

## FNHA Celebrates Ten Accomplishment-Packed Years

On Sunday, February 24th, the Garden Room was packed with celebrants as the Fayetteville Natural Heritage Association marked its tenth year preserving and enhancing the undeveloped natural spaces that make Fayetteville such a rich and beautiful place to live.



Vice-chair Karen Crocker, Martha Sutherland and Bettie Lu Lancaster reminisce at FNHA Ten Year Celebration

Chairman **Bob Caulk** reviewed some of the accomplishments of FNHA's first decade, starting with the 2003 campaign to save Mount Sequoyah Woods, which established FNHA's reputation as an effective advocate for healthy green infrastructure, combining conservation values with respect for appropriate devel-

opment and common sense.

To date, FNHA has helped to preserve in perpetuity more than 110 acres of mature urban forest and two acres of urban wetlands. Data from FNHA's GIS conservation assessment were instrumental in helping obtain another 20-acre conservation easement and in providing the foundation for conserving another 14-acre, centrally-located natural area, all within the Fayetteville city limits.

FNHA's 2006 grant from the Arkansas Forestry Commission's Urban Forestry Program and the U.S. Forest Service allowed us to identify and rank the best land parcels for preservation in and around Fayetteville through the now-familiar GIS mapping of the area's Green Infrastructure, a process which won an Arkansas Department of Environmental Quality ENVY stewardship award.

The City of Fayetteville has included the preservation of Green Infrastructure in its 2030 Plan and the Beaver Water District has begun a GIS survey of the watershed. More recently, the Northwest Arkansas Land Trust has begun using the

GIS study to identify owners of urban forest areas.  
(see article page 3 by Terri Lane)



FNHA members have worked to restore prairie remnants, clear invasive non-native plants and preserve areas such as Mt. Kessler. We are a vital, active organization and have made a major impact during our first ten years.



FNHA birthday celebrants enjoyed good food and drink and good company at the party and are now looking forward to the accomplishments of the next ten years.



David Whitacker, Karen Crocker, Libby Wheeler and Mary Alice Serafini enjoy catching up at the party

## 2013 Officers Elected

## Farewell and Many Thanks to Nancy Varvil

Welcome  
John and  
Dana!

We'll  
miss  
Nancy  
and  
Wade!

The FNHA birthday celebration was also the annual meeting. The nomination committee presented two nominees to the Board of Directors, **John Coleman** and **Dana Smith**, to fill positions formerly held by **Wade Colwell** and **Terri Lane** who is now serving on the Governing Board as our new Secretary replacing **Nancy Varvil**. There were no nominations from the floor, and John and Dana were elected by acclamation.

The Board and members of FNHA say a reluctant farewell to long-time member and Board Secretary Nancy Varvil. Nancy has been an active par-

ticipant in many FNHA ventures and has been particularly concerned in recent years with the threat to Fayetteville's natural spaces posed by invasive non-native plants. She has taught many local residents to identify and eradicate non-natives that threaten our habitat by pushing out the endemic species that support native insects, birds and animals. Nancy's fight against the invasives has always been hands-on, done with tools, muscles and the sweat of her brow. We wish Nancy well as she sets sail for ports unknown and new adventures.

## Founders' Scholarships Awarded to Six Students for Ecology Camp

The FNHA endowment for student summer scholarships, established in honor of our Founders, has produced sufficient revenue this year to support six local students, five from Fayetteville and the sixth from Winslow, who will attend Arkansas Audubon Society Halberg Ecology Camps.

There are three categories of campers: Junior, Senior and Advanced. There are 100 Junior campers, who must apply and have a teacher recommendation; 24 Senior campers who have been invited to return after having been Junior campers; and 12 Advanced campers, who have been invited to return after having been Senior campers.

Junior and Senior campers attend one of



Campers discussing their day at Halberg Ecology Camp

two week-long sessions in June held at Camp Clearfork, near Hot Springs. Advanced campers attend a week-long session in July at Mt. Eagle, near Clinton.

FNHA scholarships went to Fayetteville Junior campers **Gabriel Hardin**, from

Leverett School and **Sienna Hill** from Owl Creek Middle School.

Senior campers supported by FNHA include **Saoirse Disney-McKeethen** from Owl Creek Middle School in Fayetteville and **Joshua Jackson** from Winslow.

Advanced campers who were selected to receive our scholarships are **Penelope Starr-**

**Oberski** from Owl Creek Middle School and **Alex Lim** from Holt Middle School.

These students are the environmental leaders of the future and we are proud to be able to support them. We're especially pleased that so many are Senior and Advanced campers.

## FNHA Sponsors Tree-Ring Analysis of Ancient Oak Woodlands on Mt. Kessler



~200-year old Chinkapin oak (*Quercus muehlenbergii*) Kessler Mountain, Arkansas

Article by David Stahle and Alan Edmondson

The natural woodlands on Kessler Mountain near Fayetteville are being considered for the establishment of a regional park and outdoor laboratory for the University of Arkansas. Preliminary survey of the forests along the Kessler Mountain biking trail has identified several parcels of relict old-growth oak woodlands that were not logged and still contain canopy dominant post oak and chinkapin oak in the 200- to 300-year age class. These ancient oaks were not cut because they are non-commercial for timber production. Some post oaks on dry shale glades were too stunted and many chinkapin oaks on rock outcrops were too contorted for logging. The terrain where these ancient oaks are found is also too steep, rocky, or infertile for agriculture. As a result, very old trees that germinated in the 18th century prior to the European settlement of Arkansas are still locally present on Kessler Mountain. These old-growth woodlands may represent the areas with the highest ecological integrity on Kessler Mountain.

The research will survey the public and private forest lands on Kessler Mountain that are being considered for conservation management, with the goal of mapping and describing the best parcels of uncut ancient oak woodland. This project will constitute the masters thesis research of **Alan Edmondson**, Department of Geosciences, University of Arkansas, Fayetteville. The research objectives will include:

1. A survey of the property to identify all remaining parcels of old-growth forest on or adjacent to the proposed regional park. These remnants will be located with global positioning system (GPS) surveys and will be incorporated into a geographic information system (GIS) developed during this project.

(Continued on p. 3)



## Tree-Ring Analysis (continued from p. 2)

2. The two largest or highest quality parcels of ancient woodland will be selected for careful mapping and randomized field sampling to quantify the tree species composition of the stand.
3. The age structure of the dominant oak species, *Quercus muehlenbergii* and *Quercus stellata*, will be quantified based on randomized core sampling and dendrochronology (tree-ring dating).
4. The oldest individual trees and dead logs of any species will also be sampled across the property to document the maximum longevity of the trees still present on Kessler Mountain.
5. Analyses of the proposed data will include: estimation of the total acreage of uncut old-growth forest still present at Kessler Mountain; estimation of the density and basal area of tree species present on the two intensive study sites; estimation of the age structure of the dominant chinkapin oak and post oak on the two study sites; and development of numerical tree-ring chronologies for both chinkapin oak and post oak, using the core specimens taken from the randomly selected trees and the oldest individual trees and logs located during the proposed research.
6. A final report and draft masters thesis will be prepared during the proposed research and will be submitted to the project sponsors by August 31, 2013.

The research will be conducted by Edmondson under the direction of his faculty advisor **Dr. David Stahle**. Project sponsors include **Kessler Greenways, Hunter Haynes, Ozark Ecological Restoration Inc.**, and FNHA. Preliminary research will begin in the spring semester of 2013, and the funded field and laboratory research will be conducted from May 16 to August 15, 2013.

## Urban Forest Conservation Assessment to Be Used by Land Trust

Article by Terri Lane

Identifying and prioritizing properties with high conservation value is an essential (and often costly and time-consuming) step for land trusts. Partnerships with other conservation groups often enable “on the ground” efforts for coordinated conservation goals.

The Northwest Arkansas Land Trust (NWALT) is a locally-grown, non-profit land trust that was formed in 2003, the same year as FNHA. NWALT is concentrated on the greater four-county region, and the two organizations share an overarching mission to promote the preservation of land amid drastic increases in development.

Relatively intact, forested properties (like other endangered habitats) are among the most critical lands to pinpoint for conservation outreach in a rapidly urbanizing region.

Using the Fayetteville Urban Forest Conservation Assessment, conducted in 2006 by FNHA, NWALT is reaching out to those landowners whose parcels ranked highly in conservation value and risk for loss to development.

NWALT is one of more than 1,700 land trusts nationwide. Land trusts have been responsible for conserving more than 47 million acres in the US, according to the 2010 National Land Census.

Land trusts provide a way for landowners, developers and planners to conserve land, often through the donation of conservation easements. Conservation easements are a popular tool

because they are voluntary and keep land in private ownership. Each easement is crafted individually and the landowner retains the right to use their land, pass it on to their heirs, or even to sell it. The conservation easement stays with the land and can yield potential tax benefits to the easement donor.

Whether the landowner donates a conservation easement, or donates the land outright, the land trust develops baseline documentation and conducts regular monitoring to defend the natural resource values in perpetuity.

The Northwest Arkansas Land Trust will use the information gathered by the Urban Forest Assessment, and its list of the top 100 ranked parcels, to address its conservation outreach goals in the Fayetteville area.

By working together, FNHA and NWALT hope to preserve the natural integrity of a community that is known for its beauty, wildlife habitat, and outdoor living for future generations.

To learn more about conserving your land or supporting the land trust, visit [www.nwalandtrust.org](http://www.nwalandtrust.org).

*The mission of the Northwest Arkansas Land Trust is to provide a vehicle for donors and landowners to preserve land of agricultural, ecological, scenic, historic and recreational significance, primarily in Northwest Arkansas.*

## Bush-Whacking at Brooks-Hummel

Article by Tom Dureka



FNHA and other volunteers eradicate bush honeysuckle from the Brooks-Hummel Nature Preserve

On April 11, 2013, seventeen volunteers mustered at the Brooks-Hummel Nature Preserve to battle the dreaded alien, bush honeysuckle. Six members of FNHA: **Pete and Margo Heinzelmann, Bob Caulk, Joe Woolbright, Amber Tripodi** and **Tom Dureka** joined the fray, along with several Master Naturalists, members of the Fayetteville Urban Forestry Board's Invasive Plant Committee and other volunteers from the University of Arkansas and the community. The afternoon was gorgeous and too chilly for chiggers and ticks.

Pete, Bob and Tom did an initial assessment of the area in March with **Lisa Netherland** and **Neill Sloan** from Fayetteville Parks and Recreation. Lisa and Neill later marked nine sizeable stands of bush honeysuckle along Sublett Creek with orange spray paint to help volunteers avoid the native shrubs.

Up to four chainsaws were a-blazing at times. As the aliens hit the ground, the group dismembered and dragged them into burn piles. Quite a few other invaders like Chinese privet and multiflora rose were likewise dispatched.

Many smaller shrubs could be pulled out by hand, thanks to several previous days of rain. Joe brought his backpack sprayer to paint herbicide on the stumps. An arsenal of loppers and handsaws were loaned by the City and **Tri-Cycle Farms**. **Nancy Varvil's** weed wrench got a good workout. Tom reported 49 volunteer hours to the City from the event.

Although dealing with the whole issue of bush honeysuckle can be depressing, group efforts in this one small area yielded visible results and increased access to Sublett Creek. Tom hopes to coordinate more bush-whacks at BHNP in the fall/winter, including staff volunteers from **Ozark Natural Foods**. This surprisingly quiet little preserve (only two blocks east of ONF and four blocks from College Avenue) is virtually unknown to their employees and Board, although the store contributed several thousand dollars to the initial purchase of the tract. **Boy Scout Troop 142**, associated with the **First United Presbyterian Church** on the other side of the tract, has already built some trails, and will also be asked to help with the next assault.



## Visiting Nature in Northwest Arkansas – Some of My Favorite Places

Article by Doug James

We know we reside in the "Natural State," but we may not be aware of how many nearby natural sites we have easy access to when we want to enjoy nature right here in Northwest Arkansas. The website of the Northwest Arkansas Audubon Society, [www.nwarkaudubon.org](http://www.nwarkaudubon.org), lists 33 great natural sites in our area of the state.\* Some of the more interesting sites are listed below:

Among the **forested areas** are: Compton Gardens and Crystal Bridges; Devil's Den; Hobbs State Park and Rocky Branch, both on Beaver Lake; and Shores Lake (at Shores Lake continue northward to White Rock for a spectacular view).

Areas of **mixed forest and fields** include: Eagle Watch Nature Trail and Pea Ridge National Military Park.

**Prairie areas and former prairies** (that are bright with summer blooming flowers) are: Beatie Prairie, Butterfield Tall Grass Prairie, Cherokee Prairies, Chesney Prairie and Woolsey Wet Prairie.

**Aquatic areas** with water birds are: Craig State Fish Hatchery and Lake Fayetteville.

And don't forget that eagles can be viewed in winter at Eagle Watch Nature Trail, and along the Northwest Arkansas Eagle Auto Tour (both are best in January).

Most of these sites are relatively near Fayetteville. Some which are a bit more distant but well worth the trip include: Cherokee Prairies, Hobbs State Park, Craig State Fish Hatchery, NW Arkansas Eagle Auto Tour, and Pea Ridge. One site even farther away, **Ninestone Land Trust** in Carroll County, is a place of varied habitats including glades and magnificent landscapes. Please phone ahead to be welcomed to this private Land Trust site.

\*On the NWA Audubon Society home page click on the left panel "Places to Bird in Northwest Arkansas." The areas listed in alphabetical order are noted for their value for bird-watching, but they also are pleasing natural places to visit for those who just enjoy the outdoors. Clicking on the name of an area will bring up a description and directions to get to it.

## Graham's Crayfish Snake Found in Woolsey Wetland Prairie

FNHA Chairman Bob Caulk remarked that the folks who have been re-building Woolsey Wet Prairie have another reason to be proud when he received a recent email from **Bruce Shackelford**, president of Environmental Consulting Operations, Inc., in Benton, Arkansas.

Bruce sent a photo that **Dr. John David Willson**, assistant professor of Biological Sciences at the University of Arkansas, took of a Graham's Crayfish Snake (*Regina grahamii*) at Woolsey Wet Prairie on April 14th.

Willson noted that the species is absent from the Ozark/Ouachita region in the Peterson book of herpetology, but has an "X" point location in Northwest Arkansas. He said, "As best I can tell, this point is based on three specimens from the 1950s with very poor locality information," only "Fayetteville" or "Washington Co." So the species hasn't been recorded in this

area in 60 years. "All very exciting and another good sign that Woolsey is a special place."

According to the Arkansas Natural Heritage Commission website, this species has a state ranking of S2, Very Rare. Typically, the ranking means between five and 20 occurrences or with many individuals in fewer occurrences, often susceptible to becoming extirpated.

This is a non-venomous snake that ranges



Graham's Crayfish Snake *Regina grahamii*

from 18 to 28" in length, with a maximum recorded length of 47". It feeds primarily upon recently molted crayfish, although it will eat tadpoles, salamanders, snails and adult frogs. It retreats into crayfish burrows during hot weather. Draining and alterations to wetlands and loss of crayfish populations because of pollution and acid rain have reduced its numbers drastically.

The large population of Osage burrowing crayfish (*Procambarus liberorum*), indicated by the thousands of mud chimneys they build at Woolsey Wet Prairie, make it an ideal habitat for the Graham's Crayfish Snake.

There are many scientific tools to evaluate the ecological health of a site. The presence of a rare species within the city limits of Fayetteville, next to a state-of-the-art wastewater treatment facility, is certainly a sign of ecological health!

## Save the Date, November 2, for the Inaugural Kessler Trail Run! -Article by John Coleman

Save the date and spread the word! **FNHA is partnering with the Pack Rat Outdoor Center on November 2, 2013**, to host a new event called the **Kessler Trail Run**. This Run will raise awareness for Mt. Kessler and the need to preserve critical habitat in the Fayetteville community. It will engage the growing running community in Northwest Arkansas, a group of folks that already are sensitive to the need for land conservation, but may not be aware of FNHA's mission or its efforts to conserve Mt. Kessler.

The Kessler Trail Run will begin at the Old Smokehouse off of Martin Luther King Jr. Boulevard (Highway 62) in west Fayetteville and include multiple distances (to be determined) for beginners and more experienced runners. Participants will wind through Rock City, the primary entrance to the Mt. Kessler trail system, then travel through the old oak groves of Kessler, exposing the scenic views of the Ozark Plateau to the west. This Run will be a unique experience for Northwest Arkansas!

Plans for 2013 also include Pack Rat's in-store effort to support FNHA with an annual "Advocacy Weeks" held in May. Advocacy Weeks is part of Patagonia's 1% for the Planet program where participating stores select a local non-profit to highlight during a two week period in the spring and fall. For every pair of Patagonia shoes sold during Advocacy Weeks, ten dollars is donated to Fayetteville Natural Heritage Association to help conserve Mt. Kessler. In addition, every patron of Pack Rat during these two weeks gets a chance to learn about FNHA and its local efforts. The Kessler Trail Run will mark the first day of the fall Advocacy Weeks event at the store.



The Kessler Trail Run and Pack Rat Advocacy Weeks are part of an effort underway to save this beautiful mountain. Join us on November 2<sup>nd</sup> for the run or just come for the party.

Stay tuned for more details in the Newsletter or check out our **new Facebook page** at [www.Facebook.com/fayettevillenaturalheritageassociation](http://www.Facebook.com/fayettevillenaturalheritageassociation) for more information.



Connie and Craig Edmonston talk with Bob Morgan at the FNHA Ten-Year Birthday celebration



Lots of good conversation taking place at the FNHA Ten-Year Birthday Celebration

More party photos will be posted in an album which will be available on the web after 6/15/13. A link will be emailed to you at that time. -Sara

FNHA annual memberships are due in January of each year. You will receive a renewal reminder sometime during the year. Memberships at the Landmark level and above are Lifetime memberships. Since 2003, with support from so many levels, FNHA has been able to preserve natural areas, start an education endowment for children, influence land use and conservation policy, and in doing so we have gained national support and recognition. None of this would have been possible without you, our amazing members, and we hope you will continue to support FNHA as we continue to preserve our natural heritage. Thank you!

Have a question?  
Need more info?  
Want to comment?  
Like to volunteer?

Fill out the contact form at  
[www.fayettevillenatural.org](http://www.fayettevillenatural.org)  
or contact us directly

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Help us to continue making exemplary natural areas accessible to everyone by supporting our conservation, stewardship, policy, and education efforts.

#### Please join FNHA or renew your membership today

Annual dues are:

Membership is for the calendar year,  
and dues are payable January 1,

- ☐ Landmark \$1000      ☐ Steward \$500      ☐ Sustaining \$250  
☐ Supporting \$100      ☐ Family \$40      ☐ Single \$20

Use your PayPal account on the web at [www.fayettevillenatural.org](http://www.fayettevillenatural.org) "Join Us"  
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Make your check payable to **Fayetteville Natural Heritage Association (FNHA)**  
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FNHA is a 501(c)3 nonprofit corporation comprised of a group of citizens dedicated to conserving the natural areas of Fayetteville and its environs for the benefit of present and future generations