Heartbeat

Heartwood
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Stories of People Helping People Protect the Places They Love • Since 1991 **Fall 2023**

Mountain Valley Battle Rages On

by Ernie Reed

VIRGINIA – The fate of the Mountain Valley Pipeline continues to be stuck in a tug-of-war between congress, appeals and supreme courts, and citizen lawsuits that defend against nefarious violations of rights and responsibilities under existing legislation.

Back in July, the 4th Circuit Court of Appeals in Richmond, Virginia issued two stays — temporary holds — on the project, agreeing that the pipeline's construction would cause "irreparable harm" while the current legal challenges worked their way through the courts.

In response, lawyers for the pipeline filed an emergency petition with the Supreme Court to get the holds removed and the two pending cases dismissed, citing the need for quick action in order to meet the project's winter deadline. The court then lifted the stays In an unsigned opinion, an option they have for various types of "interim relief".

4th Circuit Judge James A. Wynn acknowledged Chief Justice Roberts' freshly issued order during oral arguments, calling it "not unexpected". "But that doesn't affect the arguments that we are currently hearing in this

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Appalachains Against Pipelines blockade construction on Poor Mountain, VA in August. Photo by AAP.

Inside This Issue:

Salvage Logging Ravages LBL

by David Nickell

KENTUCKY – The Forest Service's attempts to undercut the uniqueness of Land Between the Lakes National Recreation Area (LBL) continues with ever more "creative" methods. There is nothing ordinary about the LBL. It was taken from mostly unwilling sellers, many of them descendants of the Revolutionary War veterans who settled the land in the late 18th century, to provide outdoor recreation and environmental education, which would stimulate the economy of the surrounding region.

The original plan was for LBL to be a national park, but as Barkley Dam and its reservoir were nearing completion in the early 1960s, it became obvious to the Tennessee Valley Authority (TVA) planners that land values on the peninsula laying between Kentucky and Barkley Lakes would get too high to enable completion of the project, so TVA took control using its own powers of eminent domain.

TVA managed the recreation area until the late 1990's when public objections to its plans to commercially develop the LBL led to legislation transferring it to the National Forest Service.

Just this year, public outcry over the Forest Service's attempts to defund the recreation and education programs at LBL led to an amendment to the LBL

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Endangered Bats Found in Hoosier National Forest and Two State Forests

by Jeff Stant

INDIANA – The Indiana Forest Alliance (IFA) has undertaken surveys in the Hoosier National Forest (HNF) and two state forests this summer to locate foraging and roosting habitat that should be protected under the federal Endangered Species Act. The surveys have produced acoustic data indicating the presence of three nationally endangered bats in these forests – the Indiana bat (*Myotis sodalis*), Gray bat (*Myotis grisescens*), the Northern long-eared bat (*Myotis septentrionalis*), and the Tricolored bat (*Perimyotis subflavus*), which was proposed by the US Fish and Wildlife Service for such listing; and another soon to follow, the Little brown bat (*Myotis lucifugus*). Survey areas were done in the Buffalo Springs and Houston South areas of the HNF as well as in Owen-Putnam and Pike State Forests. In addition, the acoustic signature of a rare species not found in Indiana since the 1980s, the Rafinesque's big-eared bat (*Corynorhinus rafinesquii*), was heard in the Houston South area.

Netting efforts subsequently captured three Indiana bats and three Tricolored bats in the Houston South area. Radio telemetry efforts tracked the Indiana bats to three male roosts and one of the Tricolored

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Defend the Weelaunee Forest & Stop Cop City

by Alice Green

GEORGIA – The movement to defend Atlanta's Weelaunee Forest & stop the construction of a militarized police training facility known as "Cop City" has grown exponentially, despite facing huge challenges. With the release of official autopsy reports and video evidence, it is now clear that Tortuguita was brutally murdered by Georgia state troopers — **the first political killing of an environmental activist in the United States**.

The legal charges that the state of Georgia is using to repress the movement have gotten increased national attention. Groups ranging from the NAACP and ACLU to Greenpeace and the Sierra Club have spoken out against the unusual way that the legal system is being used to violently suppress protest. Dozens of accounts of illegal conditions in Atlanta's DeKalb county (terrifying medical neglect, freezing temperatures, and starvation conditions) highlight what it means for the police to arrest movement participants and hold them for months without being legally obliged to offer bail, present any evidence, or even formally charge them.

The behavior of the prosecution has raised so much public scrutiny that Sherri Boston, the Democratic district attorney, has dropped out of prosecuting all domestic terrorism cases, handing them over to the state-level Republican attorney general Chris Carr, who has been creative in his use of police force to attempt to shut down

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Coal-to-Diesel Plant Permit Revoked

by John Blair

INDIANA — After six long years, grassroots groups are celebrating their victory in stopping a massive coal-to-diesel power plant proposed for Dale, IN. On August 1, the Indiana Department of Environmental Management (IDEM) revoked a controversial air emissions and construction permit that had been issued in June 2019.

In a letter to Riverview Energy dated August 1 of this year, IDEM notified the company of their decision to revoke the permit. Southwest Indiana Citizens for Quality of Life (SWICQL) and Valley Watch appealed Riverview's air permit in 2019 for violations of Indiana's air pollution regulations, and the case is now pending in the Indiana Court of Appeals.

IDEM's action came just a few weeks after a letter sent by Valley Watch demanding that IDEM revoke the permit because Riverview had not met the criteria outlined in the federal Clean Air Act for timely and continuous construction. The Act requires a permittee to begin and continue construction within eighteen months after receiving a permit to pollute. Riverview had already been granted an eighteen month extension to June, 2022, at which time they claimed that a small

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Heartbeat is published twice yearly, spring and fall, to provide a voice for the grassroots forest movement of the central hardwoods region.

Subscription is free with annual membership. Delivery of multiple copies to member-groups is available.

Heartwood welcomes any and all volunteer contributions to this publication from the grassroots community. Deadline for fall issue contributions is on or about August 15 for publication September 1. Send us your campaign updates, photos, commentary, satire, art, poems, politics, polemics, rants, or recipes to
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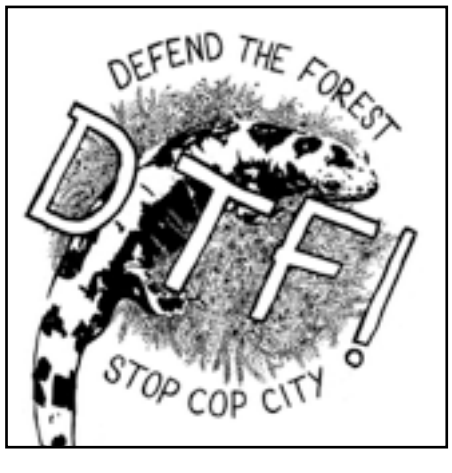
No possums were harmed
in the making of this publication.



Molly Jo making friends with an enormous White Oak in the Wayne National Forest. Photo by OEC.

Stop Cop City from page 1

this popular movement. On his orders, in late May at sunrise, a SWAT team broke into a house and arrested the staff of the Atlanta Solidarity Fund, a local nonprofit bail fund, which supports legal defense for those facing protest and political related charges in Georgia. They spoke out against the unprecedented use of anti-protest legal charges related to the movement to Stop Cop City in the months leading up to their arrest. Charges of money laundering and charity fraud were quickly dismissed by a judge as “not having much meat on the bones”, before releasing the three staff members from DeKalb county jail.

During bond hearings for the 23 people arrested at a movement-related music festival and charged with domestic terrorism in March, the prosecution has repeatedly insisted that the entire forest defense movement is a “terrorist organization”. Various public leaks have indicated that the prosecution is building a case for using RICO anti-gang legislation to prosecute the entire social movement as an organized criminal gang. It is likely that targeting the bail fund is part of the prosecution’s legal strategy of presenting a low-budget donation-funded social movement as a profiteering criminal gang – establishing a narrative of financial profit is necessary to begin to use the high-sentence RICO legislation to repress any and all movement organizers.

Despite the government's attempt to use violence and fear to push through their development project, the movement has not backed down. In June, there was record-breaking participation at a city council meeting, with more than a thousand people attending in protest of funding the Cop City project. After 16 hours of public comment, the vast majority of which denounced the project, the city council still approved funding 11-4. A referendum petition is now in process to put a yes-no vote for the project on March's primary ballot, with 70,000 local signatures needed, but both the city and state governments have already begun to use procedural red tape and various legal arguments to slow down and invalidate the petition.

While the police, courts, prosecution, and city and state governments do what they can to violently suppress the movement, the construction crew has clearcut a significant portion of the forest, and is leveling the ground to prepare for construction. This is one vision of the 21st century: corporate-funded climate apocalypse, with police and prisons writing that future into stone – as we work longer hours to pay higher rent, scroll on our phones, and watch the forests go up in smoke.

Another vision exists, one where forests and the living world thrive, because we stand together against the violence behind the climate crisis. The movement to Stop Cop City remains strong in envisioning and building this world.

Partial Victory for Wayne National Forest in Federal Court

by Molly Jo Stanley

OHIO – In a partial win for Ohio’s only national forest, a federal district court ruled that the Sunny Oaks logging project violates the National Environmental Policy Act (NEPA).

The USFS Sunny Oaks project, against which the Ohio Environmental Council (OEC) filed a lawsuit in 2021, authorizes the logging of 2,485 acres of the Wayne National Forest (WNF), tens of thousands of acres of prescribed fire and herbicide application, hundreds of miles of bulldozer line development, and more.

This ruling is an important and hard-fought legal victory. The court held that the “unlimited discretion” the USFS gave itself violates NEPA and renders the logging project’s environmental effects “highly uncertain”. However, the OEC strongly disagrees with portions of the court’s opinion and argued that the USFS is blatantly violating the National Forest Management Act by refusing to protect loose-barked trees, like mature white oaks, that the Wayne’s management plan requires be protected.

Now that the case is fully briefed, we await a final remedies ruling from the court.

Fighting new pressures and false promises from the oil and gas industry

After 12 years of the OEC, partners, and concerned citizens advocating for Ohio’s parks, the fight against fracking threats continues.

Contrary to industry promises, a 2021 report from Ohio Valley Institute (OVI) shows an alarmingly different reality. Although natural gas production exceeded industry projections and economic output grew by over three times the national rate in 22 fracking-hub counties across Ohio, Pennsylvania, and West Virginia, little of the income generated by that growth entered local economies.

For those 22 counties, personal income fell by 6.3%, jobs fell by 7.6%, and populations decreased by nearly 11%. Ohio’s seven eastern counties — the heart of Ohio’s fracking industry — were hit hardest, with a net job loss of over 8% and a population loss of over 5%.

The bottom line: our forests are worth more standing

Forests provide benefits that fracking, clear-cutting, and other extractive practices directly jeopardize.

As Ohioans face the global climate change emergency, our public lands play a crucial role. Ohio has an immense opportunity to lead the way in carbon sequestration and ecosystem restoration, while ushering in a replicable model for a sustainable economy.

The 200-year-old narrative of extraction and exploitation of our places and people must end.

Hope is in the voices of hundreds of local citizens, across Ohio and its Southeastern region, advocating for land managers and lawmakers to usher in a new era of land management practices. May the fight for public lands policies, by and for the people — and the land — prevail.

The Effects from Fracking Ohio's Parks Reach Far Beyond the State

by Randi Pokladnik

Wolf Run State Park, Ohio. Photo by Randi Pokladnik.

Ohio's HB 507 has opened up state lands to oil and gas exploration using high pressure hydraulic fracturing. If approved, Salt Fork State Park, over 20,000+ acres, will be leased for fracking. We know from existing data that chemicals used in fracking are dangerous, and many studies have shown these chemicals have polluted groundwater and negatively affected human health. Physicians for Social Responsibility agree that citizens and workers will experience health risks from fracking even if it is regulated more closely. They believe fracking "must be phased out".

We also know that fracking releases climate changing air emissions like methane and other volatile organic compounds. One of the largest releases of methane gas in the United States occurred in February 2018 when an XTO Energy well pad exploded in Belmont County, Ohio. Residents within a mile radius had to evacuate as the well leaked methane gas into the atmosphere for nearly a month.

Ohio's Oil and Gas Land Management Commission (appointed by Governor DeWine) will decide whether or not to approve the recent nominations to frack Wolf Run State Park, Zeppernick Wildlife Area, and Salt Fork State Park. As they make these decisions they must consider the Ohio statues around the law (HB 507), but nowhere in these rules is there any mention of considering the long-term effects of fracking emissions and the greenhouse gases that will result from burning more fossil fuels.

Climate change is not on their radar, but fracking this amount of land will certainly play a significant role in adding to the world's greenhouse gas emissions. Proponents of fracking neglect to admit that fracking 20,000+ acres of Salt Fork will not only affect all of Ohio and SE Ohio's citizens' water, air, and health, but will have an impact on the rest of the world.

Proponents of fracking defend the process with the usual talking points. They claim volcanoes put more carbon dioxide into the air than fossil fuels. This is false. Greenhouse gas emissions from volcanoes comprise less than one percent of those generated by today's human endeavors. Another talking point is "we need to frack for energy independence," yet the data shows that much of that gas leaves the country. Today, the United States is a net exporter of natural gas and one of the top exporters of liquefied natural gas (LNG) in the world. Another claim states we need to frack for national security, yet the Pentagon has made statements as to the negative impacts of climate change on national security. Former Defense Secretary James Mattis said, "Climate change is real, and a threat to American interests abroad and the Pentagon's assets everywhere." Current Defense Secretary Lloyd Austin said, "There is little about what the Department does to defend the American people that is not affected by climate change, it is a national security issue, and we must treat it as such."

Ohio's greenhouse gas emissions do not remain above the state, but travel in the jet stream. Ohio shares a common atmosphere with countries around the world. We were made aware of this fact several times this summer. Ohio residents experienced record air pollution levels from climate-driven Canadian wildfires. Ohio was blanketed with ash and particulate matter from these fires.

Recently, a non-profit coalition of universities, non-profits, and tech companies, was formed to track greenhouse gas (GHG) emissions across the globe. Climate Trace uses "technologies like artificial intelligence (AI) and machine learning (ML) to analyze over 59 trillion bytes of data from more than 300 satellites, more than 11,100 sensors, and numerous additional sources of emissions information. The result is a groundbreaking approach to emissions monitoring that is independent, transparent, and timely." They do not rely on self-reporting.

Climate Trace's satellite measurements from the Tropomi satellite, direct measurements, and artificial intelligence, allow a map to be constructed which displays the major greenhouse gas emitters across the globe. These include electricity generation, manufacturing, agriculture, forestry, waste disposal, and mineral extraction. All the measurements, which include the major greenhouse gases such as carbon dioxide, methane, HCFCs, nitrogen oxides, and sulfur hexafluoride, are given a weighted average based on their longevity in the atmosphere and their potential to absorb heat. Carbon dioxide has a lower rating of 1, while methane is rated a 30 because it has more heat absorption capacity. Therefore, a smaller quantity of methane can exert a great deal more atmospheric warming than the same quantity of carbon dioxide.

The values on the map are reported as CO_2e-100 and CO_2e-20. This allows one to view the potential amount of warming compared to carbon dioxide during a 100-year period and also a twenty-year period. Looking at the global map, the Marcellus shale has a CO_2 100-year potential of 124.38 megatons of carbon dioxide equivalent heating potential, and the Utica Shale has a CO_2 100-year potential of 33.25 megatons (MT) of carbon dioxide equivalent heating potential. The Marcellus Shale gas and oil fields are currently #4 globally for emitting greenhouse gases; Utica Shale ranks #29. For comparison, the Texas oil and gas fields are #1 globally for GHG emissions with a 206 MT CO_2 equivalent.

The USA is the second-highest GHG emitter and ranks third in the world for emissions due to fossil fuels. By allowing fracking to continue in Ohio, we will jeopardize the world's ability to reach any credible climate goals in this decade. Scientists tell us that we must cut carbon emissions in half by 2030 in order to stay below the 1.5°C global average temperature increase from pre-industrial revolution readings. We have less than seven years to accomplish this task.

The major terrestrial carbon sinks on our planet include: the Amazon forests, Boreal forests, and the temperate forests. Along with the oceans, these regions have been absorbing much of the man-made carbon emissions. But we are emitting carbon faster today than any natural carbon sink can absorb. It's like withdrawing money from a checking account when the balance is fast approaching zero. Because of deforestation, the Amazon forests can, in a few years, become a carbon source rather than a carbon sink, and unleash more climate-warming gases into our atmosphere. While scientists keep sounding the alarm, the fossil fuel industry continues to ignore the science.

Citizens are trying to save Ohio's state parks from becoming another carbon source. What hangs in the balance is more than just wrecking an $8 billion outdoor recreation industry; it's more than risking the water source for countless rural citizens; it's more than destroying forested ecosystems. We are risking the survival of our planet. As global citizens, do we want to continue to allow our non-renewable energy resources to be controlled by an industry that has proven they are willing to risk our planet's existence for a dollar?

ODNR via internet

National Chainsaw Massacre

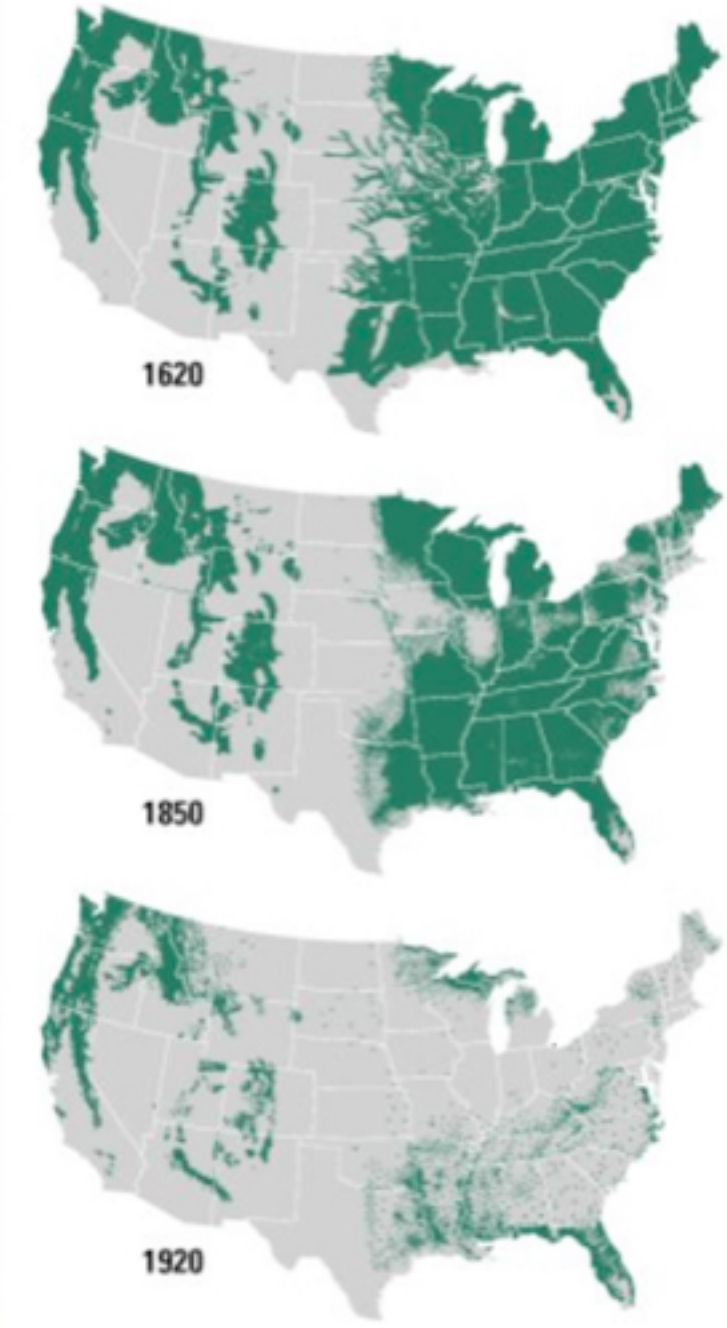
Old-growth forests are under attack, but a national rule could save them

by Will Harlan

NORTH CAROLINA – Just a few hundred years ago, the entire Eastern U.S. was blanketed by towering trees and old-growth forests.

Then, in just a century or so, we cut down nearly all of them. Today, less than 0.1 percent of old-growth forests remain. And nearly all of them are found on public lands.

These last scraps of ancient forest are almost completely unprotected. National forests — where most of the remaining old-growth forests are found — provide no permanent protections for these forests. Often, the US Forest Service is specifically logging these ancient forests for their big trees.



Ancient forests on the chopping block

In the Pisgah-Nantahala National Forest, pockets of old-growth forest persist in deep coves and on steep slopes. Many of these last remaining ancient forests are specifically targeted for logging in the new Pisgah-Nantahala Forest Plan released earlier this year.

One of those forests is in the headwaters of the Chattooga River, a Wild and Scenic River and beloved whitewater paddling and fly-fishing destination. The Southside logging project will clearcut a known, inventoried old-growth forest in the Chattooga River watershed.

Public comments have flooded the Forest Service opposing the Southside logging project. The Forest Service has acknowledged that this forest is old growth, yet it still is proceeding with the logging project. An iconic river will be degraded, and an ancient forest will be lost.

Often, the Forest Service disguises their logging of old-growth forests by using misleading and deceitful language. In the Pisgah-Nantahala National Forest, they have created a so-called “old-growth forest network”. However, this network consists mostly of young, recently cut forests. Meanwhile, most of the actual old-growth forests are targeted for logging.

The Forest Service is quadrupling logging in the Pisgah-Nantahala National Forest, and it is ramping up logging across the country.

Why old-growth matters to you

Old-growth forests save money and lives. Old-growth forests are our best natural defense against climate change. Mature and old-growth forests store 13% of our nation’s carbon. They also are natural air conditioners, cooling and purifying the air that we breathe.

Not surprisingly, mature and old-growth forests shelter an astonishing diversity of plants and animals. Southern Appalachian forests are some of the most biologically diverse in the temperate world. These forests are a global hotspot for salamanders, fish, mussels, and crayfish, and they shelter many rare and endangered plants.

They also protect drinking water for millions of Americans. Most drinking water supplies in the Eastern US are protected by mature and old-growth forests on national forestlands.

And old growth forests protect us from wildfire. Lush, humid old-growth forests with thick-barked trees are the least likely to burn, and their thick soils hold moisture like a sponge. Recently logged forests have much more flammable undergrowth and are drier and windier, allowing wildfire to spread more quickly.

Old-growth forests are often popular recreation destinations, too. The proposed Craggy National Scenic Area in North Carolina is home to world-class trout streams, trails (including North Carolina’s state footpath), tumbling waterfalls — and 4,000 acres of old-growth forests.

Public vs. private

Old-growth forests are oases for recreation, clean water, and wildlife. But these same forests are also targeted by the Forest Service for clearcuts. Even though national forests are publicly owned by all American taxpayers, the Forest Service routinely allows private companies and organizations to clearcut our old-growth forests for private profit.

Of course, we need wood and other forest products — and privately owned forests already provide most of them. Private forests provide 96% of all forest products. We don’t need industrial logging on national forests, which make up less than 2% of lands in the Eastern US but contain nearly all the old-growth forests.

Meanwhile, logging on national forests costs taxpayers billions. Logging projects operate at a net loss of $1 billion to taxpayers each year. And that doesn’t include the cost of polluted drinking water, decades of repeated pesticide applications and their downstream impacts, proliferation of invasive species, carbon loss, biodiversity loss, recreational impacts, and streams clogged with sediment.

There are plenty of private lands for logging. We don’t need to log the mature and old-growth forests on national forestlands, which should be a natural heritage for all Americans — including future generations — to enjoy.

A once-in-a-generation opportunity

Finally, here is some good news: The Biden administration recently completed an inventory all the mature and old-growth forests on national forests. They found more than 24 million acres of old growth and 65 million acres of mature forests nationwide. Definitions vary by region and forest type, but mature forests are generally around 70-80 years old, and old-growth forests are typically at least 100 years old.

Now, the administration has issued a notice for a possible rule to permanently protect these mature and old growth forests. More than 450,000 comments flooded the Forest Service in support of permanent protection for mature and old-growth forests on federal lands.

“This is a once-in-a generation opportunity to protect the most ancient and biologically diverse forests in the country,” says Hannah Furgiuele, program director of Forest Keeper. “But it will require a deluge of public support. These forests belong to all of us. They are worth far more standing than cut down.”

Analysis Finds Creation of "Young Forest" Habitats on Public Lands Undermines Old-growth Forest Recovery

by Michael Kellett and Susan Masino

Each year, millions of dollars in public funds are spent clearing thousands of forested acres across the Northeast and Upper Great Lakes regions of the US to create "young forest," also known as early-successional habitat. The justification for this widespread and growing campaign — much of it implemented on public lands — is that young forest habitats, and wildlife species that depend on them, are declining.

This campaign, coordinated by state and federal wildlife agencies, is the subject of an analysis we co-authored and published in *Frontiers in Forests and Global Change*. This analysis found little evidence that clearing established forest is necessary for native species to survive and thrive within their historic ranges. The analysis also noted that significant negative impacts on biodiversity, climate stability, and public health could be avoided by refocusing resources on maintaining existing habitat.

One of the greatest concerns about creating and expanding young habitat is that it overlooks the critical need to recover and protect old-growth forests, a self-sustaining and complex ecosystem that has been depleted to a tiny percentage of its original extent. As a result, the campaign disregards species that depend on older forests and the importance of natural selection. It also overlooks the immediate climate and public health impacts of forest-clearing.

Our analysis reveals several flaws in the rationale for creating and expanding young forest. Recent warnings of declining young forest wildlife populations are almost invariably based on baselines established in the 1960s, a time when populations of such species were still abnormally high due to widespread forest clearing after European settlement. When the entire period from 1600 to today is considered it is likely that these species are simply returning to historic levels as part of natural forest succession.

We found that the campaign to promote young forest was formulated initially by a small number of agency, academic, and special interest professionals who sought to maximize habitat primarily for common game species such as American woodcock and ruffed grouse. In recent years, the stated goals and available public funding expanded on public and private lands, despite a lack of comprehensive research and analysis, controlled experimentation, strategic planning, monitoring and evaluation, or public involvement. As awareness has grown regarding the implications and impacts of forest-clearing, so has concern and opposition.

Our analysis recommends a major shift in forest and wildlife management that fulfills several goals. The first step is dramatically and permanently expanding parks and preserves where old-growth forests are allowed to recover and provide the full range of native habitats, including early habitats. In parallel, sufficient resources should be dedicated to long-term research and to focus management and maintenance of young forest habitat on existing open lands that are ecologically suitable to provide these habitats. This differentiated, more efficient, and more natural approach to forest management would align with increased recognition of the value of old-growth ecosystems for endangered wildlife, carbon accumulation, and numerous vital ecosystem services for all species.

Reference:

Kellett, Michael J., Maloof, Joan E., Masino, Susan A., Frelich, Lee E., Faison, Edward K., Brosi, Sunshine L., and Foster, David R. (2023). Forest-clearing to create early-successional habitats: Questionable benefits, significant costs. Front. For. Glob. Change. doi: 10.3389/ffgc.2022.1073677 URL: https://www.frontiersin.org/articles/10.3389/ffgc.2022.1073677/full

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Conservation Groups Highlight Historic Value of Forests Slated for Logging

by Evan Robbins

INDIANAPOLIS — Indiana Forest Alliance, Indiana Landmarks, and Saving Historic Orange County led a guided hike of historic Lick Creek African American settlement near the Buffalo Trace in Orange County, Indiana in July. The area is proposed to be subjected to burning, logging, and pesticides as part of the Forest Service's controversial proposed Buffalo Springs "Restoration" Project.

Lick Creek Settlement, also known as Paddy's Garden and Little Africa, was one of Indiana's first free African American settlements with pioneers settling there before Indiana statehood. Hiram Rhodes Revels, the first Black US Senator and minister of the African Methodist Episcopal Church, preached in the settlement's church along with his brother and church founder, Revered Willis Revels.

The historic Buffalo Trace runs through the heart of Orange County just south of the settlement. The Trace started in Clarksville, IN at the Falls of the Ohio and ran to the Indiana Territory capital Vincennes on the Wabash River. Thousands of travelers took the trail headed west during the early 19th century. Items of national significance connected to the Trace are numerous.

IFA Hoosier National Forest Program Director Steven Stewart says the national historical significance of the area only strengthens IFA's commitment to protecting the area set to be disturbed by the US Forest Service's Buffalo Springs proposal.

"We opposed the Forest Service's plans to slash and burn these forests based on the environmental costs alone, but when you add the unique historical value of these African American settlements, it's a no-brainer that we need an official designation to protect these historic and ecologically important lands," Stewart said. "As a conservation group, IFA's primary mission is to protect the forests, but as human beings we should all want to preserve such a unique historic site as this one as well. Much talk of the possible creation of a national monument or a 'Little Smoky Mountain' National Park has happened. It's an exciting time for the preservation of our shared American culture and our public forests."

Indiana Landmarks Black Heritage Preservation Program Director Eunice Trotter emphasized the site's unique position in the history of the Hoosier State and how it relates to Indiana Landmark's mission.

"Indiana Landmarks was founded to identify and protect landmarks important to the history of our state, and the Lick Creek settlement is a fundamental piece of Hoosier history," said Trotter. "For the sake of present and future generations, this area must receive official protected status — and an immediate end to the Forest Service's proposed destruction."

Efforts to create a permanent status for protection of the Buffalo Trace and the Lick Creek Settlement are also being pursued by the Buffalo Trace Preservation Group, the Roberts, Thomas, and Bonds Historical Society, and many others across the state.

Steven Stewart leads a hike through the Lick Creek settlement area. photo by Evan Robbins

Old Forests and Climate Resilience

by Donald Winslow, Ph.D.

There's been a lot of attention on the issue of climate change this summer. A lot of people are asking how will we adapt as our world changes? The US Forest Service has been considering how forests can adapt and what can help forests be more resilient as the climate changes. On Earth Day of last year, President Joe Biden signed an executive order that outlined a number of strategies for strengthening forests, communities, and economies in the US. Section 2 focused on the role of conserving mature and old growth forest as a nature-based solution. About a year later, the Forest Service issued a notice of proposed rulemaking to gather feedback on how to implement this guidance. More than half a million people submitted comments saying we should protect old forests by not cutting the trees.

Old growth forest dominated much of eastern North America before settlement, but there is very little left in the eastern US today. Clearly, it is not sufficient to only protect those few remaining old growth stands. Biden's executive order was worded to include "mature" forest. While what foresters refer to as "mature" forest is much younger than true old growth, mature in silvicultural terms means that it is ready to be cut. A lot of silvicultural research has focused on finding the right rotation age to maximize sustained yield of timber, which turns out to be a lot younger than the potential age of trees. Also, the promise of short-term revenues is an incentive to cut even earlier than what would maximize sustained yield. The mature forest in the eastern United States is largely what has grown up after settlers cleared the land for agriculture and later abandoned it. It is mostly even-aged, because the trees that grew in a particular area started about the same time. An even-aged forest does not have as much structural complexity as an old growth forest, and an even-aged stand is what results from clearcutting.

An even-aged stand also does not store as much carbon as an old growth forest. This year, researchers from the Forest Service, the Missouri Department of Conservation, and Purdue University published an analysis comparing carbon stores in old growth forests of the Central Hardwoods at two timepoints about 20 years apart (Fraser et al. 2023, Forest Ecology and Management 537:120958, https://www.fs.usda.gov/nrs/pubs/jrnl/2023/nrs_2023_fraser_001.pdf). They examined ten sites from eastern Indiana through Illinois to western Missouri and found that carbon stores were consistently high and continued to grow over the twenty years. Some of the carbon is found in living trees and other plants that are continuing to pull carbon out of the air, some carbon is found in dead wood, some in other organisms living and dead, some in leaf litter and humus, and some is stored in the mineral soil. The site with the greatest aboveground carbon density was Donaldson's Woods, which many of us visited a few months ago when we gathered for the Forest Council. These authors argue, as have others, that clearing forest results in greater loss of carbon from the vegetation management than what is gained from rapid growth of young forests. Therefore, conserving old growth forests is an essential strategy for carbon sequestration.

Fraser and his colleagues also considered what to do about all the mature, but not-old-growth forests, evenly aged with low structural complexity and relatively low carbon stores. They reasoned that insights gained from studying old growth forests could be used to help other forests gain “old growth characteristics”. Now I know you might be thinking, if you want forests to gain old growth characteristics, how about letting the forests grow old? However, these authors have in mind active management techniques to speed up the process. Now, they weren't very specific, and I don’t want to give them any ideas, so I won’t speculate too much, but the problem is that every tool they have in the box to alter vegetation structure removes carbon from the system.

The Forest Service often says their vegetation management techniques are designed to mimic natural disturbances. However, more disturbance is not what we need at this point in history. The changing climate is likely to increase rates of forest disturbance globally (see, for instance, Seidl et al. 2017. Forest disturbances under climate change. Nature Climate Change 7, https://proxy.bsu.edu/login?url=https://dx.doi.org/10.1038/NCLIMATE3303). In the Central Hardwoods, that’s likely to mean more windthrow and pathogenic fungi and water molds. Publicly owned forest is the only place where species that require large expanses of mature forest can prosper, so protection of mature and old growth forest should be the priority.

Timber sales result in the emission of greenhouse gasses because of decomposition of remaining wood and other organic matter, fossil fuel combustion by equipment and trucks, increases in human access and fire risk, and the substantial ground disturbance necessary to drag the logs out, stack them, and haul them away. Claims that timber harvest can result in greater carbon sequestration fail to provide a full accounting of carbon emissions and fixation. This topic has been examined insightfully in several recent papers (Peng et al. 2023 The carbon costs of global wood harvests. Nature, https://doi.org/10.1038/s41586-023-06187-1; Kellett et al. 2023. Forest-clearing to create early-successional habitats: Questionable benefits, significant costs. Frontiers in Forests and Global Change 09, https://www.frontiersin.org/articles/10.3389/ffgc.2022.1073677/full).

Demand for forest products can be met and economic benefits of associated employment provided, if the Forest Service works with state agencies and private landowners to promote sustainable forestry on lands outside the National Forest System. In the eastern United States, only a small proportion of land is federally owned. National Forest land should be prioritized for ecosystem protection, biodiversity conservation, and carbon accretion and storage. The Forest Service should attempt to purchase land from willing sellers where reforestation can take place. This practice can increase early successional forest within national forests in the short term, and allow succession to mature and old growth forest and accretion of carbon over the long term.

Forests in North America underwent ecological succession and biological evolution for millions of years in the absence of human management. Over this time, they experienced many changes in climate. Hopefully, North American forests will persist as anthropogenic climate change proceeds. While it certainly is important to consider how we can protect and conserve forests in the face of climate change, we should also bear in mind that mature and old growth forests can help to protect us from the worst consequences of climate change. Many human lives can be saved by reducing greenhouse gas emissions and allowing natural ecosystems to continue storing and fixing carbon from the atmosphere.

Heartwood members stand in awe of the majestic forests of Donaldson’s Woods. Photo by John Wallace.

Virginia Logging Projects Jeopardize At-Risk Areas

by Sherman Bamford

VIRGINIA – At 1.8 million acres, the George Washington and Jefferson National Forests (GWJNFs) contains one of the largest assemblages of public lands in the Appalachian Mountains. Given the climate crisis that besets us, one would think that the Forest Service would appreciate the value of keeping forests standing in the GWJNFs. But as we have seen in the case of the Mountain Valley Pipeline, the administration has veered dangerously from the path of climate protection. The Forest Service is opening the door to even more activities that impact unroaded areas and intact forests in the GWJNFs.

Dismal Creek

West of Blacksburg, the 7,000 acre Dismal Creek Virginia mountain treasure area is one of the largest de facto unroaded areas that the Forest Service failed to identify as roadless in the Jefferson National Forest Plan. This large triangular-shaped valley is bordered by the Appalachian Trail on two sides. This out-of-the way valley provides unmatched solitude. An endangered fish species is found in the watershed, as is a Natural Heritage conservation site given an "outstanding" biodiversity significance ranking. Unfortunately, nearly 400 acres of logging and associated logging road/skid trail construction has been approved in the Dismal Creek and adjacent No Business watershed. The money-losing timber project has been advertised for sale and re-advertised once again with per-unit timber prices dropped by approximately one half. Road failures have also slowed the project. Yet the Forest Service continues to push this project unabated.

To get involved in monitoring, contact Sherman Bamford at bamford.2@aol.com

Devils Hens Nest

The northern hardwood forests of Powell Mountain in far southwest Virginia are among the wettest and richest forests in Virginia. Federally listed bats are found nearby. Streams from the area flow into the Clinch River, home to dozens of Threatened and Endangered mussel species. The Nature Conservancy ranks this area as one of the biodiversity hotspots of the lower 48 states.

On the west end of the area is the Laurel Fork Virginia mountain treasure area, encompassing a tract of old growth forest that is described as "unusual and significant because of its large size — 900 acres" by Virginia Natural Heritage. To the north end of the area is the even larger Cliff Mountain old growth tract and the beautiful Cove Creek Headwaters old growth tract. The Forest Service has identified approximately 2600 acres for logging between these old growth tracts. It is one of the largest timber sales proposed in the last 30 years. While not roadless, it is one of the most remote, out-of-the-way tracts of public land left in the heavily fragmented Cumberland Mountains.

To comment, write to Michelle Davalos, District Ranger, Clinch Ranger District, 1700 Park Ave., SW, Norton, VA. 24273 (michelle.davalos@usda.gov)

Archer Knob

Photo by Sherman Bamford.

At 4,463 feet, iconic Elliott Knob, west of Staunton, towers over the Shenandoah Valley. It is one of the rare places in this part of Virginia with a naturally occurring red spruce stand and other high elevation plant communities. Rarely seen, black bears roam through the remote area. The mountain and nearby Archer Knob form the southeastern leg of a series of unparalleled tracts of large natural areas, including Great North Mountain and nearby Shenandoah Mountain and Jerkemtight Mountain. Together they form one the largest clusters of wild lands in the Appalachians. Unfortunately, the Forest Service is planning over 5,000 acres of logging in the Elliott Knob Virginia mountain treasure area and in the Archer Knob Virginia mountain treasure area, on the lower flanks of Elliott Knob. Although significant portions of the area have burned, possibly due to a controlled burn that got out of control, the Forest Service has not acknowledged the existing conditions, including the relative "open-ness" of the forest canopy caused by recent fires, death of ash trees, and other factors.

To comment, write to Mary Yonce, District Ranger, North River Ranger District, 401 Oakwood Dr., Harrisonburg, VA. 22801 (mary.yonce@usda.gov)

Pipeline from page 1

case, as I see it," Wynn said. "The stay is simply an extraordinary type [of] relief that just pauses while something is being decided."

As of August, lawsuits continue to be in front of the 4th Circuit, challenging the issuance of permits by the United States Forest Service (USFS) and Bureau of Land Management (BLM), citing violations of the National Forest Management Act (NFMA) and the National Environmental Policy Act (NEPA). A third pending lawsuit, filed by a coalition of environmental groups, including the Sierra Club, Wild Virginia, the West Virginia Highlands Conservancy, The West Virginia Rivers Coalition, Indian Creek Watershed Association, and Appalachian Voices, challenges the US Fish and Wildlife Service's 2023 report that concluded endangered species wouldn't be jeopardized by the pipeline. Other litigants include the Wilderness Society, Preserve Bent Mountain, Preserve Giles County, Chesapeake Climate Action Network, and the Center for Biological Diversity

The 4th Circuit issued its stays as it considers challenges of the constitutionality of a provision in the debt limit suspension law, the Fiscal Responsibility Act that was designed to force completion of the long-delayed 303.5-mile pipeline. That law attempts to strip the 4th Circuit from its oversight of the case, overrule the 4th Circuit decisions on the pending cases, and prohibit legal challenges of any federal or state agency authorization for construction and initial operation of the MVP. This is a clear violation of the separation-of-powers doctrine.

Dave Sligh, Wild Virginia's Conservation Director, had this to say: "MVP and its political cronies couldn't push this project to completion under the rules so they have tried to change the rules. But that won't stop the people from fighting it, in the courts and in the field. We're opposing this unconstitutional scheme legally and we are geared up to expose any continued environmental harms and insist that regulators finally do their jobs – to protect our natural treasures and communities."

Russell Chisholm, managing director of the Protect Our Water, Heritage, Rights Coalition (POWHR), affirms that "The Biden administration has green-lit a reckless, unnecessary fossil fuel project during a deadly heat wave caused by climate change. The destruction wrought by this pipeline on our planet and communities is President Biden's climate legacy. The gas from the pipeline is unnecessary, the permanent local jobs provided are minimal, the endangerment to precious species is irreversible, water sources will be polluted, and earthquake and landslide prone areas stand in its wake. We are devastated, but we will never give up on protecting our home."

For seven years, citizen advocacy to stop this illegal and misguided project has continued non-stop. Concurrently with all this legal activity, Roanoke County, Virginia, dismissed a $13,000 retaliatory lawsuit against three "old folks" MVP protesters. In an unprecedented civil action, the County claimed over $13,000 is expenses directly attributable to the protesters, but discovery in the case revealed that the County filed suit in hopes of "sending a message" that "MVP protesting will not be tolerated which is a clear First Amendment violation. The County's claim included nearly $11,000 for the salaries of 24 police officers who billed more than 278 hours, over $1,800 in equipment expenses, and over $200 for food, including $125 for pizza.

Deborah Kushner, one of the "old folks", noted that "we took this action because of the urgency of the climate catastrophe and our deep love for this land, these waters, all the forest creatures, and one another. The Mountain Valley Pipeline is a disaster for Appalachia and for the world. As elders, we needed to resist. As a community, we needed to resist. As privileged people, we needed to resist. We knew we would be arrested, but the County wasn't satisfied with that — they wanted to make us pay so that others wouldn't take similar actions. That effort failed and instead only further galvanized us and others."

The Mountain Valley Pipeline construction site in the Jefferson National Forest, Virginia. Photo courtesy The Wilderness Society.

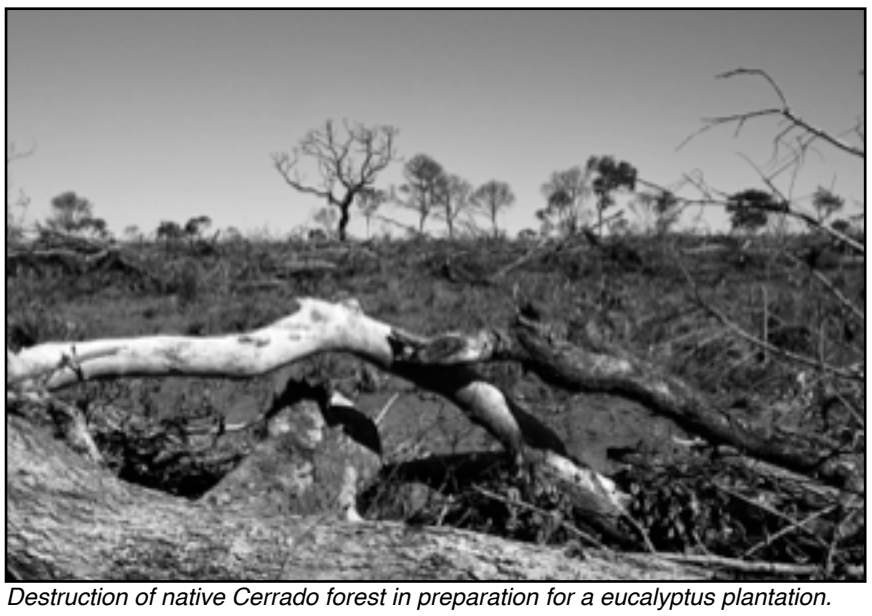
International Delegation Travels to Brazil to Protect Rainforests

by Steve Taylor, Orin Langelle, and Anne Petermann
Photos by Orin Langelle/GJEP

The importance of protecting forests to mitigate climate change is ironically being used by the pulp industry to rapidly expand industrial tree plantations that are exacerbating the deforestation crisis in countries like Brazil. For decades, large-scale plantations of eucalyptus trees have been replacing natural forests in Brazil, but now the recent legalization of genetically engineered (GE) varieties threatens to exacerbate ecological and social destruction. To investigate this, an international delegation of the *Campaign to STOP Genetically Engineered Trees* traveled to Brazil where they met with Indigenous and Quilombola communities, as well as members of the Landless Workers Movement, (MST), government ministries, academics, and numerous organizations. They documented the history of resistance to the pulp and paper industry, its current rapid expansion, and the potential impacts of GE tree plantations – including the increased use of toxic herbicides, amplification of ecological degradation and deforestation, contamination and outright loss of water, health impacts, and social injustice.

Construction site of the world's largest pulp and paper mill.

Suzano Pulp company recently received permission from the Brazilian government to commercially develop varieties of GE eucalyptus resistant to glyphosate, the active ingredient in Monsanto's infamous Roundup. The delegation, organized by Global Justice Ecology Project, included representatives from Argentina, Canada, Chile, Ireland, Japan, New Zealand, and United States.



Destruction of native Cerrado forest in preparation for a eucalyptus plantation.

The Suzano Pulp company is building the world's largest pulp and paper mill in the Brazilian state of Mato Grosso do Sul. The enormous facility is being constructed by 10,000 workers. It threatens grave environmental damage to natural habitat and biodiversity, water, and air. The Chilean corporation Arauco is planning an even larger pulp mill in Mato Grosso do Sol after the scheduled completion of Suzano's behemoth.

In Mato Grosso do Sol, large expanses of Cerrado forest have been converted to eucalyptus plantations by Suzano over the past decade.

Tax incentives and infrastructure investment in the Tres Lagoas region by local and federal governments seek to attract investments by the pulp and paper industry to the state.

Indigenous man smokes a pipe during a protest in front of Brazil's National Congress in the capital city of Brasilia.

The Biden Administration's embrace of false solutions to climate change includes $50 million in funding to expand eucalyptus plantations in the Cerrado forest of Brazil.

A large demonstration by Indigenous people was held in Brazil's Capital Brasilia and across the country to oppose a law (PL 490) passed by the Ministry of Deputies (not yet passed by the Brazilian Senate) that would erase legal titles to lands held by indigenous communities. Under PL 490, Indigenous territory would likely be taken for extractive industries. The loss of indigenous rights and the destruction of Brazil's environment are inextricably linked to invasive eucalyptus plantations.

João, a member of a Quilombola (Afro-Brazilian) community, told the delegation that when eucalyptus started coming to Espirito Santo and Bahia that "they removed the native plant cover and removed all the nutrients from the soil. People used to do agroforestry, would use cover crops, let the land rest. But now with eucalyptus, there is no rest for the soil."

In the MST camp Indio Galdino.

Other members of Quilombola communities said that Suzano flies surveillance drones into their communities as a scare tactic because the Quilombolas are resisting further development of their land, much of which is in the Mata Atlantica native forest.

The fight against eucalyptus is central to the landless workers' movement – the MST in Espirito Santo and Bahia. The MST is one of the largest movements in South America, with estimates of nearly two million members. The MST seeks to reverse Brazil's profound inequality of land distribution by occupying land for communal farms.

Even though right-wing president Jair Bolsonaro is no longer in power, Bolsanaro-aligned lawmakers are still trying to outlaw the movement. Still, judges have often accepted the MST's interpretation of Brazilian law that allows unproductive land to be taken. The MST have included eucalyptus plantations as meeting the definition of "unproductive" and have occupied and repurposed them for communal farms.

In front of the Brazil's Biosafety Commission in Brasilia

Recently planted eucalyptus clone. Mature eucalyptus plantations in the background.

The movement has been so successful in its occupation strategy that it is estimated that 460,000 families now live in encampments started by the campaign. The MST, with an eye to the future, have started agroecology schools that teach rural residents how to grow crops and food using agroecological methods.

The *Campaign to STOP Genetically Engineered Trees*' delegation, along with a Quilombola representative, met with several Brazilian ministries to register official demands and testimony collected from Quilombola and MST communities about the devastating impacts of eucalyptus plantations and new threats posed by GE eucalyptus trees.

During one of the delegation's official meetings, Moisés Savion, secretary of Brazil's Ministry of Agrarian Development, identified corporate interests as the driving force behind the push for GE eucalyptus. "It makes no sense in my vision to have a transgenic eucalyptus associated with glyphosate," stated Savion, adding "It is much more linked to market interests of the corporations that want to sell herbicide."

Following the meetings with the ministries, the group rallied outside of Brazil's Biosafety Commission to protest the body's decision to legalize GE trees in Brazil. The delegation also officially presented sign on letters and petitions signed by 200,000 people and dozens of organizations opposing the release of GE eucalyptus in Brazil to the ministries and to Brazil's Biosafety Commission.

New EU Biomass Policy Fails to Protect Southern US Forests and Communities

by Scot Quaranda

European Union (EU) negotiations were finalized for the Renewable Energy Directive (RED) in March of 2023. They chose to reject calls from the EU Parliament to phase out biomass as a renewable fuel. There were some small improvements to the policy, but, unfortunately, they will not go far enough to protect communities and forests. They won't halt the climate-destroying practice of burning forests for electricity. With the fever pitch urgency of climate action, this was the moment for the EU to fix the huge policy mistakes they have made through the years.

They failed to find the courage to do so.

Rita Frost, Campaigns Director at Dogwood Alliance, said:

> "This decision is no different from what the EU has been putting out as biomass policy over the last 15 years. Some fancy words that shift the emphasis but take no real action. Once again the many have caved to the pressure of the few. The EU has allowed special interests and a few member states to control their biomass policy, which has already caused so much destruction. Not science, justice, or climate action. Communities in the Southern US are looking for political leadership to stop harms to their health, forests, and our climate. If the EU is not going to take real action, it's time for the Biden Administration to stand for forests by halting the expansion of the biomass industry."

The biggest positive of the final directive was a greater awareness of the harms.

The directive also allows member states to add new requirements governing what kinds of biomass qualify as renewable energy. Countries with growing biomass controversy, like the Netherlands, have suffered because of EU-wide policy. Now they have more freedom to eliminate biomass as a fuel source.

Unfortunately, the new policy continues to have loopholes. It allows countries to count burning biomass as a climate benefit. It leaves the troubling possibility of further development of Bioenergy Carbon Capture and Storage (BECCS). The policy increases the overall renewable energy target to 42.5%. This will only increase the amount of biomass used by countries that are already heavily reliant on it.

STAND4FORESTS

Member Services

Heartwood offers a variety of services and network support to our members and member organizations. We invite individual activists and grassroots citizens' organizations to apply for our **Minigrants Program**, a great way to cover gas money for forest watch expenses, costs associated with a direct action campaign, or to help show a larger funder that you have support from a variety of sources. You can find more information about the program guidelines and how to apply online at https://heartwood.org/minigrants/.

Heartwood offers **fiscal sponsorship** to new and emerging grassroots organizations that need 501c3 status to be able to get grants from foundations and green corporate donors. Heartwood takes a small administrative fee for non-members and an even smaller fee for groups that have joined the Heartwood network as a member, and we are happy to join with you on collaborative grants to fund programs where we might play a more active supporting role.

Other membership perks include free column inches and advertising space in *Heartbeat*, access to the vast library of knowledge embodied in our network of activists, and all the spiritual and emotional perks of being a part of the most passionate and visionary network of forest defenders and wilderness advocates in the US today.

Our minigrants program and other membership support services depend almost entirely upon the donations we receive from the grassroots community. As a general practice, Heartwood does not apply for grants that may compete with our member groups, who are reaching out to that same small pool of foundation funders for support. We rely on the proceeds from the auction that we hold at our events, our merchandise sales, and the support from our grassroots members to pay the bills. Please donate to Heartwood today, and visit our website to see a list of our member groups. Find one in your area and give them some green love as well!

https://heartwood.org/member-groups/

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https://www.kroger.com/signin?redirectUrl=/i/community/community-rewards

Contact your local Kroger's Customer Service Center for more information.

Help Wanted

Join the Heartwood Coordinating Council

For too long the work of maintaining Heartwood has been carried on by too few. Help defend forests in your state or bioregion by helping Heartwood provide the member services and network support that has protected forests in the eastern US since 1991!

This year's fall gathering is the perfect opportunity to find out more about what it means to be part of the Heartwood coordinating council!

Registration for the 2023 Forest Affinity Weekend

This year, Heartwood is hosting a more low-key, relaxed gathering geared more towards rejuvenating ourselves than on the fights we face, with an eye towards recruiting new members for the Heartwood Coordinating Council.

You must pre-register to let us know you are coming!

Send in this form via US mail in time for it to arrive in our PO Box no later than Saturday, September 30, or email info@heartwood.org. Registration is $100 per person for the full weekend. Please join us for this celebration of the grassroots forest protection movement, and find out more about how you can help grow the Heartwood Network!

Please pre-register and pre-pay! You can send your check with this coupon below to Heartwood at PO Box 543, Tell City, IN, 47586 or drop us a note via email to info@heartwood.org. Register online at https://heartwood.org/events/forest-affinity

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HEARTWOOD

Forest Affinity Weekend

Friday October 6 through Sunday, October 8, 2023

Friday evening slideshow of Steven Krichbaum's trip to Indonesia

Saturday Morning Circle
Afternoon small group workshops
followed by evening campfire

Sunday saunter in the forests we love

visit https://heartwood.org/events/ for more information

Heartwood hosts two gatherings each year. In the spring we meet over the Memorial Day holiday weekend for the annual Forest Council, where we focus on the work we do and prepare ourselves for the year ahead. In the fall we gather to celebrate our victories, mourn our losses, refresh our spirits, and renew our friendships at the place where Heartwood was founded. Join us for a weekend of camaraderie and community building at the Lazy Black Bear, just south of Paoli, IN. We will enjoy wholesome farm-to-table food, lovingly prepared by Chef Carla Gresham and a team of volunteers, and we will make our own music around the campfire as we spend the weekend regenerating ourselves and the Heartwood community of activists. The weekend will feature the traditional Heartwood Circle and the agenda will allow plenty of time for the kind of conversations that can't happen over email.

This weekend is geared towards recruiting new coordinating council members, building the capacity of the organization, and preparing for the challenges of the future that we face today.

You must pre-register and pre-pay to attend!

Use our mail-in form on page 10, or register on our web site at https://heartwood.org/events/forest-affinity. If you have never been to the Lazy Black Bear, please contact us at info@heartwood.org for directions. BYO camping gear or contact us to arrange for a bunk in one of our rustic cabins.

The Lazy Black Bear is a fragrance-free space.
Please refrain from using perfumes or colognes, and wash your clothing with baking soda before you attend.

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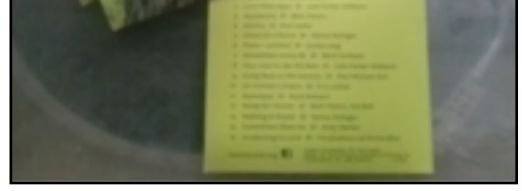

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H.R. 5022 the Appalachian Community Health Equity Act has been introduced to the 118th Congress with eleven cosponsors. This bill would place a moratorium on Mountaintop Removal coal mining until health studies can be conducted. Contact your congressional Representative today and urge them to cosponsor this bill! More info at www.acheact.org

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Citizen Scientist in the Owen-Putnam Forest

by Lora Kemp

INDIANA – If ever I wanted to go back to a place in time, I always thought I might have liked to have been the artist on the Lewis & Clark Expedition traveling across the country encountering new species, documenting and drawing them. I thought it would be exciting to discover the wonders of these natural areas. After spending the past four years surveying areas of the Owen-Putnam State Forest and helping write a High Conservation Value Forest Area Proposal, I realized I WAS doing what those adventurers had done so long ago. I am a citizen scientist looking for rare and endangered species. If I could find and identify them, I might prove this really is a special place worth saving — a place where the value of the bio-diverse ecology outweighed the greed of the lumberman's saw. In Owen-Putnam we have a saying, "Discover the Forest in your Backyard." And that is what I have been doing.

From learning about some rare fauna, like shining club moss, to discovering the difference between a cinnamon fern, intern fern, and wild ostrich fern, I have trekked up and down the hills, hollows, ravines, rocks, and streams continuously on the hunt for unique features, both flora and fauna. With the help of the Sierra Club Hoosier Chapter, several endangered birds in the area have been identified and geo-located. But even when the Indiana Division of Forestry (DNR) was informed (when they cut the fifty-two acres at Rattlesnake Campground and took nine hundred trees) that the area was a breeding ground for state-endangered eastern box turtles, it did not stop them from destroying the area. Last summer, the campground and surrounding area was full of box turtles, but this year sightings were few and far between. There must be more protections, even on state land, if an animal is federally endangered.

I began searching for rare and endangered amphibians in Owen-Putnam, which is full of springs, rocky cold water streams, ponds, salamanders, and frogs. Although I kept seeing signs of the crawdad frog, DNR wildlife professionals told me they liked more open prairie than is in this area. Their answer is always "Nothing rare and endangered there". But when I asked when the last wildlife survey of the Owen-Putnam was done, I was told that the Indiana DNR had flown a helicopter over in 1985. The Natural Heritage Database has two rare species documented in this area of the Owen-Putnam State Forest — badgers and pygmy shrews. I know there is more there than that!

As a citizen scientist, I had "pond sits" in the evenings during which bat sightings or frog sounds and their species were documented. Increased bat sightings made me think bats might be trying to make a comeback. During chanterelle mushroom season, when gnats were flying all around the mushrooms, the most amazing thing happened — bats flew out of the woodwork, emerging from the big trees with small holes in the bottom. I do not believe I have ever seen that many bats in one place. It was truly amazing.

And now, I am living the dream of citizen scientist out in the forest to learn more about these flying creatures of the night. In the past three weeks, along with the Indiana Forest Alliance, my husband Kurt and I are helping set bat monitors in the Owen-Putnam State Forest and the Hoosier National Forest. We have been netting bats in the Owen-Putnam (or trying to net bats as they can be quite elusive). I have learned that there is always something new to discover in the forest. May I never stop discovering, and may I always have a forest to discover them in.

Because of these rare and endangered creatures, I will continue to hound my legislators and help educate people that every creature, from the creepiest centipede to the loveliest moth, has a right to exist in an undisturbed forest. Take a stand for public land, it is your land, and not all parts of public land should be considered commercial forest.

At this time, I do not know the outcome of this bat survey, but I do know that "batting around" is exhausting in heat, humidity, and long night hours. Bat biologists are tough! Forest guides are even tougher!

Lithobates areolatus.
Photo from wikipedia

As we were folding the bat nets at 4:00 AM, I went around the bend of the creek to the spot where Kurt and I had taken a picture of the rare and elusive six-spotted fishing spider, and in the pitch black night, I heard something go PLUNK into the water. There it was, in all its glory, no mistaking it for anything else in the world — it was the crawdad frog, rare and endangered in the state of Indiana.
The quest continues!

The Talking Trees

by Kurt Kemp

Knowing the topography and biology of a forest does not necessarily make you an expert on forests. Knowledge and science are without question invaluable. But there is also that sense of awe experienced when walking into a forest, discovering a magnificent old tree, unsure of whether it is a black oak or a red oak, and realizing you don't really care. You are content that it is there to share this time and place with you. When you embrace the idea that some things need not be quantified or scientifically explained, you will understand the true value of a forest and the absolute need for its protection.

I think the way to change public opinion on the need to preserve these wild places is to try to communicate that inner thing that makes nature wondrous to us. I realize that this is a tricky proposition, but I also am certain that pie charts, graphs, and statistics cannot create change alone. Wonder and awe and a sense of something greater than ourselves are just as important, and perhaps could turn the tide.

I acknowledge this is not a new concept. Native Americans and countless other peoples, some known and many lost to the past, based their cultures on this premise.

But not all seers are lost. We, too, have enlightened people more eloquent and persuasive than I – like our niece Jasmine, who, as a four-year-old child on a horse ride with us in the Owen-Putnam State Forest, stated, with no sense of surprise, "Uncle Kurt, the trees are talking to me." That's just the way it's supposed to be.

Sadly, her talking trees are gone, destroyed by a bureaucracy lacking her insight and wisdom.

Now, when I see another "prescribed timber harvest" and have feelings of despair, I think back to that day and that little girl, and I embrace her words. I dust myself off and set out in search of my talking trees. Fortified, I will carry on the good fight with increased resolve and determination, because we all need our talking trees.

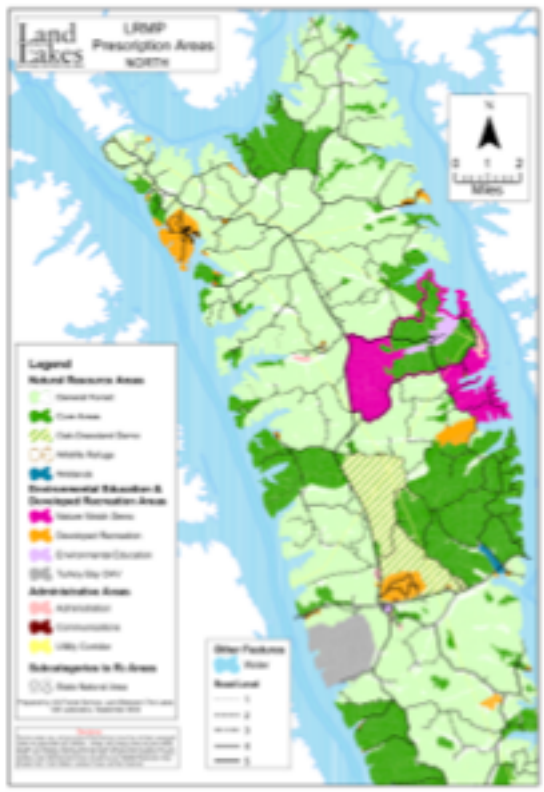
As Joseph Woodkrutch stated in 1954,"And the thing that is missing is love, some feeling for, as well as some understanding of, the inclusive community of rocks and soils, and plants and animals, of which we are a part."

LBL from page 1

legislation that mandates funding for those non-timber programs and gives more authority to a citizen's advisory board. Those changes have not yet taken effect, and we are still waiting to see how that plays out.

Logging at LBL had been curtailed for several years because of an outpouring of public objection to a highly controversial plan to convert much of LBL's mixed hardwood forest to oak-grassland savannah habitat. That plan was revealed by a FOIA request, including internal communications about the need to get the project as far along as possible before the public became aware!

Even that plan by the Forest Service had been limited by a legacy of the TVA years. As TVA was establishing the Recreation Area, which they described as a "playground for the rugged," they identified areas within the peninsula (170,000 acres in one unfragmented block) that held special biological interest. Dr. Paul Yambert, long-time Heartwood friend, was involved in identifying those areas. Some were unusually mature stands of forest, others were locations of endangered species, such as Price's potato bean or Hellbender salamanders. These areas were designated as Biological Study Areas and later were enlarged and given the designation of Core Areas where minimal to no management would occur and natural processes would be allowed to operate.



As the LBL management plan describes them:

> Core Areas comprise approximately 42,000 acres designed to facilitate greater understanding of forest environments through collaborative research, administrative studies, and other working relationships. These areas serve as controls in comparative management and, in most cases, have little to no management disturbance. The larger blocks of core areas have had little to no management since the Tennessee Valley Authority (TVA) started to manage the national recreation area in the 1960's. Core areas appear as having a naturally evolving structural condition on the landscape due to low-intensity management within forested areas. Forests are primarily older with areas of continuous canopy and occasional gaps as a result of storms, insect or disease outbreak, fire, and reverting fields. A mix of species, including more shade-tolerant species than general forest, occurs in forest cover types across all site types. Forest cover types vary in canopy and understory and include many canopy gaps, snags, downed wood, and den trees.

The management plan includes a map of the Core Areas, but it is buried deep in the Resource Management section of the LBL website. There is no other mention that the Core Areas even exist, and few LBL users are aware of them. The Forest Service has been open about its view that these Core Areas are an unacceptable limit on their management goals.

The Core Areas at LBL contain some of the most mature and species-diverse stands of timber in this region. Their purpose was to be allowed to eventually become true "old growth" forest that would serve as a "control" against which management practices could be compared to see if they actually "improve forest health". It is no wonder that the Forest Service does not want the public to know they exist!

In December of 2021, a tornado outbreak hit the area. A mile-wide tornado that set records for the number of miles it stayed on the ground took out several towns and communities. The next morning a "disaster declaration" was issued to free up federal and state resources to assist in the rescue and recovery effort. The main tornado crossed the upper portion of LBL in Kentucky. There were no intact trees left standing in the storm path, but, as is the case with tornadoes, outside the direct path there was minimal to no damage to the forest. A much smaller tornado was spawned from this one. It crossed the southern portion of LBL in Tennessee during the same storm event, resulting in some damage but with much less impact.

Within a few weeks, the government's emergency resources had been brought to bear, and the Forest Service reopened all roads, cleared campgrounds, and all facilities were reopened to the public.

In the fall of 2022, nearly a year after the storm, the Forest Service announced a salvage sale from the storm, but no details were provided. The planner for this salvage sale called me at home to say I would be kept "in the loop" as the plan came together. In January of 2023, over two years after the storm and all facilities in LBL had been restored and reopened, a 10-day public comment period on the salvage sale was announced. Public notification for the comment period was issued on day 9 of the 10-day comment period! No comments were received, and the LBL officials later said the botched dates for the comment period were the result of a typo. No re-do of the comment period occurred.

The salvage plan was based on the government's issuance of the "emergency declaration" from December of 2021. Because there was an emergency declaration, National Environmental Policy Act (NEPA) requirements, and even the LBL's own management plan, were suspended, including addressing endangered species and other basic regulatory requirements. The plan cited the number of acres impacted by the storm, but the area included in the salvage sale was three times that number of acres. This, we were told, was to allow the loggers access into the storm path.

The storm path did cross through some of the Core Areas, including one of the few wetlands in LBL (most of the natural wetlands are now under the lakes). The restrictions on management in the Core Areas were suspended because of the emergency declaration. There is minimal salvage occurring in the storm path, because there is simply not much there to salvage. Most of the logging and new road construction is outside the path of the storm and targeting the undamaged hardwoods. They claimed that a main purpose of the salvage sale was fuel load reduction. However, the fuel load in the storm path is not being reduced; rather, the fuel load outside that path is being dramatically increased by the tree tops and slash left after the large, healthy trunks are removed.

Attempts to challenge this have been hampered by the fact that LBL has had a series of "interim-supervisors". It is never clear who is in charge, and the current supervisor always points out that they didn't make the decisions and don't have information. Requests for information and data by Heartwood, Tennessee Heartwood, the Center for Biological Diversity, and the Kentucky Resources Council have gone unanswered or been met with evasive tactics to delay the information. With about a dozen different logging crews working in LBL at the same time, the hopes for stopping this are slim. We are carefully monitoring their activities, especially in the Core Areas.

In trying to uncover what their plans are for this salvage project, it has come to light that the Forest Service has now approved management for over 86,000 additional acres in LBL as a preventative measure to offset the danger of a potential insect infestation that might result from the storm damage. We have been requesting information on this, including areas they intend to target, but so far we have received only superficial and unhelpful responses.

"Salvage" logging in forests otherwise undamaged by recent tornadoes. Photo courtesy Tennessee Heartwood.

Friends of Evans Springs Fight to Save a Roanoke Wetland

by Sherman Bamford

"Searching for Isopods" Oil on canvas by Terry Lyon

Roanoke, Virginia is a beautiful city in the Blue Ridge mountains. Roan oke's Gainsboro and Northeast neighborhoods were once vibrant African-American neighborhoods. Beginning in the 1920s, there were several jazz clubs and dance clubs that featured well known jazz artists from New York and other urban centers. Early African-American film maker Oscar Micheaux had a film production company in the neighborhood. The Gainsboro neighborhood was Roanoke's Black Wall Street.

However, in the name of Urban Renewal, between 1955 and 1980, over 1600 homes, 24 churches, over 200 businesses, and several schools were destroyed in the Gainsboro and Northeast neighborhoods. People were displaced, never to return, and many are still in shock from the devastation that occurred.

Today residents of the predominantly African-American Melrose-Rugby neighborhood fear a reincarnation of Urban Renewal in the proposed master plan for Evans Spring.

Evans Spring is an approximately 150 acre tract of undeveloped land surrounding a "wet meadow," a rare non-tidal wetland. Heat mapping shows the tract as a cool blue oasis in the midst of urban neighborhoods and adjacent Interstate 581. Residents of the Melrose-Rugby neighborhood recognize that such a nearby natural gem should be protected. The overwhelming consensus is for "no development" of Evans Springs.

Much of the tract is in private hands and protection would be difficult, but could possibly be done so by stronger zoning, buy-outs, and by offering incentives for developers to build in brownfields and previously developed areas elsewhere in the city.

Roanoke City Council recognizes the need for "rebuilding trust." Yet the master plan still continues to emphasize the doing "something," albeit at a smaller scale, rather than preservation as a city park, as residents desire. Friends of Evans Springs, a group dedicated to protection of the area, fears this is just a "foot in the door" for destruction of key parts of the undeveloped tract.

For more information see https://www.facebook.com/people/Friends-of-Evans-Spring/100086508480976/

Citizens attend a meeting of Roanoke City Council on June 17. Photo by Friends of Evans Springs.

Study Finds Urban Forests Store More Carbon Than Previously Thought

by Barbara Moran

MASSACHUSETTS – Urban forests are little oases of nature, but they don't get a lot of respect. The trees near the road get sprayed with salt and choked with soot, the boulders get tagged with graffiti, the trails through the woods are often littered with candy wrappers, soda bottles, and plastic sacks of dog poo.

But despite the abuse, these small patches of forest may play an outsized role in combatting climate change, at least here in the Northeast. Two studies from Boston University find that trees around the edges of urban forests grow faster, and the soil gives off less carbon dioxide, than scientists expected. That means these scruffy edges are surprisingly good at pulling carbon dioxide out of the sky and storing it underground.

The research suggests that fragmented urban forests, often dismissed as degraded remnants of their former selves, may be doing more for us city dwellers than we thought.

"The discussion about deforestation really focuses on what's lost: the forest that's lost, the habitat that's lost. But we haven't focused enough energy on what's left behind," said Lucy Hutyra, a professor of earth and environment at Boston University, and senior author on the two studies. "These forests, even these crummy little trash-filled urban forests with few trees, do a lot for society."

Humans have chopped up most of the world's forests into smallish "fragments," bordered by roads, houses, factories, and shopping malls. Although there's no formal definition of a forest fragment, a good working definition may be a patch of woods where you can always hear the traffic, even if you can't see it.

In the Northeastern United States, there are a lot of urban woods in which almost a quarter of the forest in the region sits 100 feet from a forest edge.

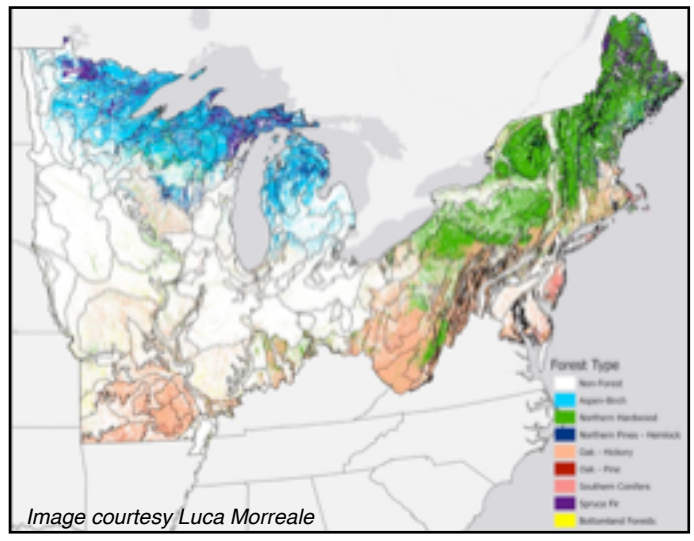


Image courtesy Luca Morreale

Research on tropical forests has found that trees along these edges, exposed to more wind and heat, tend to dry out and die more quickly than their cousins tucked safely inside. A team of researchers working under Hutyra wanted to find out if the same was true for the forests around here. The answer: nope.

The team's first study, published in *Nature Communications*, found that trees around the edges of Northeastern forests were no more likely to die than trees in the interior — in fact, they grew 36% faster faster and 24% thicker. The trees probably did so well because they had enough water, more access to light, and actually liked sucking up all that carbon dioxide.

"Pollution is a good and a bad thing from a plant's perspective," said Hutyra. "Some of that pollution is definitely not what the forest would want, but some of it is carbon dioxide, which will stimulate growth, and some of it is reactive nitrogen, which serves as a fertilizer."

A separate study published in *Global Change Biology* found that the soil around these urban forest edges emitted carbon dioxide 25% slower than soil deeper in the woods. Even weirder, the emissions slowed down when it got hotter, which did not happen in more rural regions. In other words, the soil near the edge of urban forests seems to be doing some turbo-charged carbon storage, and nobody is quite sure why.

"Urban soils are experiencing really high temperatures. And so we would expect, if it's really hot, that they would respire more. But that doesn't seem to be the case," said study author Sarah Garvey, a Ph.D. candidate at Boston University.

Even without understanding the nuts and bolts of what's happening, the finding is still noteworthy. Because humans are scrambling for ways to pull more climate-warming carbon dioxide out of the sky, the combined findings of these studies could have broad implications for climate policy modeling.

"Forests are increasingly fragmented. You have more edge area and this is a general pattern across the world," said Luca Morreale, author of the *Nature Communications* study and a Ph.D. candidate at Boston University. "If you view edges as degraded and 'lesser-than', then you will perhaps not care as much." But if climate modelers and policymakers take that view, he said, it "could very drastically affect our world's forests."

These results don't mean we should start chopping up forests to create more powerful carbon sinks; that's a losing proposition, said Hutyra. But having chopped up the forests already, it's important for us to understand the consequences.

"We are making decisions about how to design and redesign our cities towards a goal of sustainability, and vegetation is a big part of that," Hutyra said. "Whether it be conversations about planting trees all over the world to mitigate climate, or about cities increasing canopy cover to mitigate summer excess heat, this science is feeding into that."

This article was first published February 2022 by WBUR FM

Bats from page 1

bats, a lactating female, to a maternity roost. At the least, these findings will trigger requirements limiting burning to narrow windows of time and timber operations to selective cutting during the winter when these bats are not present. Additionally, adequate numbers of shagbark hickories, white oaks, sugar maples, and several other species, as well as snags (standing dead trees), must be spared from any logging. IFA also believes the finding of these bats at Houston South will broaden the analysis of impacts that must be conducted by the Forest Service under the National Environmental Policy Act to look at more alternatives should the agency decide to move forward with any version of the Houston South Project. Two juvenile Tricolored bats netted in the Pike State Forest should also give IFA more leverage to protect the largest tract of river-bottom, wetland forest within Indiana's state forests along the Patoka River.

The surveys also captured three Evening bats (*Nicticeius humeralis*) each in Houston South and Pike State Forest. The Evening bat is state endangered, although whether this designation will confer any protection for the animal is not clear. In all, more than 50 bats representing five species were captured.

More than half of the bat species in the United States are in severe decline or listed as endangered. Bat populations around the world are in precipitous decline due to habitat loss, white-nose syndrome, pesticide use, and other anthropogenic stresses.

Biologist Cory Kwolek attaches a tiny transmitter to an Indiana bat (Myotis sodalis) netted in the Hoosier National Forest.. Photo by Steven Stewart..

Permit Revoked from page 1

storage shed sufficed to meet these conditions. IDEM had allowed Riverview to claim they had begun construction in a timely fashion, but the two groups were relentless in showing that a mere storage shed did not comply with EPA standards and that nothing further had been done on the site.

"Riverview planned to use our community as the guinea pigs for its toxic refinery, and with IDEM's decision to revoke the permit, we look forward to economic development that is safe and clean for all the communities nearby," said Mary Hess, SWICQL president and Dale resident.

"IDEM's action will fight climate change by preventing 14 million tons per year of carbon dioxide pollution from this project," said Charles McPhedran, senior attorney with Earthjustice. "That's like taking over three million cars off the road." Earthjustice is representing the groups in these legal proceedings.

Because of its super-polluting industries, Spencer County already ranks among the worst one percent in the nation for toxic releases, according to US EPA Toxic Release Inventory.

Rock Emmert contributed to this article.

Campaign Report: Buffalo Springs

by Andy Mahler

INDIANA – Here are five ways the Buffalo Springs proposal could be stopped:

- Forest Service change of plans
- Administrative action
- Congressional action
- Legal action
- Clear expression of public opposition

I am happy to report that, with your help, we have made significant progress, including the following:

- Clear expression of public opposition – from billboards and banners, to ubiquitous yard signs and bumper stickers, our iconic buffalo silhouette against a bright orange background is everywhere in Orange County. And from media coverage of public meetings to letters to newspapers and clear expressions of opposition from elected officials and economic interests, opposition is strong, bipartisan, and growing. Those expressing opposition include Commissioners of Orange, Crawford, Monroe, and Brown Counties, The Paoli Town Board, the Orange County Farm Bureau, the Orange County Economic Development Partnership, the Crawford County Economic Development Corporation, the Milltown Economic Development Committee, Saving Historic Orange County, and the Paoli Chamber of Commerce.
- Congressional action – We have been in contact with federal and state elected officials, and been particularly grateful for the assistance of Senator Mike Braun, who brought Dr. Homer Wilkes, USDA Undersecretary for Natural Resources and the Environment, to visit Orange County on two separate occasions to hear our concerns. The second of these was a public meeting held at the Orange County Community Building on April 3 of this year. Nearly 300 people attended on a work day afternoon, almost all of whom expressed their opposition.
- Administrative action – At the April 3 meeting, Undersecretary Wilkes announced that the Forest Service would prepare a new Forest Plan for the Hoosier National Forest. Unfortunately he did not commit to stopping the Buffalo Springs proposal while the new plan is being prepared
- Legal action – Fortunately, we have excellent legal assistance lined up should a legal challenge to the Buffalo Springs proposal be necessary. Bill Eubanks of Eubanks and Associates, based in Washington DC, is the nationally recognized attorney who represented Indiana Forest Alliance, Hoosier Environmental Council, Friends of Lake Monroe, and Monroe County Commissioners in their successful challenge to the Forest Service's Houston South logging and burning proposal based on the Forest Service's failure to adequately protect water quality in Lake Monroe. The proposed logging and burning are not only more extensive in the Buffalo Springs proposal, but the harms are even closer to and within the steep forested banks which protect the quality of the Patoka Lake water supply, considered the cleanest municipal water supply in the state of Indiana.

In addition, two other recent events give me increased confidence that we will prevail in our efforts to secure protection for Buffalo Springs. This year's Heartwood Forest Council was held in southern Indiana with a special regional focus on the Buffalo Springs proposal.

The final two weeks of May also saw a tree-climbing training conducted on our land adjacent to the Buffalo Springs project area with approximately forty people in attendance, including ten cooks and trainers and thirty trainees. The overwhelming majority of the trainees were young women in their twenties dedicated to the protection of threatened forests, who learned how to conduct tree-sits, banner drops, and other creative, non-violent direct actions to protect forests from logging, and many expressed a willingness to come to our assistance should it prove necessary

There is one other avenue that we are pursuing, and we are once again asking for your help to persuade the Forest Service to recognize clear and growing opposition to their Buffalo Springs proposal and to change course.

I recently spoke with Regional Forester Gina Owens based in Milwaukee and believe she may be in a position to do the right thing. We hope she will put this deeply unpopular proposal on hold pending release of a new Forest Plan for the Hoosier and work with neighboring landowners, recreational users, climate scientists, water drinkers, air breathers, and others to chart a new course, not just for Buffalo Springs, but for the entire Hoosier National Forest and other National Forests in the Heartwood region. Those National Forests, like the Shawnee in Illinois and the Wayne in Ohio, are far more valuable for water quality protection, recreation, climate moderation, biodiversity, and other non-extractive uses than they are for logging.

Please help if you can by sending an email to Gina Owens, Regional Forester:

SIMPLE VERSION

Compose an email to Regional Forester Gina Owens, gina.owens@usda.gov with the subject line: Please Save Buffalo Springs

then hit send.

LONGER VERSION

Include a message introducing yourself and explaining why you think protecting public forests is important…

and then hit send.

Thank you.

Legal Challenges Ensure Robust Review of Forest Service "Restoration" Plans

by David Van Gilder

INDIANA – In south central Indiana, the state's only national forest, the Hoosier, is an extraordinary treasure worth monumental effort to protect. Forest advocates in Indiana have worked tirelessly since the early 1990s to do just that. Most recently, in a rare procedural win, the Hoosier Environmental Council (HEC) and its allies, Monroe County Board of Commissioners, Indiana Forest Alliance, and Friends of Lake Monroe, successfully obtained a preliminary injunction to halt, for now, the US Forest Service (USFS) implementation of the Houston South Vegetation Management and Restoration Project. Even as we enjoy a slight legal reprieve as to the Houston South project, the Forest Service has proposed an even larger and more destructive plan in the Hoosier National Forest, known as Buffalo Springs. What follows is a story highlighting the difficult legal challenges necessary to ensure robust environmental review of these forest "restoration" plans.

In May 2020, HEC and allied plaintiffs filed suit to overturn the USFS decision approving the Houston South Vegetation Management Project, to require USFS to comply with the National Environmental Policy Act (NEPA) by considering all reasonable alternatives to the proposed project. That suit also asserted claims under the Administration Procedure Act (APA), the National Forest Management Act, and the Endangered Species Act. In March 2022, the District Court granted summary judgment in favor of the Forest Service on all issues except the NEPA claim. The Court determined that the Forest Service had "failed to evaluate the potential impact of the Houston South Project on Lake Monroe… The problem with Defendants' EA [Environmental Assessment] is that it failed to adequately consider or discuss the legitimate concerns the Houston South Project could have on the Lake."

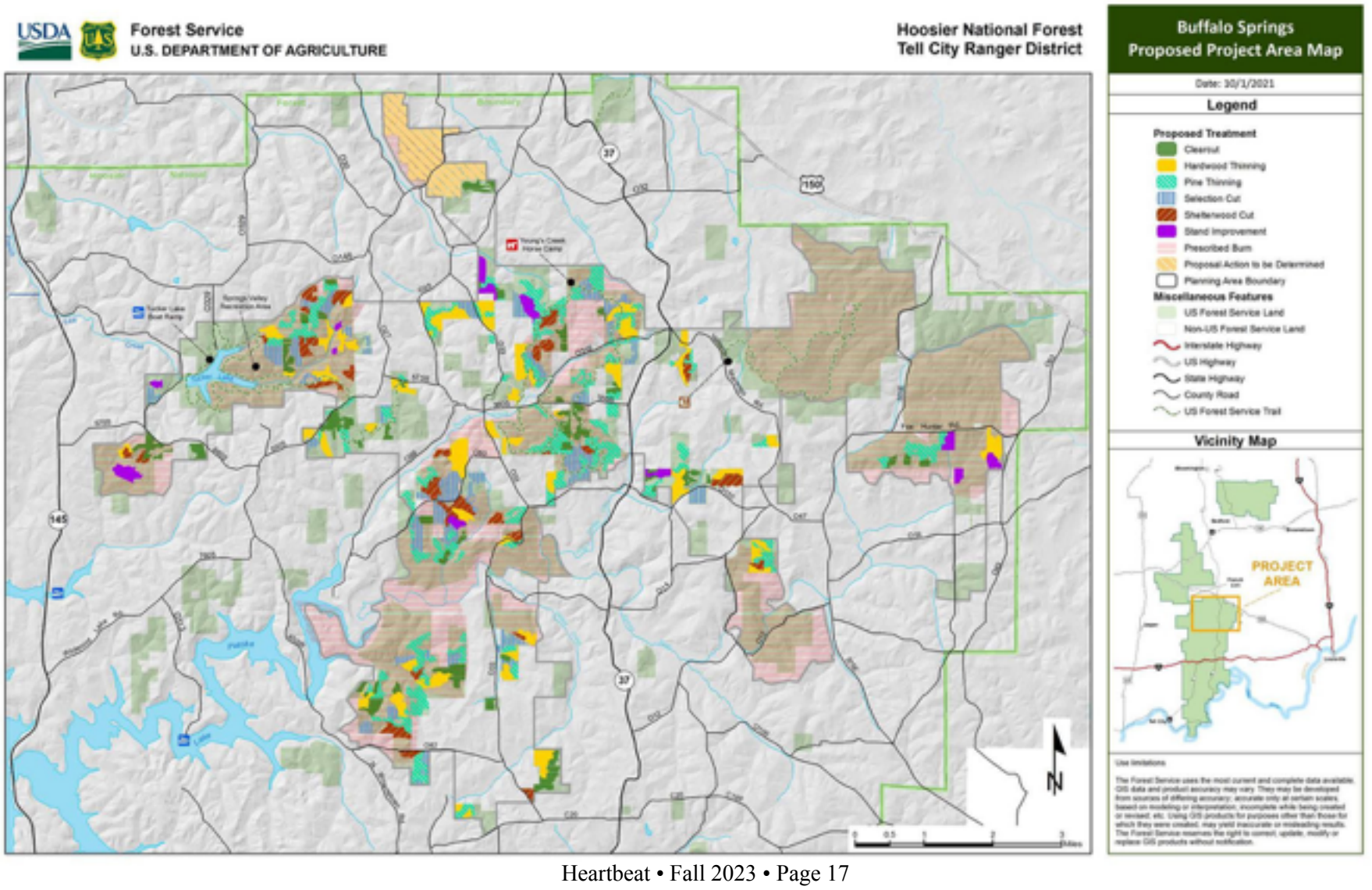
NEPA requires agencies to study and describe the environmental consequences of their proposed actions in accordance with a broad national commitment to protecting and promoting environmental quality. As the Court noted under a US Supreme Court precedent, "NEPA merely prohibits uninformed – rather than unwise – agency action." In lay terms, NEPA demands each agency, such as the USFS, do its homework by carefully describing and analyzing the effects of its actions on the natural and human environment. The law also requires a detailed statement reviewing the environmental impacts of the alternatives to the proposed action.

In the case of Houston South, the Forest Service tried to remedy its deficient analysis under NEPA by preparing a Supplemental Information Report (SIR) "to clarify relevant portions of the existing project record and to add additional information, analysis, and context responsive to the Court's ruling." The specific issue was, and remains, the effect of these far-reaching "management" plans on the water quality for Lake Monroe, a lake that provides the sole drinking water for over 120,000 people. HEC and the other plaintiffs again challenged the Forest Service effort as illegal under NEPA and APA.

In January 2023, the plaintiffs asked for a preliminary injunction, because the Forest Service intended to start work on the project with a burn scheduled on or about April 1, 2023. In all, the project authorizes prescribed burning of 13,000 acres, plus logging, herbicide application, and road building in thousands of acres of Indiana's only national forest, including in important wildlife habitat and recreation areas. The plaintiffs sought to enjoin this project, because all the activities will occur on highly erodible, steep slopes that will drain project-related pollutants into Lake Monroe.

HEC and its allied plaintiffs successfully urged the District Court to grant the injunction, which the Court described as "an extraordinary and drastic remedy, one that should not be granted unless the movant, by a clear showing, carries the burden of persuasion." The Court found in favor of the forest defenders on all three essential points: (1) Plaintiffs are likely to succeed on the merits of the claim; (2) Plaintiffs have no adequate remedy at law; and (3) Plaintiffs will likely suffer irreparable harm without the injunction. Moreover, the Court's further analysis was that the balance of harm to the public interest weighed in favor of the plaintiffs, as did the balance of harm to the plaintiff if injunctive relief is erroneously denied, versus the harm to the Forest Service if the injunction is erroneously granted.

The Court ordered the Forest Service to halt all activities related to the Houston South Project until it can make a showing sufficient to pass muster under NEPA and APA. This is a clear procedural victory, but HEC and its allies have much more work ahead to ensure that forest management practices align with the interests of Hoosiers who hike, fish, recreate, study, and enjoy their jewel of a national forest. It seems the Forest Service is intent on projects like Houston South and Buffalo Springs that it claims will produce a sustainable oak-hickory ecosystem. There must be more scientific studies and more careful analysis of methods and alternatives before such massive tinkering can be accepted by Hoosier stakeholders. For now, litigation has stalled one project, and, with continued efforts, we may succeed in directing the Forest Service to prepare a revised Land and Resource Management Plan for the Hoosier National Forest.



A Vision for Proforestation: The Appalachian Ecosystem Protection Act

by Steven Krichbaum, Ph.D.

Editor's note: this is an excerpt of the full article, published in Counterpunch in August 2023. Read the full text online at https://www.counterpunch.org/author/steven-krichbaum

Proforestation means "growing existing forests intact to their ecological potential" [1]. In other words, protecting standing intact forests and letting them grow and develop in complexity to their natural old growth state. The 2019 paper's title says it all: "Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good." Forests of older and larger trees sequester far more carbon than do those of younger smaller trees [2]. Clearly, intact older forests are of such exceptional value in so many ways that their preservation must be made an urgent priority [3].

So, a climate-smart strategy for the public's forests — our National Forests (NF), National Parks (NP), Bureay of Land Management (BLM) lands, National Wildlife Refuges, National Monuments, and other public forests — starts by protecting them in order to maximize carbon sequestration and reduce carbon emissions. Climate-smart care for public forests entails proforestation — truly protecting standing forests. This is in addition to reforestation and afforestation programs. Passage of and implementing an Appalachian Ecosystem Protection Act (AEPA) will accomplish this crucially needed true protection of wildlands, and more.

Modernizing Public Lands Management

At this point in America, the extinction/ecological meltdown crisis demands that our overriding priority must be on reducing the direct pressures on biodiversity — safeguarding ecosystems, species, viable populations, and genetic diversity by expanding and actually protecting public lands and thereby reducing habitat loss and degradation. According to the International Union for Conservation of Nature (IUCN), "a protected area is a clearly defined geographical space, recognised, dedicated, and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values." The US currently has a lower proportion of our nation as protected areas than do countries such as Guatemala, Venezuela, Gabon, or Thailand [4] (IUCN 2016 pg. 32). Changing a National Forest to a National Park, such as proposed for the Shawnee NF in Illinois, would achieve real protection.

Bringing new lands from willing sellers into the public conservation sphere, such as the proposed three-million acre Maine Woods National Park and Preserve or lands and waters in Louisiana's Atchafalaya Swamp, would also indeed bring great benefits. As others have clearly explained and are promoting [5], expansion of the National Park system by converting/transferring National Forests into National Parks would accomplish the desired and crucially needed proforestation/conservation benefits. Americans are working to achieve this not only for the Shawnee NF, but also elsewhere; such as proposals for making the George Washington (GW) and Jefferson NFs part of the Shenandoah NP in Virginia.

These efforts bring much needed attention to the overriding reality: There are US lands already in the public domain that are crucially important for real and lasting biodiversity conservation. There are 190 million acres in the public domain which are called "National Forests". Unfortunately, most of this acreage is not truly protected. In many regions of the country, these public lands provide just about the only places left with expansive, relatively natural landscapes. Capable of providing irreplaceable sanctuary to countless plant and animal populations, they are precious arks afloat in a sea of human development.

Though numerous public opinion polls show that the vast majority of Americans (ca. 75%) do not want our National Forests to be logged; nonetheless, most NF and BLM lands are open to various forms of commercial exploitation and extraction, such as logging, drilling, and grazing. Areas pummeled by commercial harvest/extraction simply do not qualify as "protected" in any rational and meaningful sense of the word. US Forest Service analysts estimated that only 3% of the total forest land area in the East is "reserved", i.e., withdrawn from logging by statute or administrative regulation [6 - at pg. 26].

New legislation is sorely needed, call it The ProForest Initiative, that will counter this extreme disbalance and alter the current management trajectory applied to our NFs and BLM lands. At present, proforestation occurs in National Parks and Congressionally-designated Wilderness Areas; these designations generally confer the highest level of protection public lands can receive in the US. But only a paltry 2.7% of the land area of the lower 48 states and less than 1% of Virginia (including GWNF, Jefferson NF, and Shenandoah National Park acreage) is protected Wilderness. And only a tiny fraction of our National Forests is protected as Wilderness, around 18% nationwide (mostly in the West). In eastern NFs it is much less — for example, less than 5% of the Virginias' GWNF, while on Ohio's Wayne National Forest the percentage is zero.

Photo by Steven Krichbaum

Even if not formally designated as Wilderness, the wild character of lands can still be administratively protected by the Forest Service and BLM. And even on lands not explicitly managed to maintain their wild character, certainly the vast majority of National Forest acreage can at least be managed custodially, allowed to progress to their ecological potential without the billions of dollars of taxpayer-subsidized commercial logging and road building — providing for a broad range of non-industrial low-impact human uses such as camping and hiking, supplying us with drinking water, recreational sites, and spiritual refreshment, while at the same time providing meaningful protection.

This proforestation management regime will result in a huge Win-Win-Win for us all: reduced carbon emissions *and* increased carbon sequestration *and* intact habitat/ecosystems. With management under The ProForest Initiative, NF and BLM lands will significantly contribute to meeting America's goals for protecting 30% of our country's land mass by 2030, combating climate change, and reducing pollution. Far and away, the greatest amount of carbon emissions from US forests comes from logging operations, not fires or trees falling from natural disturbances [7].

An added bonus of this wilderness and custodial management direction is that it's the least costly option in budgetary terms, providing by far the biggest bang for our limited bucks. For instance, at the very least there should be a moratorium on road building on the public lands — there are already over 400,000 miles of FS administered roads on our NFs (in addition to county, state, and federal roads), with a maintenance backlog of many billions of dollars.

If the USDA is to manage National Forests for maintaining our native biodiversity and for the good of all Americans, not for profiteers and special interests, then this shift to wilderness designations, custodial management, and proforestation that achieve real on-the-ground "protection" is absolutely essential.

The following objectives/principles should guide new NF management:

- Maintain native biodiversity and critical ecological processes
- Minimize external threats & maximize external benefits to the sites
- Preserve evolutionary potential
- Management is adaptive and minimally intrusive

To achieve this crucial restoration and protection of our National Forests and BLM lands, legislation based on conservation biology, such as the Northern Rockies Ecosystem Protection Act (NREPA) that protects and connects multiple western public lands and the formerly introduced National Forest Protection and Restoration Act (NFPRA), can serve as proforestation models/frameworks/blueprints to be implemented by The ProForest Initiative not just in the Appalachians, but nationwide.

The AEPA: Bringing It Home

In addition to implementing The ProForest Initiative, the USDA/USDI need to work with private individuals and organizations and Congress in developing the AEPA — the Appalachian Ecosystem Protection Act, modeled on the recently re-introduced NREPA. Through this Act, current federal public lands areas would be interconnected and better managed (actually "protected") — exactly what's needed to conserve biodiversity in a changing climate [15]. Proforestation

on our National Forests would result in the largest biotic reservoir possible in the Central/Southern Appalachians. This 8 million acre expanse of public lands is of truly global significance. Nowhere else on Earth is it possible to protect an area of humid temperate deciduous/mixed forest of this size, condition, and diversity.

As the federal National Forests, Parks, and Wildlife Refuges are generally the largest relatively intact contiguous tracts in the area, they must serve as the large core reserves of the system. The initial AEPA would focus on the Central and Southern Appalachians and work to connect the lands of the George Washington (VA & WV), Jefferson (VA, WV, & KY), Monongahela (WV), Daniel Boone (KY), Pisgah (NC), Nantahela (NC), Cherokee (TN), Sumter (SC), Chattahoochee (GA), and Talladega (AL) National Forests (totaling ca. 6.7M acres), plus the Shenandoah (VA), Cumberland Gap (VA, KY), New River Gorge (WV), and Great Smoky Mountains National Parks, the Big South Fork NRA (KY, TN), and the Blue Ridge Parkway (totaling an additional 1M acres). The globally renowned Appalachian Trail passes through and connects many of these lands.

There are around two million acres of unroaded or roadless areas in these Appalachian NFs ("Mountain Treasures" - MT) that have already been identified by conservationists (plus more on WV's Monongahela NF): see the "Mountain Treasure" booklets for VA, NC, SC, TN, and GA published by The Wilderness Society. The Treasures are unroaded NF areas with an average size > 5000 acres. These precious habitats are at present open to various levels and types of development and extraction such as logging and road building. Unfortunately, and unreasonably, the FS refuses to recognize most of the identified Mountain Treasures as officially "inventoried roadless areas". The FS can and should immediately formally recognize/inventory all these Mountain Treasure areas as "roadless areas" and/or "potential wilderness areas" and manage them as such — i.e., maintain their intact wilderness character.

Photo by Steven Krichbaum

Tragically, this is exactly what the FS is currently not doing. During project-level planning and analyses the FS typically fails to honestly and fairly consider concerns about harms to the characteristics of these MT areas, such as impacts to the undisturbed, interior sections. For example, just recently on the GWNF the Sandy Timber Sale includes logging in the Great North Mountain and Big Schloss Virginia MTs; the Potts Creek project includes logging and burning of the Toms Knob VMT (also identified by the FS as the Potts Mountain Potential Wilderness Area); the North Shenandoah Mountain timber sale includes logging and/or burning in the Little Cow Knob, Dunkle Knob, Hogpen Mountain, Beech Lick Knob, and Kretchie Mountain MTs; and for the Archer Knob timber sale over a thousand acres of cutting plus road building are proposed for the Archer Knob and Elliot Knob MTs (see related article on page 7).

There are more timber sales devastating Appalachian MTs; these named here are just for the past few years on just one National Forest. Many other projects have been significantly reducing roadless/unroaded acreage and degrading/diminishing the ecological integrity, wildlife populations, untrammeled character, naturalness, scenery, remoteness, opportunities for solitude, and non-motorized recreation associated with Appalachian MTs. That the FS improperly refuses to recognize and inventory many of these areas as official "roadless areas" does not make the harmful on-the-ground impacts go away.

One of the reasons that it is imperative that these areas be strictly protected is because we have lost so many unroaded tracts elsewhere. The FS has been destroying America from within by an ongoing onslaught of logging and road building make-work projects to subsidize the agency's timber industry puppet masters, for job security, and for the agency's self-serving economic interests. Remember the first rule of any bureaucracy: Increase Thy Budget. The result is a severely fragmented and degraded National Forest system throughout the country.

Zero percent of the Chippewa NF (MN) and Wayne NF (OH) were identified by the FS as an "inventoried roadless area" (IRA). Less than half a percent of the Mississippi NFs, the Daniel Boone NF (KY), the Huron-Manistee NF (MI) and the Ottawa NF (MI) were identified by the FS as IRAs. Less than one percent (0.9%) of the Hiawatha NF (MI) was identified by the FS as an IRA.

The importance of roadless areas was documented for both small (1,000-5,000 acres) and large (>5,000 acres) roadless areas in the 2000 USDA FS Roadless Area Final Environmental Impact Statement (FEIS). That FEIS contained an Alternative 4 that would "Prohibit road construction, reconstruction and all timber cutting within Inventoried Roadless Areas" [6 at pg. ES-3]. This option can and should be administratively implemented and expanded to all unroaded tracts or roadless blocks. This action needs to be implemented right now nationwide and expanded to include ALL roadless areas/unroaded tracts/roadless blocks at least c.a. 1000 acres in size on all NFs and BLM lands. This is the size (≥ 1000 acres) used by the FS for the Forest Plan revision on the Wayne National Forest in Ohio to identify "roadless blocks" for analysis as "Potential Wilderness Areas".

More than the Northern Rockies or the Central/Southern Appalachians

Connected and protected networks such as those implemented by the AEPA are particularly important and needed in the East. Although generally without the bigger expanses of relatively undeveloped land as found in the West, it is in the East where much of America's biodiversity is still found [9]. So, in addition to the other ecological, economic, social, and climate benefits, because of the East's sheer richness of species and ecosystem types, it is crucial that we establish interconnected networks of truly protected lands here.

Multi-scalar connectivity is necessary to address the multi-scalar fragmentation of forests and habitats across America. Connectivity must take place within lands such as NFs as well as between the different NFs. This national connectivity web would become international, with US networks/lands connected with those in Canada and Mexico, such as the Yellowstone to Yukon initiative. Achieving this will entail a new mission for the FS and other government agencies.

These missions should become the primary objectives of the Forest Service throughout the US:

1) Managing the public, national forest acres as ecological reserves for preservation of ecological and cultural affordances, maximum carbon sequestration, and primitive recreation;

2) Providing technical assistance and coordinating financial aid to private landholders to reforest land and practice sustainable, ecological forestry when maintaining their forests; e.g., performing ecological surveys on private lands to identify rare and sensitive species and habitats where logging would be avoided/mitigated;

3) Providing clear leadership and assistance for Americans to greatly expand our reuse/reduce/recycle actions.

Management change and direction such as entailed in the NREPA or an AEPA needs to be initiated throughout the country for *all* the National Forests and BLM lands. NREPA/AEPA/NFPRA-style management fights climate change, protects our environment, creates jobs, and saves taxpayers billions of dollars in logging subsidies and road costs. It's time to end the piecemeal approach and for the USFS and USDI to start to systematically deal with all this potential at a cross-Forest, cross-agency, cross-jurisdiction (local, state, federal, and private), and inter-state manner.

What was once a "radical" proposal in the pages of the *Earth First! Journal*, viz., a connected network of protected cores and corridors, is now implemented as state policy in Florida. Times change and now is the time for America to follow the examples of Florida and New York (their "forever wild" Adirondack Park) and make this happen nationwide. Instead of tax breaks for billionaires, tax incentives can be emplaced for small private landholders to be part of the corridor-stepping stone connective web.

There are private/public initiatives currently ongoing all over the country of people striving to to protect wildlands and make these connections happen; regarding these local and regional efforts at retaining, restoring, and reconnecting, see Rescuing the Planet: Protecting half the land to heal the planet by Tony Hiss (2021). Also see Song of the Dodo: Island biogeography in an age of extinction by David Quammen (1996), Half Earth by E.O. Wilson (2015), and The Power of Trees: How ancient forests can save us if we let them by Peter Wohlleben (2023) for some of the scientific, social, ethical, and economic rationale behind these efforts.

A Question of Values

There is nothing to stop the ProForestation Initiative, the AEPA, and nationwide R-C-I networks from happening — nothing except what's happening in that narrow little space between our ears. We just need to change our way of thinking. And thinking will make it so. Americans can do this — there's no physical law or force like gravity to stop us. Americans often portray themselves as "exceptional" and global leaders. It is time for us to show the world that we are indeed conservation leaders. If any country in the world has the financial, intellectual, and technological resources to accomplish this vision, it is us.

This proposal is not something new and anomalous, ideas such as the AEPA have been around for awhile [see citations 24-27]; in fact, a hundred years ago Benton MacKaye, the envisioner of the Appalachian Trail, wrote of protecting a regional system of wilderness reserves totaling 28 million acres of Appalachian countryside. The AEPA is radical in the truest sense of the word: getting to the

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root of a problem, not simply treating a localized symptom. And with the mounting perils to life brought about by the three intertwined crises — extinction/extermination wrought by ecological meltdown and direct destruction/alteration of habitat, climate change, and pollution — this action is needed now more than ever. The problems are big and systemic, and our response must be as well — we, the Earth, and Creation can not afford puny thoughts and timid little actions at this point in time. We must think BIG and think CONNECTED.

In addition to the three crises that are now finally getting public attention, I would add a fourth that is just as pernicious: the crisis in ethics/morals. Death and destruction are in a sense the background radiation of our industrial growth society. There have always been twisted purveyors of wanton death and cruelty, but the degree that it is now mainstreamed is deeply perturbing. For example, look at the diabolical atrocities happening out in Idaho and Montana and some other states, where things like killing mother bears and their cubs in their dens, gunning down wolves from helicopters, and slaughtering bison when they step across the imaginary National Park boundary have been legalized and presented as “traditional hunting”.

The AEPA and ProForest Initiative, and other similar legislation that fundamentally improve the management of our public lands, positively address this crisis in our ethical/moral relationship with the Creation simultaneously with the three other concerns. The disinformative labels used by the FS and other agencies — restoration, wildlife habitat improvement, fuels reduction, harvest — are not just misleading euphemisms for intensive logging. These euphonious appellations are indeed phony, since they gloss over and totally fail to acknowledge the dire and catastrophic impacts of the Godzilla-like machinery and actions upon those who are the least among us. The on-the-ground reality of current National Forest management is the mass slaughter of incomprehensible numbers of small creatures, common and rare, that cannot run away or fly away from harm. Aside from having their homes and food destroyed, countless harmless and vulnerable salamanders, toads, turtles, snakes, lizards, nestling birds, small mammals, snails, slugs, and other flightless invertebrates are being obliviated beneath the wheels and treads of heavy equipment and burned alive in prescribed fires.

This callous cruelty is avoidable and unnecessary. As these fundamentally violent assaults are taking place day-in and day-out across the landscape, life on planet Earth is crying out for sanctuaries of safety. The AEPA, ProForest Initiative, and other similar legislation would significantly accomplish a real pro-life relationship. Such management of our public lands is part of the much-needed manifestation of a true reverence for life, a societal benefit just as important as all the other ecologic, economic, and social benefits.

Of course, with regard to implementing the AEPA and similar legislation, the question inevitably arises: Can we afford it? Yes, the money is out there. We simply have to make decisions about an underlying premise: What are our priorities? Freedom of choice is what we got. Anybody with a shred of self-respect has a clear decision to make: Whose side am I on? Are you on the side of life, or death? Are you with the forests, the bears, the turtles, the streams, liberty, all of creation — Life Itself — or on the side of arrogance, money, greed, and domination?

Do we care enough about life here on Earth or don’t we? Not just respect and gratitude for all the plants, animals, fungi, and lands, but reverence and awe for all these kindred spirits. With this in mind, the real question is: Can we afford not to do it? If we care, the answer rings loud and clear: NO! This isn’t about preserving “the treasures of western civilization”. It’s a lot bigger than that: The treasures of Life and Creation. Because as I once heard a venerable slug proclaim, “I’m connected to everything!”

Steven Krichbaum, PhD, a herpetologist and conservation biologist who lives in VA, has worked with grassroots groups for over 30 years seeking protection of wildlife and public lands. He’s never met a turtle he didn’t like.

A giant hemlock among friends on Shenandoah Mountain in the George Washington National Forest in Virginia. Photo by Steven Krichbaum

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