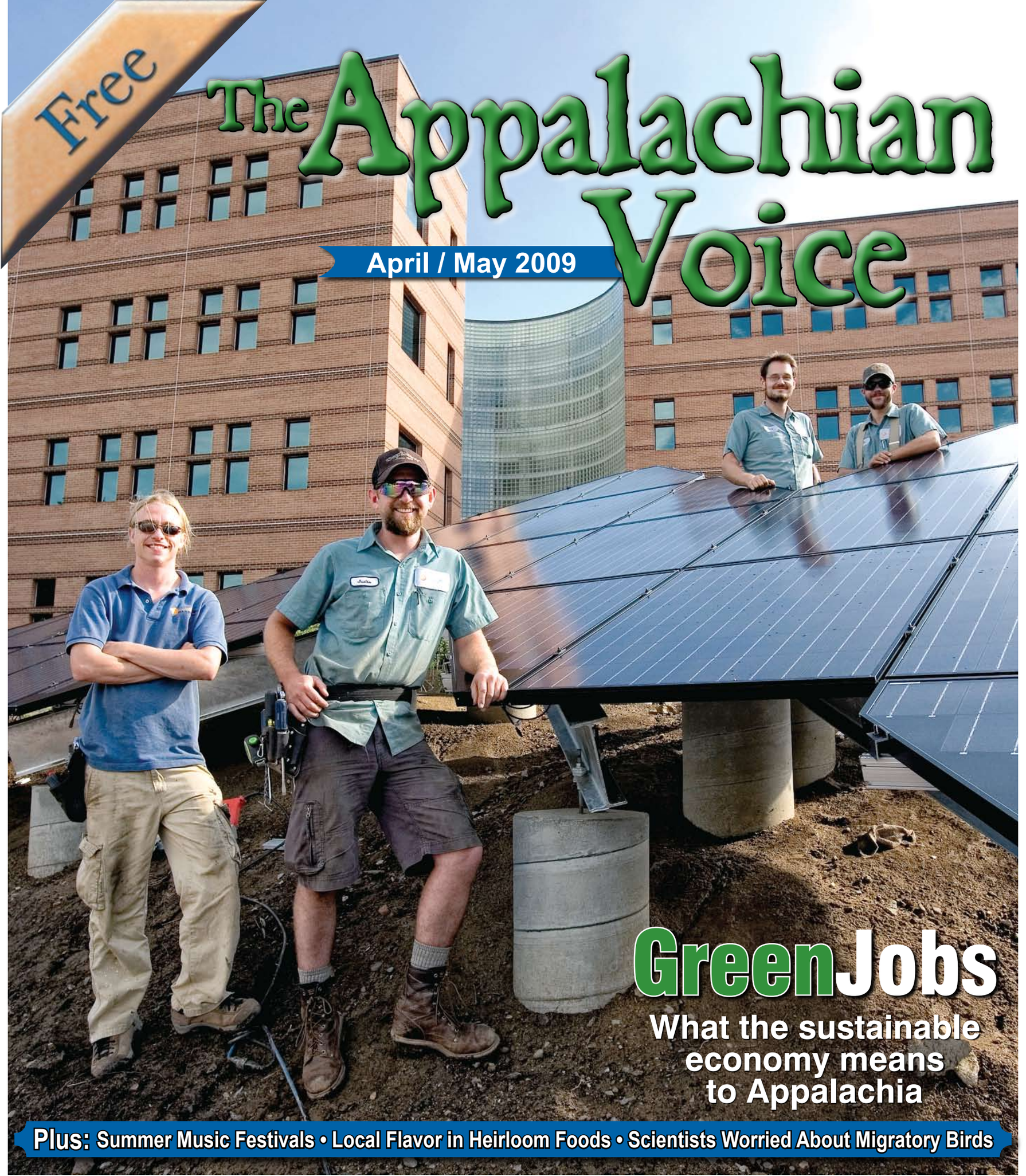
Free

The Appalachian Voice

April / May 2009



Green Jobs

What the sustainable economy means to Appalachia

Plus: Summer Music Festivals • Local Flavor in Heirloom Foods • Scientists Worried About Migratory Birds

The Appalachian Voice

A publication of

Appalachian Voices

191 Howard Street • Boone, NC 28607

1-877-APP-VOICE

www.AppalachianVoices.org

Appalachian Voices brings people together to solve the environmental problems having the greatest impact on the central and southern Appalachian Mountains. Our mission is to empower people to defend our region's rich natural and cultural heritage by providing them with tools and strategies for successful grassroots campaigns. Appalachian Voices sponsors the Upper Watauga Riverkeeper® and is also a Member of the Waterkeeper® Alliance.

Editor	*Bill Kovarik*
Managing Editor	*Jamie Goodman*
Associate Editor	*Sarah Vig*

INSIDE THIS ISSUE

Appalachia's Not-So-Silent Spring

Photo of the March 2 Capitol Climate Action by Mark Schmerling

Silent spring it was not. Appalachia has been in an uproar all winter and spring over the environmental impacts of coal mining, as many stories in this issue will show.

TVA's ash disaster of December 2008 – which still poses grave health risks (p. 23) – was followed by a wave of winter protests against coal, such as the Capitol Climate Action and Powershift protests in Washington DC. Activists were arrested in Charleston, W. Va and Knoxville, Tenn. (p. 6) February and March saw bureaucratic twists and turns over environmental regulations (See p. 7), and the desperate and difficult fight against mountaintop removal coal mining caught fire nationwide, as new state legislation and new university divestment campaigns went public.

Meanwhile, the Clean Water Protection Act, a national bill to stop mountaintop removal, moved close to 150 cosponsors in the House.

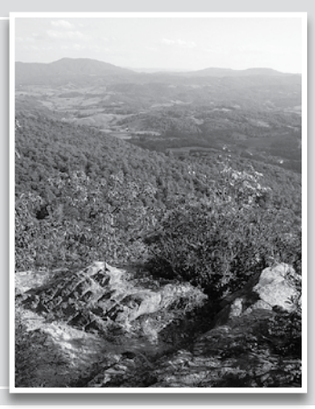
As government sanctioned destruction of the environment begins to come to an end, the nation is starting, at long last, to turn to conservation, renewable energy and the creation of green jobs. Political conservatives are also getting on board, inspired by the enduring legacy of conservationists like Teddy Roosevelt.

A bipartisan view is emerging: It's not jobs OR the environment. It's both. As winter ends, a lot of the old ideas are thawing out.

Our not-so-silent spring heralds great promise for Appalachia's future.

-- Bill Kovarik, Editor

Also in this issue:



Cover photo:

Four employees of Southern Energy Management, all also alumni of Appalachian State University, installed the framework for a photovoltaic system on the ASU campus. They are Jimmy Thompson, '06 appropriate technology, Justin Stiles, '08 appropriate technology, Max Isaacs, '03 psychology, and J.R. Whitley, '06 appropriate technology. Photo by ASU photographer Marie Freeman, courtesy of ASU

***APPALACHIAN VOICE* DISTRIBUTION VOLUNTEERS:** Tom Cook, Kim Greene McClure, Harvard Ayers, Monica Randolph, Steve Moeller, Keisha and Chad, Rose Koontz, Brenda and Larry Huggins, Dean Whitworth, Ruth Gutierrez, Frances Lamberts, Jere Bidwell, Jennifer Stertzer, Mike McKinney, Gary Greer, Ed Clark, Steve Brooks, Gerry and Joe Scardo, Bill Wasserman, Catherine Murray, Gabrielle Zeiger, Colton Griffin, Dave Gilliam, Dave Patrick, Ray Vaughan, Lowell Dodge, Blue Smoke Coffee, Carol Rollman, Dennis Murphy, Linda Milt, Loy Lilley, Ray Zimmerman, Gail Marney, Dr. Emmanuel Mornings, Mark Kidd, Shay Clayton, Bill and Joanne Bell, Charlie Bowles, Dave and Donna Muhley, Brad Wood, Chris Chanlett, Allen Johnson, April Crowe, Jennifer Honeycutt and Jim Dentinger, Jane Branham, Kathy Selvage

Grammy Award-winning artist Kathy Mattea will headline the inaugural Mountain Aid festival in Chapel Hill, NC, June 19 - 21

Summer Outside the City

"Appalachian Spring," the ballet composed by Aaron Copeland, may be one of the most treasured pieces of music in the American classical canon, but if it's Americana music that you're looking for, there's nothing better than Appalachian summer.

As the weather gets warmer and the days get longer, the summer music festival season begins. From bluegrass to old-time to good old-fashioned rock and roll, the season's music festival has something (and often more than one thing) for everyone. Get a taste of the region's offerings below...

Music Festivals Throughout Appalachia

Story by David Brewer

Mountain Aid

The Concert to End Mountaintop Removal

Story by David Brewer

Music is often moving, but only once in a while does it help keep mountains from being moved. That is the hope behind the inaugural Mountain Aid festival, an ambitious effort to directly affect environmental change.

Slated to take place from Friday to Sunday, June 19 to 21, at the Shakori Hills festival grounds just south of Chapel Hill in Chatham County, NC, Mountain Aid is being billed as "a concert to end mountaintop removal and create a clean energy future for North Carolina and beyond."

Mountain Aid will raise funds for the Pennies of Promise campaign to build a new school for the children of Marsh Fork Elementary. Located in Raleigh County, W. Va., the school sits just 225 feet from a coal loading silo that releases chemical-laden coal dust and 400 yards from a 385-foot tall leaking sludge dam with a nearly 3 billion gallon capacity. According to the Pennies of Promise website, independent studies have shown the school to be full of coal dust.

Headlining the festival will be Grammy Award-winning country artist Kathy Mattea, whose recent release, *COAL*, deals specifically with the West Virginia native's many personal ties to the subject. Raised near Charleston, W. Va., her mining heritage runs throughout both sides of the family: both her parents grew up in coal camps, both her grandfathers were miners, and her mother worked for the local United Mine Workers Association union office. Mattea's father was saved from the mines by an uncle who paid his nephew's way through college.

The songs on *COAL* are more than just mining songs. Mattea said she wanted to pay tribute to her place and her people on a record that is as much a textured novel as it is an album. "It's a coming together of a lot of different threads in my life," said Mattea on her website.

Other performers include rising cello star Ben Sollee, festival favorites Donna The Buffalo, upbeat reggae-tinged rockers the Sim Redmond Band and more.

When his granddaughter returned home from school sick, Pennies of Promise founder Ed Wiley fought to get the school moved away from the massive neighboring mountaintop removal mine despite government inaction. According to West Virginia state officials, construction of a new school is a fiscal impossibility, but that was not going to keep Wiley and scores of concerned citizens from taking it upon themselves to come to the children's aid.

To kick off the campaign, Wiley presented West Virginia Governor Joe Manchin with $400 in pennies. He then walked more than 300 miles from his home in Rock Creek, W. Va. all the way to Washington, D.C. to continue the fight. Funds generated by Mountain Aid will help the Pennies of Promise campaign move closer to their goal of $8 million to fund the new school and move the children out of harm's way.

Continued on next page

MerleFest

Thursday to Sunday, April 23 to 26
Wilkesboro, NC
www.merlefest.org

More than two decades after the first crop of pickers performed to a few hundred music fans on the back of a pair of flatbed trucks, the mother of all Americana festivals is still going strong. With no less than 14 indoor and outdoor stages spread across the expansive Wilkes Community College campus located in the North Carolina foothills, MerleFest is truly a music lover's dream.

In addition to its staggering lineup, MerleFest has also long been known for its family-safe environment. Besides its alcohol-free policy, the Little Pickers stage offers entertainment for kids all weekend long.

The festival is also family-friendly and will feature a kids' village starring national balloon-turning champion Becky the Balloon Lady.

French Broad River Festival

Friday to Sunday, May 1 to 3
Hot Springs, NC
www.frenchbroadriverfestival.com

Part live music throw-down, part outdoor adventure festival and part benefit, the 12th Annual French Broad River Festival combines the typical outdoor musical festival aspects with high adventure including whitewater rafting, mountain bike racing and stewardship. At $60 per ticket in advance before April 20, it is one of the best festival bargains around. Proceeds from the festival will benefit American Whitewater, the Hot Springs Community Learning Center and Hope For Holt.

Lake Eden Arts Festival (LEAF)

Thursday to Sunday, May 7 to 10
Black Mountain, NC
www.theleaf.com

Taking place at the beautiful Camp Rockmont in Black Mountain, the Lake Eden Arts Festival (better known as LEAF) has long been one of the most musically diverse festivals in the region, both during its fall and spring events. In addition to its more than 60 performers, LEAF features a kids' village for the little ones, tons of handcrafts, a poetry slam, gourmet festival food through its culinary arts program, and lots of healing arts to align your mind, body and soul. LEAF is, in every way, a feast for the senses.

Ralph Stanley's Hills of Home Bluegrass Festival

Thurs. to Saturday, May 21 to 23
McClure, Va.
www.drralphstanley.com

Not only is Dr. Ralph Stanley one of the founding fathers of bluegrass, he has also been hosting one of the region's best gatherings of pickers and singers for nearly 40 years. This year's festival features Stanley & The Clinch Mountain Boys, Gillian Welch, Jim Lauderdale, Cherryholmes and more. No alcohol is allowed in the concert area.

Continued on next page

Music Festivals Throughout Appalachia

Continued from previous page

Fiddler's Grove Ole Time Fiddlers & Bluegrass Fest

Friday to Sunday, May 22 to 24
Union Grove, NC
www.fiddlersgrove.com

Billed as the oldest continually run festival of its kind in the nation, the 85th annual Fiddler's Grove Ole Time Fiddlers & Bluegrass Festival in Union Grove is an absolute must for diehard fans of bluegrass and old-time music who love nothing better than to hear the best pickers and singers in both genres.

Taking place at the Fiddler's Grove campground, the famed event will feature performances by more than 50 old-time and bluegrass bands in junior and senior categories vying for the coveted top honors in the festival's band competition. Like MerleFest, the Fiddler's Grove Ole Time Fiddlers & Bluegrass Festival is a family event. No alcohol is allowed.

Graves Mountain Festival of Music

Thursday to Saturday, May 28 to 30
Syria, Va.
www.gravesmountain.com/bluegrass

The Graves Mountain Festival of Music features a slew of top-notch bluegrass acts including Rhonda Vincent and The Rage, Larry Cordle and Lonesome Standard Time, IIIrd Tyme Out, Cherryholmes, The Seldom Scene and many more. Those wishing to camp must purchase a three-day ticket. Children under age 11 enter free with an adult ticket holder.

ROMP

Wednesday to Saturday, June 24 to 27
Owensboro, Ky.
www.blugrassmuseum.org

Billed as a "jamming bluegrass festival," the River of Music Festival, better known as ROMP, will feature lots of bluegrass greats including Larry Sparks & The Lonesome Ramblers, J.D. Crowe & The New South, The Dan Tyminski Band, Doyle Lawson & Quicksilver and many more.

The numerous stages at Floydfest in Floyd, Va. (July 23-26) provide a wide variety of musical styles. Photo by Jamie Goodman

All Good Music Festival

Thursday to Sunday, July 9 to 12
Masontown, W. Va.
www.allgoodfestival.com

For the last several years, Masontown, W. Va.'s All Good Music Festival has been a jam lover's dream and this year is no different. Many of the genre's biggest names will be laying down the grooves including Ben Harper, Bob Weir & Ratdog, Umphrey's McGee, moe., STS9, Yonder Mountain String Band, Les Claypool, Keller Williams and dozens more. The festival also features special family camping/quiet camping areas and lots of kids' activities.

Floydfest 8

Thursday to Sunday, July 23 to 26
Floyd, Va.
www.atwproductions.com

With a diverse line-up of musicians playing everything from funk, rock and soul, to more eclectic world-beat sounds and roots music styles from around the world, Floydfest is one of the best festivals around for true music lovers. Held in a gorgeous spot just off the Blue Ridge Parkway, this year's festival features Blues Traveler, Grace Potter & The Nocturnals, Forro in the Dark, The Duhks, Peter Rowan, Toubab Krewe, Railroad Earth and many more. The event also features lots of camping and the Children's Universe play area.

Appalachian String Band Music Festival

Wed. to Sunday, July 29 to Aug. 2
Clifftop, W. Va.
www.wvculture.org/stringband/

Known throughout the roots music world as Clifftop, the Appalachian String Band Music Festival takes place at Camp Washington Carver and features a host of instrument competitions, square dances, performances and workshops. A more modern take on the fiddlers' conventions, Clifftop also features daily yoga classes and kids activities.

Franklin Music Festival

Friday and Saturday, Sept. 11 and 12
Franklin, Ky.
www.franklinkymusicfestival.com

Taking place in Bluegrass Music RV Park, the annual Franklin Music Festival will again host a stellar group of bluegrass and country music performers including Rhonda Vincent & The Rage, Connie Smith, The Dillards, the Lonesome River Band, Grasstowne and more.

Bristol Rhythm & Roots Reunion

Friday to Sunday, September 18 to 20
Bristol, Va./Tenn.
www.bristolrhythm.com

Bristol's annual Rhythm & Roots Reunion features a staggering mix of bluegrass, Americana, traditional country, Celtic, old-time, singer-songwriter and blues artists at indoor and outdoor venues on and around State Street. Some of this year's headliners include Patty Loveless, Tim O'Brien, Scythian, Justin Townes Earle, the Darrell Scott Band and Dr. Dog. If you're looking to camp, you'll have to make your own arrangements.

Mountain Aid

Continued from previous page

For more information on the nonprofit, click to www.penniesofpromise.org.

Wiley's fight to help his granddaughter's school was documented in the award-winning Michael O'Connell documentary, *Mountaintop Removal*. Among its many accolades, the film received the Reel Current Award at the 2008 Nashville Film Festival—an award selected and presented by Al Gore.

Of additional importance is the timing of the event, as the North Carolina assembly will be in session to debate House Bill 2709, a bill to outlaw the use of MTR coal within the state. According to Duke Energy, North Carolina is the second largest consumer of coal mined through mountaintop removal in the nation.

Mountain Aid is sponsored by the Ohio Valley Environmental Coalition (OHVEC), a nonprofit organization formed in 1987 whose mission is to organize and maintain a diverse grassroots organization dedicated to the improvement and preservation of the environment through education, grassroots organizing and coalition building, leadership development and media outreach.

Tickets for Mountain Aid are on sale now. Advance tickets are $22.50 and can be purchased via the event website by clicking to www.mtnaid.com. Tickets at the gate will be $30. Tent camping passes are $10 and vehicle camping passes are $40. For more information, click to www.mtnaid.com.

Across Appalachia

To keep up with the latest, see www.AppalachianVoices.org

Appalachian Activists Answer Call to Civil Disobedience

Story by Alison Singer and Sarah Vig

Protests erupted across the Appalachians this winter and spring as activists took to the streetsfor clean air and water and an end to dirty coal in all its phases—mining, processing, and burning—in an unprecedented way.

On Coal River Mountain, activists and community members have been engaging in a number of nonviolent actions (see "Coal River Mountain" in Feb/March 2009 issue) in an attempt to save their mountain, which has Class VI wind potential, from being leveled by mountaintop removal mining. As a result, a Beckley, West Virginia judge issued a temporary restraining order on behalf of Massey Energy Co. to any protestors, or anyone "associated with" any known protestors of Massey's Coal River mountaintop removal sites. The activists, however, show no sign of halting, and hope the publicity they receive will only increase with this sentence, and potentially bring more attention to their cause.

Protests against coal hit the national stage, when more than 2,500 people from all over the country gathered in the nation's capital to protest dirty coal's role in America's energy policy. The Capitol Climate Action, organized and endorsed by hundreds of organizations and individuals, shut down the Capitol Power Plant in Washington, D.C. for four hours. According to the action's website, the plant, located just blocks from Capitol Hill, was chosen because "the plant that is actually run by Congress" symbolizes "the stranglehold coal has over our government and future."

"There are moments in a nation's–and a planet's–history," wrote Wendell Berry and Bill McKibben in an open letter endorsing the Capitol Climate Action in Washington, D.C., "when it may be necessary for some to break the law in order to bear witness to an evil, bring it to wider attention, and push for its correction." Hundreds of activists willing to risk arrest shut down the Capitol Power Plant for four hours in an act of civil disobedience; thousands more rallied in peaceful protest against the use of coal for our nation's energy. Photo by Mark Schmerling

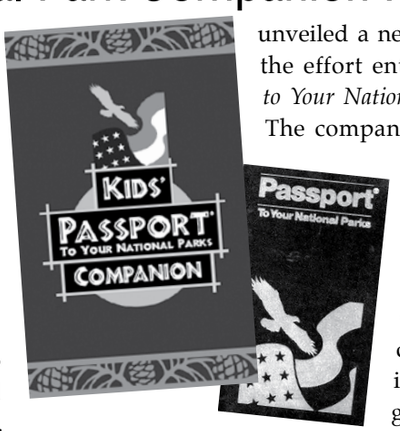
Less than two weeks later, on March 14, activists from around the country joined locals, including survivors of the recent coal ash disaster in Harriman, Tenn., just outside the headquarters of TVA. The "March in March," which took place in Knoxville, Tenn., was meant as a protest against mountaintop removal mining. After staging a "die-in," 14 protestors were arrested. The rally was followed by a candlelight vigil, representing lives and land lost due to the destructive form of strip mining.

Plans for more actions are surfacing all around the region. On April 20, citizens will take to the streets in Charlotte, N.C. to protest the construction of a new coal-fired power plant in nearby Rutherford Co. The proposed power plant would send approximately 6 million tons of carbon dioxide into the atmosphere each year in addition to being enormously expensive for North Carolina ratepayers. The march and rally against the proposed Cliffside Power Plant will take place at Marshall Park in uptown Charlotte, beginning at 10:00 a.m. Those willing to risk arrest during the protest, are being asked to attend a nonviolent civil disobedience training at 2:00 p.m. on April 19 at the Unitarian Universalist Church of Charlotte. More information can be found at www.stopcliffside.org

Kids' National Park Companion Hopes to Excite New Generation

Story by Alison Singer

In 1986, the Eastern National Park & Monument Association (ENPMA) began the popular Passport to Your National Parks program. ENPMA, in cooperation with the National Park Service (NPS), developed imitation passports to encourage parents and children to visit the parks. Each passport includes maps, visitor information, photographs and illustrations. The passport is stamped with each visit to a national park, just as a genuine passport would be when entering a new country.



Mary Bomar, director of the NPS, and U.S. Senator Richard Burr (R-NC) recently unveiled a new book to augment the effort entitled *Kids' Passport to Your National Parks Companion*. The companion includes places for stamps and for writing notes and memories about each park.

Senator Burr spearheaded the kids' companion idea, hoping to "excite a whole generation of young Americans about the beauty and history of our nation." He believes that "too often today, America's youth find their entertainment on television and computer," and that "there is a lot more fun to be had in our national parks than there is on television."

The passports are targeted to children from six to 12, and are available for purchase through ENPMA (www.easternnational.org), whose profits benefit the NPS. The books will also be available at most national parks. The kids' passports are meant to supplement, not replace, the original Passport to Your National Parks.

There are 391 national park service sites throughout the country. Those in the Appalachian Mountains area include the Great Smoky Mountain National Park, the Blue Ridge Parkway, the Appalachian National Scenic Trail, the Shenandoah National Park, the Trail of Tears National Historic Trail, the Gauley River National Recreation Area, the New River Gorge National River, and several historic, heritage and military sites.

Across Appalachia

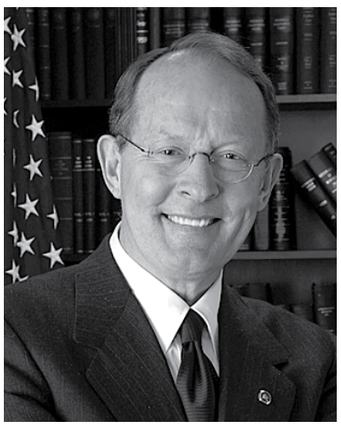
To keep up with the latest, see www.AppalachianVoices.org

Courts, Congress and Universities Consider How to Change Mountaintop Removal Policies

Story by Bill Kovarik

The fight over mountaintop removal coal mining accelerated this spring, with action in the courts, the regulatory agencies, Congress and universities. For the first time in almost a decade, environmentalists appear to be winning.

Courts gave the mining industry one initial victory in mid-February, when the pro-business U.S. 4th District court decided that the Corps of Engineers has authority to issue permits without more extensive review. But in March, another federal court overturned the Corps' blanket national approach to mountaintop removal mining permits – a victory for the environment. "It's devastating," lamented West Virginia Coal Association President Bill Raney, claiming that the hold-up of permits pending environmental review would result in the loss of jobs.



Sens. Lamar Alexander (R-TN) and Ben Cardin (D-MD), both from mountaintop removal mining states, introduced the Appalachia Restoration Act into the U.S. Senate. The bill would prevent the dumping of toxic mining waste from mountaintop removal coal mining into headwater streams and rivers.

Around the same time, the Environmental Protection Agency told the Corps that it wanted to review all new mountaintop removal mining permits – in effect, slowing down the permit process. Mining industry groups and pro-mining politicians insisted on a series of meetings with President Obama's new EPA administrator, Lisa Jackson, vainly hoping that she would come around to their point of view.

At the same time, the Corps balked at EPA's oversight and, taking sides with the mining industry, began issuing new MTR permits. In response, the Obama administration announced it will replace the Bush administration head of the Corps and nominated Jo-Ellen Darcy, formerly Senior Environmental Advisor to the U.S. Senate Committee on Finance. Darcy is expected to create a "greener Corps" and is unlikely to support mountaintop removal.

On Capitol Hill, bipartisan legislation to ban the dumping of mine waste into streams, which would dramatically curb if not put an end to mountaintop removal mining, is moving forward. On the House side, 141 cosponsors (by press time) have signed on to the Clean Water Protection Act (H.R. 1310). On the Senate side, the Appalachia Restoration Act (S. 696) was introduced by Sens. Lamar Alexander (R-TN) and Benjamin L. Cardin (D-MD).

Meanwhile, the University of Santa Clara decided to divest its stock in Massey Energy Co. this March. "This investment had been made unknowingly and it contradicted our ethical guidelines for investment," said the university's president, Michael Engh, S.J. "Once aware of this error, we divested." Concern for union workers and families is another moral issue for the university, said Wess Harris, a West Virginia environmental and union advocate. Other Catholic universities are now also considering divestment, Harris said.

In response to events this spring, the National Mining Association and other coal mining organizations went on the public relations offensive, and created a web site (mtmcoalition.com). The group claims that 100,000 jobs are at stake, although in fact only 14,000 surface miners are employed in Appalachia. "We are not burying miles and miles of rivers and creeks beneath mountains of dirt," the group claims -- only a few "dry ditches."

Water Wars: West Virginia Coalfield Residents Sue Over Contaminated Water

Story by Sarah Vig

In Mingo County, W. Va., one of the largest coal-producing counties in the nation, 760 residents are preparing to face off against Big Coal. The group filed a class action suit against Massey Energy and its subsidiary, Rawl Sales & Processing, on claims of personal injury, wrongful death, property damage and nuisance. The hundreds of plaintiffs involved in the suit all suffered in various degrees from water contamination caused by coal slurry leakage from abandoned underground mine sites into the aquifers that supply their well water.

Coal slurry is the substance produced after the coal is "washed" during processing to remove clay, sulfur and other impurities. The slurry contains dissolved heavy metals as well as numerous chemicals. In several Appalachian states, including West Virginia, Alabama and Kentucky, regulators allow coal companies to inject the slurry into abandoned mines for storage, though, according to a March 22 Associated Press article, none of those states track how much slurry is being pumped underground.

Plaintiffs in the case believe that coal slurry leaked from the underground mine site above their homes into their aquifers, contaminating the wells they used for drinking and bathing water and leading to health problems from kidney disease to cancer.

The trial was rescheduled from its original date in mid-February under judge's orders to allow the parties to mediate and attempt to resolve the situation without taking up the court's time and resources. Unless a settlement is reached, however, the trial will commence on May 12 in Williamson, W. Va, and is expected to continue three to six months.

Taking the Price Tag Off Our Heritage

Heirlooms, Seed Swaps, and Cultural Memory

Story by Sarah Vig

At the Center for Cherokee Plants, the seeds are not for sale.

"People will stop by and ask us if we sell the plants, or why we aren't trying to sell our seeds," said Kevin Welch, who founded the Center, "I tell them 'you can't put a price on your heritage.'"

When confronted with the spinning rack filled with shiny and colorful packets of well-labeled seeds at your local Big Box store's Garden Center, it's difficult to imagine a different way to get your seeds. But all across Appalachia, seed saving and spring seed swaps have long been a way to get all the seeds one would need for a garden without having to spend a cent. Seed saving and swapping also helps to perpetuate locally adapted species of plants, and preserve biodiversity, whereas buying mass distributed and biologically streamlined seeds compromises these ecologically important characteristics.

Community members carefully graft their own heirloom apple trees during a workshop at the Center for Cherokee plants located near Bryson City, N.C. More trees were also grafted to start an heirloom apple orchard at the Center and at the new Cherokee high school. Photos by Jessica Long

Heirloom seeds are especially sought after by many gardeners for precisely these reasons. To be categorized as an heirloom, the variety must be at least 50 years old. In addition, the seeds must come from plants that were open-pollinated and must plant "true to type," meaning the plant that grows from the seed has the same characteristics as the parent plant.

"Heritage crops are important because they represent a living link between people and history," said Phillip Hash, a member of AmeriCorps Project Conserve who worked with the Indian Country Extension Office and Roanoke College to coordinate an heirloom apple tree grafting workshop at the Center in early March.

Unlike many other plants, apple seeds are almost never true to type. The only way to reliably preserve apple varieties is by grafting a piece of the parent tree, called a scion, to rootstock. At the March workshop, two Roanoke College professors and experienced apple-grafters, Dr. David Scaer and

Continued on next page

Taking the Price Tag Off Our Heritage

Continued from previous page

Dr. Jon Cawley, taught Cherokee community members how to do grafting using scions from over 30 varieties native to the region.

Because apple trees only produce for 60 years or so, apple tree grafting is an important skill to keep alive. "As your oldest humans die, your oldest trees die," Cawley explains, so it falls to each new generation to restore the orchard stock.

"Cherokee apple varieties were actually saved and curated right after the Cherokee Removal and the Trail of Tears by two very wise gentlemen," said Cawley. Silas McDowell in western North Carolina and Jarvis Van Buren from Georgia "rescued the original varieties so that they can be re-established on sovereign Cherokee land today," Cawley said.

The two professors also credit western North Carolina native Tom Brown for the preservation of many of the varieties they were able to bring to the Center. Calling Brown's collection, "encyclopedic," the two explained that many of the varieties Brown has found and preserved have "never been seen in the outside world."

During the course of the workshop, participants were able to graft trees to take home and help Americorps members do grafting in an effort to establish a heritage orchard at the Center for Cherokee Plants and at the new Cherokee high school. "After several generations, it is a very high privilege for me to be a part of the project to replant [the Cherokee people's] original rare apple varieties on their sovereign estate," Cawley said.

At the end of the workshop, Hash, Scaer, and Cawley set to work on grafting three very special apple trees. The three trees were each grafted with two different apple varieties, Nickajack and Junaluska; both have specific cultural importance to the Cherokee people.

The Nickajack apple--cited by author Gary Paul Nabhan as one of North America's "most endangered foods" in his book Renewing America's Food Traditions--originated on Cherokee land, and is named for Nickajack Creek on the banks of which the tree originally grew. The Junaluska apple was the personal favorite apple of Cherokee Chief Junaluska and because of this was a negotiating piece in the land deal made with the U.S. government that ended in $50 being added to the price.

The trees have different destinations, one will stay at the Center for Cherokee plants as part of their heritage orchard, one will be planted at the new Cherokee high school, and the third will be a gift from the Eastern Band of Cherokee Indians to the Western Band.

"When you eat an heirloom apple," says Scaer, "you are tasting that place [where the variety came from]. "There's an instant sense of meaning," Cawley adds, echoing Scaer's sentiment.

It is this sense of place, of meaning and cultural history that the Center for Cherokee plants strives to preserve by preserving heirloom species. Along with their efforts to establish a heritage orchard, and serve as a seed bank for Cherokee gardeners, they also are trying to retain and renew their cultural heritage through a memory bank, which documents oral histories along with seeds, and by reestablishing culturally significant native species on the site.

"The problem with traditional Cherokee art is that the resources are becoming scarce," said Sarah McClellan-Welch, the Extension agent working on the project. In an effort to offset this problem, the Center is working on reestablishing river cane and white oaks, both of which are used for basket weaving, as well as bloodroot, which is traditionally used for dying.

To do this, however, they are having to battle aggressive invasives such as multiflora rose on the riverbanks and Johnson grass on the flat ground. They are also conducting research on the white oaks planted on the site, as the natural conditions that made the white oak trees good material for basket-making are proving difficult to replicate. In the wild, white oaks would grow out of rhododendron thickets slow and straight, which makes the woods grain perfect for traditional arts and crafts; planted alone, however, the trees grow fast and spindly.

Once the species are established, the Center hopes to become a place where Cherokee people can harvest the crops they need to continue the traditions which depend on them, whether that is traditional agriculture, traditional foods or traditional crafts.

"There is belonging to a heritage, and then there is living a heritage. I choose to live my heritage," said Welch.

At left, Americorps Project Conserve member Andrew Roe takes native white oaks to be watered and planted. Below, three young girls from the Cherokee community dip newly grafted heirloom apple trees in a container of warm grafting wax in order to "seal the deal," and make sure the graft holds.

Less Twittering in the Trees

Migratory Birds Show Alarming Population Declines

Story by Kathleen McFadden

Spring comes slowly to the mountains. Long after the early-season flowers have come and gone in the lowlands, winter-weary mountain dwellers wait patiently for their first sight of a royal purple crocus, the golden glory of the backyard forsythia and the return of our cherished birds.

But the birds of Appalachia are not as plentiful as they once were, with population declines among some species causing concern among conservationists and sparking the development of unprecedented partnerships to try to mitigate some of the impacts leading to these population decreases.

Impact of Forest Fragmentation

Birds can be notoriously picky about their surroundings. One such bird is the cerulean warbler, a small, azure bird that nests high in the canopy of old-growth-type forests. Ceruleans like sweeping tracts of mature forest with tall, large-diameter trees and a structurally diverse canopy with multiple vegetation layers.

The bird breeds in eastern North America and winters in the Andes Mountains in South America. Both its summer and winter locations overlap with major industries that impact the bird's habitat, according to Dr. Brian Smith, American Bird Conservancy's Appalachian Mountains Joint Venture (AMJV) coordinator.

In North America, the major industry is coal mining, although agriculture and urbanization have also resulted in significant forest fragmentation, Smith explained. Eighty percent of cerulean warblers breed in the AMJV area, with the highest density in the coalfields, Smith said. Ceruleans don't like—and avoid—the abrupt edges between forest and open grassland that are common byproducts of abandoned coal-mining operations.

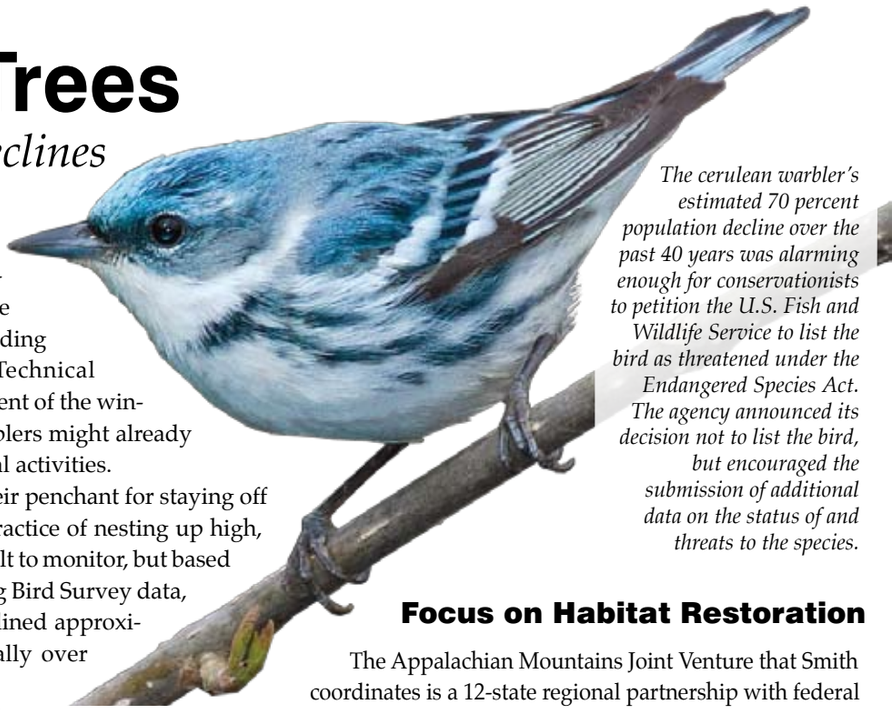
In South America, agriculture has encroached on the birds' winter habitat. According to the Cerulean Warbler Technical Group, an estimated 60 percent of the winter habitat for cerulean warblers might already have been lost to agricultural activities.

Because of their size, their penchant for staying off the beaten path and their practice of nesting up high, cerulean warblers are difficult to monitor, but based on North American Breeding Bird Survey data, the species has steadily declined approximately three percent annually over the past 40 years.

While the cerulean warbler is the best focal species to illustrate population reductions, Smith said, an entire suite of mature forest habitat birds is showing long-term declines. In addition to the cerulean warbler, this suite includes the Kentucky warbler, worm-eating warbler, wood thrush and Louisiana waterthrush.

But mature forest habitat birds aren't the only ones on a watch list. A whopping 107 birds are identified as priority birds of conservation concern in the Appalachian Mountains Bird Conservation Region, with well-known species such as the purple martin, red-headed woodpecker, whip-poor-will and chimney swift making the list, along with many others.

Although it is one of the most common species in eastern forests, the wood thrush has shown steady, long-term declines with an estimated 43 percent population reduction since 1966.



The cerulean warbler's estimated 70 percent population decline over the past 40 years was alarming enough for conservationists to petition the U.S. Fish and Wildlife Service to list the bird as threatened under the Endangered Species Act. The agency announced its decision not to list the bird, but encouraged the submission of additional data on the status of and threats to the species.

Focus on Habitat Restoration

The Appalachian Mountains Joint Venture that Smith coordinates is a 12-state regional partnership with federal and state agencies, private nonprofits and industry focused on wild native bird conservation.

One recent conservation project allied the AMJV with the Appalachian Regional Reforestation Initiative, U.S. Fish and Wildlife Service, National Wild Turkey Foundation, and other partners to reclaim several acres of former mineland in Ohio by planting 15,000 seedlings in Spring 2008.

While it will be decades before the Ohio trees are mature enough to attract ceruleans for nesting, Smith said, the trees' gradual growth will progressively reduce the hard edge between forest and grassland, creating a buffer that will benefit the birds. In the meantime, other species that like early successional forest conditions can thrive.

In addition, two federal developments in March 2009 hold promise for increased attention to bird habitat—one from EPA, the other from the Department of the Interior.

With regard to two proposed surface coal mining operations, the EPA notified the Army Corps of Engineers of its "significant concern" about and the need to address "the cumulative impacts on the watershed, forest and habitat

Continued on page 18

PRIORITY BIRDS OF CONSERVATION CONCERN IN THE APPALACHIAN REGION

The following list identifies priority birds of conservation concern in the Appalachian Mountains Bird Conservation Region, categorized into highest, high and moderate priority tiers to help guide decisions on management, funding and conservation actions. Twenty additional species on the AMJV priority species list have not yet been assigned to a tier.

Appalachian bird watchers will find many of their favorite species on this list.

HIGHEST PRIORITY

American black duck
American woodcock
Bewick's wren
Blue-winged warbler
Canada goose - Atlantic
Cerulean warbler
Golden-winged warbler
Henslow's sparrow
Kentucky warbler
Prairie warbler
Wood thrush
Worm-eating warbler

HIGH PRIORITY

Acadian flycatcher
Bicknell's thrush
Black-billed cuckoo
Brown-headed nuthatch
Canada warbler
Chimney swift
Field sparrow
Golden eagle
Hooded warbler
Louisiana waterthrush
Northern goshawk
Red crossbill
Swainson's warbler
Upland sandpiper
Whip-poor-will
Whooping crane
Yellow-bellied flycatcher
Yellow-bellied sapsucker

MODERATE PRIORITY

Alder flycatcher
American bittern
Bachman's sparrow
Bald eagle
Bay-breasted warbler
Black-and-white warbler
Blackburnian warbler
Black-capped chickadee
Blackpoll warbler
Broad-winged hawk
Brown thrasher
Buff-breasted sandpiper
Chuck-will's-widow
Eastern meadowlark
Eastern towhee
Eastern wood-pewee
Grasshopper sparrow
Hooded merganser
Indigo bunting
King rail
Lark sparrow
Least sandpiper
Lesser yellowlegs
Loggerhead shrike
Long-eared owl
Mallard
Marsh wren
Northern bobwhite
Northern flicker
Northern harrier
Northern parula
Northern saw-whet owl
Olive-sided flycatcher
Peregrine falcon
Prothonotary warbler
Purple martin
Red-cockaded woodpecker
Red-headed woodpecker
Ruffed grouse
Sandhill crane
Scarlet tanager
Sedge wren
Semipalmated plover
Sharp-shinned hawk
Short-eared owl
Solitary sandpiper
Spotted sandpiper
Summer tanager
Virginia rail
Western sandpiper
White-throated sparrow
Wild turkey
Willow flycatcher
Wood duck
Yellow-breasted chat
Yellow-throated vireo
Yellow-throated warbler

UNASSIGNED SPECIES

American coot
Black tern
Black-crowned night-heron
Blue-winged teal
Bufflehead
Canvasback
Common goldeneye
Common moorhen
Common tern
Dunlin
Gadwall
Greater yellowlegs
Least bittern
Lesser scaup
Redhead
Ring-necked duck
Semipalmated sandpiper
Sora
Stilt sandpiper
Yellow rail

Hiking the Highlands

Comers Rock and Hale Lake

Story by Joe Tennis

Ah, the view: That's what makes Comers Rock such a jewel. But shhh! Don't tell everybody: Let this jewel of southwest Virginia remain hidden.

Comers Rock sits on the Grayson-Wythe county line at an ear-popping 4,102-foot elevation. It's a place listed on all Virginia state maps. But the trouble, for the casual cruiser, might be in getting there: Comers Rock sits about four miles down a dirt and gravel road.

This little-known point is part of the Mount Rogers National Recreation Area, a 120,000-acre portion of the Jefferson National Forest, stretching across a cluster of counties in southwest Virginia. The area varies from alpine peaks standing a mile high to the jungle-like ravines along the New River at the New River Recreation Area, near Buck Dam and the New River Trail State Park.

Wild ponies roam through the Mount Rogers area. So do Appalachian Trail hikers, taking off from Damascus and spiraling north to Smyth County atop the rocky peaks of Wilburn Ridge.

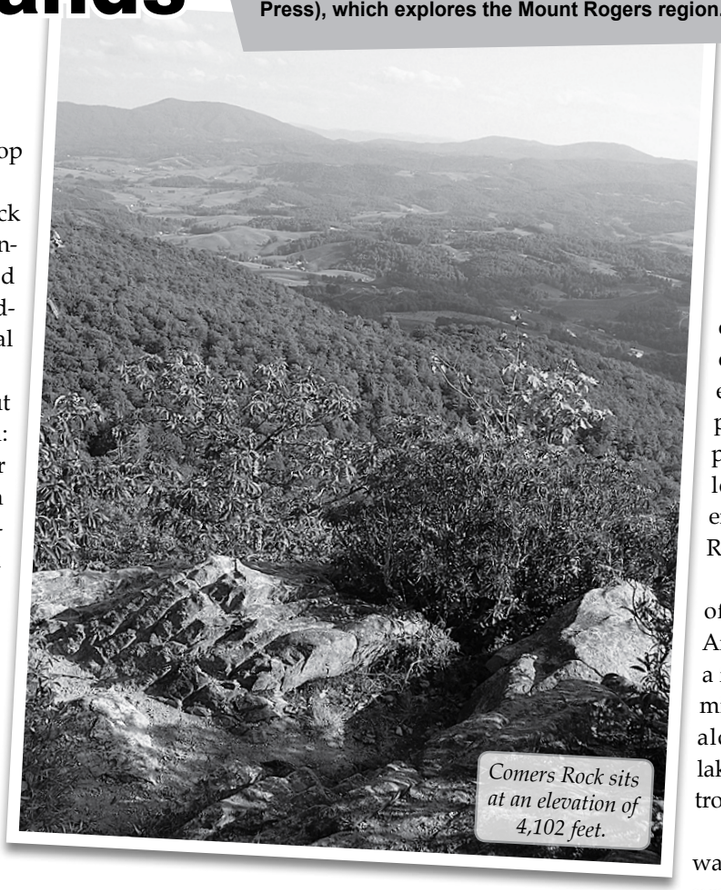
Then there's Comers Rock. It stands by itself, northeast of the actual peak called "Mount Rogers." Here, wooden rails mark the site of a long-gone lookout tower, built in 1928 atop the actual outcrop called "Comers Rock."

To the north, Comers Rock overlooks the tree-topped mountains of Wythe County, folded like chunky waves on the endless horizon, high above Rural Retreat.

It's just as unforgettable, but very different, looking south: Pockets of green curves appear in Elk Creek's bowl between Buck Mountain, Point Lookout Mountain and the Iron Mountains of central Grayson County.

In early spring, frost clings to evergreens at Comers Rock. The white coating crusts the bluegrass, too, in the valley of the Comers Rock community, a farming hamlet where old stores stand along VA-658 and VA-672.

Comers Rock is a pretty place--though quite quiet-- and framed by century-old farmhouses and dotted with cattle. The post office closed in 1962, and now the community, unfortunately, unlike the rock itself, hardly finds its way on maps.



Comers Rock sits at an elevation of 4,102 feet.

JOE TENNIS is the author of *Southwest Virginia Crossroads: An Almanac of Place Names and Places to See* (The Overmountain Press), which explores the Mount Rogers region.

WHO IS COMER?

Well, one theory suggests the name "Comers Rock" originates from a man named Comer who evaded serving in a particular war by using this mountaintop rock as a hideout. Another story says the rock was simply named for the many Comers who settled in north-central Grayson County. These days, it's probably harder to drive to Comers Rock - the lookout - than it is to finally just get out of your vehicle and walk to the overlook.

Just picture a rough road - mostly dirt and rutty. It follows up to a circular drive. From there, it's only about a 150-yard hike, climbing stone steps, to reach Comers Rock.

Going back down the entrance road and turning east, you'll reach the Comers Rock Recreation Area - a primitive campground and picnic site. It is among the least-used facilities in the entire Mount Rogers National Recreation Area.

Go almost two miles west of Comers Rock Recreation Area and you'll see Hale Lake, a five-acre fishing hole where minnows and tadpoles feed along forested banks. This lake is sometimes stocked with trout.

Hale Lake, too, offers a rewarding, though short, hiking experience.

Measuring less than a mile, a shoreline trail encircles the lake.

Easy to follow and well-suited for children, this path rambles over tree roots and clings close to a marsh thicket. It passes across a few bridges, built to protect hikers' feet from muddy streams. It also slips past many good-looking fishing holes. Every 200 yards or so, the trail offers another view of the water. Hale Lake is not only popular for those wanting to wet a lure. It is also a great springtime picnic place.

Comers Rock and Hale Lake

HIKING LENGTH: About one mile

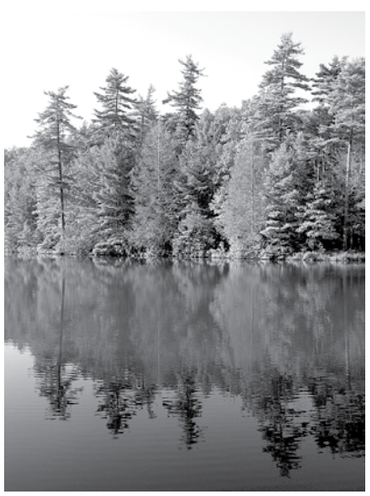
WHERE TO START: Hale Lake trail is about one mile. Comers Rock Trail is about 150 yards from the parking area.

TO GET THERE: From US-58 in Independence, follow US-21 north for about 14 miles. Turn left on USFS-57 (Hales Lake Road) at the Grayson-Wythe county line and head west for 3.6 miles to the campground. Continue west for a quarter-mile to the Comers Rock Overlook road on the right; it leads a quarter-mile uphill to a circular driveway, where stone steps reach the overlook platform within about 150 yards. To find Hale Lake, drive 1.5 miles west of the overlook road on USFS-57 to a gravel parking lot.

PARKING: No fee required.

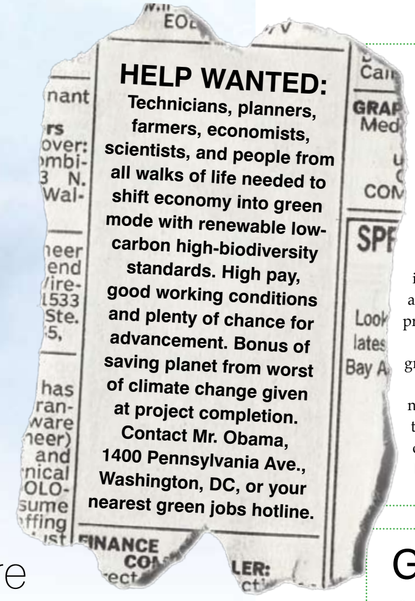
DURATION: The hiking is easier than the driving. Most of your time will seem like it's being spent on dusty roads, just trying to get there. Drive slowly - especially on the road leading to Comers Rock.

INFO: (800) 628-7202



Hale Lake spans about five acres in the Mount Rogers Recreation Area

Windmills rise above the fog at Buffalo Mountain wind farm in Tennessee. Photo by Chris Irwin, United Mountain Defense



Green Collar Jobs

Sustainable Jobs for the Appalachian Future

Story by Gregory McNamee

A quarter-century ago, a friend of mine moved from Wytheville, Virginia, to southern Arizona to take a job in an emerging, fast-growing field: installing rooftop photovoltaic panels to take advantage of the desert's one great abundance, solar energy.

He flourished—briefly.

Then, for reasons that political historians have yet to explain, the Reagan administration abolished the tax credits for investment in renewable energy. My friend was soon out of a job.

From time to time, particularly when I want to work myself into a lather, I think what might have happened had we not lost that quarter-century of green-energy innovation.

Ah, well. The fact is, even with all those lost years, we are far ahead of where we were when I first entered the job market, in the dimly receding days of Watergate. That era saw the introduction of the term "energy crisis." The economy was in the tank, too. We heard well-meaning pleas to conserve, to save, and to adopt alternate fuels and technologies. We had a junk-bond debacle, a savings-and-loan scandal, terrorist attacks, and failed pension funds. We saw astronomically rising healthcare costs, massive job losses, and a turbulent market that suffered a 45 percent decline in a single year.

Installing a uni-solar PV roofing system. Courtesy of DOE/NREL, Credit – Joseph Burdick

In short, things were just about as they are now.

The difference is that now we seem to be truly serious about doing something about all the messes we're in, particularly on the energy front. If that is true, then--for all the scary news on the economic front--this seems to be a very good time to be alive—or, at least, a very good time to be coming into the renewable-energy job market. For, once now-frozen credit starts to thaw and infrastructure-development funds start to flow, green jobs will open up in every region of the country, and will demand an educated workforce to fill them.

For the last several years, businesses have been talking green, so to speak. Now, by virtue of economic necessity and consumer demand alike, they're acting on the talk. Organic food production—definitively more energy-efficient than the old industrial model—is no longer exotic. Neither are wind turbines, solar panels, hybrid cars, all of which will become ever more commonplace in the coming years. For its part, the Obama administration projects the addition of something on the order of 2.5 million green jobs in the workforce in the next three years.

Broadly speaking, there are three categories of renewable-energy, green-collar jobs, though these categories are not found in the classified ads.

The first comprises jobs of the present: work, in other words, that seeks to improve the way we do things now, that seeks to enhance present technologies. Amory Lovins, the renewable-energy guru, is exemplary here; much of the work of his Rocky Mountain Institute goes to consulting with manufacturers to realize efficiencies in production by what Lovins calls "doing more with less through smarter technologies." Doing more with less means weatherproofing homes to stop heat loss, installing more efficient industrial motors, retrofitting vehicle fleets to burn biodiesel—all jobs that require engineers, analysts, mechanics, builders, and planners. The savings to be realized by implementing such changes are huge; by some estimates, with more efficient procedures and technologies in place, we can reduce our consumption of electricity by as much as 75 percent, for which reason energy efficiency figures prominently in President Obama's energy program (and for which reason energy management is likely to be a booming field in the coming years).

The second comprises jobs of the future, and they are myriad. West Virginia's Community Wind Initiative, for example, is seeking to replace coal consumption with wind energy, a task that will require workers of all kinds, from technicians and electricians to energy evangelists and even lawyers. The largest solar array in history is being erected in the California desert—and, apart from the grayer skies, there's no good reason why a cousin facility should not be erected in the Valley of Virginia. The mountains of Appalachia are also rich in possibilities for geothermal-energy development. Construction materials are becoming ever greener, and architects and builders who can put those materials to use on the micro and macro levels are in very short supply.

Continued on page 15

The Green Side of Heavy Industry

Story by Bill Kovarik

When most people envision green jobs, they see recycling, ecotourism and solar panels.

Luke Staengl, president of Pesco-Beam in Roanoke, Va., sees cellulosic biofuels, methane and hydrogen gasification, wood pellet manufacturing and other large-scale renewable energy production projects.

"The prospects are spectacular for green jobs in this region," Staengl said.

For about 15 years, chemical engineers at Pesco-Beam have been making truck-sized units for recycling used chemicals that would otherwise have been thrown away. The units have pipes, process vessels, valves and instrumentation. For an industry that was previously disposing of leftover varnish or other chemicals, recycling saves money and decreases pollution.

These days, with increased interest in green energy, Staengl envisions a network of decentralized biofuel and renewable energy system that will help create a less centralized economy.

"We need more jobs and a more diverse economy," Staengl said. "I think it's hugely important that we have a much more diverse and decentralized job market."

The kinds of jobs to be created in the biofuels and renewable gas industry will include instrumentation and process energy technicians, biochemical engineers and mechanical engineers, Staengl said.

One of the main barriers to building regional bioprocessing facilities is the lack of financing, so Staengl hopes that stimulus money will help create local investment mechanisms working with state governments.

"We're creating jobs, reducing the carbon footprint, reducing waste and unhooking from dependence on Middle Eastern oil supply, which has cost us a huge amount of money for the past 50 years," he said.

Workers at Pesco-Beam in Roanoke, VA complete work on a molecular sieve. Photo courtesy of Pesco-Beam, www.pescova.com

Green Entrepreneur Offers Energy Solutions to NC High Country

Story by Sarah Vig

Boone, N.C. resident Kent Hively says he considers himself a "green collar worker," but in truth, he's also somewhat of a green entrepreneur.

Hively started his business High Country Energy Solutions five years ago, before the term "green jobs" was the buzzword it is today. He had learned about alternative energy as a college student in Appalachian State University's appropriate technology and sustainable development degree programs, and after graduation worked with an engineer designing heating and cooling systems.

But Hively wanted to expand his horizons to include a number of different alternative energy projects. He says the goal of his business is to "help people in the Appalachian region find energy-efficient options in residential homes." To this end, his business offers a number of services including energy audits, weatherization, insulation, air sealing, solar thermal water heating and solar-heated radiant floor heating, photovoltaic installation, microhydro and wind.

Kent Hively of High Country Energy Solutions

As might be expected, the green "buzz" that's been generated over the last year has definitely been good for business. "When people know what they're asking for, they're more likely to ask for it," he explained.

When he started the business he had to do "virtually everything" himself: take calls, do consultations, keep the books, do installations, conduct energy audits and more. Since then, his business has grown; he now has eight employees on his payroll. He says he hopes that money from the congressional stimulus package, which included $6.2 billion for weatherization of low-income homes, will go to companies like his so he can continue to grow. "It's important for people to know that it's possible to do a job that's socially just and still economically viable," Hively said.

For more information, visit www.hcenergysolutions.com or call (828) 265-2683.

Photovoltaic Prospects Are Sunny

Story by Bill Kovarik

The phones are ringing off the hook at Solar Connexion in Blacksburg, Va., but Brian Walsh is out in the field installing photovoltaic panels.

Keeping up with the rising number of inquiries is a dilemma that Brian Walsh faces as he thinks about how to expand his solar photovoltaic business.

"We are now in the process of figuring out how we are going to grow," Walsh said. "I feel we are only taking fraction of potential that's there."

Established 20 years ago, the solar business has seen a steady rise over the years, to the point where a one-man part-time business has grown to include several full-time installers.

At some point, the business will need more of a front-end office and educational effort. And that requires investment capital, a rare commodity in a recession economy.

The time between an initial contact and final installation tends to be longer in the solar business than other kinds of enterprises, Walsh notes. Usually, there is about eight months of lag time while customers consider their options.

"It's a long-term term investment no matter how you break it down," Walsh says. "If you put realistic factors into the capital investment, you can justify a 20 to 25 year payback [before tax incentives]," he said. Yet many systems last from 80 to 100 years. "You could say it's an heirloom purchase," Walsh says.

The cost of a residential photovoltaic array, without backup batteries, is about $7,000 to $11,000 per installed kilowatt, he said.

A lot of people will buy part of a system and expand it over the years, Walsh says. "Of course, the smart thing is to spend effort and money to make a home more efficient and use less electricity in the first place."

For more information, visit www.moonlightsolar.com.

Brian Walsh installs photovoltaic panels across the state of Virginia. Photo by Pam Owen

Blue Skies for Green Education

Story by Bill Kovarik

As new green technologies transform the economic landscape, the need for focused education and training has become apparent. While only a few pilot programs specifically designed for green collar jobs are currently in place, community colleges and universities are poised for dramatic expansion.

Climate change and federal stimulus dollars are spurring most of this growth, but the pull of new jobs and student interest is also stimulating new programs and initiatives.

Ged Moody, Chris Crezmien and Brian Taddonio stand in front of an inverter and the grid connections for a photovoltaic system that provides power to the university's biodiesel research facility. At the time of this photo, all were students in Appalachian State University's Appropriate Technology program. Moody is now an instructor and Taddonio is now a grad student, both at ASU. Photo courtesy of Ged Moody

"It's very exciting," said Andrew McMahon, a biofuels instructor at North Carolina's Central Carolina Community College. "We're feeling our way along – blindly, sometimes. But we realized that if biofuels was going to be a signature industry for the state, we were going to have to train people to work for it."

Central Carolina had been teaching a course in biofuels since 2001, primarily focused on biodiesel for farm operations. In 2006, after a state committee's strategic plan called for more targeted educational growth and workforce development, CCCC began piloting a full biofuels program. It is the only community college technical program for biofuels in the region, but it will soon be joined by programs at the undergraduate and graduate level in North Carolina and Tennessee universities.

One of the most exceptional green education programs was established at Appalachian State University in Boone, N.C., in 1984. The Appropriate Technology major focuses on small-scale energy- and water-related technologies such as biofuels, solar water heaters, photovoltaics and small wind systems.

The program director, Dennis Scanlon, says that the employment outlook for graduates is getting better every day. The program will be expanding with the new stimulus package funding for green jobs.

Similar programs are being established in other states, such as a renewable energy major at John Brown University in Arkansas and a sustainable food and bioenergy systems major at Montana State University.

According to a National Council for Workforce Education report entitled "Going Green," many jobs that are currently in demand are 'middle-skilled' jobs that require more than a high school diploma but less than a bachelor's degree. Community colleges exist to fill that gap, the report said. "It is important to note that although there will be a growing number of new green occupations requiring new knowledge, skills, and abilities, it is expected that the majority will be transformed from existing jobs, requiring a redefinition of skill sets, methods, and occupational profiles," the report said.

While community colleges will see the emergence of first line renewable energy and conservation technicians and professionals, a second line of jobs are coming from existing university programs that adapt to new needs, according to Dennis Grady, former director of Appalachian State's Energy Center and current graduate dean at Radford University.

At the university level, "most of the initial push for green jobs will involve tweaking what's already there," Grady said. Programs such as green engineering, green chemistry, or merged agriculture and environmental studies, have been available since the 1990s and are now set to grow rapidly.

At Virginia Tech, for example, a long-standing interdisciplinary green engineering minor is designed to help students understand the environmental impacts of engineered products and systems. Many similar programs have been adopted in the Appalachian region.

Most scientific or engineering professions now have some efforts underway, according to the Disciplinary Associations Network for Sustainability, which includes 20 major academic groups committed to focusing on climate change and sustainability in their curricula, research and professional development.

Even business schools are getting into the act, with one-third of all U.S. business schools now offering a special concentration that allows MBAs to focus on social and environmental issues, according to a recent Aspen Institute study.

In addition to the greening of established curricula, programs targeted to specific green industries will also be emerging over the next few years. For example, 20 graduate programs for biofuels have been funded through the National Science Foundation and USDA. At the University of Tennessee, the Biosucceed program is developing six graduate and two undergraduate classes. The program web site says the classes will be offered at no cost to the national biomass community.

While few would dispute the need for refocusing traditional disciplines on climate and energy issues, many universities are facing internal controversy over changes to traditional science majors.

"No one would argue for a monomaniacal focus on carbon or climate in the curriculum, but the fact is that the climate change now under way will touch the personal and professional lives of all of today's students, whether they major in neuroscience, Romance languages, or studio art," said John Peterson of Oberlin College in a Chronicle of Higher Education article.

"Courses that focus directly on climate change are crucial to building expertise, but a systemic approach is necessary to ensure that the entire campus community and the full spectrum of disciplinary perspectives are brought to bear on the challenge before us," Peterson said.

EXAMPLES OF HIGHER ED. GREEN MAJORS & PROGRAMS

Community colleges

Trade and technical training

Community colleges are responding quickly to workforce training as new jobs open up in the energy management, renewable energy, and agricultural areas. Innovative new associates degrees or certificate programs include:

- Renewable fuels -- Central Carolina Community College, Pittsboro, NC
- Renewable energy, water conservation, energy management -- Lane Community College, Eugene OR
- Wind energy technology -- Cloud County Community College, KS and Iowa Lakes Community College, IA.
- Renewable energy technology -- Red Rocks Community College, Lakewood, CO
- Water conservation, solar energy -- Santa Fe Community College, NM
- Industrial energy efficiency -- Great Basin College, Elko, NV
- Environmental technology -- Cape Cod Community College, Barnstable, MA
- Alternative energy technology-- Lansing Community College, Lansing MI

For more information see "Going Green: The Vital Role of Community Colleges" (http://www.ncwe.org)

College Undergraduate

New majors for the green economy

The greening of existing majors includes environmental studies, sustainability studies, green engineering, green chemistry and green architecture. Examples of new majors include:

- Appropriate technology, Appalachian State, Boone, NC
- Sustainability and environmental studies, Berea College, KY
- Sustainable food and bioenergy systems, Montana State
- Eco-gastronomy, Univ. of New Hampshire
- Ecological engineering, Oregon State
- Renewable energy, John Brown University, Arkansas

College Graduate

Examples of graduate programs include:

- Biosucceed graduate program for biofuels -- Univ. TN and NC A&T
- M.A. in sustainable real estate development -- Univ. MD
- Appropriate technology, Appalachian State, Boone, NC

Green Collar Jobs

Chad Vogel uses his team of suffolk horses to pull a log from the forest in Floyd County, Virginia.

Green forestry redefines the profession

Story by Bill Kovarik

They're not just loggers with horses.

When Jason Rutledge and his colleagues walk into the woods, they are thinking about how to protect the forest ecology, not how quickly they can deliver ten thousand board feet to the mill.

That's just one difference between traditional forestry and what Rutledge terms restorative forestry.

"We have a strong incentive to leave the forest better than we found it," Rutledge said, since the main object is to keep returning to a site through short harvest rotations. That way they, as well as the landowner, have an investment in the future of the forest.

Currently, restorative forestry is a niche occupation for Appalachia. It is valued for low-impact forest management and long-term sustainable growth, but it is more expensive than traditional forestry.

However, restorative forestry could become a source of green jobs in places where conservation practices are valued over timber production.

"It's interesting that the critics of our approach … point out that it is labor intensive and low production," Rutledge said. "Given the reality of over-production of forest products from conventional, mechanized, fossil-fueled power methods and the resulting decline in the market value of those materials, any method that simply reduces volume and requires more human input means more jobs."

About 50 people have trained at the Healing Harvest Forest Foundation, founded ten years ago by Rutledge in Copper Hill, Va.

For more information, visit www.healingharvestforestfoundation.org.

Green Collar Jobs

Continued from page 12

The third comprises jobs of the past—interrogating history and custom for more efficient ways of doing things. In Appalachia, as elsewhere, people lived greener a century ago than they do now: food was produced in gardens and not trucked in from afar, wood was burned instead of propane, and so forth. I would like to think that any comprehensive approach to renewable energy will find room for folklorists, oral historians and others who can help identify what Gary Snyder calls "the old ways"—the ones that worked, and that deserve to be remembered and revived.

All of these jobs require smart, hard-working, well-trained and well-educated young people, and in that we are blessed with wealth. All of these jobs are, in one form or another, going to be available to the young people of Appalachia, just as, in one form or another, they are going to be available to young people everywhere on the planet. The future is unwritten, but it is upon us, and those young people have a bright future ahead—assuming, of course, that the world holds together long enough for us to band together to fix it.

The spirit is willing, the politics in alignment, and the need for green approaches increasingly self-evident, so that, even as we argue whether nuclear energy should be part of the mix or whether coal gas is a viable avenue of development, every niche in the ecology of the economy and of the workforce is looking to become ever more sustainable, ever more dependent on green solutions.

- - - - - - - - - - -

Gregory McNamee is the author of over a dozen books on environmental and cultural topics, including Careers in Renewable Energy: Get a Green Energy Job (2008); Moveable Feasts -- The History, Science, and Lore of Food (2008); The Desert Reader (2003); *and others). He lives in Tucson, AZ, but says he increasingly finds himself drawn to Appalachia.*

Green Collar Jobs

Clean Energy Corps

A BENEFIT FOR THE ECONOMY AND THE ENVIRONMENT

By Linda Brinson

The Clean Energy Corps has the potential to be an economic as well as an environmental boon for the Appalachian region.

At the national level, the Clean Energy Corps is still a proposal, but many people are working to make sure that it becomes a reality. Some states, including Kentucky, are moving ahead with their Clean Energy Corps initiatives.

The national proposal got a boost March 10 when President Obama tapped Van Jones to become a White House "special advisor." Jones is the founder of Green For All, a green jobs advocacy group, which is one of the primary members of the Clean Energy Corps Working Group. Other members include the Center for American Progress, Center on Wisconsin Strategy, Energy Action Coalition and Laborers' International Union of North America.

In February, that working group, with the support of more than 80 labor, environmental, civic and policy organizations, laid out its Clean Energy Corps (CEC) proposal. The idea is to move toward clean energy, combating global warming in a way that also helps local economies by creating jobs and providing training and service opportunities. The CEC would help the environment, help people move out of poverty, and help communities develop sustainable economies based on clean energy.

The proposal is designed to build on the Obama administration's energy goals and to channel billions of dollars in green energy provisions in the economic stimulus package where they can do the most good. U.S. Secretary of the Interior Ken Salazar spoke of those goals March 1 to the 12,000 young people gathered at Power Shift 2009 in Washington. The current "moment of crisis," Salazar said, is also "a moment of opportunity for all of us to change the world." America must move away from dependence on fossil fuels, he said, to ensure security, to reverse global warming and to build "a new green energy economy."

The proposal is designed to build on the Obama administration's energy goals and to channel billions of dollars in green energy provisions in the economic stimulus package where they can do the most good.

One of the major thrusts of the CEC would provide young people opportunities to get involved in service and training similar to AmeriCorps. Passed recently by the U.S. House of Representatives, this effort would work on the local levels largely through existing nonprofits, universities, and local and state governments.

Many who attended Power Shift are lobbying Congress to make various aspects of the CEC a reality.

Sandra Diaz, Appalachian Voices' national field coordinator and a Green For All fellow, describes the CEC as similar to the Depression-era Civilian Conservation Corps. The long-range goal is to expand the green energy jobs initiatives in the stimulus package into a permanent program, and to provide lasting "green collar" jobs as well as low-wage service-learning jobs.

Appalachia should benefit, Diaz said, because there is a determined effort to direct a significant share of the green jobs money to the communities that need it most: rural and impoverished areas that have been disproportionately hurt by the fossil fuel economy. "We like to call them energy sacrifice zones," Diaz said. They include states such as West Virginia and Kentucky where coal is mined, and states such as North Carolina where it is burned widely in power plants.

With its emphasis on renewable fuels, the CEC should help Appalachian communities make the transition from coal to more sustainable economies, Diaz said. It should help the fight against the mountaintop removal mining that has been so detrimental to the region, she said. "MTR is a jobs killer," she said, because it employs fewer people than traditional mining, but even more so because the blasting and pollution make the area unfit for any other industry to move in. As an example of what might happen, Diaz cited an effort in West Virginia to block a proposed mountaintop removal mine on Coal River Mountain – to instead build a wind farm there that would provide 200 construction jobs and 50 permanent jobs.

Such projects are among longer-term goals. The primary immediate thrust of the CEC is weatherizing buildings, especially low-income homes. That's a natural target: It benefits low-income people by saving them money; it puts local people to work; and it helps the environment because buildings account for about 40 percent of climate-changing greenhouse gases.

Kentucky has emerged as a national leader. Jonathan Miller, the secretary of the Kentucky Finance and Administration Cabinet, began working on the weatherization project last fall. In February, Kentucky became the first state to use the Clean Energy Corps name locally and began a pilot project using state and private funds. Now it will expand its efforts with federal stimulus money.

Staffers with Kentuckians for the Commonwealth, part of a coalition supporting the effort, said that it is already becoming apparent that while there will be a role for volunteers, there is a need for training for specific skills. Efforts are underway to work with the state's technical and community colleges to help prepare people for what should be lasting jobs.

Historic Blair Mountain Battlefield Wins Recognition

Organizers Hope Register Status Will Help Protect The Mountain

Story by Peter Slavin

The nearly 30-year struggle for federal recognition of the Blair Mountain battlefield in West Virginia, scene of an epic military clash in 1921 between thousands of armed union miners and the coal establishment, climaxed on March 30 with its placement on the National Register of Historic Places. The announcement by the National Park Service rewarded a tireless campaign by local residents, environmentalists and others. Last year, West Virginia's historic preservation office finally nominated the battlefield to the register and the Park Service agreed it warranted special status.

The decision, which protects just the 1,600 acre battlefield, not the entire mountain, does not—contrary to widespread belief-- guarantee protection of the site. Listing on the register "will not in and of itself prevent further strip mining on the mountain," says historian Barbara Rasmussen, who chairs the West Virginia Preservation Alliance's task force on Blair Mountain.

Property owners remain largely free to do as they please with land on the register, including mine it. Still, Rasmussen says, strip mining would require a federal permit, triggering a review of its impact on the battlefield. In addition, federal agencies would feel political pressure to protect the site. That probably makes strip mining less likely. Still, Rasmussen warns, there's no telling whether it will occur.

Blair Mountain in Logan County was the scene of a violent encounter between upwards of 20,000 union miners and civilian supporters bent on unionizing exploited miners and state and local authorities backing the coal operators. The undeclared civil war, known as the Battle of Blair Mountain, lasted for close to a week until federal troops were called in and declared martial law. Total casualties were never revealed.

"National Register designation is a vitally important step in the preservation of Blair Mountain, a site we listed as one of America's 11 Most Endangered Historic Places in 2006," said Richard Moe, president of the National Trust for Historic Preservation. "Nevertheless, the threat of coal mining activity at Blair Mountain remains present, and we will continue to vigorously oppose mining efforts at the site."

To Rasmussen, "This battlefield memorializes the beginning of a long struggle to bring the benefits of unionization to America's working people." Despite the standoff at Blair Mountain, in the 1930s, organizing spread among coal miners. The United Mineworkers, in turn, helped organize steelworkers and autoworkers into their own unions.

Wess Harris, publisher of the groundbreaking history of the battle *When Miners March: The Story of Coal Miners in West Virginia*, believes Barack Obama's election helps explain the government's decision. With the Bush administration gone, he said, federal officials could make a decision free of political interference. Bill Price, a Sierra Club official, agreed that five years ago the betting would have been against Blair Mountain being listed.

Earlier efforts to memorialize the battlefield foundered at the state level, owing to coal company opposition and lack of unimpeachable archaeological evidence of the battle. Even from the UMW union there was largely deafening silence about Blair Mountain. The mountain is estimated to harbor hundreds of millions of dollars worth of coal, and every ton mined means tax dollars for the state treasury and the union's pension fund. There already has been mountaintop removal mining on part of the mountain.

Kenny King and Appalachian Voices founder Harvard Ayers survey over one hundred rifle casings found in a one-foot diameter area along Spruce Fork Ridge on Blair Mountain. The archeological finds helped convince the Park Service to put the area on the Historic Register

For years, the position of coal companies was that few vestiges of the battlefield remained, so why memorialize it? That argument and the archaeological one were demolished three years ago, when professional archaeologist Harvard Ayers documented the presence of 15 different battle sites, trenches strung with telephone wire, and over 1,000 artifacts, including 26 kinds of rifles, shotguns, and pistols.

Perhaps more than anyone else, credit for federal intervention to preserve the battlefield belongs to Kenny King of Logan County, whose grandfather and great uncle fought on opposing sides of the battle. King relentlessly dug up artifacts buried on the battlefield, and for a decade waged a lonely struggle to save it, jeopardizing his coal company job in the process. At one point he brought over 200 photos of battle sites and artifacts to state officials, but they were dismissed because he was only an amateur archaeologist.

Eventually, a loose alliance of environmental groups called Friends of the Mountains stepped in to help King with mapping, aerial photographs, and a historical narrative. That got the ball rolling.

Still, the fight over preserving Blair Mountain may not be over. Supporters are on guard. King says the other side is talking to landowners on the mountain. Price believes the coal industry is doing so in preparation for trying to overturn the government's decision through litigation. If they do, he said, the Sierra Club will join the legal battle.

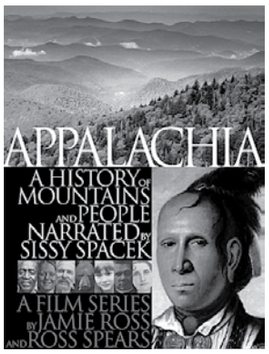
Price added, "We have always said to the company, 'We are not trying to keep you from your coal. If you want to mine it underground…then we'll work with you on that. But you can't blow up the mountain.'"

That way, he says, "They'd get their coal and we'd get our history."

For a complete story on the history of Blair Mountain, visit www.appvoices.org/blairmountain.

Film Explores Appalachia's Environment

Story by Linda Coutant



A new film about the Appalachia region underscores a universal truth Western Civilization seems to struggle remembering: humanity is part of the environment, not separate from it.

Appalachia: A History of Mountains and People airs on PBS four consecutive Thursdays beginning April 9. Produced by award-winning filmmakers Jamie Ross and Ross Spears and narrated by Academy Award-winner Sissy Spacek, this four-hour series is considered the first-ever environmental history film.

The filmmaking duo of Ross and Spears spent 10 years on this documentary, which explores the intersection of natural history and human history in a biologically rich, diverse and beautiful mountain region. Its four parts focus on Appalachia's geological formation, clash of European and Native cultures, industrial age and the search for identity in the 20th and early 21st centuries.

Interviews include Pulitzer Prize-winning biologist E.O. Wilson, best-selling novelist Barbara Kingsolver, the late writer Wilma Dykeman, historian Ron Eller of the University of Kentucky and anthropologist Harvard Ayers of Appalachian State University.

More untruths are known about Appalachia than any other region in the United States, explains Ross, which is why she, a longtime Asheville, NC resident, and her filmmaking partner Spears, who grew up in Johnson City, Tenn., felt a new look at the mountains was needed.

In their storytelling, they make the mountains a central character, rather than a natural backdrop.

"I was constantly excited and flabbergasted to learn of the extraordinary diversity of life in this region: There are more species of salamanders in the Smoky Mountains than any other part of the world," said Spears.

"For environmental change, we need to include the environmental part of the story. Our hope is that viewers of our film will look around – wherever they live – and become more aware of their surroundings and develop a conversation about what we can do to protect our natural resources," Ross said.

Visit the films' website www.appalachiafilm.org for details.

WHEN TO WATCH

Appalachia: A History of Mountains and People

April 9, 16, 23 and 30 at 10 p.m. on PBS

Less Twittering in the Trees

Continued from page 10

destruction and fragmentation within a globally significant and biologically diverse forest system, and the impairment of downstream water quality." The EPA signaled its intent to review other coal mining permit applications as well.

Secretary of the Interior Ken Salazar released the first-ever *The State of the Birds* report that "reveals troubling declines of bird populations during the past 40 years—a warning signal of the failing health of our ecosystems."

Smith said the American Bird Conservancy is encouraged that the current administration is taking a step back to conduct a scientific review of the overall ecological impact of coal operations, and he expects *The State of the Birds Report* to have a significant and positive effect on conservation efforts.

"We have a steep hill ahead of us," Smith said, "but the track record has shown that if we synthesize our approach and methods, we can be successful."

This billboard was spotted on the highway heading in to Nashville, Tennessee in March, 2009. The sign was erected by the Tennessee-based Lindquist-Environmental Appalachian Fellowship (LEAF) with help from the Natural Resources Defense Council (NRDC).

Editorial

Earth Day 2009

Americans celebrated the first nationwide Earth Day 39 years ago, in 1970.

Usually we remember such events when they fall on a decade or a century mark, and of course, next year's 40th anniversary will be on everyone's calendar.

It's important to remember, however, that by this time 40 years ago, a nationwide Earth Day movement was already in the works. Then-Senator Gaylord Nelson had been planning the event since 1963, when he talked President John F. Kennedy into a five-day, 11-state conservation tour. There were offices being staffed and meetings being planned. Things were happening.

They say every overnight success is years, or even decades, in the making. This year, as we celebrate the environmental victories at Blair Mountain, W. Va. or in the EPA permitting process, let's remember that this has been a painstaking, step-by-step process of researching injustice, arousing public opinion, building coalitions, and trying to compel reform.

Next year, on Earth Day, we hope to be celebrating a major victory with the Clean Water Protection Act, which would ban all mountaintop removal coal mining. There has never been a better time to go forward, but we need to remember what is at stake: Appalachia is rapidly losing its wealth of biodiversity and clean water.

So, yes, it's a very happy 39th Earth Day. But let's not recline on a few temporary laurels.

Herculean efforts are needed; every voice is necessary, now more than ever. Saving Appalachia is not going to be easy.

But if we pull together, by next year's 40th anniversary, we might have a worthy story to tell our grandchildren.

Letters to the editor

Appalachian Voice welcomes letters to the editor and comments on our website. We run as many letters as possible, space permitting. The views expressed in these letters, and in personal editor responses, are the opinions of the authors and are not necessarily the views of the organization Appalachian Voices. Write to editor@appvoices.org.

Pesticide Use Continues to Decline on Tree Farms

To the Editor:

This letter to the editor is in reference to Sarah Vig's article "A 'Greener' Christmas Tree" that appeared in the Winter edition of Appalachian Voice.

First of all, a word of thanks to Sarah for her article, those of us who have Christmas tree farms continue to work diligently to improve the quality of our trees and the farms we own, operate and often live on. Integrated Pest Management is a huge part of that. In recent consultation with Dr. Jill Sidebottom from North Carolina State (whom Sarah cites in her article), the figure you quoted regarding active ingredient insecticides/miticides of 4.1 pounds per acre has been cut in half in the nearly 10 years since that study was conducted and it continues to fall. In practical terms, the usage is now less than .0007 of an ounce of active ingredient per square foot per year. And it is worth noting that the Christmas tree industry follows established buffer guidelines that protect our streams and rivers. We acknowledge and support that ancient bit of wisdom that "we all live downstream." Thank you sincerely for the opportunity to join the conversation.

Sincerely,

Scott Ballard

West End Wreaths and Choose and Cut

Power Shift Means Paradigm Shift

On March 2, I joined Kentucky farmer-poet Wendell Berry, 350.org mastermind Bill McKibben, NASA climate scientist Dr. James Hansen, Yale Forestry and Environmental Dean Gus Speth, environmental lawyer Bobby Kennedy, Grammy Award winner Kathy Mattea, Actress-activist Daryl Hannah, a host of other notables, and more than 2000 other informed, caring and committed individuals who gathered in Washington, D.C. Our assembly included an impressive number of young people, significant numbers of Native Americans whose land and people have for years been abused by oil and coal industries, and many residents from the coalfields of Appalachia whose land and people have also suffered great abuses—the stories of some of these "sacrificed" people literally moved me to tears. So young and old, abused and privileged, we streamed in from all parts of the U.S. and beyond to join together in an act of mass civil disobedience. We were willing-- in an orderly and civil way-- to disobey the law of the land in order to obey the mandates of our consciences. Frigid temperatures, chilling winds, and deep snow did not stop us.

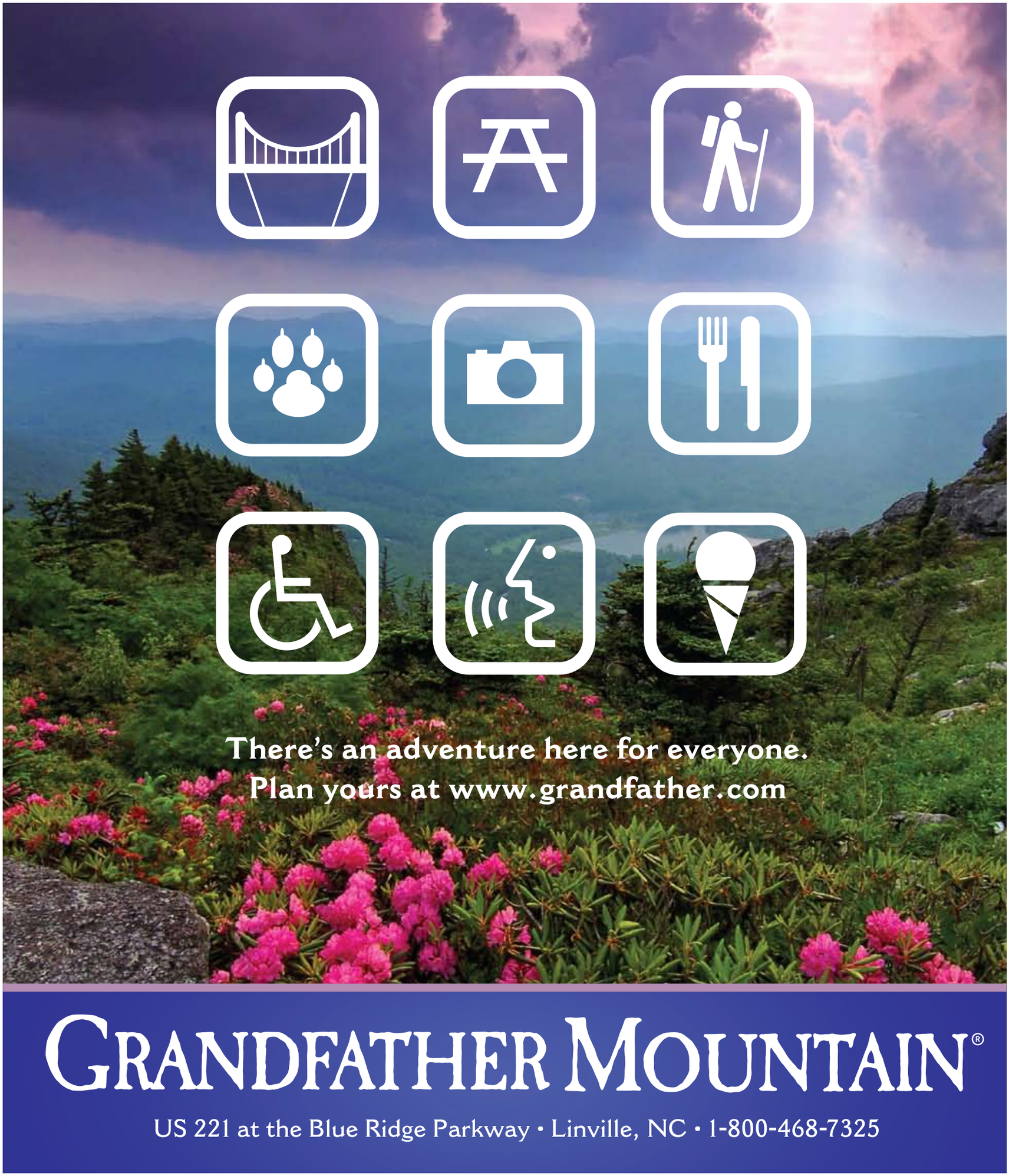
Our presence succeeded in shutting down the coal-fired power plant that supplies heating and cooling for Congress for that day. The Capitol Power Plant was a symbol chosen to send a clear, unmistakable signal to Congress, to our president and to the world that we are committed to a dramatic shift away from polluting fuels that poison our people and compromise our planet. Climate experts such as Dr. Hansen warn us that the level of carbon dioxide in our atmosphere (currently 379 parts per million and rising) is already so dangerously high that life as we know it on earth cannot be expected to continue unless we act immediately to reduce the level in our atmosphere to 350 ppm or less. Coal is the world's single greatest source of carbon dioxide in the atmosphere. Therefore, we cannot afford to let the political power and entrenched interests of the coal industry deter or delay us. It is imperative that the world quickly move beyond coal into a new age of renewable power, and the U.S. needs to be a leader in this crucial shift.

I have the clear sense that our rising up on that day was tangible evidence of the desire and demand of the people to rise up to a higher way of living on earth—to move beyond our current paradigm of extracting and expending resources from the earth and contending with the wastes we create in the process—to move beyond a paradigm that allows some groups of people to suffer excessively from the ill effects of such choices—to move beyond our current economy-based, growth-driven, resource-consuming, waste-generating, insensitive paradigm to a new paradigm, a new way of life that can be sustained by all people everywhere without harm to our earth, without harm to ourselves.

I believe that one day we will look back—we will look back on today and wonder how we could have ever polluted and poisoned our earth and our people. One day we and those after us will look back and recognize that the recent event in Washington was a small part of an uprising which is itself one more step in our civilization's awkward and glorious journey toward Justice—toward Justice and Fullness of Life—for All. So I invite everyone to join together to creatively, thoughtfully take whatever risks we may be required to take as we rise up—and we will rise up, wave after wave of us, we will rise up—into a new tomorrow—a tomorrow in which we live as if we truly cherish this precious planet and all who live and move and have their being hereon.

Margaret Stewart

March 2009


There's an adventure here for everyone.
Plan yours at www.grandfather.com
GRANDFATHER MOUNTAIN®
US 221 at the Blue Ridge Parkway • Linville, NC • 1-800-468-7325

Naturalists Notebook

Scientists Describe Champion Trees of Virginia

Story by Maureen Halsema

As I scrambled down the hill along the Appalachian Trail in Craig County, I could see gargantuan branches protruding in every direction. I realized that I had found the Keffer Oak.

The massive branches spiraled around this centuries-old tree trunk covered with moss and snow. I stepped over a section of a rusted barbed wired fence, noticing sections that had been absorbed by the trunk of this impressive life force. It was bigger than I had imagined.

I craned my neck, staring up into the branches of this fantastical tree that seemed like it had been drawn from a storybook. The gnarly white oak is estimated to be 300 years old and over 18 feet in circumference. It's one of the largest standing trees on the AT, the faded white blaze barely visible on the old bark.

"It serves as a sturdy representation of Virginia for all the thru-hikers who pass by on the trail each year," Virginia Tech forestry professor Jeff Kirwan wrote in a new book, *Remarkable Trees of Virginia*. .

Kirwan teamed up with garden writer and lecturer Nancy Ross Hugo and photographer Robert Llewellyn to write this book to showcase the state's most special trees and to connect a new generation to its roots.

The trio published the book of nominated trees in September after four years of work. The Virginia Big Tree Program, funded by Trees Virginia (the state's urban forestry council) and coordinated by Kirwan, provided the foundation from which the authors worked.

The program continually identifies and catalogs the state's largest trees. These "champion trees" are determined by a formula using the tree's circumference, height, and crown. When Kirwan first decided to update the state's list of champion trees several years ago, he expected to find as many as 30 percent of the listed trees perished or gone. To his dismay, over half of the original 52 trees identified by the program were dead or severely injured. Sadly, approximately 25 percent of the landowners were not aware that they had champion trees on their property.

Virginia's diversity among species of trees has traditionally ranked high in the national register of trees. According to American Forests, which publishes the National Register of Big Trees, Virginia ranks fifth in the nation for champion trees. The state is home to 56 national champion trees, the largest of their species.

The Virginia Big Tree Program provided a starting point for the *Remarkable Trees of Virginia* book project. The authors hope that the book will help increase awareness and appreciation for trees, particularly within local communities. "We're trying to emphasize the values of trees and the services they provide," Kirwan said.

"Trees, to me, are the highest and best representations of nature," Hugo explained. "I'm fascinated by them. After we looked at the Virginia Big Tree Program register, we envisioned a book that would not only unveil champion trees, but would also honor trees that were noteworthy for their age, beauty, history and community significance."

The book project was sponsored by Virginia Tech's forestry and fisheries and wildlife sciences departments, Virginia Forestry Education Foundation, Bartlett Tree Experts, Robert H. Smith Family Foundation, Peck Family Fund, and Trees Virginia.

Craig Keffer Oak

Kirwan grew up in a rural section of Maryland that has since lost its trees to the growing metropolitan areas of southeast Washington, D.C. This urbanization of forestland made him realize the true value of trees. "Trees connect us with our roots," Kirwan said. "Trees that are 300 or 400 years old have been witnesses to every single event of our country's history."

Four different people nominated one particular tree, the Emancipation Oak. Though it is not the largest of its kind, this remarkable tree resides on the campus of Hampton University. The Emancipation Proclamation was read for the first time in the South under this noteworthy oak by educator Mary Peake in 1863. Peake later taught some of the first lessons to newly freed men and women beneath this same tree. The National Geographic Society designated this oak as one of the 10 Great Trees of the World because it is witness to one of the most significant moments in our nation's history.

The *Remarkable Trees of Virginia* book, as well as the project's website, lists every nominated tree and the person who nominated it, regardless of whether or not that tree made the book cut. A major focus of the book project was to incorporate children in the nomination process. The authors involved scout troops, 4-H groups and schools.

"The project encouraged children to connect not just to trees in general but to specific trees," Hugo said. "We wanted them to look carefully at the trees in their neighborhoods, so that they would begin to feel connected to specific trees and their habitats, not just to anonymous nature."

Over 1,000 Virginia trees were nominated for possible inclusion in the book, which will feature the stories and photographs of 100 of Virginia's most special trees. "We have chapters of big trees, historic trees, community trees, tree places, unique or unusual trees, and noteworthy specimens," Kirwan noted.

Inside Appalachian Voices

Citizen Lobby Effort Wins Cosponsors for Clean Water Protection Act

Week in Washington Results In New Sponsors For H.R. 1310

Story by Sarah Vig

In the largest lobby effort to end mountaintop removal to date, nearly 150 people from 30 states joined forces in Washington, D.C. March 16 through 19 for the fourth annual End Mountaintop Removal Week in Washington. Their goal was to gain support for the Clean Water Protection Act (H.R. 1310) in Congress. The Clean Water Protection Act would effectively end mountaintop removal mining by making valley fills illegal and thereby preventing toxic mountaintop removal mining waste from being dumped into mountain headwater streams.

Organized by the Alliance for Appalachia, the lobby week brought together impacted coalfield residents, activists, and concerned citizens both from Appalachia and beyond. Their combined efforts brought on 10 new co-sponsors to the bill: Rep. Yvette Clark (D-NY), Rep. Michael McMahon (D-NY), Rep. G.K. Butterfield (D-NC), Rep. Paul Tonko (D-NY), Rep. Walt Minnick (D-ID), Rep. John Spratt (D-SC), Rep. Maxine Waters (D-CA), Rep. Linda Sanchez (D-CA), Rep. Jesse Jackson (D-IL) and Rep. Kathy Castor (D-FL). With these new co-sponsors, H.R. 1310 ended the lobby week with 133 bi-partisan co-sponsors after less than two months of recruiting in the 111th Congress.

Among the 133 are: eight bipartisan members from states in which mountaintop removal mining occurs; 19 bipartisan members of the Transportation and Infrastructure Committee, which will hear the bill before it can go to the floor; 11 bipartisan members of the Subcommittee on Water Resources and the Environment, which will hear the bill before it goes to the larger committee; six Republicans; eight freshmen; 26 members of the Congressional Black Caucus.

Over the course of three days, citizen lobbyists held over 150 meetings with members of Congress and their staffs. Overall, the group met with more than one-fourth of the House and one-third of the Senate.

In addition, a nationwide call-in campaign generated hundreds of calls to legislative offices urging their support of the Clean Water Protection Act.

How You Can Help

As we go to press on April 6, 2009, support for the Clean Water Protection in Congress has grown to 141 cosponsors. To keep track of the ever-expanding list of co-sponsors or to contact your representative about supporting the Clean Water Protection Act, go to www.ilovemountains.org/action/write_your_rep.

6th Annual Dine Out for the Mountains

APRIL 22 EARTH DAY EVENT TO BENEFIT APPALACHIAN VOICES

If troubled economic times have meant cutting back on your charitable giving or if you've been looking for a good reason to go out to eat, Dine Out for the Mountains has come to the rescue.

On Wednesday, April 22, a number of restaurants in the High Country of western North Carolina will donate a portion of the day's proceeds to Appalachian Voices in celebration of Earth Day and the organization's work to protect the region's beautiful Appalachian Mountains. You can support Appalachian Voices and our efforts to safeguard the mountains by Dining Out at one of the following restaurants:

Black Cat Burrito *(Boone)*
Boone Bagelry *(Boone)*
Canyons *(Blowing Rock)*
CiCi's Pizza *(Boone)*
Coyote Kitchen *(Boone)*
Dos Amigos *(Boone)*
The Gamekeeper *(Blowing Rock)**
Joe's Italian Kitchen *(Boone)*
Makoto's *(Boone)*
Mellow Mushroom *(Boone/Blowing Rock)*
Murphy's *(Boone)*
Our Daily Bread *(Boone)*
Pepper's *(Boone)*
Red Onion Café *(Boone)*
Reid's Café *(Boone)*
Six Pence Pub *(Blowing Rock)*
Woodland's Barbeque *(Blowing Rock)*

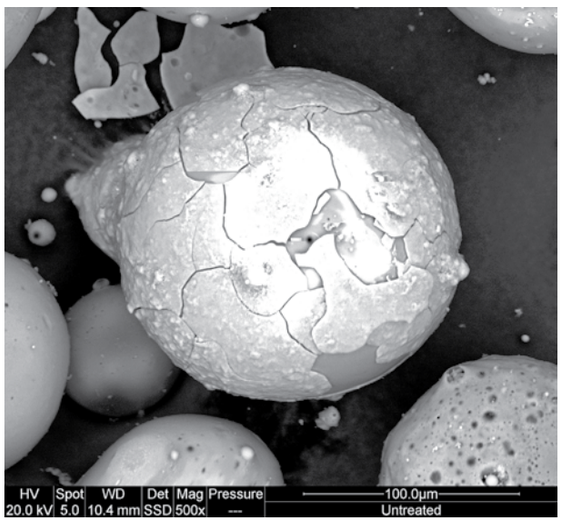
For more information, visit our website at www.appalachianvoices.org or call 828-262-1500.

** Participating on Thursday, March 23*

Inside Appalachian Voices

Test Results from TVA Ash Spill Warn of Serious Environmental Impacts

Story by Sarah Vig



A respected team of scientists and water quality experts from North Carolina and Tennessee recently released a report analyzing water, sediment, and fish tissue samples taken near the site of the 1 billion gallon coal ash spill that occurred in Harriman, Tenn. last December. The report's authors include Upper Watauga Riverkeeper Donna Lisenby, Appalachian State University faculty members Dr. Shea Tuberty and Dr. Carol Babyak, Dr. Anna George of the Tennessee Aquarium, and Wake Forest University professor and widely recognized selenium expert Dr. Dennis Lemly. The report shows a number of serious impacts on the water quality of the river ecosystem.

Lisenby, Tuberty and Babyak were among the first to release independent testing results after the disaster occurred (see our coverage in the Feb/March issue, available online at www.appalachianvoices.org). The data they obtained from their initial samples showed much higher levels of a number of toxic heavy metals than the data being released by TVA, leading them to request permits for further testing and partner with the Tennessee Aquarium for sample collection.

Their second round of testing was much more extensive, and included water sampling at seven sites, sediment collection, and tissue sampling of collected fish. The sample analysis indicates that the effects of the ash spill on water quality and aquatic ecosystems are serious and will probably continue to grow.

The report drew three major conclusions from each of their sample categories. First, they found several heavy metals--arsenic, barium, cadmium, chromium, copper, nickel, lead, selenium and thallium--in the water in concentrations that exceed protective drinking water standards and/or criteria levels for aquatic life. Second, electron scanning microscope images of the cenospheres (pictured above)--floating coal ash particles, which TVA has insisted are "harmless"--show a layer of what the report calls "secondary mineralization gel coating" encasing the particle; this hardened outer layer contains arsenic levels equivalent to 20,000 to 30,000 parts per million.

Finally, in their analysis of fish tissue they found elevated levels of selenium, a dangerous heavy metal responsible for birth defects and stunted development in aquatic life. According to the report, "the aquatic life in the river may be on the threshold of a toxic event." This result is especially striking, as the samples were taken before the full window for bio-accumulation (typically 30 days after introduction) had passed, meaning that as selenium levels in the water rise due to the massive introduction of coal fly ash, the river ecosystem may cross the toxic threshold and see much more drastic changes as the metal bio-accumulates up the food chain.

The effects on aquatic life were also apparent in the team's harrowing observations from on the water. They found fishes' gills clogged with ash, and upon dissection found that ash had clogged the entire digestive system. One specimen cited in the report had so much ash in its system that ash comprised 7.7 percent of its body weight.

Information from the report has already been used in testimony from Renee Hoyos of Tennessee Clean Water Network during the March 31 hearing on the issue in front of the U.S. House Water Resources subcommittee. The report proves the need for ongoing study of and attention to the impacts of the disastrous spill.

Appalachian Mountains Preservation Act Still on the Table in North Carolina

Story by Sarah Vig

Mountaintop removal is hard to ignore when it's in your backyard. This is a well-known fact for Bo Webb, whose home on Cherry Pond Mountain lies near an active mountaintop removal mine. In his recent letter to President Obama, asking him to take executive action against the destructive mining practice, Webb painted a picture of how living near a mine site has dramatically impacted his life. "Outside my door," he wrote, "pulverized rock dust, laden with diesel fuel and ammonium nitrate explosives hovers in the air, along with the residual of heavy metals that once lay dormant underground."

Yet, in the places where mountaintop removal coal is burned to generate electricity, mountaintop removal is not happening in anyone's backyard. The connection between flipping on a light switch and the blasting of one of the world's oldest mountains is one not many consumers make. This year, citizens and legislators are trying to change that.

States connected to mountaintop removal are taking legislative action in an unprecedented way with the Appalachian Mountains Preservation Act (AMPA), a bill that would phase out state electrical utilities' contracts for mountaintop removal coal. The bill, which was first introduced in the North Carolina House in 2007 by Representative Pricey Harrison (D-57), came back with serious momentum this session; not only was it reintroduced in the North Carolina House with 30 original bi-partisan co-sponsors, Senator Steve Goss (D-45) also introduced a companion bill in the North Carolina Senate. The bill was also introduced in Maryland and Georgia by Rep. Tom Hucker and Rep. Mary Margaret Oliver, respectively.

Since the introduction of the legislation, there has definitely been considerable pushback from coal industry lobbyists. But, according to Appalachian Voices' North Carolina Field Coordinator Austin Hall, that could be considered one of the greatest victories of the AMPA campaign. "We've put utilities in a corner, and made them defend something [mountaintop removal mining] that's indefensible," Hall explained.

"I am firmly convinced that mountaintop removal is a moral issue that begs our hearts and minds to do the right thing," Senator Goss said. "When this bill becomes law in North Carolina, once again we will take our place as a leader in the nation concerning environmental issues."

Though the bill never made it to the floor in Maryland or Georgia, it is still on the table in North Carolina. A committee hearing on the bill is scheduled for April 15, 2009.

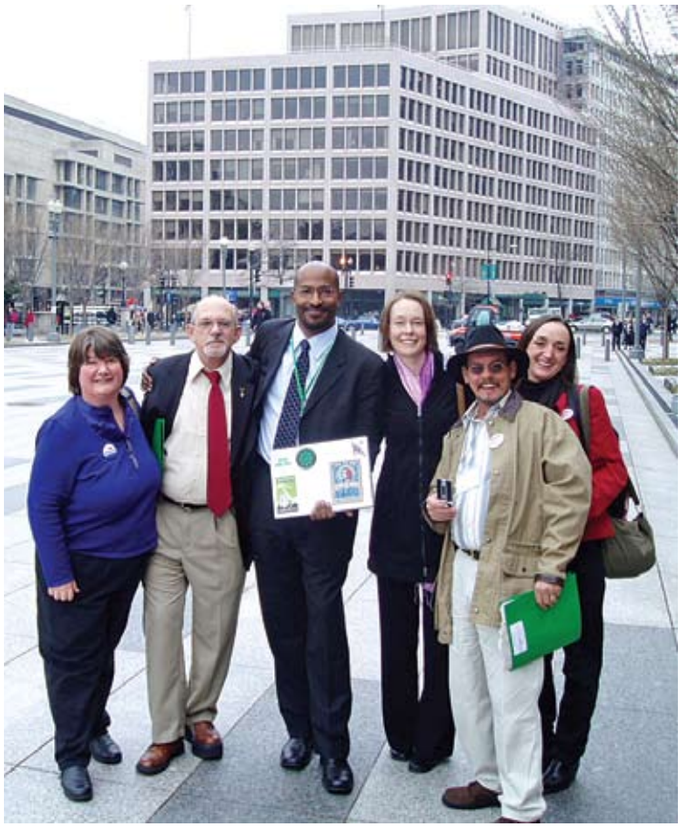
"We are part of the cycle of coal consumption, and we must take responsibility," observed Representative Oliver, lead sponsor of the Georgia AMPA bill, which also placed a five-year moratorium on the permitting and construction of new coal-fired power plants in the state. "We need to step back and look at how we can do things differently."

With AMPA, states have the opportunity to lead the way in creating and passing legislation that places the lives, health and safety of its citizens, as well as those of Appalachia, above the desires of coal companies and corporate interests. Or, they can blow it.

For more information on AMPA and how you can show your support, contact Austin Hall at austin@appvoices.org or visit www.ilovemountains.org/state-actions.

THE APPALACHIAN VOICE
191 Howard Street
Boone, NC 28607
www.appalachianvoices.org

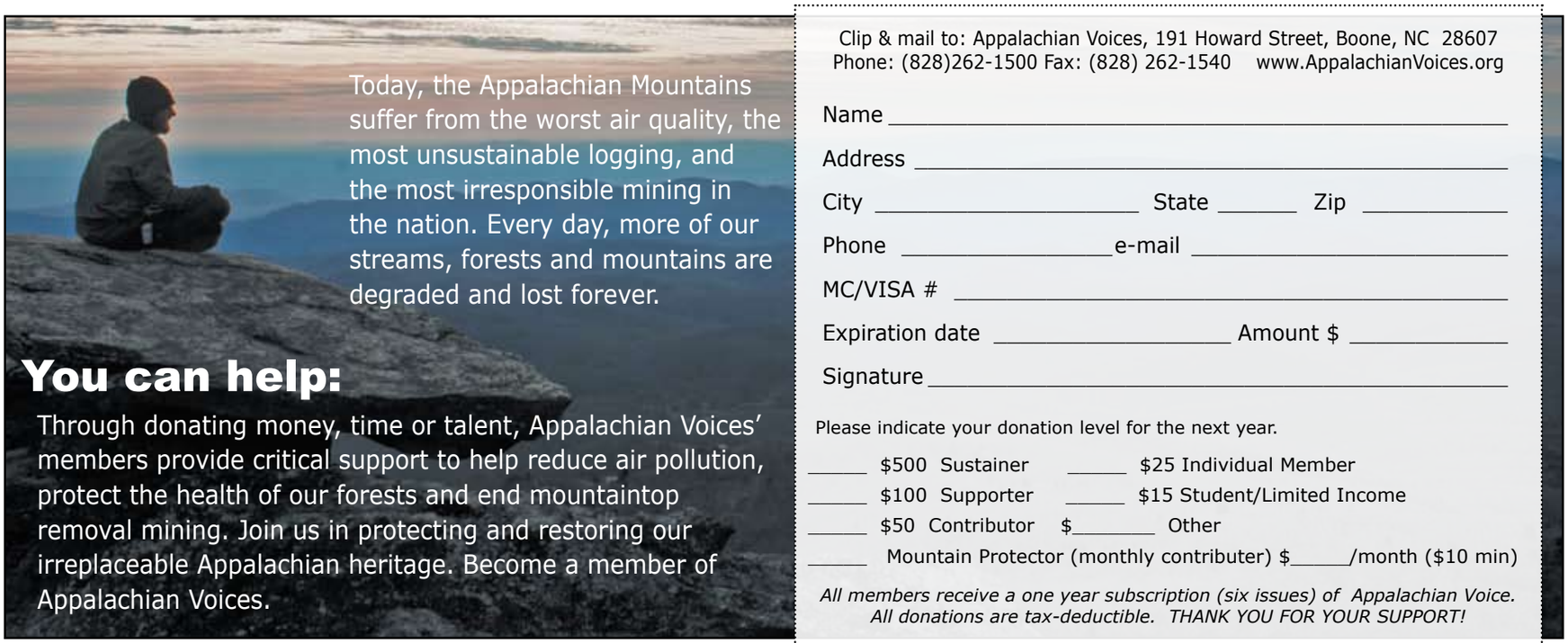
Non-Profit
Organization
US Postage Paid
Permit No. 294
Boone, NC



GOING GREEN IN DC: *While lobbying during the Alliance for Appalachia's End Mountaintop Removal Week in Washington March 14-18, coalfield residents Ann League (left), Carl Shoupe (second from left), Bob Mullins (second from right) and Maria Gunnoe (far right), along with Deputy Director of the Sierra Club Coal Campaign Mary Anne Hitt, had a chance meeting with President Obama's new Green Jobs Czar Van Jones. Photo courtesy of Ann League*

Become a friend of the mountains

The Appalachian Mountains are among the most beautiful places on earth. They are our home, our heritage, and our way of life. They are our children's inheritance. But their future cannot be taken for granted.



Today, the Appalachian Mountains suffer from the worst air quality, the most unsustainable logging, and the most irresponsible mining in the nation. Every day, more of our streams, forests and mountains are degraded and lost forever.

You can help:

Through donating money, time or talent, Appalachian Voices' members provide critical support to help reduce air pollution, protect the health of our forests and end mountaintop removal mining. Join us in protecting and restoring our irreplaceable Appalachian heritage. Become a member of Appalachian Voices.

Clip & mail to: Appalachian Voices, 191 Howard Street, Boone, NC 28607
Phone: (828)262-1500 Fax: (828) 262-1540 www.AppalachianVoices.org

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ e-mail _____

MC/VISA # _____

Expiration date _____ Amount $ _____

Signature _____

Please indicate your donation level for the next year.

_____ $500 Sustainer _____ $25 Individual Member

_____ $100 Supporter _____ $15 Student/Limited Income

_____ $50 Contributor $_____ Other

_____ Mountain Protector (monthly contributer) $_____/month ($10 min)

All members receive a one year subscription (six issues) of Appalachian Voice.
All donations are tax-deductible. THANK YOU FOR YOUR SUPPORT!