal. The University owes Dr. Smith a debt of gratitude for his long years of productivity and must see that his work is carried on. We are confident that financial support toward production of a state flora is available from outside sources within the state.

As representatives of the Arkansas Native Plant Society, we want you to know of our vital concern that there is a positive future for the plant taxonomy program at the University.

Kindest regards,

Don Crank, President
Gary E. Tucker, Communications Chair
Arkansas Native Plant Society



FIELD TRIP REPORTS

Saturday Morning ANPS Fall Meeting September 27, 1997 by John Simpson

A group of approximately thirty plant lovers attending the fall meeting of the ANPS met early Sept. 27 at the host motel in Glenwood. We were greeted by bright sunshine and pleasant temperatures for the 45 minute caravan drive into the Ouachita National Forest. A short walk from the parking spot took us to a clear, mountain stream. Along the way were noted *Cypripedium kentuckiensis* (Large Yellow Lady-slipper), reminding us of their beautiful and distinctive spring blooms.



After a few stepping stones were judiciously placed, we all made it across the stream--more or less dry. A walk upstream brought us to a seep whose drainage characteristic may have actually been improved by the sites being a very old logging road which had flattened the slope a bit. At the seep were *Deparia acrostichoides* (Silvery Glade Fern) [Ed. note: This is a new scientific name for *Athyrium thelypteroides* that is given in the *Flora of North America.*], *Phegopteris hexagonoptera* (Broad Beech Fern), Royal Fern (*Osmunda regalis* var. *spectabilis*) and large Cinnamon Ferns. We did not attempt to climb the rather steep hillside though there

have been reports of *Dennstaedtia punctilobula* (Hay-scented Fern) there.

Below the seep at creek side were blooming Arkansas Alumroot (probably *Heuchera villosa* var. *arkansana*) which were mostly growing out of crevices in the large stones. Numerous pictures were taken as it was a new plant for many. We had been advised to watch for Loessel's Twayblade as it could be expected at this site but none was found. To everyone's pleasure, a sharp-eyed member did find Fall Coral Root. Also of interest was the large stand of Scouring Rush (*Equisetum hyemale* var. *affine*) at streamside.

After another stream crossing, we returned to the cars and headed back toward Glenwood, stopping at the Crystal recreation Area for a walk along the stream. There, we admired the beauty of the brilliant Cardinal flower, (*Lobelia cardinalis*). Of additional interest there were White Pine (*Pinus strobus*) reportedly escaped from an old attempt to introduce that species commercially. A large Cucumber Magnolia (*Magnolia acuminata*) in the picnic area drew interest also, a new face to many and also for this area.

I thoroughly enjoyed leading this group of nice people on a nice day to a nice spot in our Ouachita National Forest.

Sunday Morning ANPS Fall Meeting September 28, 1997 by Carl Amason

This Sunday morning was pleasant: not hot, not cold, not dry and dusty, not wet and muddy. The eager participants formed a caravan and drive in a northerly direction through Glenwood into Montgomery County and through Caddo Gap to the Buttermilk Springs Area. The mountains gained in altitude, the air was delightful and the paved road gave way to a rocky gravel but dustless country road which in turn gave way to a

dustless gravel road with overhanging branches of trees, mostly winged elms. The group came to a wet area where parking was secured by everyone and then the group reformed into a walking scouting group. And the group didn't have far to scout.

Leader Don Crank pointed out the many ferns growing along the wet ditch with a piped free flowing spring coming out of the hillside. Ferns found were *Athyrium filix-femina* (lady fern), *Thelypteris noveboracensis* (New York fern), *Onoclea sensibilis* (sensitive fern) and *Lorinseria areolata* (netted chain fern). Also in the wet ditches were many flowering *Impatiens capensis* (jewel weed) with lingering orange flowers and ripening seed pods. The group quickly took to the rise where there were several non-blooming *Rhododendron viscosum*, and on the way to Buttermilk Spring, Gail Clearwater found a beautiful flowering *Monotropa hypopithys* (pinesap) with vivid yellow and red colors. Later many of the pinesaps were found.

Just beyond was Buttermilk Spring, a smallish concreted pool of spring water which had some whitish residue covering the concrete and beyond the container, the water had also precipitated the same residue on fallen leaves, twigs and soil of the spring branch. Above the spring, the flowing water from the other springs was clear and further down, the residue was diluted into lesser amounts of precipitation. It was here that the property owners, Richard and Sherry Burke and teenage son Richard caught up with us. Thoughtfully, Don Crank had contacted them and they joined our group and also our Society. They were delightful. Richard told the origin of the name Buttermilk Spring came from the fact that if one stirred the clear water with a stick the precipitate broke into whitish particles and gave the spring the temporary appearance of buttermilk. Meanwhile the photographers were taking the opportunity to take pictures of the uncommon pinesap.

Don lead a group up the spring branch to show a plant of the rare fern *Dryopteris celsa* (log fern). Lana and Bruce Ewing led others down the stream through a marshy

area and others stayed on drier soil. On a slight ridge in a wet area Cathy Marak found a flowering *Spiranthes* and again the photographers went to work. The marshy area ran into a wet ditch by the road and everyone reassembled on the road. Lana and Bruce found a fruiting vine of *Calycocarpum lyoni* (cup seed). This is an uncommon vine and its fruit was broken open to show the "cupseed" kernel. Adjacent was a fruiting shrub of *Corylus americana* (American hazelnut). The roadside was in flower with many *aster* spp. and *Bidens aristosa* (showy Spanish needles) and *Eupatorium coelestinum* (mist flower or wild ageratum).

The Group was headed to a truncated rocky ridge that had been blasted to get rock for the granules used in asphalt shingles in Caddo Gap. The bluff terminated in a pool of black water where the Burkes fished quite a bit. The bank along the pool was easy walking as it had a tram-like roadbed. And the day was well on its way of its morning ending. Here is where the field trippers began to break up in individual automobiles as another ANPS meeting had been successfully concluded with so many people with a happy feeling and deeper appreciation of the beautiful countryside with its plants, animals and kindred souls. It seems that everyone wanted to return to the Buttermilk Springs area in any season to see what nature had to offer and to wish the Burke family well.



Grassy Lake by Joe Stuckey

Fifteen ANPS members and friends met at 9:30 Saturday morning, October 4, at Fulton, Arkansas for a field trip to grassy lake. Weather conditions were ideal, with clear skies, low humidity, and mild temperatures. We were greeted by the warden, Wayne Gooden, and Dr. Carl Nelson, president of Texarkana College, (and my boss.) Dr. Nelson is the current chairman of the grassy lake board of directors, and had just returned from a very successful squirrel hunt, Saturday being the first day of squirrel season in Arkansas.

After a brief introduction and description of the history and ecology of the lake by Wayne, we broke up into smaller groups for walking field trips and a boat ride out on the lake itself.

Some of our members such as Bill Shepherd, and Helen & Max Parker came for the dual purpose of botanizing and birding. Unfortunately, the large and varied populations of water birds were not present today. The large concentrations of herons and egrets that had been nesting in such abundance in May were now gone, and there were as yet no waterfowl coming in for the fall, with the exception of a few blue wing teal.

Another disappointment was the lack of alligator sightings. They are normally most visible on hot afternoons in the summer and fall, basking on mud banks and floating almost submerged. It was probably just a little too cool, and a little too early in the day for them. However, Dale Thomas was treated to a sight of a small group of recently hatched babies on his boat trip. Grassy lake has a very large alligator population, estimated at from 3-4 alligators per acre of water, and the lake covers some 3,000 acres, depending upon water level. And take it from me, there are some very large 'gators in there.

The vegetation, as usual, was varied, unusual, and unique. Virginia willow, jewel weed, sensitive and fragile ferns, along with

paw-paw, yellow lady's slipper orchids, green violets, swamp red maple, cypress, and many other species too numerous to mention could be seen along the elevated wooden walkways to and from the lake and boat docks. Smooth bur marigold was blooming in large beautiful clumps on the floating islands out in the lake.

The rarest find of the day, by either Dale Thomas or Carl Amason, I'm not sure which, was a specimen of *Psilotum nudum*, or whisk fern, a very primitive fern relative which has been reported only in a couple of counties in Arkansas.



Calion, November 1, 1997 by Amason

The chosen day of the field trip was a cool partly cloudy day following some much needed rains. In spite of some people getting lost in the Calion area, the group met, enjoyed fellowship and coffee with Thera Lou Adam's celebrated and well known tea log pastry. Bob and Sandra Gamble came first and helped host the group through the first meeting and greeting time (recovering from getting lost and finding the place!) and that is always a help.

Since Carl's field trips are gentile, no mountains to climb, no rivers to swim, or sloughs to wade, one can fall in line or drop out as they feel fit to do.

As an introduction to a "wild area", the group began by strolling down the hard surfaced county road and looking at plants that had been mowed off by the county road machinery and had resprouted some flowering stems which were in bloom, but in an impoverished condition. But everyone seemed to enjoy seeing *Liatris elegans* and *Liatris aspera*, and their differences. Also it was evident in the "yellow or pale" centers of *Bidens aristata* and the dark centers or eyes of *Helianthus angustifolia*. Some resprouted *Lobelia puberula* were in blue flowers, and the yellow *Gaillardia aestivalis* were in nice blooms. A demonstration of fire ant activity was given which gave everyone a revelation of their action.

Meanwhile Dr. Dale Thomas of Northeast Louisiana University was "making hay" by gathering herbarium specimens. Cathy Marak of Springdale expressed their feeling of being in another world as did Winnie Dawson of Canada (summer) and Malvern. Virginia Alexander and Sue Clark were fascinated by the exotic sansanquas in bloom and the Japanese climbing fern (*Lygodium japonicum*) which is somewhat weedy, but delightful. George and Lillie Sinclair always come and contribute their knowledge to the group and they now live in Marshall, Arkansas. A.J. and Gloria Higgenbottom of Murfreesboro enjoyed the group and plan to return for *Chionanthus virginicus* (fringe tree or grancy greybeard) latter. Pat Hall of El Dorado usually comes when her workload allows her to get away for a day. And Thera Lou not only brought her pastries, but a young lady from Bearden, Amber Taylor, who is eagerly collecting leaves of trees at her age of thirteen.

A flowering tree of *Hamamelis virginiana* was found among a grove of others with lemon-colored autumn foliage and close by a flowering stem of *Gentiana saponaria* and again the photographers got busy. Showy red berries were found on several species of

hollies and even yellow berries on a form of *Ilex vomitoria* (yaupon).

There are so many things growing naturally and unnaturally about an old farmstead that it is difficult to show them all in one daytime period to a group of nature-loving people but there is always something to show in season, so many others are left to enjoy for another day. In short it was a happy day.



BIOLOGICAL DIVERSITY PROJECT by Mina Marsh

The Arkansas Natural Heritage Commission (NHC) has recently undertaken a new project to help students develop an understanding and appreciation of biological diversity. Materials will be developed for the Biodiversity Curriculum Project to focus on several key questions: What is biodiversity? Why is it important? How is it expressed in each student's personal environment and in the state? How does biodiversity affect people and cultures everywhere? And how do people affect biodiversity?

Curriculum materials for use K-12 will be developed to represent each natural division of Arkansas. They will compare and show relationships between neighboring environments, ecosystems, and regions, and they will demonstrate the connections between the natural environment and literature, the arts, and social studies.

During the week of June 22-28, 1997, members of the NHC staff and commission chairman Ellen Neaville spent two days in the office and in the field with 20 Arkansas teachers, providing scientific information the teachers needed to develop curriculum units. The team of staff and teachers then traveled to the Arkansas School of Mathematics and Sciences where they produced more than 65 lesson plans by the end of the week. They are scheduled to meet again in December to fill in gaps and design specifications for hands-on materials and activities.

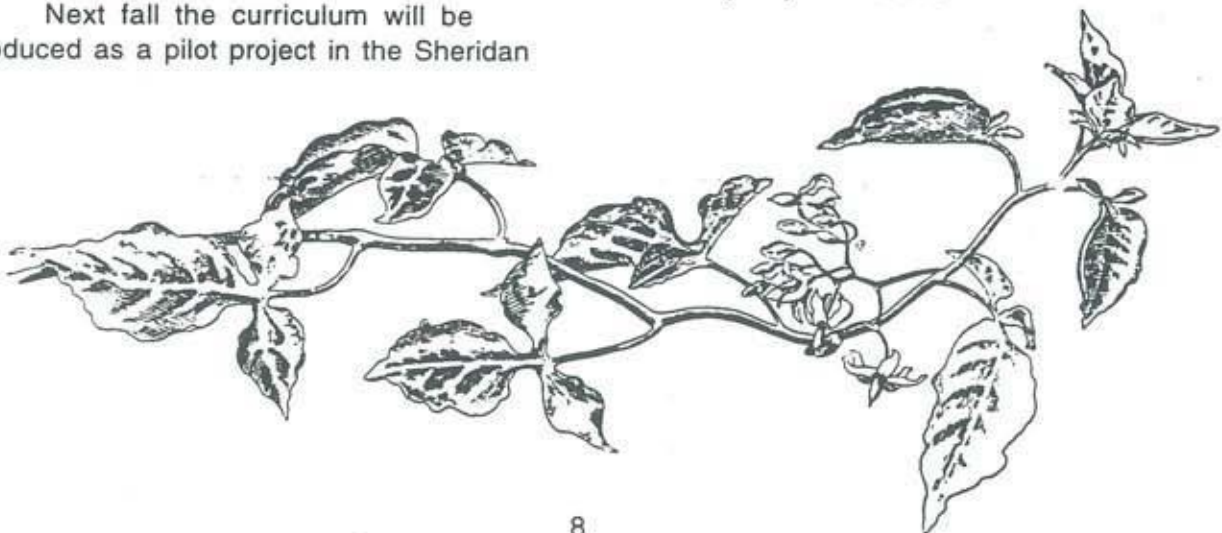
Next fall the curriculum will be introduced as a pilot project in the Sheridan

School District. Then the design team will evaluate, make revisions, and refine the materials to spotlight biodiversity within all six natural divisions. The commission expects a statewide release of project materials in the year 2000. To the extent possible, loan items and printed materials will be distributed by the regional education cooperatives, though they will be available directly from the commission to schools that are not served by the cooperatives. Some materials will be accessible through the World Wide Web or directly from other agencies and organizations.

Much of the support for this project has been received in a grant from the Arkansas Natural and Cultural Resources Council. It is also supported in part by grants from the Arkansas Humanities Council and the National Endowment for the Humanities, the Winthrop Rockefeller Foundation, and the Ross Foundation.

We hope members of ANPS will begin thinking of ways they can help teachers in their local communities make the best use of these materials. Watch for more news about this project as it develops.

Mina Marsh, Deputy Director
Arkansas Natural Heritage Commission
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Little Rock, Arkansas 72201
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Carl Hunter's Hints for Growing Wild Flowers

Species: There are over 1,000 species of wildflowers growing in Arkansas. Many of these are now available from suppliers as plants or seeds. You can find wildflowers that will grow under your conditions.

Soils: You should grow wildflowers that are growing in the wild under conditions similar to yours. Grow wildflowers that grow in your part of the state. They are very adaptable, however, and exceptions can be made.

Seedbed: Till the soil about three inches deep and rake off the grass, leaves, etc. If you can not till because of rocks or roots, rake off all the litter. Here the seeds can be covered with topsoil.

Fertilize: Use 13-13-13 or near this mix. Scatter thinly on the ground so that the particles are about one inch apart. Or spread commercial or rotted manure thinly over the ground. Till the fertilizer or rake it in. (Note; if wildflowers are growing nearby, you will probably not need fertilizer).

Planting: Rake the soil so that it is smooth and as level as possible. Seeds must be in contact with the soil.

Tiny seeds that are almost like dust should simply be dropped on top of the prepared soil.. They can be mixed with dry sand to get an even distribution and to show where you have put the seed.

Average seeds can be lightly raked in.

Large seeds should be thoroughly raked in, or plant in rows about three times as deep as the thickness of the seed.

Dates: Nearly all seeds can be planted in the fall, especially perennials. Follow directions on package. Perennial plants should be set out in the fall or the spring; annual in the spring. January is a good month to plant seed in pots in the house. Transplant outside in April.

Growing season: If plants become pale, yellowish, or do not seem to be growing well, apply fertilizer at low rates. Pull or hoe grass and weeds. Water enough to keep soil moist so plants can grow and bloom well.



Arkansas Native Plant Society Membership Application

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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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