



PACK & PADDLE



Spring
March 2018

*“The challenge goes on. There are other lands and rivers, other wilderness areas, to save and to share with all.
I challenge you to step forward to protect and care for the wild places you love best.” - Dr. Neil Compton*

Nutrient Trading in Arkansas – Good or Bad Idea?

By David Peterson, Ozark Society President

Anna Weeks of the Arkansas Public Policy Panel recently set up a meeting between several environmental groups and Alan Gates, the lawyer from Little Rock who wrote the current Arkansas nutrient trading law, and who now represents the 4 cities in Northwest Arkansas which hope to establish nutrient trading in the Illinois River watershed. The basic idea is this. Suppose that a watershed has a goal of meeting nutrient limits, say total maximum daily loads (TMDL) of total phosphorous (TP). There are two primary sources: point sources (wastewater facilities, industry, etc.) and nonpoint sources (agriculture, urban/suburban runoff). If a point source finds that it is much more expensive to reduce their discharge of TP than the cost from non-point sources, then the point source can pay the nonpoint source to reduce TP discharges, and

take credit for the reduction. It's a win for the watershed. TP levels are reduced and everyone gains financially.



The Illinois River watershed has had a long history of excessive poultry litter application, causing very high TP loads and massive algae blooms in Oklahoma streams and lakes. This problem culminated in 1992 when the U.S. Supreme Court ruled that Arkansas must abide by a stringent Oklahoma TP limit, 0.037 mg/L for Oklahoma scenic rivers like the Illinois River (the EPA limit is 0.1 mg/L). Brian Haggard (currently a member of the Big

Creek Research and Extension Team) and others found that more than 40% of TP was coming from municipal wastewater facilities from 1997-2000, and TP levels sometimes reached 10 mg/L below the Springdale wastewater plant. It is not too difficult to require municipal plants to reduce TP levels, all-be-it expensive, and today discharges are required to be less than 1 mg/L. But these discharges are still too high, and the legacy TP from the poultry farms will continue to enter the river for years. Non-point sources are also much more difficult to regulate. Indeed, eliminating all municipal TP discharge might not allow the 0.037 mg/L limit to be reached. The expanding population in northwest Arkansas will force expanded and more expensive waste water treatment for TP. Hence, the idea for nutrient trading.

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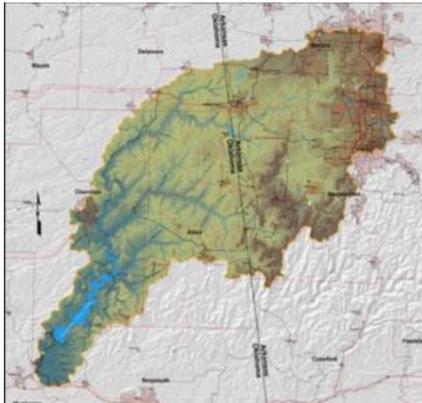
Nutrient Trading continued

Will it work for northwest Arkansas municipalities to pay farmers and others to reduce their TP discharge, which will then be credited to the municipalities as if they actually reduced their load, and therefore their construction costs will be less? Alan Gates thinks the key to success is to have a general plan with few specifics which would handicap creative solutions. As currently formed, the Director of ADEQ will have the authority to approve Nutrient Credit Generating Projects. If a project involves nonpoint activities, it will be submitted to the Arkansas Natural Resources Commission for review. There may be no inspections for compliance by anyone but the project proposer - a major weakness.

The responsibility for generating and monitoring the project is entirely with the project proposer, although there are a few safe guards. For instance, no project can be approved unless the project will reduce the nutrient load below baseline requirements. But this presents three major problems. Haggard found that flow weighted TP concentrations varied between 0.20 to .53 mg/L, 2001-2007. Total loads varied between 64,000 kg to over 426,000 kg, 1997 - 2008. So,

- i) What is the baseline? Current levels, the target (0.037 mg/L), or something else.
- ii) With large variability in yearly TP, how can it be determined if there is a reduction?
- iii) Who actually will do the longitudinal study of stream parameters?

The Illinois River Watershed



An EPA critique of a Pennsylvania trading plan says, "Unlike point source discharges with NPDES (National Pollutant Discharge System) permits, agricultural operations cannot quantifiably measure source loading from their fields." The Arkansas idea, it seems, is to assume that landowners would employ "best management practices" and the extent of these would result in a assumed reduction of TP runoff in lbs. per acre per year. This would be unreliable (a guess really) and potentially

unfair or subject to deceit. Pennsylvania requires measures of manure, fertilizer, air deposition, residual inputs, minus the estimated crop intake to arrive at an estimate of potential discharge reduction and then adjusts for watershed characteristics.

The proposed nutrient trading is not limited to northwest Arkansas or to trading only within a single watershed. Although Alan assured us that no other section of the state would utilize nutrient trading this is a red flag. If the plan is inappropriate for other areas of the state, why not state it in the proposal. I can imagine nutrient trading anywhere including the Buffalo River Watershed and among CAFO's.

Given the geography of northwest Arkansas, the municipalities are in headwater streams and the agricultural land is between them and Oklahoma border, it seems as if the beneficiaries of any nutrient trading would be in Oklahoma, not stretches of river in Arkansas, although the effect might be small.

Section 3 C) of the bill seemingly specifically forbids ADEQ visits to non-point sources for the purpose of compliance. An odd requirement for the approving agency.



The Ozark Society Membership Application/Renewal



Join us, or renew now! Dues are for one year and they include a subscription to the Society’s newsletter, *Pack & Paddle*. To join or renew, go online to the Ozark Society website at www.ozarksociety.net. Or you can fill out this form and send it with a check written to “The Ozark Society.” See below for our address.

Name(s): _____ Date: _____

Address: _____

City, State, and ZIP: _____

Phone: _____

Email 1: _____ Old Email (if changed)

Email 2: _____ Old Email (if changed)

I would like *Pack and Paddle* sent to my home address instead of by email. (Default is email.)

Please check one:

- New Member (Start at **Section A** for your OS and Chapter Membership)
- Renewal (Start at **Section A** to renew your OS and Chapter Membership)
- LIFE Member (Start at **Section B** to renew just your Chapter Membership)

Section A: Please specify both the Level of Membership and the Chapter you are joining:

Level: (choose one)

Chapter: (choose one)

- | | |
|--|---|
| <input type="checkbox"/> Friend: \$30 = \$20 OS +\$10 Chapter | <input type="checkbox"/> Pulaski (Little Rock, AR) |
| <input type="checkbox"/> Associate: \$50 = \$40 OS +\$10 Chapter | <input type="checkbox"/> Bayou (Shreveport, LA) |
| <input type="checkbox"/> Supporter: \$100 = \$90 OS +\$10 Chapter | <input type="checkbox"/> Highlands (Fayetteville, AR) |
| <input type="checkbox"/> Sponsor: \$250 = \$240 OS +\$10 Chapter | <input type="checkbox"/> Mississippi Valley (Cape Girardeau, MO) |
| <input type="checkbox"/> Patron: \$500 = \$490 OS +\$10 Chapter | <input type="checkbox"/> Sugar Creek (Bentonville, AR) |
| <input type="checkbox"/> Benefactor: \$1000+ = \$990+ OS +\$10 Chapter | <input type="checkbox"/> Buffalo River (Gilbert, AR) |
| | <input type="checkbox"/> No chapter, all to overall Ozark Society |

Section B: For Members who wish to join more than one Chapter or Life Members renewing their Chapter Membership only

Choose as many as you wish and add \$10 for each selection:

- \$10 Pulaski (Little Rock, AR)
- \$10 Bayou (Shreveport, LA)
- \$10 Highlands (Fayetteville, AR)
- \$10 Mississippi Valley (Cape Girardeau, MO)
- \$10 Sugar Creek (Bentonville, AR)
- \$10 Buffalo River (Gilbert, AR)

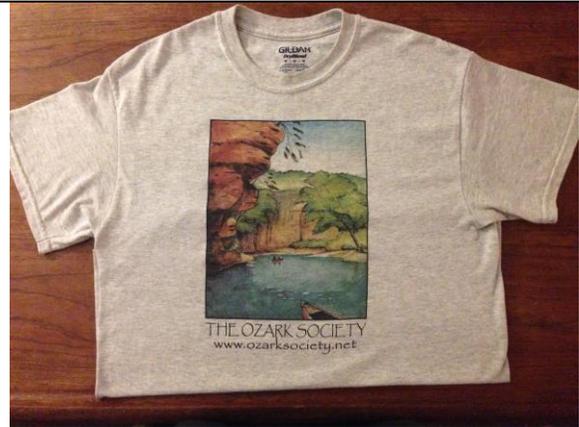
My Total is: \$ _____

Please remit to: The Ozark Society, PO Box 2914, Little Rock, AR 72203

Once your membership has processed, you will receive a welcome letter if you are new to the Ozark Society. If you have questions about your membership status, contact Mary Gordon at mb2rene@aol.com.

Membership News: It's T-Shirt Time!
By Chris Kline, Membership Chair

New T-shirts are here and they are great!!!!
 These are light grey with this Buffalo River graphic on the front. This graphic is proprietary to the Ozark Society, not to be copied. There are a few of the forest green ones left so contact Chris if you want one of those instead:
cl_kline@sbcglobal.net



Ozark Society T-shirt Order Form
Adult T-Shirts

Please specify quantity per size						Specify cost per quantity: Adult T-shirts+ \$20 each, shipping=\$4 each		
S	M	L	XL	XXL	3XL	T-shirt \$	Shipping \$	Total Cost per size:

Children's T-Shirts

Please specify quantity per size			Specify cost per quantity: Child's T-shirts=\$15 each, \$4=shipping each		
Child's Small	Child's Medium	Child's Large	T-Shirt \$	Shipping \$	Total Cost per size

Order Total _____

Ship to Name: _____
 Address: _____
 City/State/Zip: _____
 Email: _____

Make Checks Payable to: The Ozark Society

Address: Chris Kline
 801 N. Rush Dr.
 Fayetteville AR, 72701

**If you are ordering 3 or more, contact Chris at cl_kline@sbcglobal.net for revised shipping estimate.*

The Cucumber Magnolia

By Fred Paillet

The Rodney Dangerfield Tree of Buffalo River Ledges

Many Ozark hikers are familiar with the common trees such as oak, beech, black gum, and hickory that make up our scenic upland hardwoods. Other trees such as sycamore, sweetgum, and river birch are notable for the way they line our waterways. But one important Ozark tree, like that famous comedian of old, just cannot get any respect.

Exactly how important the cucumber magnolia (*Magnolia acuminata*) is in our forests was revealed by a recent study. The significance of this unassuming tree was demonstrated in a dendrochronological study completed as part of a University of Arkansas student Master's thesis. The project selected a remote and inaccessible gorge in the upper Buffalo drainage as a location where the difficult access by loggers could have allowed the trees there to escape logging.

These trees just might represent a fragment of virgin Ozark forest and the student's tree ring study was designed to test that hypothesis. The remoteness of the study site is indicated by the fact that the student had to rappel

down the face of a sandstone cliff just to get to his project.

An inventory of trees on this particular study site showed that cucumber magnolia was not only common, but actually the most abundant of all trees in the sampled area.

When you take the time to look at the forest around you on a hike into the scenic tributary gorges to the buffalo, you can see that this is not a fluke. Cucumber magnolia is consistently as common as the other trees like oak and beech you expect to see in such sheltered locations. It's just that the cucumber tree is so non-descript. It does not grow especially big and does not attain the impressive diameter of some oaks and beeches.

The tree has rather plain-looking bark with a medium brown color and a rather ordinary texture of shallow vertical ridges. The bark is so plain just because it does not provide a very good foothold for the mosses and lichens that add so much interest to the bark of trees such as beech and oak. The leaves are nearly as large as the leaves of the oaks, but are simply oval with pointed tips.



Illustration is a profile of the mature tree found growing in Boen Gulf. The leaves are thin and supple "shade leaves" from an understory sapling.

The leaves are shed completely in the fall and not retained in a brown and shriveled form such as happens with many oaks. Thus, the cucumber tree canopy blends in with all of the other bare-branched deciduous trees in the winter when forest vistas open up to long-distance view.

Magnolias are noted for showy flowers and many related species are planted as ornamentals. But not the cucumber tree. It has small

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The Cucumber Magnolia continued

(for a magnolia), greenish-white blossoms that are hidden high in the canopy.

The cucumber tree gets its name from the fist-sized seed pods it produces, which some people compare to a warty and misshapen cucumber. According to the Department of Commerce's Silvics handbook, cucumber tree wood is so similar to that of the better-known tulip poplar that its timber is marketed along with the more abundant wood from that tree. The preference of cucumber tree for cool and moist habitats means that it is not otherwise

common in the logging industry even if it is locally abundant in hard to access gorges and ravines such as those around the Buffalo River. Thus, this important component of our Buffalo River ecosystem really doesn't get the respect it deserves.

Where would be a good place to see the cucumber magnolia in its natural habitat – without having to rappel down a ledge as was required for the University of Arkansas study? You can look down into one of these steep, inaccessible ravine-

slope forests by following the Buffalo River Trail upstream from the Ponca low water bridge. The trail is steep but follows the crest of the ascending ridge with views into the old growth forest off to your left as you work your way uphill. Look for the oval, leathery magnolia leaves underfoot and then look up to see the unassuming source of those leaves. The cucumber magnolia is so plain and nondescript that it is best identified by not being an oak, hickory, beech or ash. A tree so plain that you end up identifying it by what it isn't!



Detail of cucumber tree foliage superimposed on a low-water view of the upper Buffalo River area. The stiff and leathery leaf above is a "sun leaf" fallen from the top of the tree.

High-Pointing the States: Part One - Arkansas and Some Neighbors

By Steve Heye

When I was 17, our family took a trip to the Smoky Mountains from our home in Nashville. While there, I happened to notice that the highest point in Tennessee was just down the road from our hotel. It was a beautiful summer's day so we piled into the car and made our way to Clingmans Dome (6644 feet). Little did I know a lifetime hobby had begun.

We may have done at least one High Point of one state or another. Maybe you have been lucky to visit 5 or 10 high points as you passed by on your way to doing a trip to somewhere.

Then, there are people like me: High-Pointers, people who have a few points under their belt and want more. We are the folks who purposely plan trips so a state high point can be climbed. Sort of like Pokémon for hikers. I currently have 32 high points under my belt and I am planning to increase that number later this summer.

For me to cover my journey properly I am breaking the story into pieces and our Pack and Paddle Editor will print additional entries over

the next few issues of Pack and Paddle. To get started, I am covering some of the states that touch Arkansas.

Arkansas

I moved to Arkansas in 1979 to take a job with the Highway Department. One Saturday my room-mate asks if I wanted to join a couple other friends and head over to Mt. Magazine (2753 feet) to do the highest point of Arkansas. OK, we were also going over to Wiederkehr to try out some wine, but I digress.

Not far from Wiederkehr is Mount Magazine. The '79 trip was my first time up and since no one had a camera with us, I never had a record of my first time on top. I have since returned to Magazine several times over the years. My wife, Meribeth, and I returned when the new lodge was finished and by then the Youth Conservation Corps had improved the highest point by placing a map of the state in flagstone around the USGS elevation marker. What's cool is the marker is on the stone map in the correct spot! The area was cleared, new summit trails were made from the lodge

and the campground, benches were made and a sign-in board was installed. The area is now a source of pride as the mountain top looks like a big patio with informational boards.



Magazine is a very easy summit. You can drive up to the lodge and take the trail from there or from the one from the campground. It's about a 10 to 15-minute hike to the top and can be done by anyone who can walk. The lodge is a great feature for a state high point. And if you are expecting a view from the top, sorry, nothing but trees. Go back to the Lodge and enjoy the view there!



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High-Pointing the States continued

Tennessee

OK, back to 1973 and Clingmans Dome. This was the first time I had been to the highest point in any state. Clingmans Dome is outside of Pigeon Forge and makes a good half day trip for anyone in the area. You head east on Hwy. 441 and near the state line is the access road that takes you to the high point. Tennessee has built a visitor center at the parking lot and since it's in the Great Smoky Mountains National Park, it is real busy in the Summer. From the visitor's center you walk a very steep but paved path to the observation tower on the peak. Like the Arkansas high-point hike, it takes about 10 to 15 minutes to reach the top.



Meribeth and I returned to the summit back in 2010 on a trip to Asheville, N.C. This peak can be done by most folks, though the trail to the tower can be steep and hot for some as it's in the open. The Appalachian Trail is not far off either if you want to check it out.

Missouri

Missouri's high point is call Taum Sauk (1772 feet). I know, only 1772 feet!



You would really think that Missouri had somewhere in the 2000-foot range. Like Arkansas, Taum Sauk is a state park.

The park is near the town of Ironton. This is a great place for white water on the St. Francis river. Unlike Magazine, this state park is camping only, but there are lots of great places to stay nearby. Go to Ironton and head southwest on Missouri 72 and follow the signs.

Taum Sauk was my fifth high point and I got it on October 13, 2006 when I joined the annual Gordon and Margaret Bartelt float trip down the Eleven Point. This high point is one of the easiest you can do. It is about a 200-foot walk from the car to the marker on a paved flat sidewalk. Like Magazine Missouri's high point is not very scenic.

Oklahoma

Oklahoma's highest point is called Black Mesa (4973 feet) and is in the very northwest corner of the Panhandle. I visited the site on August 1, 2014 while on a 5-state trip to see high points out west. (more

on that trip in a later edition). The mesa is in New Mexico and Colorado as well. The point is near the town of Kenton and a great little state park is nearby for overnight camping. Nearest hotel is in Boise City. If you're interested in breaking up that long drive to or from the Colorado trip, head to Boise City and follow the signs west to Kenton.



The Mesa was my 14th high point and sits about 800 feet above a side valley off the Cimarron River. From the parking lot it's a flat hike up the valley for 3 miles or so before you make the climb to the top of the mesa. Once you make the top, you still have about a mile to go on flat trail to the marker. The marker is about a 15 feet tall piece of granite with carvings on all sides. There are a couple of benches to sit down on, but you are in the wide-open spaces of the high plains. The view is not bad from the top as you look into three states at once. Total hike is about 8.5 miles, so bring snacks and water. Don't miss the three-state marker just about a mile from the parking lot.

Trip Adventures for 2018

By Stewart Noland



Grand Canyon Rafting April 22-28th

Canyoneers (800-525-0924, canyoneers.com) has agreed to host Ozark Society members on an All the Grand, six night seven day motor powered raft trip on the Colorado River through the Grand Canyon. The trip will begin and end in Flagstaff, Arizona. The launch date is April 22, 2018.

As of October 30, 2017, there were 20 spaces available on the trip. The cost of the trip is \$2595 per person. The weather and water in the Grand Canyon in April are usually very agreeable, making April a prime time to take this trip. For more information or to sign up

for the trip please contact Canyoneers, asking for Mike.

This trip is a good opportunity in a short period of time to see the Grand Canyon from Lee's Ferry below Glen Canyon Dam to Pearce Ferry on Lake Mead. Ozark Society members that made this trip several years ago really enjoyed the experience. When the boat stops to take a side hike, take it. The side canyons on the Grand Canyon are magical.

Paddle the Salmon River Idaho July 29- August 3rd

Aggipah River Trips (Bill Bernt, www.aggipah.com, 208-756-4167) has agreed to host Ozark Society members on a 5 night, 6 day trip on the Middle Fork of the Salmon River in Idaho. The trip will launch from Boundary Creek on July 29, 2018. There are two trip options: row or paddle your own boat, or ride with Aggipah.

Until the end of 2017, the cost of the trip is \$2150 to ride with Aggipah or \$1505 to take your own

boat. After January 1, the cost of the trip is \$2200 and \$1540, respectively. A 25% deposit is needed to secure your place on the trip (Aggipah, PO Box 425, Salmon, Idaho, 83467) If you have any questions please call Bill Bernt at Aggipah or Stewart Noland (bosshq@aol.com, 501-666-2989). If you sign up for the trip, please let Stewart know so we can coordinate logistics. If this date is not good for you, Aggipah has other launch dates listed on its website.



SOCIETY OFFICERS (2017-2018): **President:** David Peterson, (501) 679-2935, drpdpr@windstream.net; **Past President:** Alan Nye, (501) 258-7137, ajnye@swbell.net; **Vice President:** Lucas Parsch, lparsch@uark.edu; **Financial Chair:** Kay Ewart, ozarksocietyewart@sbcglobal.net; **Recording Secretary:** Sandy Roerig, (318) 686-9481, sroeri@lsuhsc.edu; **Conservation Chair:** Alice Andrews, (501) 219-4293, alice209ok@yahoo.com; **Education Chair:** Fred Paillet, (479) 935-4297, fredp@cox.net; **Membership Chair:** Chris Kline (479) 409-0394, cl_kline@sbcglobal.net; **Communications Chair / Editor, Pack & Paddle:** Carolyn Shearman, tucshea@gmail.com.

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Ozark Society Supplies & Publications: Mary Gordon, (501) 425-4471, mb2rene@aol.com.

Buffalo River Trail Coordinator: Michael Reed merreed@runbox.com.

OZARK SOCIETY DEPOSITORY: Special Collections Division, University of Arkansas Libraries, Fayetteville, AR 71701, (501) 575-5577.

MEMBERSHIP: Dues for membership in the Ozark Society include the overall Society and one Chapter of your choice. The levels are Friend \$30; Associate \$50; Supporter \$100; Sponsor: \$250; Patron \$500; and Benefactor \$1000+. You can join more than one Chapter however, by just adding an additional \$10 for each extra one. Chapters you can choose from are as follows: **Mississippi Valley Chapter** of Cape Girardeau, Missouri; **Bayou Chapter** of Shreveport, Louisiana; **Highlands Chapter** of Northwest Arkansas; **Sugar Creek Chapter** of Northwest Arkansas; **Buffalo River Chapter** of North-Central Arkansas; and **Pulaski Chapter** of Central Arkansas. Please mail your check including our enclosed Membership Form to: Ozark Society, P.O. Box 2914, Little Rock, AR 72203.



Ozark Society
P.O. Box 2914
Little Rock, AR 72203

Please Note:

If you would like to receive *Pack & Paddle* ONLY by email, not through US Mail, please contact Mary Gordon at mb2rene@aol.com.

Three Chapter International Meeting by Accident!

By Janet Nye

Boquillas, Mexico was the meeting site for the spontaneous gathering of the Sugar Creek, Bayou, and Pulaski Chapters. Six members: Catherine and Steve Tolson, Lowell Collins and Daryl, and Janet and Alan Nye met over tacos, tamales and enchiladas to make plans for future gatherings and discuss which drinks are best for desert hydration.



How this meeting happened was purely by chance (or divine intervention). All 3 couples met totally by surprise at Rio Grande

Village Campground at Big Bend National Park. Even though 4 of us had recently been to the January Ozark Society Board Meeting, not one of us mentioned upcoming trips to Big Bend. It was truly a wonderful surprise. Gratitude for the Ozark Society and the bonds of friendships was a genuine expression realized on the Rio Grande.