



PACK & PADDLE



Summer
June 2019

*"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*

The Ozark Studies Association by Janet Parsch, Ozark Society Foundation Chair



The nascent Ozark Studies Association held its first conference at the Shiloh Museum of Ozark History in Springdale, AR, on May 17, 2019. The theme for the daylong conference was "Histories of the Buffalo National River." Presenters covered Buffalo River and Ozarks region topics pertaining to geology and early cultures, the Civil War, historic cemeteries, the New Deal and dam-building in the Ozarks, the painter Thomas Hart Benton, small farms in the Buffalo watershed, cultural resource

threats in the Buffalo National River, and controlling the fate of rivers in the Ozarks.

Ozark Society President David Peterson gave a talk that included an overview of the formation of the Society and a description of several of the major environmental issues that OS has been involved in during its existence, including the current hog farm debate. Other presenters were Dr. Rebecca Howard, Lone Star College; Abby Burnett, independent historian; Dr. Black Perkins, Williams Baptist University; Steve Sitton, Thomas Hart Benton Home State Historic Park; Dr. Jared Phillips, University of Arkansas; Dr. Caven Clark, independent contractor (retired from Buffalo National River, National Park Service); and Dr. Brooks Blevins, Missouri State University.

The Ozark Society Highlands Chapter pitched in to provide lunch for the 70 or so attendees and there was lively discussion during the meal, the breaks, and the presentations. It was a great mix of lay and academic historians, environmentalists, cavers, hikers, staff from the Buffalo

National River, general public, etc.

The Ozark Studies Association is a new organization being formed primarily by historians and others who are interested in promoting research and collaboration on things Ozarks. If you are interested in more information about that association, contact Jared Phillips at jmp006@uark.edu or Becky Howard at rebeccahoward00@gmail.com.

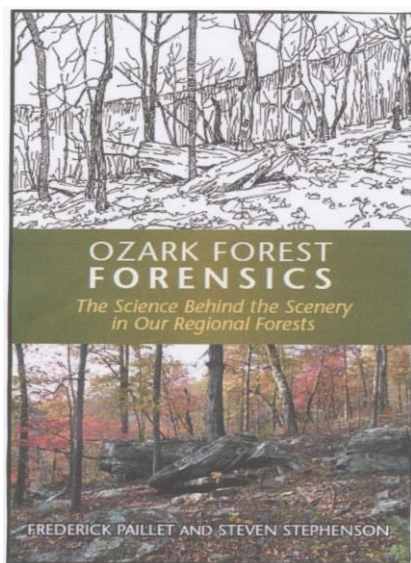
Histories of the Buffalo National River



***Ozark Forest Forensics* by Frederick Paillet and Steven Stephenson**

Article by Emily Roberts, Ozark Society Outreach Chair

The Ozark Society Foundation is pleased to announce the publication of *Ozark Forest Forensics: The Science Behind the Scenery in Our Regional Forests* by Fred Paillet and Steven Stephenson.



From the book cover:

This book interprets our natural surroundings in a way that enhances a simple walk in the scenic deciduous woodlands of the Ozark Mountain region. Explanations go beyond trees and their habitat to include other diverse subjects: the leaf litter beneath a hiker's feet, strategies used by wildflowers for pollination and seed dispersal, diseases that can ravage our forests, and forces active in the landscape that impact conservation efforts. Simplified line drawings demonstrate specific points of interest in a way that visually cluttered photographs cannot do. Includes: 163 line drawings, a list of species used in the text, a glossary, and a reading list. Paperback; 342 pages; ISBN: 978-0-912456-28-7. **\$24.95**

FRED PAILLET is adjunct professor at the University of Arkansas, where he conducts research and supervises student projects related to geophysics, hydrology and paleoecology. He earned his PhD from the University of Rochester in New York.

STEVE STEPHENSON is a research professor at the University of Arkansas, where he teaches courses in plant biology, forest ecology and plant ecology. Stephenson earned his PhD from Virginia Polytechnic Institute and State University.

For further information about Ozark Society Publications, contact: Emily Roberts – 501.213.5226 or email address: outreach@ozarksociety.net.

***Ozark Forest Forensics* Order Form**

To Order *Ozark Forest Forensics* please mail this order form and full payment to the “OZARK SOCIETY” at:
Ozark Society Books, P.O. Box 2914, Little Rock, AR 72203

Item	Price	Quantity	Total Price
<i>Ozark Forest Forensics</i> by Frederick Paillet and Steven Stephenson	24.95		
Subtotal			
Shipping and Handling:			5.00
Total Enclosed:			
Shipping Information:			
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What Will Global Warming Look Like in the Ozarks?

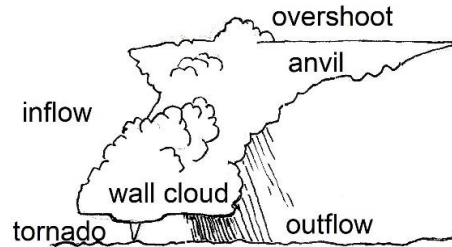
by Fred Paillet, Ozark Society Education Chair

Global change will affect the Buffalo River and the surrounding ecosystem along with the rest of the world, but do we have to worry about that in our lifetime? The experts are quoting a temperature increase of a few degrees. How big a deal could that be? After all, we see daily temperature changes of several tens of degrees. Maybe we would hardly notice a degree or two difference.

Can we even expect to recognize that difference against the background of daily fluctuations? On the other hand, we know that greenhouse gasses have a major effect on how the planet absorbs heat, and that there has been a 40% increase in carbon dioxide in the atmosphere. That sounds like a big change. Are we going to see a real impact on the Buffalo River in the coming decade?

Let's start with a couple of firmly established facts. First, it is obvious that the globe heats mostly at the equator and that the heat then moves down the temperature gradient towards the poles. That heat transfer occurs by turbulent mixing - a fancy way of saying that heat exchange occurs in the form of exchanging parcels of warm and cold air. That mixing of contrasting air masses is our weather. Second, it is an established fact that as the atmosphere has changed over time in the geologic past, the change was not uniform. An average change of one degree in the global data corresponds to only a third of a degree at the equator but three degrees at the poles. That's why we hear so much about arctic warming and the disappearing winter ice cover. You can go online and search under Polar Amplification to learn about the

subject. A pair of current Scientific American articles (March and June 2019) explain why that fact is so disconcerting and it involves a lot more than just a simple change in average world-wide temperature.



Structure of a typical severe frontal storm we can expect to see more of in the Ozarks under Global Warming.

The atmospheric system is complex, but we can illustrate the problem with a simple analogy. Think of our weather system as propagating waves in the jet stream. The kinks in the jet stream give us the warm and cold fronts along with the weather those fronts generate. These waves were famously described by Swedish meteorologist Carl-Gustaf Rossby and named in his honor. A good analogy to the jet stream is a long bowstring under tension. If you pluck the string, the deformation propagates outward as a wave. Under high tension, the strong restoring force keeps the size of the deformation small and makes it propagate up and down the string at a brisk rate. Reduce the tension, and the deformation gets larger while the wave moves more slowly.

In the case of weather systems, the restoring force (the "tension") is the temperature contrast. So, if the polar regions warm

disproportionately, the excursions in the jet stream get bigger and move more slowly. That's what brings us the polar vortex. With arctic warming reducing the "tension" on the Rossby-wave generating "bowstring" we expect more extreme and nearly stationary weather systems. As we suffered this spring's repeated cold blasts Britain was burning up with wildfire and Switzerland was experiencing spring a month early. These are serious jet stream excursions.

A number of studies show the relationship between atmospheric Rossby waves and extreme weather excursions leading to heat waves and major floods. If you do the math, you find that the movement of Rossby waves is always upstream at a velocity that can be greater or lower than the wind speed. For small sized waves, the motion is with the wind and we see the usual progression of cold and warm fronts. For larger waves, the upstream velocity can come close to the wind speed, effectively stalling the progression of weather.

Topographic features help anchor these slowly moving jet stream excursions in place when they come close to stationary. This kind of condition was always possible in earlier centuries but becomes much more likely as the contrast in temperature between the arctic and mid-latitudes erodes under global warming. That erosion represents a net decrease in the resisting force (the tension in the bowstring) that can help push

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Global Warming by Fred Pailletcontinued

our weather out of a locked position. The Buffalo River and the Ozark region within which it lies must be especially susceptible to these quasi-stationary weather patterns because our region is located downwind of one of these topographic anchors in the form of the Rocky Mountain Front Range. With this introduction

we can see how a little hard-core meteorology can provide some specific insight into what global warming can mean for us in the American heartland. This is not a simple question of temperatures increasing a degree or three within a weather pattern where daily differences of tens of degrees are entirely normal. It is not going to be the

average temperature that will do us in. It's the effect of the change of the major weather patterns that we have designed our civilized infrastructure around. If you wonder what global warming will look like for us in Arkansas, we have already seen it. We're just going to see more of it in the future.

High Pointing Part Six – The Southern Appalachians by Steve Heye

Welcome to the sixth in a series of my adventures to visit as many of the fifty US states' highest points as I can. Last time we took a look at a trip of my tour of the Midwest following the Eclipse of August 21, 2017. This time its the southern Appalachians of the Southeast: North and South Carolina, Virginia and Kentucky.

On the first trip, my wife, Meribeth, and I went up I-40 to Ashville, North Carolina in October of 2010 to see Biltmore and the sights of the Smokies. The second was done in May of 2013 following the graduation of our nephew from Virginia Tech.

South Carolina

We used the town of Ashville, N.C. as our base to see the area. One day we went south of Ashville to visit the home and farm of Carl Sandburg, near Flat Rock, N.C., a stop we highly recommend. Before that however, we went just across the state line into South Carolina to see Sassafras Mt, 3560 feet, the highest point in the state.

At the time we visited in

2010, the access was a rough forest road to the radio towers on its summit. You parked your car about 200 yards short of the top and walked the rest of the road up to the site. Now they have made improvements to access for the site. The view is now a bit better with some clearing. You can now see Georgia, Tennessee and North Carolina from the top. We made our way back to Ashville for the night. Sassafras Mountain was my 10th high point, October 14, 2010.



North Carolina

After seeing Biltmore and a few spots south of town, we spent a day driving on the Blue Ridge Parkway north of town. Along the way is Mt. Mitchell, the highest point on the east coast at 6,684 feet. This is one

of those drive up, get out and take the picture high points.



We parked our car and made our way over to the structure that was built to take in the view. There are also trail heads starting here on the AT and one that goes to the Atlantic.

If you ever are driving along this stretch of the Blue Ridge Parkway, take time to stop at Mt. Mitchell and enjoy the view. On October 17, 2010, North Carolina was my 11th high point. We would visit Clingman's Dome, Tennessee (my first high point) and Great Smoky Mt. National Park on our way home from Ashville.

Continued on page 5..

State High Points Part Six by Steve Heye.....continued

Virginia

It would be a long two and a half years before I could continue my quest to visit high points in the US. Our nephew's graduation from Virginia Tech in May of 2013 finally got me back into an area where I could visit a new high point. On the way home from Blacksburg, we made a stop in Abingdon, VA. so I could take a day to visit Mt. Rogers, the highest point in Virginia, 5729 feet.



Mt. Rogers is a short hike off the Appalachian Trail in southwest Virginia, just outside the boundary of Grayson Highlands State Park. This is an all-day hike should you take it on. The walk is about 9 miles total, all on the AT to doing an out and back. The state park is beautiful and is home to a herd of wild Shetland ponies. It was a

foggy, misty day on my hike and to see a group of small horses on a hike was different.

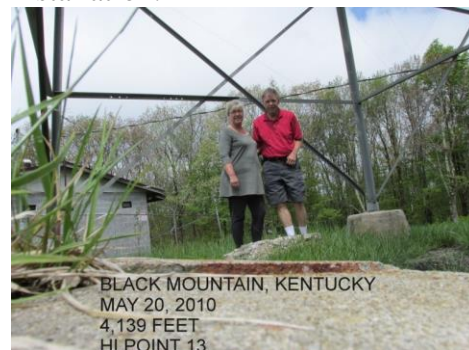
After 3 hours of hiking on the AT, I passed a trail shelter and I spent some time eating lunch and talking with some thru hikers that were holed up there. Just past the shelter was the spur trail that takes you to the Mt. Rogers summit. Not much of a view from the top, lots of trees and rocks. I still had 4 miles to get back to the car, so I got my photos and started back. I made it back to our motel on I-81 about 6:30 in time for dinner with Meribeth. May 19, 2013 Mt. Rogers Virginia became my 12th high point

Kentucky

To get to the highest point in Kentucky, Black Mountain, we had to drive west from Abingdon, Va. over to Big Stone Gap, Virginia, on the Virginia – Kentucky line.

From here you drive up the ridge into Kentucky and not far is the forest road that will take you to Black Mountain. At 4139 feet high, the view from the summit is one you might not expect. This is another drive up, get out, take the

photo high points. This also means it's easy to get towers up here to take advantage of the terrain. Over our head was a communications tower and just off to the north was an FAA radar installation.



We drove back to Big Stone Gap for lunch and then headed southwest to Middlesboro, KY to see Cumberland Gap before heading back to Little Rock. Black Mountain Kentucky was my 13th high point on May 20, 2013.

Next time I'll give a report on those high points that were ones that I did just because I was there for another reason or going by: Arizona, Delaware, Hawaii, Indiana and Ohio.

The May 3-5th All Ozark Society Gathering in Pictures

A great evening concert at the Gilbert RV Campground after a day of hiking, floating, and a wonderful potluck dinner in the pavilion with Dave Smith, Ozark Society member and Ozark Folk Center entertainer, telling stories and singing for us.





The Ozark Society Membership Application/Renewal



Join us, or renew now! Dues are for one year, January-December, 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:

- | | |
|--------------------------------------|---|
| <input type="checkbox"/> New Member | Start at Section A for your OS and Chapter Membership |
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| <input type="checkbox"/> 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)

- ☐ Friend: \$30 = \$20 OS + \$10 Chapter
- ☐ Associate: \$50 = \$40 OS + \$10 Chapter
- ☐ Supporter: \$100 = \$90 OS + \$10 Chapter
- ☐ Sponsor: \$250 = \$240 OS + \$10 Chapter
- ☐ Patron: \$500 = \$490 OS + \$10 Chapter
- ☐ Benefactor: \$1000+ = \$990+ OS + \$10 Chapter

Chapter

Chapter: (choose one)

- ☐ Bayou (Shreveport, LA)
- ☐ Buffalo River (Gilbert, AR)
- ☐ Highlands (Fayetteville, AR)
- ☐ Mississippi Valley (Missouri)
- ☐ Pulaski (Little Rock, AR)
- ☐ Sugar Creek (Bentonville, AR)
- ☐ No chapter, all to central Ozark Soc

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 chapter)

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

Section C: Donations to our Funds

(Choose any amount)

- ☐ \$_____ General Conservation Fund
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- ☐ \$_____ OS Foundation

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 Thank You email to the Ozark Society. If you have questions about your membership status, contact oscomms@ozarksociety.net.

Buffalo River Trail Days – October 28th to November 1st

by Mike Reed, Buffalo River Trail Coordinator

Mark your calendar! The Fall 2019 Buffalo River Trail construction session is October 28th - November 1st. I and perhaps others will be doing some preparatory work the 25th, 26th, and morning of the 27th as well. We'll be camping at Tyler Bend again in the main campground (sites #22-26 at no charge) so join us for a day, the weekend, or the whole week.



If you can join us for the week, or most of it, there is an option where you can pay \$50 into a fund to cover food and camp expenses and then participate in our group meals (Sunday dinner through Saturday breakfast). There is also a 3-day option for \$35. Contact me for more details. Otherwise you will need to supply your own food and cooking and cleaning utensils.

Regardless, everyone needs to supply their own sleeping accommodations, water containers, eating utensils, and work gloves. Safety glasses are very beneficial for some tasks.

A day pack for carrying your stuff on the trail is very useful. The Park Service supplies the tools, though you can bring your own if you'd like. The campground has potable water, flush toilets, and hot showers.

Last October we constructed 2 reroutes downstream of Red Bluff Road, about where construction stopped 3 years ago. This March reroute #3 near Little Rocky Creek was flagged so compliance work could begin and I anticipate having construction approval soon.



Reroute #3 is about 1/4 mile long. Though it's unfortunate that it has to be done, the reroute does add some nice scenery and gets the trail out of a perennially-wet area. During the week (Oct 28 - Nov 1) I anticipate having access to the work area from the private property above with a walk of

only about 3/4 mile to the work site, otherwise it's a 2.5 mile hike from Red Bluff Road.

I think once this reroute is complete NPS will consider the trail complete and open, so this may be the long-anticipated "golden spike" moment.



Some parts of the BRT/OHT between Richland Creek and AR-14 are looking for adopters. The Ozark Highlands Trail Association now has overall responsibility for coordinating this so see <https://ozarkhighlandstrail.com/maintenance/> for more information and contact Mike Reed at merreed@runbox.com or OHTmaintenance@gmail.com.





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
Carolyn Shearman at
oscomms@ozarksociety.net.

The Officer, Director, and Chair List – Updated for 2019

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OZARK SOCIETY PUBLICATIONS: Emily Roberts outreach@ozarksociety.net.

OZARK SOCIETY ARCHIVES: Stewart Noland bosshq@aol.com.

OZARK SOCIETY DEPOSITORY: Special Collections Division, University of Arkansas Libraries, Fayetteville, AR 72701, (479) 575-5577.

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