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ENERGY ISSUES DOMINATE E-COUNCIL'S LEGISLATIVE AGENDA

By Donald S. Garvin, Jr., West Virginia Environmental Council Legislative Coordinator

The West Virginia Environmental Council has adopted a list of legislative priorities for the 2010 session of the West Virginia session there were three bills that would require – in one fashion or Legislature that will focus primarily on problems arising from energy another – that new state buildings be built to the Silver certification development and use in the state.

For the most part, WVEC's legislative agenda represents a continuation of priorities and campaigns from previous years. And most of the energy issues are elements of WVEC's Citizens' Energy Plan effort http://www.wvecouncil.org/issues/renewable energy/WVEC Citizen Energy Plan 2008.pdf).

In an effort to address climate change and greenhouse gases, and reduce West Virginia's carbon footprint, West Virginia Environmental Council will support two bills.

The first is the West Virginia Energy Efficiency Act (last session's bill number was HB 2980). This

bill includes a revenue sharing mechanism for utilities so that if the company can lower a consumer's bill through reduced energy consumption then the utility can generate a higher profit rate. The bill mandates that utilities submit a plan to the WV Public Service Commission (PSC) to reduce (per capita) energy consumption by 15% by 2015.

The second is the West Virginia Green Buildings Act. Last

level of "green" standards under the LEED's certification program. This means the buildings must earn at least 33 out of 69 possible points based on six criteria: sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovation and design

WVEC will also continue to support a Public Service Commission Siting Reforms Bill (last session's bill number was HB 2887). This bill was drafted in response to inadequacies in the TrAILCo transmission line siting process. The bill would require utilities to disclose both the direct and indirect environmental

impacts of proposed transmission lines. This legislation requires companies to analyze other alternatives, such as energy efficiency, as a means to avoid reliability problems on the grid. It would require transmission companies to give written notice to any affected landowner when an application is filed with the PSC and it would prohibit any new lines within five miles of designated scenic

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From the Heart of the Highlands

By Hugh Rogers

Shavers Fork Saved?

There's an old baseball saying: you got to play every inning. The same goes for extra innings. Last month, the underdog defenders of the Shavers Fork of Cheat made the most of an extra inning.

J.F. Allen Company, which wants to put a quarry in the water gap east of Elkins that's a center for fishing and tourism, had been granted all its permits. The game had seemed to be over in April 2007, when the parties had finally agreed on how much iron and aluminum the Pond Lick quarry would be allowed to discharge into the river.

A year later, the company reneged. It said the limits on those pollutants were not "economically achievable" (there are reasons to believe it had anticipated this move before the permit was granted). The Department of Environmental Protection (DEP) went along, approving new limits—to the maximum extent the river could theoretically assimilate—in what it conceded was a major modification of the permit.

Once again, the citizen groups appealed to the Environmental Quality Board (EQB). This time, Shavers Fork Coalition and Bowden-Faulkner Citizens Protective Response were joined by the Mountaineer Chapter of Trout Unlimited.

In a stunning turnabout, on November 12 the EQB revoked the modifications after hearing testimony from one scientific witness.

It was the second time the DEP had based this permit on insufficient data. Back in 2005, the original appellants had challenged the agency's antidegradation review. How could it keep track of the health of the river if it had no baseline numbers? After six months of sampling, the parties came to the agreement noted above.

However, all of the water-quality information was collected from a tributary that would be affected by the quarrying. What about the Shavers Fork? At the November hearing, Evan Hansen, the appellants' water expert, testified that he had combed through the DEP's records. He had found a single data point from 2001.

That's it? The board members were appalled. They couldn't guarantee the safety of the river on the basis of one bit of data. Neither the agency nor the company could offer any refutation. The DEP lawyer said, "We made the best decision we could with the available data."

Seeing no need to consider other issues that had been raised by the appellants, the board took the unusual step of revoking the modification on the spot.

It must be said that the company preferred the quick coup de grace to a lingering death. Instead of waiting for a transcript, further argument, and a written opinion from the board, the company may begin collecting the required data or taking other steps—even appealing the board's order, if it imagines that a court would disagree with the necessity for data.

Has the company boxed itself in? In its request for modification it claimed it couldn't meet the original permit limits. Those limits have now been restored. On the other hand, it might decide to spend the money for the necessary treatment. Perhaps its economic assumptions were wide of the mark. Perhaps the "radical or unfamiliar treatment technology" cited in its request will become familiar after all.

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COURT ORDERS CORPS OF ENGNEERS TO RECONSIDER MOUNTAINTOP REMOVAL PERMITS

The U.S. District Court for the Southern District of West Virginia scolded the U.S. Army Corps of Engineers Tuesday for having issued two permits for mountaintop removal coal mining that did not follow public notification laws, a decision that could lead to the resubmission of hundreds of permits for new mining across Appalachia. The Ohio Valley Environmental Coalition (OVEC), the Sierra Club, the West Virginia Highlands Conservancy and Coal River Mountain Watch brought the challenge against the U.S. Army Corps of Engineers in Huntington, West Virginia and praised the ruling.

The mining companies in both cases had included plans for what is known as "mitigation", measures taken to compensate for the environmental degradation caused by the mine. These mitigation measures—and the Corps of Engineers' evaluation of them—had not been a part of the public record at the time when the public was given the opportunity to comment upon the application. Because of this, the public was given an incomplete application upon which

to comment. The Court ruled that the notices of the opportunity to comment failed to provide the public an adequate opportunity to comment. The failure to subject any substantive information on mitigation to public review and comment had the effect of shielding the essential data and the agency's rationale from public hearing and comment. The Court ruled that this violatead the Clean Water Act.

The decision by U.S. District Judge Robert C. Chambers involves two mines: the Nellis mine in Boone County, West Virginia, operated by Loadout, LLC, and the Ike Fork Mine in Clay County, WV, operated by Fola Coal Company, LLC, a subsidiary of Consol Energy. Although significant mining has already occurred at the Ike Fork mine, Judge Chambers instructed the Army Corps to reissue the amended notice for the permits, respond to public comments, and reconsider the issuance of the permits.

OFFICE OF SURFACE MINING ANNOUNCES PLANS TO IMPROVE OVERSIGHT—WANTS TO KNOW WHAT WE THINK

The federal Office of Surface Mining has announced a number of proposed actions which it hopes will improve its performance. Under the federal Surface Coal Mining and Reclamation Act, states have primary responsibility for enforcing laws on strip mining. The federal Office of Surface Mining is supposed to monitor how states are doing. The Office of Surface Mining hopes these new policies will make it more effective in doing that job.

Under the actions it is considering, the Office of Surface Mining would, for the first time since coal-producing states assumed responsibility for their regulatory programs, conduct independent inspections of operators with state-issued surface coal mining permits. OSM would also conduct more oversight inspections, place greater emphasis on reducing the off-site impacts of mining, and review more state-issued surface coal mining permits and state permitting processes in an effort to improve state permitting decisions. The new

OSM oversight and enforcement policy would also include revised guidelines for conducting oversight inspections.

In a November 16, 2009, press release Office of Surface Mining director Joe Pizarchik said, "Through tougher oversight and stronger enforcement of SMCRA, we are putting all hands on deck to ensure that Appalachian communities are protected,"

The public has an opportunity to review and comment on the proposed oversight and enforcement policy. You may see them at (http://www.osmre.gov/topic/ Oversight/ SCM/SCM.shtm). The preferred method for submitting comments is via e-mail to Oversight@osmre.gov. Comments may also be mailed to: Administrative Record (MS 252 SIB), Office of Surface Mining Reclamation and Enforcement, 1951 Constitution Avenue, NW, Washington, DC, 20240. The deadline for comments is December 18, 2009.

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The Highlands Voice is always printed on recycled paper. Our printer uses 100% post consumer recycled paper when available.

The West Virginia Highlands Conservancy web page is www. wvhighlands.org.

The West Virginia Highlands Conservancy is a non-profit corporation which has been recognized as a tax exempt organization by the Internal Revenue Service. Its bylaws describe its purpose:

The purposes of the Conservancy shall be to promote, encourage, and work for the conservation—including both preservation and wise use—and appreciation of the natural resources of West Virginia and the Nation, and especially of the Highlands Region of West Virginia, for the cultural, social, educational, physical, health, spiritual, and economic benefit of present and future generations of West Virginians and Americans.

PATH Case Delayed for 8 Months

SPEED BUMP IN THE PATH

By Frank Young

The West Virginia Public Service Commission (PSC) has delayed the procedural schedule for the PATH electrical power transmission line case by eight months.

Over the past several weeks, several parties, including the WV Highlands Conservancy and the PSC's own staff, had asked the PSC to dismiss the PATH application as incomplete because a similar application for the Maryland segment of the PATH line had been dismissed by the Maryland PSC.

In the alternative, the several parties had suggested that, if the WV PSC did not dismiss the PATH application, that it delay the procedural schedule until such time as the PATH companies file a new application in Maryland for the PATH segment there.

The original procedural schedule would have had the PSC ruling on the PATH application by June, 2010. The new schedule pushes the final PATH ruling date back to February, 2011.

The new procedural schedule is as follows:

Discovery reopens on issues of electrical need- Monday, February 1, 2010.

Applicants file supplemental testimony on issue of electrical need and any other issues requiring supplementation. Noon, Tuesday, June 29, 2010

Deadline for propounding discovery on supplemental testimony due June 29, 2010- Noon, Tuesday, July 13, 2010.

Staffs and Intervenors' prepared direct testimony and rebuttal to the direct testimony of Applicants- Noon, Tuesday, August 31, 2010.

Deadline for propounding discovery in response to testimony due August 31, 2010- Noon, Tuesday, September 7, 2010.

Applicants' rebuttal testimony to the direct testimony for Staff and Intervenors, and Staff and Intervenor rebuttal testimony to the direct testimony of one another- Noon, Tuesday, September 28, 2010.

. Deadline for propounding discovery in response to the rebuttal testimony due September 28, 2010- Noon, Tuesday, October 5, 2010.

Written opening statements for evidentiary hearing- Noon, Thursday, October 14, 2010.

Evidentiary hearing begins- Monday, October 18, 2010.

Evidentiary hearing ends- Tuesday, November 2, 2010.

Initial briefs and proposed orders- Noon, Tuesday, November 30, 2010.

Reply briefs- Noon, Thursday, December 16, 2010.

Deadline for Commission decision- Thursday, February 24, 2011.

Stay tuned to the Highlands Voice for further PATH power transmission line information.

LAWSUIT FILED TO RESTORE ENDANGERED SPECIES PROTECTIONS TO THE WEST VIRGINIA FLYING SQUIRREL

On November 12, 2009, Friends of Blackwater, The Wilderness Society, the Center for Biological Diversity, WildSouth, and the Southern Appalachian Forest Coalition filed suit in federal court in Washington, D.C., seeking to overturn a Bush-administration decision stripping the West Virginia northern flying squirrel of protection under the Endangered Species Act. The case has been assigned to Judge Emmet G. Sullivan, who is currently presiding over a case involving endangered elephants.

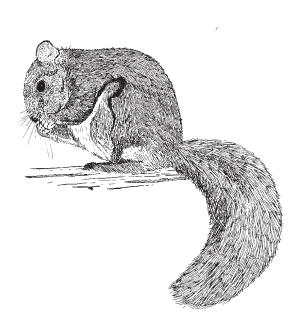
Friends of Blackwater Director Judy Rodd said, "We're going to bat for the West Virginia northern flying squirrel who should never have lost federal protection. The decision to take the flying squirrel off the endangered species list was a political move, to allow more destruction of the squirrel's forest habitat for timbering, energy extraction, and development."

The U.S. Fish and Wildlife Service first placed the West Virginia northern flying squirrel on the endangered species list as an endangered species on July 1, 1985. At the time, the threats identified included: species rarity; habitat loss; human disturbance; and competition with, and transfer of, a lethal parasite from the more common southern flying squirrel.

In 1990, the Fish and Wildlife Service did a recovery plan covering both the West Virginia northern flying squirrel. It now says that the recovery plan has been sufficiently successful that the squirrel can be removed from the list. The squirrel will, however, have to continue to survive as best it can without the special protections available to species which are on the endangered species list.

Last year, the Fish and Wildlife Service took the West Virginia northern flying squirrel off the endangered species list (In the jargon of the agency, it "de-listed" the squirrel.). This is the decision that the plaintiffs seek to reverse.

If the litigation is successful, the squirrel will go back on the list. If it is not, the Fish and Wildlife Service will monitor the squirrel for the next ten years. If it begins to decline, the Service would consider putting it back on the list of endangered species.



CARROLL JETT, HUMBLE FRIEND TO ALL, DIES OF CANCER

By Frank Young

West Virginia has lost one of its great environmentalists. Sunday, November 8, Carroll Jett, 61, of Jackson County, WV, died at home after battling pancreatic cancer. In his final hours he was surrounded by many family and friends.

Carroll Jett believed in recycling. Thirteen years ago, he helped start the still growing Jackson County recycling program. In the spirit of continued recycling, he donated his body to medical research.

Carroll started his life's journey on July 13, 1948. He was born in Sissonville, WV to parents, Vaughn Jett and Bessie (Patton) Jett.

In this life, Carroll was a dedicated West Virginian, a humble public servant; an indelible advocate for environmental protections; a devoted fan and booster of Ravenswood Red Devil sports; a committed volunteer at the Jackson County No Hunger food pantry; a man who gave neighbors, strangers, friends, and family an active ear and a sincere voice.

Carroll was a special person who had a positive effect on a lot of people, even those with whom he disagreed philosophically. He loved to talk politics and was relentless in his point of view, but in it all, he remained a gentleman. He could disagree without being disagreeable.

For more than a dozen years he was on the board of directors of the WV Highlands Conservancy, including serving as WVHC's Vice-President for State Affairs. Carroll was an original founder of the WV Environmental Council.

Both as a candidate for public office and as a tireless campaign aide to other candidates, Carroll left his mark on West Virginia politics. Having once sued the West Virginia Secretary of State for ballot access for a new political party, his works were part of the political foundation of what eventually became the first new political party

in West Virginia in more than 75 years- the Mountain Party of West Virginia.

In 1992 Carroll retired from the West Virginia State Police after more than 20 years of service. He loved the outdoors and spent his free-time camping, hiking, gardening, and stargazing. He also enjoyed reading books to his granddaughter.



Carroll is survived by his wife of 32 years, Holly (Cave) Jett, his sons Vaughn

of Chapel Hill, NC, Brad of San Francisco, CA, Bruce and Brian, both of Ravenswood, his daughter Sara Beth and son-in-law Paul Montgomery of Grundy VA, his granddaughter Lillie Jett of Parkersburg, and his brother Clifford and sister-in-law Doris Jett of Sissonville, WV.

Carroll's family invites you to share in the celebration of his life at 2 p.m. on Sunday, December 20, at the Ravenswood Church of the Nazarene.

If you don't already recycle, start today and honor Carroll's memory.

The family suggests that donations in Carroll's memory may be made to the WV Highlands Conservancy, or to Hospice Care WV 1606 Kanawha Blvd. W., Charleston, WV 25312; or to The Pancreatic Cancer Action Network at http://www.firstgiving.com/carrolliett.

Just as he embraced everyone, we embrace Carroll in our hearts. It was a true privilege to know him. Thank you for being a part of our lives, Carroll. We will dearly miss you.





BUMPER STICKERS

To get free *I* ♥ *Mountains* bumper sticker(s), send a SASE to Julian Martin, 1525 Hampton Road, Charleston, WV 25314. Slip a dollar donation (or more) in with the SASE and get 2 bumper stickers. Businesses or organizations wishing to provide bumper stickers to their customers/members may have them free. (Of course if they can afford a donation that will be gratefully accepted.)

Also available are the new green-on-white oval *Friends of the Mountains* stickers. Let Julian know which (or both) you want.

OFFICE OF SURFACE MINING RECONSIDERING **BUFFER ZONE RULE**

at the stream buffer zone rule that has been the center of such controversy in recent years.

Generally, the buffer zone rule - approved in its current form in 1983 - prohibited mining within 100 feet of streams. Coal operators could obtain waivers, but to do so they had to show that their operations will not cause water quality violations or "adversely affect the water quantity and quality, or other environmental resources of the stream." The Office of Surface Mining wrote the buffer zone rule to implement a congressional mandate in the 1977 strip mine law that the agency "minimize the disturbances to the prevailing hydrologic balance at the mine site and in associated offsite areas and to the quality and quantity of water in surface and groundwater systems both during and after surface mining operations and during reclamation."

Although there has been a stream buffer zone rule since 1977, interest in the rule intensified with widespread mountaintop removal mining in the 1990s. While there had always been filling of streams, the strip mine operations were much smaller and the filling was not as extensive as it is today. A government study published in 2003 found that mine operators had buried 724 miles of Appalachian streams between 1985 and 2001.

Many (including the West Virginia Highlands Conservancy) had always believed that the rule would prohibit filling streams. The federal Office of Surface Mining and various state mining agencies allowed these fills by interpreting the buffer zone rule to not apply to the mining waste piles.

In 1999, then-U.S. District Judge Charles H. Haden II concluded that the rule did apply to valley fills, a decision Haden said prohibited all fills in perennial and intermittent streams.

On appeal, the United States Court of Appeals for the Fourth Circuit decided that Judge Haden did not have jurisdiction. While it did not say that the decision on the interpretation of the rule was incorrect, it overturned that decision on jurisdictional grounds. But the Clinton administration eventually adopted Judge Haden's view of the buffer zone, and once George W. Bush took office, federal regulators and the coal industry pushed to rewrite the rule.

The Bush administration did propose to rewrite the rule. There were public hearings, public comments, etc. but in December, 2008, the Office of Surface Mining finally adopted a new rule. The 2008 rule allows a surface coal mine operator to place excess material excavated by the operation into streams if the operator can show it is not reasonably possible to avoid doing so. The new rule effectively eliminated the buffer zone rule which had been in effect (if never fully enforced) since 1983.

Litigation followed. During the litigation, the Department of the Interior (of which the Office of Surface Mining is a part) asked that the December, 2008, rule be vacated. Granting such a request would have reinstated the 1983 rule. The court ruled that the Office of Surface Mining could not simply reinstate the 1983 without following standard rulemaking procedures.

Now the Office of Surface Mining is doing that. It has published an "Advance notice of proposed rulemaking; notice of intent to prepare a supplemental environmental impact statement

The federal Office of Surface Mining is taking another look (SEIS)." In its notice it said, "We have determined that revision of the stream buffer zone (SBZ) rule published on December 12, 2008, is necessary to implement the interagency action plan that the Administration has developed to significantly reduce the harmful environmental consequences of surface coal mining operations in Appalachia, while ensuring that future mining remains consistent with Federal law."

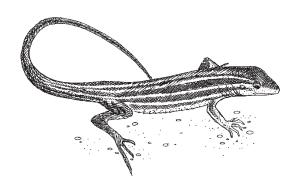
> In a press release announcing that it intended to revise the rule, Assistant Secretary of the Interior for Land and Minerals Management Wilma Lewis said, "America's vast coal resources are a vital component of our energy future and our economy, but we have a responsibility to ensure that development is done in a way that protects public health and safety and the environment. We are moving as quickly as possible under the law to gather public input for a new rule, based on sound science, that will govern how companies handle fill removed from mountaintop coal seams. Until we put a new rule in place, we will work to provide certainty to coal operations and the communities that depend on coal for their livelihood, strengthen our oversight and inspections, and coordinate with other federal agencies to better protect streams and water quality."

> The notice of proposed rulemaking has a discussion of the history of the rule and the justification for revising the December, 2008, version.

> The public may now comment on the proposal to revise the rules. There are no proposed revisions yet. Those will come after the Office of Surface Mining has studied the matter and prepared a Supplemental Environmental Impact Statement. Now the public is only being asked to suggest how the rules should be changed and things that should be considered in the Supplemental Environmental Impact Statement.

> To review the proposed rulemaking go to the Federal e-Rulemaking Portal at www.regulations.gov. and look for Docket ID: OSM-2009-0009.

> of Legacy hope for the future Leave Remember the Highlands Conservancy in your will. Plan now to provide a wild and wonderful future for your children and future generations. Bequests keep our organization strong and will allow your voice to continue to be heard. Your thoughtful planning now will allow us to continue our work to protect wilderness, wildlife, clean air and water and our way of life.



THE END GAME FOR THE SODS AND THE PLAINS AS WE KNOW THEM

By Bruce Sundquist

Having visited the Sods and the Plains since the late 1960s, I keep trying to identify the changes in these areas as they continue to evolve from the days of logging and soil-burning fires. Some changes are clear and predictable. A large area of saplings that I camped beside on the Roaring Plains in the early 1970s is now impressive open woodland of sizeable oaks.

But lots of changes are subtler. I still can't tell how the battle for sunlight is affecting the ratio of spruce to hardwoods. I suspect it depends on altitude - perhaps also changes in global mean surface

temperature. As soil builds up on the rock, woodlands keep invading open plains at ever-increasing rates. As trees grow more numerous the new trees get more protection and start looking healthier and less three-sided. Also they grow faster, and there are more spruce growing faster, creating soil even faster.

It used to be that young spruce were found almost entirely around the peripheries of spruce groves. They still grow there, but now, to a greater degree, you see healthy-looking spruce a few feet high popping up in the open plains 30-40 yards away from the nearest spruce grove. Also there are more large healthy looking

spruce growing far from any protection from the wind. Some spruce groves that I used to find impenetrable I can now work my way through with only a little difficulty. Could the climb to the top of Mt. Porte Crayon become a leisurely stroll?

Spruce now appear to be increasing their diameter by about 4 inches per year where sunlight hits the base of the tree. That's over three feet per decade. The number of spruce growing per unit area is also increasing. Some of the spectacular views of Canaan Valley from the high rock outcrops on Cabin Mountain are starting to be blocked by spruce tops. So one has to wonder how long the Sods and the Plains can be expected to last as spectacular places to visit that we know today.

For a preview, walk east from the crossing of Left Fork on Blackbird Knob Trail. You quickly encounter a long, dark tunnel created by spruce trees. How far would anyone be willing to drive to be able to walk through mile after mile of dark, spruce-lined tunnels? And who would maintain these tunnels and keep them from vanishing? And why? Breathed Mountain Trail was more impressive a decade or so ago. I no longer go there. In fact, I no longer go lower

in elevation than the Forks of Red Creek, because the bulk of the open areas are at higher elevations.

On Allegheny National Forest (ANF) in northern Pennsylvania, large, fascinating bogs were created by logging. This is because trees used to transpire water fast enough to prevent bog formation. Logging reduced transpiration rates, creating bogs where water tables prevented tree growth. Now the reverse is happening. More trees and bigger trees mean larger transpiration rates, meaning shrinking bogs. The same process is probably occurring on the

> Sods and the Plains of the MNF. Could Dobbins Slashings Bog have the same beginning and end?

> My favorite campsite on Dolly Sods North is on the top of Raven Ridge. It offers some of the best star-gazing anywhere. Light pollution is essentially zero. On a clear moonlit night one can enjoy a vast stillness between a long stretch of Allegheny Front to the east and a considerable length of Cabin Mountain to the West. It will cause you to pause for quite some time. These attractions should be gone in another decade or

two.

Other processes are going on. The climax forest for the ANF is predicted to be a mix of beech and hemlock. (I don't know what it is for the MNF.) With global mean surface temperature increasing, one should probably scratch the hemlock. Magnolias are found on the ANF. In the western US, the old-growth forests have far bigger trees than on the MNF. Yet they remain popular for hikers. But that is long after the period of dense, ground-level tree branches producing dark tunnels. So perhaps after a half-century of long, dark, sprucelined tunnels, things will change for hikers, though the number of spectacular views will diminish - unless some hiker gets careless with matches in a period of extreme dryness - like increasing global mean surface temperatures are creating in the western US.

Observations and critiques of other outdoors folks on any of the above topics would be appreciated. Note that I am not advocating doing anything about the evolutionary processes outlined above. I just want to point out that the Sods and the Plains, as we know them today, are far from permanent. Those of us who have visited the area since the mid-1960s already know this. Others of you might

Voice Available Electronically

The Highlands Voice is now available for electronic delivery. You may, of course, continue to receive the paper copy. Unless you request otherwise, you will continue to receive it in paper form. If, however, you would prefer to receive it electronically instead of the paper copy please contact Beth Little at blittle@citynet.net. Electronic copies arrive as e-mail attachments a few days before the paper copy would have arrived.

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GREAT HISTORY BOOK NOW AVAILABLE

For the first time, a comprehensive history of West Virginia's most influential activist environmental organization. Author Dave Elkinton, the Conservancy's third president, and a twenty-year board member, not only traces the major issues that have occupied the Conservancy's energy, but profiles more than twenty of its volunteer leaders.

Learn about how the Conservancy stopped road building in Otter Creek, how a Corps of Engineers wetland permit denial

saved Canaan Valley, and why Judge Haden restricted mountaintop removal mining. Also read Sayre Rodman's account of the first running of the Gauley, how college students helped save the Cranberry Wilderness, and why the highlands are under threat as never before.

With a foreword by former congressman Ken Hechler, the book's chapters follow the battle for wilderness preservation, efforts to stop many proposed dams and protect free-flowing rivers, the 25-year struggle to save the Canaan Valley, how the Corridor H highway was successfully re-routed around key environmental landmarks, and concluding with the current controversy over wind farm development. One-third of the text tells the story of the Conservancy's never-ending fight to control the abuses of coal mining, especially mountaintop removal mining. The final chapter examines what makes this small, volunteer-driven organization so successful.

From the cover by photographer Jonathan Jessup to the 48page index, this book will appeal both to Conservancy members and friends and to anyone interested in the story of how West Virginia's mountains have been protected against the forces of over-development, mismanagement by government, and even greed.

518 pages, 6x9, color cover, published by Pocahontas Press To order your copy for \$24.95, plus \$3.00 shipping, visit the Conservancy's website, wvhighlands.org, where payment is accepted by credit card and PayPal.

Or write: WVHC, PO Box 306, Charleston, WV 25321. Proceeds support the Conservancy's ongoing environmental projects.

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Although Fighting to Protect the Highlands, the First 40 Years of the West Virginia Highlands Conservancy normally sells for \$24.95, we are offering it as a premium to our members. Anyone who adds \$10 to the membership dues listed on the How to

Join membership form (right up there) will receive the history book for free. Just note on the membership form that you wish to take advantage of this offer.

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Why Camp Allegheny Matters

By Dawn Baldwin

Camp Allegheny, located near the Virginia state line in Pocahontas County, WV, is widely regarded as one of the most wellpreserved and beautiful Civil War Battlefields in the nation.

I have spent most of the past three months working to bring the historical, archaeological and physical facts about Camp Allegheny to the attention of the Virginia Department of Historic Resources and the Virginia State Corporation Commission (SCC). I've enlisted letter writers from across West Virginia and the nation to educate Virginia officials regarding the location, significance, and rare beauty of this hallowed ground.

This is not what I planned on doing this Fall. I'm not aCivil War historian, archaeologist, or preservationist. I'm not an activist. But desperate times, as the saying goes, call for desperate measures. And when I found out that a Virginia wind developer had SCC approval to erect 400-foot-tall, nearly 300-foot-wide wind turbines adjacent to Camp Allegheny, I was compelled to do something about it.

How could Virginia approve an industrial development adjacent to a site

listed on the National Register of Historic owe our own. Places without a federal review process or any public input?

After years working in regulatory compliance, I knew that what was happening on the border of West Virginia and Virginia amounted to a denial of the regulatory process. A miscarriage of justice with implications far beyond Pocahontas and Highland counties. National Register sites belong to the citizens of the nation. We grant certain special places this status because we agree that there is something about them that's worth protecting and preserving. If elected and appointed government officials can simply withdraw such protection behind our backs-without citizen input-then, as practical matter, no place is sacred. Every place is open for business.

This is wrong.

We, all of us, know in our hearts that some places have value far greater than whatever short term profit might be extracted from them through their destruction. We, all of us, know in our hearts that some places transcend the limits of a single human life and in so doing connect us to history, to the flesh-and-blood lives of those to whom we

Camp Allegheny Battlefield is such a place. A place where one can stand in the wind-swept, empty silence, look out on row after row of mountain ridges and travel through time. Buffalo herds and Indian camp fires. Infant deaths and church socials. Musket blast and bugle call. Scythes and axes and train whistles. Cries of grief and shouts of laughter. Young Yeagers and Varners and Confederate soldiers playing together in the December snow.

The past is present here, and much more real than in any museum. Camp Allegheny matters because all such places matter.

If "We, The People" don't have a voice in saving Camp Allegheny, then all our sacred places are at risk.

A nation without such places is a nation lost.

For more information, photos, and updates, see

www.brightsideacres.com/Save Camp_Allegheny_Battlefield/

MORE ABOUT THE LEGISLATURE

(Continued from p. 1)

locations.

Another issue of high priority to the E-Council is the impact on human health caused by the injection of coal slurry into underground mine pools. The Department of Environmental Protection's own study (which can only be called superficial at this point) has shown contamination of nearby groundwater supplies from this process, and the agency has put in place a temporary moratorium on the issuance of new slurry injection permits.

Meanwhile, the Legislature is waiting for the Department of Health and Human Resources to complete its analysis of the health impacts from slurry injection and sludge impoundments. Coalfield residents who are suffering as a result of this practice cannot afford to wait - particularly when there is a cost-effective alternative disposal process. WVEC will continue to support the Sludge Safety Project in its efforts to enact legislation that would permanently ban the underground injection of coal slurry. You can read more about the Sludge Safety Project at http://www.sludgesafety.org/.

WVEC will also support comprehensive legislation to address the multitude of new environmental issues surrounding the drilling of Marcellus Shale natural gas wells. The increase in drilling in recent years has revealed serious deficiencies with the regulation of normal oil and gas well drilling in West Virginia. The drilling of wells to the Marcellus Shale formation takes these existing problems to a

new level. Marcellus wells use huge amounts of water to drill and "fracture" the gas formation, and in turn produce huge amounts of wastewater to dispose. DEP's Office of Oil and Gas has proposed some rule changes that would require the use of synthetic liners in drilling pits and establish construction standards for waste pits and water storage impoundments. But these rule changes do not go far enough. WVEC will support additional changes in the rule and additional legislation that will address: water withdrawal from rivers and streams, the content of "frac" fluids, and the disposal of wastewater.

WVEC will continue to support a Public Health Impact Assessment Bill. This legislation would require the Bureau of Public Health to provide the Legislature with an independent assessment of the public health impacts of DEP rules proposals to change water quality or air quality standards.

And finally, WVEC will ask the Legislature to adopt a resolution calling for an "accountability" of both the Department of Environmental Protection and the Public Service Commission.

Natural gas-drilling

"My environmental education continues..."

By Dan Berger

This past weekend I parked next to a large white pickup truck on one of the beautiful pull-offs along the North Fork River. The pickup had markings of an out-of-state natural gas drilling company and was owned by a very friendly and affable gentleman that was also trout fishing. And like many things that rattle around in my big ol' pumpkin-sized head, it got me a-thinkin'.

I believe we all know the benefits of signing gas leases: much-needed income for landowners, tax revenue, jobs for out-of-state drillers, roads built (and maintained) on large tracks of land, gas drillers staying and eating at local establishments, etc. But what are the potential downsides of natural gas drilling? I honestly didn't know, so I did some research (i.e., American Gas Association, Trout Unlimited and many news and business-related websites).

As many of you are aware, the vast majority of the natural gas deposits are in what is called the Marcellus Shale formation that runs through West Virginia, Ohio, Pennsylvania, and New York. To get to the gas deposits they do hydraulic "fracking," a drilling method where millions of gallons of water mixed with sand and chemicals are shot down a well under immense pressure, breaking apart the shale that allows the gas to escape so it can be pumped out. Ok, I get it. But what exactly are the chemicals they are shooting down into the ground?

Specifically, the chemicals are hydrochloric acid, petroleum-based lubricants, solvents, corrosion inhibitors, and microbe-killers. Now, as a lover of hunting and fishing and the great outdoors, that list of toxic stuff will make a person go "hmmmmm," won't it? Many of the hunting and conservation websites I looked at claim that these are the same carcinogenic chemicals found in Drano and other caustic household cleaners. Uh-oh.

The various gas drilling websites I researched said that most of the fracking fluids are recovered from the gas wells and stored in man-made ponds, then pumped into tanks and trucked to processing plants. And from what I can tell, many of the natural gas wells I have seen here in West Virginia are not drilled near drinking water sources. Thank goodness, unless of course you like the taste of Drano.

It appears natural gas drilling may be done safely, however local, state and federal officials, as well as the landowners that sell their minerals rights, must keep a close eye on everything. Let me be clear, I understand the economics of all this, especially after reading in The Patriot-News (a central PA newspaper) that landowners were getting \$5,000 an acre for their gas rights. Hell, even I would probably sign that deal.

But remember, not everything comes up green. As you all know, if it sounds too good to be true, it usually is. For instance, a couple weeks ago, The Patriot-News reported that in Susquehanna County a natural gas driller spilled 8,000 gallons of toxic chemicals into a creek killing all the fish and destroying a nearby wetland as well as the landowner's hay pasture. At a different location, the same gas driller was also cited for allowing chemicals to seep into nearby residential water wells, leaving the water unsafe to drink. Several fishing magazines report this type of water-well contamination from fracking has been cited hundreds of times out West, especially in Wyoming and Colorado. Yum!

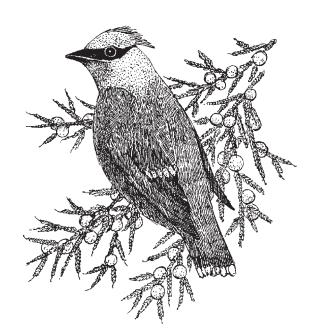
And Forbes magazine reports that hydraulic fracking operations blew up a house in southern Ohio from a buildup of methane, and the entire neighborhood was evacuated. Boom! In addition, the magazine states that just this year, at least ten cows died in Louisiana after drinking spilled fracking chemicals at a drilling site. That's an interesting way to marinate some beef, huh?

In many of the ranching and farming periodicals I researched, they discussed natural gas drillers not cleaning up after they leave a drilling site on farm land; leaving behind pipes, large metal parts, barrels, cans, boxes, plastic-sheeting, and piles of trash. Basically a junkyard.

And then lastly, there is the one remaining question: where do the natural gas drillers get the millions of gallons of water to mix with chemicals to blast into the wells throughout the Marcellus Shale basin? Answer: typically, they suck millions of gallons of water out of nearby rivers and streams or draw it out of local aquifers. Can't imagine that being good for fish and wildlife or local communities.

Just some things for all of us to think about before signing that gas lease. My friends, I warned you that things rattle around in my head when I'm fishing.

Dan Berger is a lifelong outdoorsman and conservationist and lives in Cabins. His past articles can be read at www.mtnriverhome.com.



Editor's Note: On the facing page there is a letter of thanks from the Canaan Valley Wildlife Refuge thanking The West Virginia Highlands Conservancy and, more specifically, Dave Saville for efforts to plant trees in the Refuge. For a full count of trees planted, not just in the Refuge but elsewhere, see the story on page 12 of this issue. The letter is also a handy explanation of why planting trees is important.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Canaan Valley National Wildlife Refuge HC 70 Box 200 Davis, WV 26260 304-866-3858 304-866-3852 (FAX)

Dave Saville West Virginia Highlands Conservancy PO Box 569 Morgantown, WV 26507

Dear Dave,

September 30, 2009

Once again I am writing to thank you and the West Virginia Highlands Conservancy for making the effort to come down to Canaan Valley National Wildlife Refuge this September to help lead the effort in red spruce restoration. This marks the 9th year of the partnership between the West Virginia Highlands Conservancy and the Canaan Valley National Wildlife Refuge in the restoration and conservation of balsam fir and red spruce habitat. Our efforts this fall resulted in over 3,800 red spruce trees planted in the Flat Run riparian corridor jointly owned by the USFS and the USFWS. This fall's project was great to display the importance of groups working together under a common goal to achieve a conservation target.

As you know and as we explain to the variety students and volunteers working on this project, historic red spruce forests were decimated by logging and fire around the turn of the century. More than 90% of the historic range of this tree and forest ecosystem has been lost and converted into different forest community types. The red spruce forest in the southern Appalachians creates unique northern forest habitat for a variety of migratory birds and mammals as well as the threatened Cheat Mountain salamander and now de-listed West Virginia northern flying squirrel. The refuge is keenly interested in helping to increase the acreage of this historic plant community to help improve habitat patch size and corridor connectivity within refuge boundaries and between the refuge and other protected lands in the region.

Without the help of the West Virginia Highlands Conservancy and particularly the support that you personally provide, the ability for agencies and organizations to conduct red spruce and balsam fir restoration projects would be severely limited in this state. Your tireless hours of organizing volunteers, fund raising, cone collecting and facilitating the growth and distribution of native balsam fir and red spruce trees are the backbone of the conifer restoration program in West Virginia.

Through the invaluable support from partners like West Virginia Highlands Conservancy, West Virginia University, Davis & Elkins College and The Nature Conservancy, over **38,000** red spruce and balsam fir trees have been planted in high priority areas on the Canaan Valley National Wildlife Refuge in the past nine years. Additionally, through grant opportunities and volunteer events, we have helped to educate college and high school students on the importance of the red spruce ecosystem and the value of lending a hand in active conservation practice. Again I want to thank you for continuing to support red spruce and balsam fir conservation and of course helping out with this fall's red spruce planting efforts. Truly, without the support of the West Virginia Highlands Conservancy, the red spruce restoration efforts for the Allegheny Highlands would be greatly impaired. The refuge looks forward to the time when we can work together again.

Sincerely,

Ken Sturm Wildlife Biologist

TAKE PRIDE

CAN COUGARS SAVE OUR SAVE OUR EASTERN FORESTS?

By John W. Laundré

Eastern forests face a multitude of environmental threats that are often highly visible because of the obvious changes they cause.

There is, however, one threat that easily escapes most people's eyes. It is insidious, extensive, and is altering the very composition of the eastern forests, changing them from highly diverse ecosystems to simplified shells of their former ecological selves.

What is this threat and why does it go unnoticed, unchallenged, without activist groups to take up the call for action?

It goes unnoticed because the changes are happening slowly over time, often indiscernible except by the expert eye. It goes unnoticed because the agents for this change are **not** noisy

chainsaws clear cutting the forest or the stench of a polluted river. It goes unchallenged because the perpetrators of this destruction are big and brown and fuzzy with puppy dog eyes and big ears. It goes unchallenged because the culprits are valued as a source of recreation and food... and dollars. It goes unchallenged because who would accuse Bambi of such a hideous deed? But yes it is Bambi (white-tailed deer, *Odocoileus virginianus*) who is destroying more forest acreage than all the chainsaws combined.

From the southern forests of Georgia through West Virginia to the northern forests of New England, deer are instigating probably the most massive change in forest habitat since uncontrolled logging in our early history.

Study after study has shown that when you protect the forest with 8 foot high deer proof fencing, remarkable things happen. In one study

by Smithsonian researchers in Virginia (http://nationalzoo.si.edu/ConservationAndScience/TemperateEcosystems/WhiteTailDeer/changingforests.cfm), after only 14 years of protection from deer, the forest is regenerating with a diverse community of eight foot high young trees.

Below these trees grows a lush and varied understory of wild yams, pink lady-slipper orchids, Solomon's seal, and many more delicate forbs.

Outside the fence, the young trees are noticeable for their absence and the forest floor is covered with a single invasive species that deer don't like. And it doesn't stop at the vegetation--inside these enclosures, Kentucky warblers, indigo buntings, oven birds, a whole community of ground nesting birds have doubled in numbers.

Outside the fence, under the relentless grazing of the deer, the lack of ground cover means the lack of birds, no nest sites, no food.

Some are even speculating that the major decline in song birds in recent years is not from loss or fragmentation of forest habitat but the destruction of ground cover for nesting (http://www.scientificamerican.com/article.cfm?id=deer-decreasing-forest-bi).

This scenario plays itself out all up and down the Eastern seaboard (http://www.treesearch.fs.fed.us/pubs/21530). Forest floors are becoming monocultures of plant species unpalatable to deer and unusable by birds. Seedling reproduction, essential to forest regeneration, has all but ceased.

How are they doing it? What can be done to stop them? These are questions that need to be answered if we are to divert a catastrophe in our forests.

How are they doing it? Well, they are doing it by doing what they do best, eat and reproduce. Each deer eats 3-6 lbs of food daily. They selectively eat favorite foods (often saplings of tree species), leaving the rest behind. West Virginia's 900,000 deer eating an average of 4 lbs per day consume over 3.6 million lbs of plants A DAY! When deer get enough to eat, they are healthy and give birth to equally healthy offspring (often twins). It doesn't take much to calculate that very soon there will be too many deer and too few favored plants.

This is what is happening in our eastern forests; in most areas deer have rapidly increased in numbers and they are devastating

the forest by eating all the saplings needed to replace adult trees.

But their numbers are only half of the problem. Deer, like domestic cows, can pretty much eat where and when they want. This leaves no refuge for favored plants to escape their ravenous appetite.

How do we stop them? The suggestions are as numerous as the deer. Some suggest sterilization. Others propose deer proof fences or chemical repellents. Though feasible in a suburb or on a small scale, how do you protect a whole forest?

Others say the answer is hunting them. Man has been a predator of deer for thousands of years; let him reduce their numbers. In West Virginia hunters kill well over 150,000 deer year after year after year, without noticeably reducing the population! Hunters say that if the

laws are relaxed, they could kill more. But, given the number of hunters and the current social climate, it seems doubtful. And, this still does not solve the problem of free roaming deer, which even at reduced numbers will look for and find those favored plants wherever they are.

So what is to be done? I suggest we look to the past for the answer. When our ancestors arrived to the Eastern shore they found a healthy forest ecosystem; one with diverse populations of trees, shrubs, herbaceous plants...and deer!

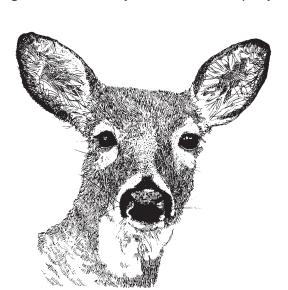
Why didn't the deer impact the forest as they do now? Sure, there were human hunters too... but not with high powered rifles!

Many contend the difference between then and today is the current absence of wolves and cougars. Why does this make a difference? Surprisingly, the answer is not because they kill deer, but rather the effect they have on deer they don't kill!

My work with wolves and elk in Yellowstone National Park demonstrated that prey fear their predator because the predator is trying to kill them. We have also shown that the risk of being killed varies with habitat types; some are safer than others. What this fear of predation and the varying levels of risk produce is a **landscape of fear**.

This second landscape is superimposed on the physical landscape of forests and meadows according to their corresponding risk level. Under predation risk, when an elk, or a deer, moves around this landscape, it must take this risk into consideration, or face the

(Continued on the next page.)



MORE ABOUT THE COUGARS (Continued from previous page)

consequences...death. It avoids the risky areas and concentrates its time in safer areas. This provides refuges for favored plant species normally ravaged by unrestrained ungulates. These plants survive and can revitalize the forest ecosystem.

Does the return of a large predator change the foraging habits of deer and elk and result in a rejuvenation of native vegetation? Again, studies in Yellowstone National Park clearly demonstrated that when elk became afraid to use certain areas, willows and aspens rapidly reappeared.

This return of willows and aspen started a cascading effect in the Park that is unparalleled in its history.

Since then, such "cascades" have been demonstrated in other areas as the return of top predators such as cougars keep the native ungulates from foraging everywhere and provide needed refuges for plant species. All just because predators scare their prey!

Dense hay scented fern growth under a northern hardwood forest - and no young saplings; typical of our forests and a good example of how a forest looks after years of intense deer browsing. the lack of regenerating hardwoods and the dense cover in ferns exemplifies the



effect of herbivory on WV's forest community. Photo courtesy of the Canaan Valley National Wildlife Refuge.

Can it happen here? Can the return of cougars, or even wolves, recreate this landscape of fear and save our Eastern forests? Can they do what our fences, our repellents, and our hunting have failed to do? Given the results we are seeing in other areas, the resounding answer is YES.

Unlike human efforts that are limited in time and space and whose routines deer often quickly learn, predators are on duty 24/7/365. Consequently, deer never know for sure if a predator is near or not. The result is they have to play it safe, always looking over their shoulders, avoiding those more dangerous locations, to the benefit of the vegetation.

The landscape of fear is a recognized powerful ecological force to reckon with, and can be a valuable management tool! It is a tool we here in the East need to seriously consider if we want to save our forests from ultimate ecological collapse. The Eastern forests need cougars to survive. To paraphrase Aldo Leopold, Too long the forest has lived in fear of the deer. It is time the deer again lives in fear of the predator.

Mr. Laundré is a long time cougar research biologist currently working at the State University of New York at Oswego and Vice President of the Eastern Cougar Foundation (ECF). Laundré has studied cougars in the West and in northern Mexico for over 20 years. He has published over 20 scientific articles on cougars and predation. He is the main author of the concept of the Landscape of Fear and how it affects the use of habitat by prey species such as deer. He is currently working with the ECF in its efforts to re-establish cougar populations in the East, for the good of the species and the forest ecosystem. He can be reached at: launjohn@hotmail.com

MORE FROM PRESIDENT HUGH (Continued from p. 2)

The citizen groups also challenged the company's socioeconomic review. This is essentially a cost-benefit analysis, balancing the additional pollution to the river against the company's importance to the community. The Clean Water Act is full of balancing acts, for example the antidegradation rule that says states must prevent deterioration of already-clean streams unless "necessary to accommodate important economic or social development."

Here, the company made the usual claims about jobs at the quarry and the possible impacts of those jobs being lost (along with a not-so-usual prediction about the county's suicide rate). Completely ignored was the quarry's impact on existing and future businesses along the river. This thriving tourist economy depends on clean water and unspoiled landscapes.

Other issues are pending as well. The parties disagree about whether the unnamed tributary is a trout stream. Local fishermen insist it is; they have seen native brook trout

there. The Department of Natural Resources has been skeptical. Much depends on the stream's classification, for trout waters are the cleanest, highest quality waters we have, and most sensitive to pollution. For example, under present regulations the company could discharge six times as much aluminum (per monthly average) into a warm water fishery as it could into a trout stream.

Cold water fish are more sensitive to aluminum, but in the long run (this quarry is projected to have a sixty-year run) all fish would suffer deformation of embryos and fry, coated gills that reduce oxygen uptake, and eventual death. Benthic life is even more sensitive than fish. Equally disturbing are the long-range effects of iron discharge: cell degeneration, coated gills, metabolic interference, and death. Iron precipitates coat stream bottoms and suffocate eggs.

The stakes are high. The EQB wants to get it right. Evan Hansen compared DEP monitoring data for existing quarries in the area, including two of J.F. Allen's, to the

company's proposed Pond Lick permit limit. Every outlet had exceeded the limit some of the time; on average, they exceeded it in fifteen percent of readings. That's not a standard to settle for.

BROCHURES

West Virginia The Highlands Conservancy has joined with the Sierra Club, Coal River Mountain Watch, Ohio Valley Environmental Coalition, West Virginia Rivers Coalition, Appalachian Voices, Kentuckians for the Commonwealth, Keeper of the Mountains Foundation and Christians for the Mountains have put together a new brochure entitled "Mountaintop Removal Destroys Our Homeplace STOP THE DEVASTATION!" For a copy send a self addressed stamped envelope to Julian Martin, 1525 Hampton Road, Charleston, WV 25314.

Quantities are available for teachers, civic and religious groups and anyone who can distribute them.

West Virginia Mountain Odyssey



Outings, Education and Beyond

Sunday December 27, Gateway To The Refuge - White Grass Ski Touring Center, 1 PM A natural history snowshoe walk with Chip Chase as he shares his knowledge about the climate, forest type, and geology of the area. Ask technical tough questions and enjoy a short streamside jaunt. (304) 866-4114

Sunday January 10, Gateway To The Refuge - White Grass Ski Touring Center, GPS mapping skills; 10 am Trek led by Dr. Rick Landenberger, Executive Director of a non-profit geospatial research and education network, and West Virginia University faculty member in Geology & Geography. Dr. Landenberger will provide an introduction to GPS technology including principles for mapping points and routes, with particular emphasis on central Appalachian forest ecology and wildlife applications. Bring your own GPS if you'd like, but Rick will have loaner units for first timers. All are welcome. (304) 866-4114

Sunday January 31, Gateway to the Refuge - White Grass Ski Touring Center, Living Legends, the History and Ecology of Red Spruce Forests; 10 am Trek led by Corey Bonasso and Nathan Beane. Before the logging era the red spruce ecosystem in these mountains was vast. Why didn't it all come back after the logging? What animals are dependent on the red spruce ecosystem, and why have some become endangered? What is being done and what can we do to help? Presented by Environmental Educator Corey Bonasso, 2008 Forestry graduate from West Virginia University, and Nathan Beane, Doctoral student in Forestry at WVU. (304) 866-4114

Sunday February 21, Gateway To The Refuge - White Grass Ski Touring Center, Geology of Canaan Valley and the West Virginia Highlands; 10 am Ski or Snowshoe trek led by Geologist Barnes Nugent of the West Virginia Geologic Survey. Barnes also teaches Geology at Fairmont State University and is a lifelong mountaineer and outdoorsman as well as White Grass skier. Barnes will discuss the unique geology of the area and how it affects the plants and animals that live there. (304) 866-4114

WHOLE LOT OF PLANTIN' GOING ON

For almost a decade the West Virginia Highlands Conservancy has had a balsam and spruce planting program under the direction of Dave Saville. Dave recently went back through his records to see exactly how many trees we have actually had grown and planted out in West Virginia. He doesn't have good records for 2001-2004, so the figures from those years are not exact. Dave estimates 8-10,000 balsam trees during that time. The spruce planting began in 2005. So altogether it looks as if we've already surpassed the 100,000 mark.

 2005:
 5,000 spruce
 2,000 balsam

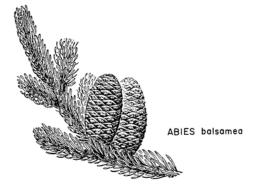
 2006:
 17,020 spruce
 1,600 balsam

 2007:
 21,136 spruce
 2,800 balsam

 2008:
 21,640 spruce
 3,000 balsam

 2009:
 22,176 spruce
 2,000 balsam

 Total:
 86,978 spruce
 11,400 balsam



THE EXPLORATION OF ORGAN CAVE

By Bob Handley

Organ Cave is one of Greenbrier County's 1,341 caves and one of over 4,430 caves in West Virginia (these figures are the latest from Bill Balfour of the WV Speleological Survey). Most of these caves are developed in the Greenbrier Limestone which is on the surface (out crops) from Bluefield to the Eastern Panhandle.

In Greenbrier and Monroe Counties the strata has a gentle slope –down - to the northwest of about 12 degrees and tends to form large cave systems – to the southwest and to the northeast of this area the limestone has a steeper slope and tends to form more pits. The Friars Hole Cave System has 45+ miles of surveyed passages on the Greenbrier/Pocahontas County line.

The Organ Cave System, with its 38.5 miles of surveyed passages is very near the Greenbrier/Monroe County line. Organ, however, still has a long list of unexplored/unsurveyed passages that are sitting there waiting for an energetic-gung ho group to add virgin cave to their record and more miles to the Organ survey. Most of these passages are miles from any entrance and require negotiating very difficult sections of cave.

The White Nose Syndrome (WNS) Is holding things up now but that will hopefully be lifted this next spring.

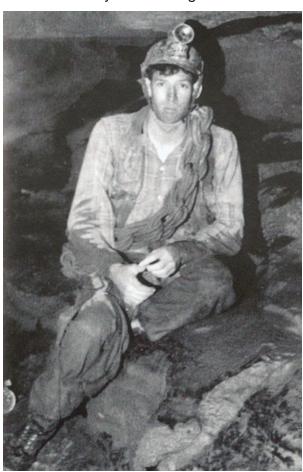
Once upon a time I was very much up to this mopping up task and did remove several of the difficult leads from the list – adding another mile to the cave length. Involvement in other activities (helping to raise two sons, building my house in St Albans and fighting strip mining) and now my advancing age leaves me closer to home. I fortunately still remember much of Organ Cave very well and will direct younger adventurers to many of the virgin leads.

During 1949 Flack and I pushed a very small lead in the bottom west wall of the first room below the "Y". This was an "exhale/inhale" crawl (exhale you can move but inhale and you're stuck – this usually requires some mental conditioning) that was very short and opened into a large passage and another big room. In this room we found a bone deposit that yielded the jaw bone of a Pleistocene peccary, armadillo plates, the remains of a miniature deer, and other old but not quite so interesting bones (these were sent to the University of Michigan for identification).

A branch off the "Bone Room" led to a blank wall with a small hole at the top $-\ 15$

feet up. I was able to scale the wall and with a light safety line was able to bring Flack up to join me. This wall is now referred to as "Handley's Climb" – some shake their heads in disbelief but Flack took a picture of me half way up as proof.

The small passage at the top was three feet high by four feet wide, had a glistening white flowstone floor and continued to another nearby room. A good size walking



Bob Handley, back in the day.

passage left the lower side of the room (now called "The Room Without a Name") and we soon came to a balcony which is at the very top of the first big room. Continuing on past the balcony we were able to climb down the wall to where we had originally left through the tight crawl. This room is now called the "Sarver Room".

On another early trip we started working through the Organ Cave entrance (we weren't required to pay for using it in our explorations). I predicted that if we would follow the passage that left the Hedrick's stream passage, across from where the Organ stream comes in, that we would find more big rooms.

Some climbing was required to get over breakdown near the beginning of this passage but generally it was not difficult walking. We came to a small stream and following it up stream we soon came to an intersection with a fairly large branch going up at a sharp angle.

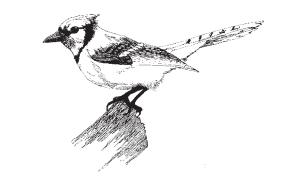
After a tricky climb the passage widened to about 30 feet, was walking height, and had a small branch (7 feet high) to the right. The floor of the main passage had a main crevasse with many branches that went to a floor 15 feet down. Carefully stepping over these branches (also crevasses) we proceeded up the steepening slope to a boulder strewn slope with blackness above. We worked our way up over the boulders to a flat dirt floor. Looking back at the wall we had just come out from under was another large passage 25 feet wide by 15 feet high. It formed another balcony whose floor was 15 feet above where we were standing right over the gaping hole we had just entered from.

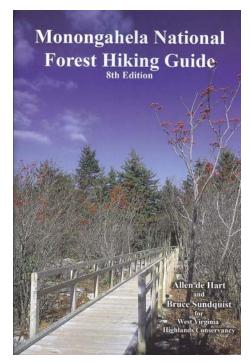
Fifty feet to our left was a much smaller passage opening into a vertical wall 15 feet above the floor. Neither of these could be followed at this point but looking toward the opposite wall was blackness at the top above a breakdown slope.

This slope was a very minor obstacle and we were again moving. The big passage which exited the room on the right side almost immediately intersected an even larger passage that increased in size till finally – after hundreds of feet - it ended in a blank wall. At the end it was at least 60' x 60'. A tremendous chamber that ended so suddenly is quite a curiosity?

The big room with the two balconies was named for my senior partner – "The Flack Room", and the big passage was named "Floyd Collins Avenue". Normally the ones that make the original discoveries get to apply the names.

We had just started our exploration and had found passages going in all directions. I'll continue in the next issue with more discoveries but I'll try not to bore you with too many details.





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