



# The Highlands Voice

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## Canaan Valley - one step forward, one step back

The good news is that the Blackwater 100 race has been cancelled, the bad news is that the progress towards a refuge is now temporarily blocked.

### Blackwater 100 loses course

By Rick Steelhammer from the Charleston Gazette

Citing environmental concerns, Monongahela Power Co. on Wednesday announce that it was pulling the plug on the annual Blackwater 100 off-road motorcycle and all-terrain vehicle race and banning ATVs, motorcycles and bicycles from its 14,500 acres of land in Canaan Valley.

For years, the power company has allowed the public almost unlimited access to its property in the north end of Canaan Valley, and along the Blackwater River upstream from Davis.

"But growing environmental concerns have caused us to re-evaluate our policy and restrict vehicular traffic in the area," said company President Benjamin H

Hayes, in a prepared statement.

A study done in 1992 as part of the planning process for the proposed Canaan Valley Wildlife Refuge showed that as much as 30 percent of the northern end of the valley had been damaged by ATV and motorcycle traffic.

Last month, state water quality officials told Blackwater 100 promoters and sponsors that they would need to submit plans on how they would control sediment and other runoff during the race. The town of Davis dropped its sponsorship of the race shortly after that announcement. Mon Power's holdings in the valley include a 7,000 acre wetland, the state's largest, which the U.S. Fish and Wildlife Service hopes to purchase for inclusion in the planned 24,000 acre refuge. The power company once intended to build a reservoir and pump storage power plant on the land, but was denied permission by the Environmental Protection Agency to place fill in the wetland.

In 1974, the north end of the valley was declared a National Natural Landmark by the National Park Service for its unique wetland plant community and wide variety of

northern flora found at its southern-most range.

Black water 100 promoters were expecting to draw more than 40,000 people for the 20th running of the annual Father's Day weekend endurance race.

But Mon Power's decision "effectively cancels vehicular racing on our Canaan Valley property," Hayes said.

Mountain bikers, who had also made extensive use of the northern part of the valley, have also been banned from the Mon Power property.

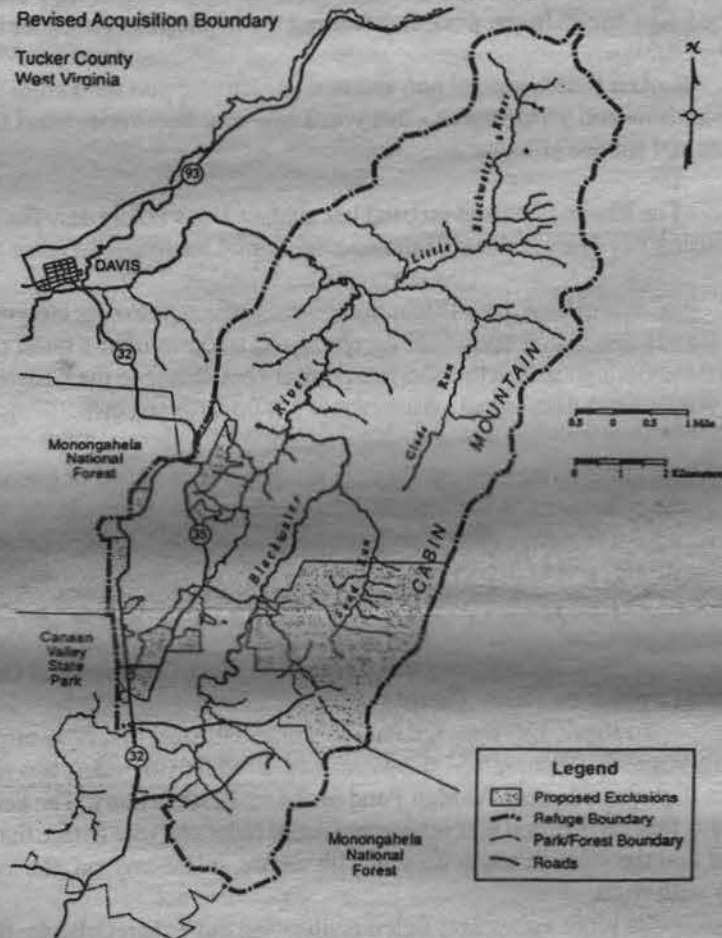
Wednesday's announcement does not effect the tens of thousands of trout fishermen and deer hunters who use the Camp 70 and A-Frame roads, which traverse the Mon Power property and provides fishing access to the Blackwater River on power company land, according to company spokeswoman Midge Teahan. But traffic on those two rugged access roads would be limited to those traveling in licensed vehicles, she said.

Anyone with question about the new policy should contact Mon Power's Canaan Valley properties coordinator at 636-3175

### CANAAN VALLEY National Wildlife Refuge

Revised Acquisition Boundary

Tucker County  
West Virginia



## Lawsuit Filed to Block Canaan Wildlife Refuge

A group of Tucker County residents and businesses has filed a civil complaint in US District Court in Elkins against the Secretary of the Interior, the Secretary of the US Fish and Wildlife Service and the US Fish and Wildlife Service itself. The plaintiffs allege that the US Fish and Wildlife Service has no authority to condemn land or use eminent domain to acquire property in the Canaan Valley and that the original 1979 Environmental Assessment needs to be supplemented and that the Agency has "failed to comply with the National Environmental Policy Act by giving meaningful discussion and consideration of alternatives, including a 'no action' alternative and a reduced area of acquisition alternative in light of numerous significant developments."

US District Judge Robert Maxwell was originally assigned to the case. After granting a temporary

injunction barring the US Fish and Wildlife service from buying any land in the area, he had the case transferred to Judge Frederick Stamp in Wheeling, because of a conflict of interest. Judge Maxwell is a board member of the Benedum foundation which has provided funds to the Conservation Fund to buy the first tract of refuge land.

Congress has already authorized \$2 million to begin buying land for the refuge.



## Coyotes in Canaan?

by John Northeimer, Park Naturalist, Canaan Valley Resort State Park  
From West Virginia Nongame News

Published by the WVDNR

Yes there are coyotes in Canaan Valley! Many visitors have reported seeing these recent arrivals on the park and have sometimes mistaken them for wolves.

If you were one of the lucky ones you may have observed the coyote's individual hunting style. They frequently watch a groundhog move far enough away from its hole so that it can be intercepted. The coyote rushes to the burrow entrance cutting off access.

Coyotes are normally solitary hunters in the summer months but may form packs during the winter. Their primary foods are small mammals, ground nesting birds and berries. They are opportunists and will also take fawns, frogs, turtles, and occasional livestock.

Where do they come from? There are a few theories and much speculation. It is believed that the larger eastern subspecies was derived from the interbreeding of the western coyote with wolves, as they were forced into Canada by poisoning programs in the western states during the 1800's. This larger variation has moved into the northeastern states and has adapted to the presence of man effectively. This may be the source of our resident "brush wolves."

Speculation as to their source has run from pen raised animals to wildlife agencies deliberately stocking the animals as a means of controlling deer. The former may have some validity since the animals are approachable. The latter does not occur since the coyote would not represent a significant predator of deer and could have adverse effects on other native wildlife.

Coyotes are sometimes difficult to distinguish from wolves

or some domestic dogs. Biologists examine the skull and take other measurements to confirm identification. In the field distinguishing characteristics include pointed nose and ears, tan to gray coat with reddish legs, feet and ears and a long bushy tail with a black tip (held down when running). The eastern coyote weighs between 35 and 40 pounds. (see page 3)

## Inside

- Acid Rain - Pg 5
- Appalachia - Pgs 4,5
- Bryant Bill - Pg 7
- Burner Mountain - Pg 6
- Cheat River - Pg 3
- Federal Affairs - Pg 5
- Highways - Pg 8
- Mon Forest - Pg 3



*—from the heart of the mountains—*

by Cindy Rank

**GUEST HEART**

Sitting here on our kitchen porch, VOICE deadline long past, ailing wrist aching from the forbidden pleasure of digging in the dirt, and mind drifting to the next eight days of Rivers Conference wedged between mine tours, I try to focus on one or two salient points of interest to readers of the VOICE.

But the earth in its process of transformation from Spring to Summer offers too many distractions for me to tune them out.

- The nearly perfect five and a half foot long snake skin found waving like a windsock on the gutter where our resident black snake had hooked on to a rough spot to shed now hangs in the workshop waiting for nephews to visit later in the year ...

- Broken fences around non-existent gardens support wild vines that entice gnatcatchers and yellowthroat - this year's two new discoveries amid the many bird sights and sounds of home ...

- The lemon lilies and isolated but elegant irises boldly defy the native space-devouring day lilies and the suffocating spearmint we imported some 20 years ago ...

But, this month, rather than make a futile attempt to wax eloquent (or babble incessantly depending upon your perspective) I'd like to offer a guest column from a Sheppard College instructor who is a regular contributor to the Charleston Gazette and whose heart often speaks from places not far from my own.

\*\*\*        \*\*\*\*        \*\*\*\*\*        \*\*\*\*        \*\*\*

I hated to leave West Virginia while the redbud and dogwood were blossoming in the mountains. Also, I might miss the return of the bluebirds, who browse in my yard for a few days every April, on their way further north, I presume. It had been a long winter, and to depart as spring was breaking was like leaving a good play just before the climax.

Still, one needs to get away from home now and then, if only for a change, a new perspective. My occasion was a Nature Writing Conference in Orlando, to present a paper on Henry Thoreau.

To those who have not read this original American (it is surprising how many haven't), Thoreau was the writer who lived for two years, two months, and two days in the woods near Warden Pond in the mid-19th century. The kernel of what, he said is that civilization is a veneer that more hides our true nature than expresses it, and that the more in touch we stay with nature, inside and out, the more in touch we stay with truth.

No place epitomizes fallen civilization more than Orlando, the third-most-visited city in America. At the conference hotel, I ask the clerk directions to downtown. "Why do you want to go downtown?" she asked. "There's nothing downtown, and besides it's dangerous and dirty. Go to Disney World and Epcot Center. That's what people come to see."

At Epcot, which is like an adult Disney World, one rides trolley cars through a half-dozen robotic theme exhibitions, all idealizing technology, projecting a wonderful life the future will bring--homes under the sea, homes in space, plants that grow without soil or pesticides, family reunions via telecommunications, on and on, narrated by Walter Cronkite or a Cronkite voice clone, and ending with religious-sounding music like one hears on Christian radio stations.

Orlando was the perfect place to read my Thoreau paper, the theme of which is that veneer civilization has now so over-run nature, both outside us and inside us that any hope of applying Thoreau's thought to our actual lives is a sentimental daydream.

What an aimless, unspirited crew we appeared at Epcot, sheep walking from exhibit to exhibit, nothing we saw having anything to do with our actual lives or downtown Orlando, or downtown Washington, or downtown anyplace, civilization rotting from within while we fantasize about living in space.

Of course, "I am here too," I kept re-minding myself. But maybe not so much as the others, for, after all, I would return home to West Virginia, where one feels that nature and civilization are more in balance. Look at our mottos: "wild and wonderful," "Mountaineers are always free."

But I would come back a little wiser too, for on this vacation I saw more clearly the likelihood that we would give up our ground and join the robotic mainstream, which would make the whole world an Epcot Center-Disney world if it could.

That was the second theme of my Thoreau paper: There are no more places where one can retreat from the overpowering influences of civilization, which for the "haves" means rampant consumerism, superficial need-fulfillment, (see page 8)

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# The Cheat - River of many colors

From the West Virginia Rivers Coalition, Roger Harrison, (304) 472-0025

BUCKHANNON — State officials probably didn't envision rust-red streams, burning eyes and a metallic taste in the mouth when they began the "West Virginia - A Welcome Change" campaign. Yet that is what whitewater enthusiasts are finding this year on the Cheat River.

The culprit, according to West Virginia Rivers Coalition executive director Roger Harrison, is a "particularly potent witch's brew of acid mine drainage" apparently pouring out of an old deep mine into the Cheat River tributary of Muddy Creek.

"The Cheat is one of the premier recreational rivers in the Appalachian region," Harrison said. "Each spring, thousands flock to this river to challenge the whitewater rapids. This year they're being greeted with stinging eyes and a metallic taste in their mouth. That doesn't enhance anybody's experience of West Virginia."

## WVHC Sues State (again)

By Paul Nyden

From the Charleston Gazette

Four environmental groups asked the state Supreme Court on April 6, 1994 to order state environmental officials to reclaim all abandoned coal mines and to treat all streams polluted by acid mine water.

Those tasks could cost \$50 million and probably much more, according to federal officials and environmental lawyers. The state's Reclamation Fund has a cash balance of only \$8.6 million according to the U.S. Office of Surface Mining.

"Unless this court intervenes," the groups argued, W. Va. taxpayers will ultimately suffer the costs of polluted and degraded streams instead of the coal companies internalizing such costs."

Acid drainage, which kills fish and other aquatic life, continues for decades after mining ends. Treatment at a single site can cost up to \$400,000 a year.

If the environmental groups win, the Division of Environmental Protection may have to require companies to post larger reclamation bonds and pay higher fees to the reclamation fund.

DEP Director David C. Callaghan believes the Special Reclamation Fund has enough money to reclaim mines abandoned by operators who go bankrupt or out of business.

In their petition, The W. Va. Highlands Conservancy, the W. Va. Wildlife Federation, Trout Unlimited, and the W. Va. Citizen Action Group argue current reclamation bonds "are not adequate to allow the DEP to assure completion of such (reclamation) plans if a company

The extremely acid water is apparently coming from the T & T deep mine near Albright. The Division of Environmental Protection issued a notice of violation April 8 when a leaking seal was discovered. On April 25, this was revised to a cessation order, after the flow reached 800 gallons per minute.

Under the cessation order, T & T Fuels was fined \$750 per day and required to correct the problem within 30 days. T & T officials say much of the water is draining into their operation from a nearby abandoned deep mine. They say T & T should not be responsible to treat that portion of the water.

Dave Bassage, manager of Cheat River operations for North American River Runners, noticed problems while paddling one Sunday on Muddy Creek.

"That first day, it looked like the river would glow in the dark," Bassage said. "Now, the rocks are covered with orange and at lower water levels there is a significant change." He likened the river color

to tomato juice.

"Here we are trying to bring people into the state," Bassage said. "It doesn't make a good impression." The color change makes more dramatic a long-standing problem in Cheat and other north-central West Virginia watersheds, according to Harrison.

"Acid mine drainage is nothing new in the Cheat. Some of this has been running for decades. It's not always obvious — until you look for fish and other aquatic organisms." In watersheds like the Cheat where there is little alkaline material to neutralize the acid, a single event like this can wipe out years of effort to bring a river back to health, Harrison said. Similar problems are seen in the Tygart watershed.

"It's time to take a stand for clean water in west Virginia," Harrison said. "No new sources of acid mine drainage should be permitted and coal operators must accept responsibility to treat any water that needs treatment. We cannot continue to pass those costs — either the cost of treatment or the cost of living with polluted water — on to downstream communities or the state taxpayers."

Callaghan said the DEP have "consistently refused to fulfill or even acknowledge its duty to treat acid mine drainage from forfeited sites," the petition argues. The environmental groups point to the Supreme Court's unanimous 1992 ruling that state law "imposes a mandatory duty upon (DEP) to accomplish the completion of reclamation. That ruling concerned several mines abandoned by the F&M Coal Company that generated millions of gallons of acid mine drainage a year.

Callaghan cited a March 1993 audit by the accounting firm of Deloitte & Touche that concluded the state's Special Reclamation Fund is "actuarially sound."

A June 1993 OSM memorandum however criticized the audit. "When asked to define actuarially sound, (Deloitte & Touche officials) said they could not. When asked if the SRF was insolvent, Deloitte officials said that it depends on how you define insolvency," the memo stated.

Last month, Deloitte & Touche paid \$312 million in fines to federal agencies to settle claims of accounting and auditing failures at savings and loan institutions.

Oil and Gas Brine Permit Contested

Paul Hilvers, president of WVLAPPA (Land, Livestock and Property Owners Association) has filed a court action contesting the Oil and Gas Division of DEP's decision to permit O&G wells to "treat" and discharge "production" fluids (salt water laced with heavy metals and god knows what else) into streams and waterways throughout the state. Ironically the O&G producers association are also contesting these new regulations (They're dumping them untreated at the moment) as too stringent. In a copy of the drillers filing they're even contesting the rules prohibiting discharges into waterways designated as public water supplies. Intervenor are needed in this action. Contact Paul Hilvers at 659-2719 or Lou Manly at 462-5840

Coyotes (from front)

Five to eight young are born during April or May in a den, burrow, or hollow log. The pups are brown all over and helpless at birth. Coyotes sometimes breed with domestic dogs producing offspring called coydogs. Examination of one of he animals accidentally killed on the park determined that it was a true coyote.

So if you visit Canaan you may be lucky enough to view one of the new residents of the Mountain State. Remember that these are wild animals to be enjoyed while you explore the park. However, no attempt should be made to feed or approach these intriguing animals.

# Mon Power + WVHC???

Mr. Benjamin Hayes, President  
Monongahela Power Company  
1310 Fairmont Ave.  
Fairmont, W. V. 26554

Dear Mr. Hayes,

Please know that the West Virginia Highlands Conservancy (WVHC) strongly supports your decision to restrict vehicular traffic on Monongahela Power's Canaan Valley properties.

Although WVHC and Mon Power have a long history of being on opposite sides of many issues in Canaan, we cannot praise you enough for these positive efforts to protect the Northern end of the valley, Citizens across the state as well as residents of Tucker County must be grateful for Mon Power's willingness to protect this National Natural Landmark from further abuse and

degradation by all-terrain vehicles, We realize, however, that it will be difficult to implement this new policy and hope that the state of West Virginia will see fit to follow through on an earlier offer to assist your company in enforcing such a ban. The offer was made by DNR Director Ed Hamrick at one of the first meetings of the Canaan Valley Task Force a few years back; it is our hope that Governor Caperton and current DNR, Director Felton, will extend the same commitment to helping you protect the resources in Canaan that are so important to all of us.

Please let us know if WVHC can be of any help.  
Sincerely,  
Cindy Rank  
President, WVHC



## Burner Mountain/Mountain Lick Project Areas

Last year they were called Opportunity Areas, this year its project areas, but its still the same ole abuse. The Greenbrier District Ranger has signed a Decision Notice and Finding of No Significant Impact for Burner Mountain and Mountain Lick project set which includes:

- Two age (a modified clearcut) cut of 541 acres
- Clearcut 139 acres
- Thin 675 acres
- Herbicide on 305 acres
- Clearcut another 172 acres for permanent openings
- Construct 17.7 miles of road

These areas encompass over 12,000 acres of National Forest Land just north of the Greenbrier River above the towns of Bartow and Thornwood.

Jim Thomas, the current Greenbrier district ranger, signed the decision notice on May 5. If no appeals are received by the deadline of June 19, the destruction will proceed as planned. You can write the district ranger at PO Box 67, Bartow, WV 24920

— See related article on page 6

## Cherry River Projects

The Gauley district ranger approved a set of "projects" for the area of the Mon National Forest between the Cranberry River and State Route 55. Among the "projects" planned for this area are:

- Clearcut 135 acres
- Group Select Cutting of 25 acres
- Commercially thin 308 acres
- Create 20 acre savanna (by clearcutting)
- Place 65 structures in Barrenshe, Little Barrenshe and Jakeman Runs
- Build over 10 miles of road
- Build 1.5 miles of hiking trail

Appeals of this decision must be received at the District Office by July 5, 1994

**WVHC Summer Board Meeting at Kumbrabow State Forest - 10 am on July 21**

**Y'all come now**



# Small Fishes in Shallow Headwaters

This is one chapter from my newest favorite book - *Hollows, Peepers and Highlanders*, by George Constantz. This is not my most favorite chapter, maybe I'll get to reprint that one later, but it does fit well with Don Gaspar's story about the DNR survey of fish in Mill Creek in Kumbrow State Forest below. I am especially intrigued how George tries to understand the sometimes unbelievable behavior of fellow West Virginia creatures from an evolutionary standpoint. The book is available for \$14 from Pine Run Ecological Lab, Route 1, Box 469, High View, WV 26808 - Bill R.

As drivers of Appalachian Dirt Roads, we are at least subliminally aware of the schools of fish that dash madly about as we splash through a ford. The most common fishes flushed by our tires are members of the minnow, sucker, sunfish and perch families. Within these comparatively few families, Appalachia's numerous small, steep streams have catalyzed the evolution of a great fish diversity.

Many fishes native to Appalachia live in the alternating pools and riffles of headwater streams. These habitats are shallow, subject to torrential spates and bone-dry droughts; the fish dwellers are exposed to predation by raccoons, snakes, and herons. How do small fish persist in shallow headwaters?

During spring and autumn, when streams flow abundantly, fish can move freely among pools before settling down for the season. Once established, fish seldom wander, even when moderate levels allow them to explore other pools. One study found that after summer flash floods, 75 percent of the fish remained in their original, pre-flooded locations. Darters and sunfishes in particular exhibit this kind of site loyalty.

If winters are so cold that fish risk being frozen in shallow water, they migrate from their springtime spawning grounds in shallow headwaters to deeper overwintering reaches farther downstream. Presumably, natural selection has favored young adult returning to breed in their own home pool - one of the best indicators of future reproductive success is that one's own parents successfully reproduced there. Each creek, even each pool in a single reach, probably holds a unique chemical odor that becomes indelibly imprinted in the memory of the juvenile fish during its first summer. We know that coho salmon imprint on naturally occurring chemical cues for homing. The salmon's homing response is highly specific: molecules with atomic structures that differ slightly from the stimulating molecule do not elicit the

homing response.

If we assume that small fish in Appalachian streams use chemical cues to return to their home pool, an important part of the story remains a mystery- what molecules provide pool-specific cues? Root exudates, the organic molecules released by the roots of trees, are a possibility. The number of combinations of different organic molecules comprising the exudate constellation in soil and water must be enormous, and their tree sources remain stable over the long term.

In Pine Cabin Run and thousands of other Appalachian headwaters, adult creek chubs prey on blacknose dace and cannibalize juvenile creek chubs. Adult creek chubs themselves fall prey to belted kingfisher and green herons. How so small fish in shallow headwater pools escape predation?

Where shelter is limited, adult creek chubs aggregate under cover during the day. At night, when the birds are gone, they disperse to find their prey. Where shelter is plentiful, adult chubs do not aggregate. Young chubs employ a combination of camouflage and stillness, finding cover beneath leaves and other small objects. As you might expect, in pools that host predators, prey density increases with the complexity of cover provided by rocks, limbs, and overhangs. Both predator and prey choose pools that minimize their odds of falling prey.

Countershading, body coloration that combines a dark back and light belly, also reduces the odds of being eaten. Viewed from below, a fish with a pale belly presents less of a contrast against the sky than one with a dark underside. The dark back camouflages a fish from aerial fish-eating birds. A fish with a light back and dark belly would be obvious to predatory fishes from all directions.

Yet another way to avoid being eaten is to hide behind another individual. The random movements and indistinguishability of individuals within a school preclude the predator from fixing on one individual.

A fascinating adaptation for reducing the odds of being eaten is the alarm system, a method of communication in which a fish emits an alarm substance that elicits fright in pool mates. Two major groups of bony fishes-one including chubs, dace, and catfishes; the other contains perch and darters- rely on alarm systems. Large, specialized cells, called club cells, produce the alarm substance, rupturing and releasing their contents when the skin is injured. Nearby fish of the same species smell the alarm substance and display a fright reaction. Each species, even each developmental stage, exhibits a fright reaction suited to its own specific predators. A species that normally schools may tighten, flee, and avoid the site of the stimulus. Other species

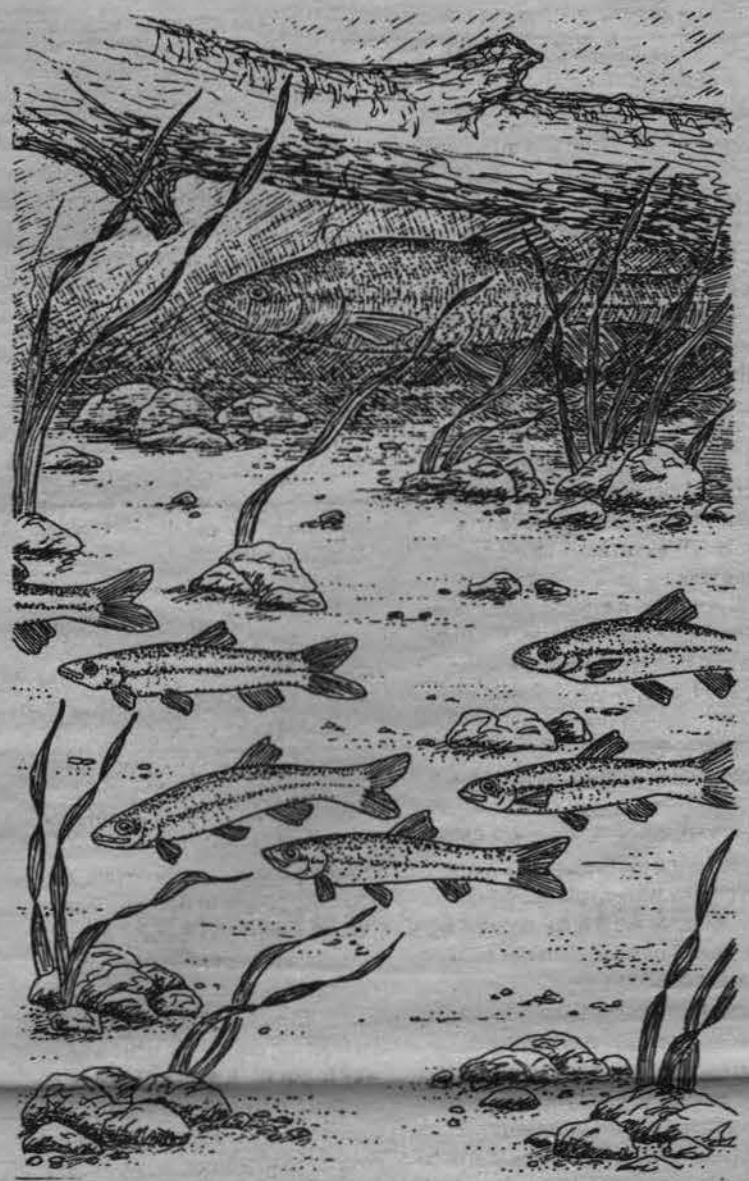
swim against the bottom and stir up a cloud of silt. Some freeze on the bottom and rely on camouflage for protection. Adult creek chubs sink to the bottom individually, but juveniles flee as a school. Although individuals respond most strongly to the alarm substance released by other members of their species, fright reaction is not completely species-specific. The alarm substance of some fishes may elicit fright reaction in members of other, closely related species.

The fright reaction may even visually signal other members of the same species. For example, when two aquaria are placed together, an alarm-substance-induced fright reaction in one tank will trigger a fright reaction in fish of the adjacent tank, even though there is no exchange of water between the two tanks. This strategy allows rapid chemical and visual communication of danger among the fish in a pool.

The individuals of some species lose their alarm substance cells, but not necessarily the fright reaction, during the breeding season. Seasonal loss of the ability to alarm has evolved to complement abrasive spawning habits. At the onset of the spring breeding season, male fathead minnow lose the cells that contain alarm substance. This allows males to clean a site and spawn by rubbing against pebbles without releasing alarm substance that would frighten away interested females. In the fall, males regain the ability to produce alarm substance.

The alarm signal system of fishes resembles warning signals of other animals-alarm calls of birds, tail flagging by deer, and alarm pheromones of tadpoles-in that they appear altruistic. Over the past twenty years, biologists have been trying to understand how such seemingly sacrificial signaling systems could have evolved. If there is an evolutionary cost to the sender, such as producing and maintaining alarm substance cells or putting the sender at risk of predation, the trait is called an adaptation. However, if the substance eliciting fright is merely a normal bodily fluid that leaks passively, it may not be eligible for the status. Because the club cells in the skin seem to have no function other than to synthesize and store alarm substance, warning others has a cost.

The most likely evolutionary explanation for this adaptation seems to be kin selection. Recall that young fish return to their natal pool. Although fish in a school may not be full siblings, their site loyalty suggests that they are related. Kin selection could operate in a straightforward manner: individuals releasing alarm substance may increase the odds that a nearby generic relative will be aware of a predator. The alarm pheromone might even reduce cannibalism by inducing fright in a large fish of that species, thereby saving siblings.

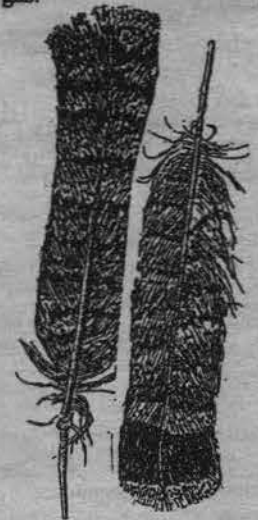


One of many excellent drawings by Peggy Kochanoff in *Hollows, Peepers and Highlanders*

Kin selection is easier to invoke if genetic relatives are spatially near each other. Even if kin disperse widely and non-relatives school together, kin still might be able to favor each other. Recent evidence suggests that fish can identify relatives through chemical cues. In fact, in a wide variety of animals, an individual's odor is in part determined by its genes. Small fish in Appalachian headwater pools may be able to identify kin solely through olfaction, and then favor them with alarm signals. It is awesome to consider the possibility that scattered throughout Appalachia's hollows are brothers, sisters, and first cousins clustered in pools reciprocating favors while slighting unrelated individuals in the same pool.

The other day as I drove my old truck through the fore of Pine cabin Run, I tried to follow the streaking dace, my mind checking off the components of this intricate scene. It was daytime, so the dace were safe from predatory creek chubs who lurked under the rock ledge. Their countershading made them doubly hard to follow as they zig-zagged randomly within the school. I

wondered whether any of them might have burst a few club cells and released a little alarm substance. It's getting harder all the time to simply splash through the ford and step on the gas.



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Vince Packard pg 1 & 3  
Liz Plazo Page 4 & 7,  
unless otherwise credited



## Serendipity At The Star Cafe

by - Norm Steenstra

The best place to kill some time in Elkins is "down town" at the Star Cafe. The Cafe is a combination of three of my favorite things - good food, cold beverages and a book store.

Last month, while waiting for my lunch dates to arrive I browsed the aisles looking for interesting escapes. The bookshop's stock differs from your average Waldens or B. Daltons. I was looking for the unusual but I certainly wasn't looking for what I found.

My eyes focused on an oversized paperback with a tree frog on the cover. My family is a frog family. (We currently share our living room with 3 tiny tree frogs). With some excitement I picked the book up and read the title. *Hollows, Peepers, and Highlanders - An Appalachian Mountain Ecology*. "Wow!" I thought, and made the decision to buy the book with out checking out the price or opening it up. That quick decision was even more remarkable because my thumb was covering up the authors name. I didn't know who wrote the book.

George Constantz is a pretty good friend of mine. But not good enough a friend to let me know he had published a book on Appalachian mountain ecology. Apparently *Hollows, Peepers, and Highlanders* came as a pleasant surprise to many of George's eco friends. That surprise, while indeed pleasant, is nothing compared to the delight the reader experiences as they join George on a literary tour of the flora and fauna of our Appalachian mountains.

Reading George is a lot like talking to him. Above all, the book is scholarly, but liberally, peppered with poetry and humor. You learn things from this book. Ecological concepts gone hazy in your memory banks are brought back in focus. It's not really lite reading but neither is it dry or tedious.

The major portion of the book is comprised of twenty or so vignettes that Constantz calls "The Players". Box Turtles, Lady slippers, salamanders, darters, frogs and copperheads are among the cast of actors that George uses to explain the complexity and diversity of the Appalachians.

Fire flies, Brook trout, and Jack-in-the-pulpits are a few more of Constantz's players that serve to reinforce his expressed reasons for writing the book. George states in the forward that he wrote the book for 3 basic reasons. Those reasons are first, that he wanted to share his excitement for viewing Appalachian plants and animals from an evolutionary perspective. Secondly, to motivate people to do more "back-yard biology" and thirdly, "to stimulate preservation through appreciation".

Stimulating preservation through appreciation - what a nice way to put it! Reading George's reasons for writing the book reminded me of how poor a job we've done in basic education. Marketed professionally, *Hollows, Peepers and Highlanders* can be a major asset in increasing everyone's appreciation of our region.

## Fish Loss From Acid Rain

By Don Gaspar

A comparison over time of the Mill Creek fish population is possible where fish surveys were made at five places. (See map for locations and dates.) Data from 1967, 1969, 1985, and 1992 and 1993 are arranged in the figure along Mill Creek and contrasted to show four species were lost over these 25 years from the lower reaches. The common white sucker, creek chub, blacknose dace and the longnose dace are now gone from Kumbrow State Forest.

Even the moderately acid tolerant cottus (mudler minnow or sculpin) was finally lost from the generally more acidic and infertile upper reaches. Cottus persists today in the lower part of this "protected" State Forest, at its cabin area only because of the entrance upstream of the slightly richer, boggy, Glade Run.

The more acid tolerant brook trout persists throughout today, but only as four-inch plus, mobile trout from possibly three slightly richer tributaries where reproduction occurs. They may too be lost, as there

are no fish in Mill Creek's more acid Oxley and Potatohole Runs. (There are 200 miles of historic trout streams nearby in West Virginia draining the same infertile Pottsville sandstone that have no fish.)

It is clear from this species data that the Mill Creek fishery is being lost to recent acidification. It is an undisturbed State Forest watershed - except for 50 lbs./acre/year of acid from acid rain all this time. Fish species diversity has been reduced from six to two. Brook trout reproduction in main Mill Creek has not been successful since perhaps 1960. When reproduction fails now in its two richer tributaries Mill Creek on the Forest will be barren forever. It will be too impoverished to support any fish. This is clear after the fact - permanent fish loss and irrefutable and convincing biological evidence of stream and then watershed acidification and impoverishment. Our purest Appalachian trout stream ecosystem heritage demands a prompt and thorough clean-up of sulfur emissions

## Federal affairs---

### Final Forest Plan Fails the Ecosystem Test

from Report From Washington by the Western Ancient Forest Campaign

On April 14, the Clinton Administration presented the signed Record of Decision (ROD) on the Final Supplemental Environmental Statement on the management of federal forests in the range of the Northern spotted owl to US District Judge William Dwyer. The ROD concludes the most recent chapter of the Ancient Forest drama, which featured President Bill Clinton promising to deliver an Ancient Forest management plan for the Northwest that would be scientifically sound, legally responsible and ecologically credible. Unfortunately, the final Clinton plan fails to meet the President's own standards.

Under the Clinton Plan, over 30 percent of the remaining Ancient Forests of the Northwest will be unprotected from future logging. Many species that federal agency

scientists have identified as dependent on Ancient Forests will be placed at continued risk of extinction, and the riparian protections on which the Clinton Plan is supposedly built have been undermined by vaguely worded prescriptions that allow fast-tracked and incomplete watershed analyses of critical watersheds to be completed in order to provide timber-in-a-hurry to mills of the Northwest.

There has been no end of advice and criticism to the White House regarding the Forest Plan; some of the best comments were those written by The Wilderness Society, Headwaters, the Siskiyou Regional Education Project, Klamath Forest Alliance, the Sierra Club Legal Defense Fund, Pacific Rivers Council and a host of scientists whose letters are clear in their disappointment that the Final Forest Plan is "still seriously flawed from an ecological viewpoint." As one of the scientists stated: "Make absolutely no

mistake about it, any form of "management" which includes cutting or road building in these forests will destroy the essential characteristics that make it old growth and perpetually sustainable."

Unfortunately, President Clinton didn't read these comments, nor the thousands of other comments that activists from around the world made on the Forest Plan. In the end, the ROD was actually delayed as President Clinton sat in the White House and read the final document. The President apparently had only one question of the Forest Plan author who waited downstairs in the White House for the President's approval: "How much timber will the Plan produce?"

The injunction on sales of federal timber in northern spotted owl habitat was to be lifted on May 19, 1994 when Judge Dwyer was to have made his decision. The Judge has granted a three week extension as a cooling off period.

## Ecosystem Management: "We may never get there"

On April 14, a Senate subcommittee of the Agriculture Committee held a second in a series of hearings on "ecosystem management." Bureaucrats, environmentalists, scientists and industry all had representatives testifying. Our current Forest Service Chief, Jack Ward Thomas also testified. Senators Thomas Daschle and Larry Craig presided over the hearings.

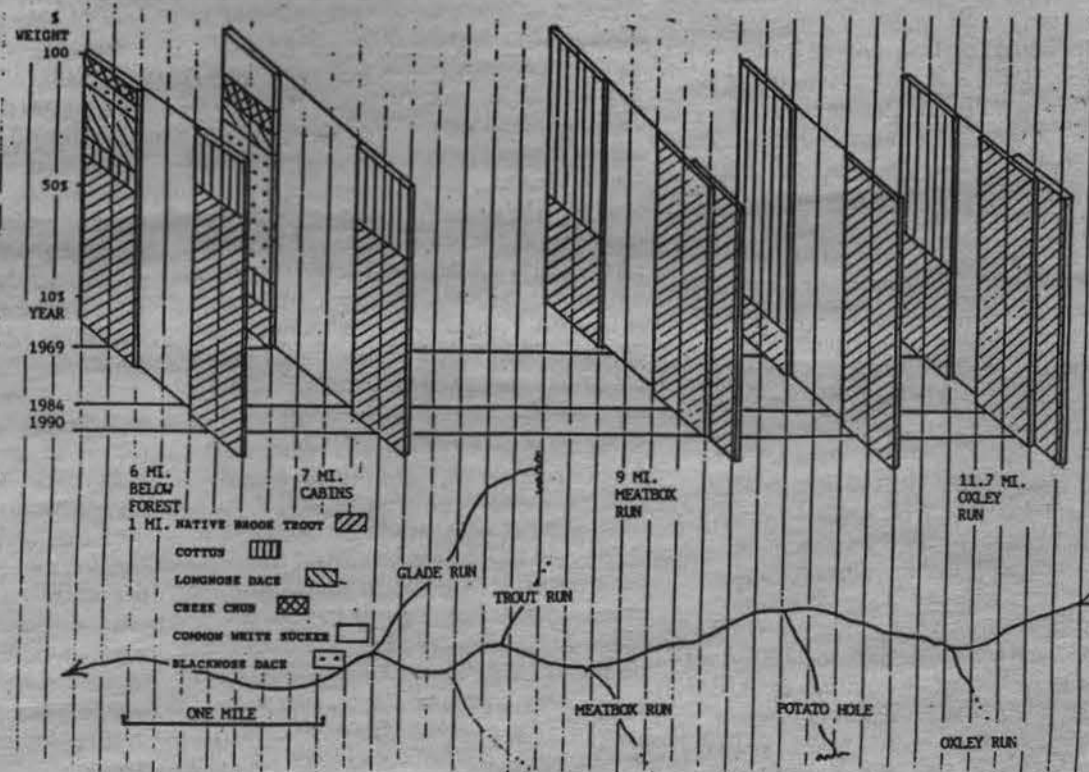
Chief Thomas stated that the principles of ecosystem

management were to "ensure our management actions are ecologically responsible, economically viable, and socially acceptable." Sen. Daschle asked the Chief how he would explain to field managers what is appropriate for ecosystem management. The Chief said that it is impossible to manage without destroying some of the capability. "First, it requires an over arching vision," he said. "Talk to my people and convince them I am right." The Chief said that ecosystems must be

sustained over time to sustain the shock of commodity extraction, and that "preserving biological diversity doesn't mean it stays in one place."

Senator Daschle next asked the Chief if the Forest Service was prepared to define ecosystem management practices yet. The chief responded with "yes and not yet. It is a contract between generations, a path. We may never get there."

Adapted and condensed from Jay Lee's article in Report Form Washington by the WAFC





## Burner Mountain/Mountain Lick

The following is a letter from WVHC member Bob Mueller to the District Ranger in charge of this fiasco.

James Thomas  
District Ranger  
Greenbrier District  
Monongahela National Forest  
PO Box 67  
Bartow, WV 24920

Mr. Thomas,

The following are my comments on the Burner Mountain/Mountain Lick Environmental Assessment (EA).

In many respects this is a strange document. Of course, along the way some authority figure decided that all these trees must be cut, all the roads built as the powers that be would have us believe are dictated by the long outdated and destructive Forest Land and Resource Management Plan (FLRMP). However parts of the EA seem almost like a cry for help from a more rational element, quoting the National Forest Management Act, the Council of Environmental Quality and even Reed Noss!! It seems as if they are saying "stop me before I kill again." However I recommend they help themselves with a rebellion against this corrupt agency which approaches its problems much like the tobacco industry.

As it stands the EA is dominated by the same old false logic as ever, as on page 3 where it is stated that this young forest is "skewed toward older age classes," a statement that is refuted by their own data as presented on page 499. On page 4 cutting is justified by wildlife needs without stating that most wildlife will be harmed by cutting. There is also reference to "escape cover," a buzzword recently invented to justify cutting in remote Bear habitat. On page 52 we read the ambiguous statement "Bears are also highly sensitive to road density, but again based on the information above, road density in any of the action alternatives is not expected to significantly affect bear populations." One has only to look at the maps to see that the entire project area is riddled with roads and the fact that some of these roads would be legally closed to vehicles would help little since all roads provide easy access at least to walkers and thus pose a constant threat to Bears.

The entire treatment in the EA of the edge effects and forest interior species is self-serving distortions. There is a valid and extensive effort to calculate the amount of edge which is certainly unprecedented for the Forest Service. However the statement on page 63 that "for the action alternatives, the ratio of interior to edge areas would drop only slightly." is highly misleading because the area is already so highly fragmented by roads and openings that it isn't easy to fragment it more even under the action proposals. It is stated that of the 14 species of neotropical migrant birds showing significant decline in West Virginia the majority of these species depend on young brushy/open habitat whereas the majority showing an increase are species that require mature forest land." If this is true, it bucks the national trend and should be encourage and not undone by timber cutting. Certainly there is no shortage of brushy and open country even in West Virginia, which at one time was almost entirely forested and at that time must have had many more interior than open-loving species. It is this original forest that we should compare

with today's depauperate and mismanaged national forests. Seen in this light the decline of open-loving species is desirable.

As usual there is no mention of the enormous negative effects of logging on the forest floor with its attendant long recovery times of herbaceous vegetation as documented by Duffy and Meier (1992) and the analogous effect of logging on the forest floor and its species! In the EA there are repeated reference to "Bear/Turkey association" without any mention - except by accident - of the other members of this association. Does it, for example, include reptiles such as the Forest rattler (*Crotalus horridus*), salamanders, frogs, mosses, fungi, and the many herbaceous and non commercial woody plants? A conflict arises when the Forest Service touts the advantage to Bear and Turkey of even-age cuts and wildlife openings without considering the effects of these openings on forest interior species - indeed most species of the "Bear/Turkey association." In addition to suffering from the pervasive fragmentation of the area there is no consideration of the effect of encouraging enhanced Turkey populations around managed openings. These greater Turkey populations could well result in increased foraging for reptiles and amphibians such as rare salamanders and even ground nesting birds such as many species of warbler. This conclusion was supported by Dr. Thomas Pauley, an authority on the Cheat Mountain salamander in a phone conversation with me. The Forest Service is seeking to discredit this proposal which I made in several appeals but they will not succeed and it eventually will have to be considered.

A species which has a special role is the Canada Yew (*Taxus canadensis*) which I have suggested be added to the official sensitive species list for the Monongahela. It reflects years of mismanagement that has increased deer numbers beyond carrying capacity. On page A-4 of Appendix A, in response to this issue, it is stated that "Yew populations are not known to occur in the project area." Since the northern hardwoods of Mountain Lick in particular are Yew habitat this statement supports my contention, namely that the Yew has been extirpated. Where I have encountered this plant on the Monongahela it is usually confined to steep rocky slopes that deer find difficult to reach.

The state of proposed, endangered, threatened and sensitive species (PETS) on the Monongahela is a disaster! While many species are listed in the Forest Plan "for consideration as Regional Forester's sensitive species," citizens come to a rude awakening that many if not most of these FLRMP listed species did not make it to the Regional Forester's list! This deception is carried further when an attempt - such as mine - is made to obtain the official Regional Forester's sensitive species list. All these attempts are rebuffed even under a Freedom of Information Act request. The treatment of PETS species in this EA is pathetic and the Monongahela tradition of bogus lists is continued. Here the old strategy is invoked of listing PETS species as located just beyond the project area as in the case of the Candy Darter, Kanawha Minnow and Hellbender. Or again, when the presence of species within the area can't be denied, as in the case of the Southern Rock Vole, Long Tailed Shrew, Southern Water Shrew, and Northern Flying



Illustration, by Peggy Kochanoff, from *Love Amongst the Frogs* chapter of George's book - *Hollows, Peepers and Highlanders*

Squirrel - either there is miraculously no effect from the proposed project or an actual benefit accrues as in the case of the Rock Vole, which is said to take kindly to clearcutting - all without any evidence of a comprehensive study of the effect of destruction of the forest floor.

On page 69 we see an example of erroneous and self-serving logic with respect to the Northern Flying Squirrel. They would have us believe that this endangered species can be saved by protecting only "occupied habitat" when we all know that such habitat must shift just as patch dynamics shifts forest stands. This illustrates once again that minimal protection without regard to the disturbance regime is futile.

Among the many species missing from the PETS list are all the raptors. On page a-2 of Appendix A reference is made to a pair of Goshawks in the area, stating that "proposed thinning would not affect this pair since it is not located in the vicinity of the nesting site." If Goshawks are present here the protection of this federally designated C2 species would seem to require keeping all land-disturbing activities - including human presence - away from the entire area. Goshawks are shy, like to hunt in mature forest free from human disturbance and require very large territories, territories as large as virtually the entire project area. This bird as well as the Coopers and Sharpshinned Hawks are listed in the forest plan as proposed sensitive species. The failure

to express any concern for any of these birds, which are in decline and in the case of the Goshawk, at the southern extremity of its range, is a serious failing. Proper treatment would include inventories of stick nests, kill evidence, sightings and vocalizations.

It is also curious that the PETS list omits totally any rare bats, a number of which have their nurseries and foraging areas in mature forest. In addition there is not one plant listed. What of the Glade Spurge, for example? What of the many species of orchids recommended to be included as sensitive in the FLRMP? Surely some must be making themselves known in Milwaukee as well as Elkins. Also many other species such as Goldenseal and Ginseng come to mind.

As usual there is only a limited mention of the cumulative effects and none with regard to the biological systems. Also the range of alternatives is sick with nothing but even aged and thinning (for future even age?) and no restoration alternative.

With respect to old growth. On page 64 we read that "Areas managed for old growth values should be distributed to minimize fragmentation of old growth into small isolated areas, Delfs, 1993)." Yet the proposal goes on to designate small fragments of "mature habitat" mostly in riparian areas, fragments too small and not representative enough to endure long enough to develop into true interior old growth.



# Forest Biodiversity Protection and Clearcutting Prohibition Act

## Babbitt backs, Rahall opposes Bryant Bill (HR 1164)

The public wants clearcutting stopped, said Bruce Babbitt, Secretary of the Interior, on NBC television last year.

In Dallas on January 26, 1994 Babbitt made it stronger before 200 Democrats. He praised Congressman John Bryant for sponsoring the Forest Biodiversity Protection and Clearcutting Prohibition Act. Already 93 members of the US House have signed on as cosponsors.

And here is Nick Rahall's response to my letter asking him to cosponsor the bill.

Dear Bill:

I have thought long and hard about the bill you are asking me to cosponsor, H.R. 1164, introduced by Rep. Bryant of Texas, which would effectively ban all clearcutting on public lands. As you know, this bill was introduced last Congress with no action taken on it.

One of the problems I have with this measure is that I believe in the land use planning provisions of the Federal Land Policy and Management Act. True, under the past two Administrations, land and resource management plans were devised for certain National Forests which reflected political, rather than ecological, assumptions. This was made startling clear for those forest units, such as the Bridger Teton, which are part of the Yellow-

stone Ecosystem. Yet, as a Member of Congress who has continually fought to bolster the surface management requirements applicable to oil and gas activities and hardrock mining, I continue to believe that the best way to achieve the goal of responsible public land management is through the land use planning requirements of generic laws such as the Forest Management Act. It is only through this process that the affects of one activity be measured against other resource values on a site-by-site basis.

With this said, in certain forests perhaps clearcutting should be banned. But should this be the case on every single acre of every unit of the National Forest System? Some would say yes. For my part, I am not prepared to make such a judgment at this time. Instead, I would continue to maintain that through the land use planning process we can, on a case by case basis, make the best decisions so long as science, and not political interference from developers, is allowed to rule.

In my view, with progressive new leaders at the helm, such as Interior Secretary Bruce Babbitt, and an Administration which has a great deal more environmental sensitivity that we have seen for some time, I believe this will be the case.

Please let me know of your further thoughts on this mater.  
With warm regards, I am  
Sincerely  
Nick Rahall

## Panel Reviews Bryant Bill

The Subcommittee on National Parks, Forests and Public Lands of the Committee on Natural Resources, held a hearing May 5, on the Forest Biodiversity and Clearcutting Prohibition Act, H.R. 1164. Chairman Bruce Vento expressed his support for the key concepts in the bill protecting biodiversity and eliminating clearcutting as the standard management practices on the National Forests. Citing the National Forest Management Act of 1976 (NFMA), which clearly state that clearcutting shall be allowed only if it is the optimal method to meet the objectives of the land management plan, Chairman Vento suggested that NFMA's language needs to be tightened to follow the original intent of Congress to make clearcutting the exception, rather than the rule.

Brock Evans of the national Audubon Society testified that this bill is consistent with the efforts made by environmentalists and scientists during the 1970's which culminated in the Church Guidelines and NFMA. Citing Forest Service discretion as the fundamental flaw of NFMA, Evans made a strong case for iron clad prescriptions such as a bans on clearcutting in order to preserve and maintain

biodiversity on public lands. Evans dismissed the Forest Service's ban on clearcutting by Chief Robertson in 1992, saying the exceptions of "seed tree" and "shelterwood" cuts make it meaningless.

Carl Ross of save America's Forest was accused by Rep. Bob Smith of conspiring to control private lands by calling for the halt to export of unprocessed logs. Ross responded by saying that the mill workers are losing their jobs, so we should halt the log export to protect these workers and their communities.

The Forest Service and Bureau of Land Management testified in opposition to the bill, saying clearcutting was being phased out as ordered, but that in some circumstances, clearcutting would still be needed as a management tool. They stated the biodiversity provisions of he bill were not needed, arguing that both NFMA and the new ecosystem management directives were sufficient. The agency is also opposed to protection of Rare II areas which they said could limit future development opportunities. Kemp Conn of the BLM estimated there would be a five year lag time until clearcutting was completely ended.

## Monongahela National Forest Hiking Guide Now Out

Edition 6 of Monongahela National Forest Hiking Guide is now available. This edition is bigger and better than ever, with 368 pages, 96 pages of maps, 49 photographs, 177 trails totalling 812 miles, and a new full color cover. West Virginia Highlands Conservancy is the publisher. Authors are Allen de Hart and Bruce Sundquist (same as edition 5). Allen has hiked all the trails of the Monongahela N.F. over the past few years. Bruce was the editor for the first four editions. The hiking community and the U.S. Forest Service provided trail reports and photographs. Edition 6, like edition 5, also provides information for ski-touring and backpacking.

The growing throngs of visitors and the public at large regard the Monongahela National Forest as a 'Special Place'. And indeed it is. The hiking, backpacking, and ski-touring opportunities it provides are among the best in the eastern U.S. The more outstanding areas are becoming known far and wide - Otter Creek Wilderness, Dolly Sods Wilderness, Flatrock Plains, Roaring Plains, Blackwater Canyon, Spruce Knob, North Fork Mountain, Shaver's Mountain, Laurel Fork Wilderness, Cranberry Back Country, Cranberry Wilderness, among others.

Profits from the sale of these guides support a wide variety of worthy environmental projects in the West Virginia Highlands Conservancy.

To order your copy of Edition 6 of Monongahela National Forest Hiking Guide, send \$11.45 (this includes \$1.50 shipping and handling) to

West Virginia Highlands Conservancy  
PO Box 306  
Charleston, WV 25321

West Virginia residents must add \$.60 sales tax. (total of \$12.05)

I have included a \_\_\_ check or \_\_\_ money order for the amount of \$\_\_\_\_\_ to WVHC for \_\_\_ copies of the Monongahela National Forest Hiking Guide.

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The yellow-poplar weevil feeds on the buds stipules and leaves of yellow poplar, magnolia and sassafras. In the spring, the adult beetle, which has overwintered in the litter and debris beneath its host, begins feeding on buds and stipules. Leaves appear to have "shot-holes." Eggs are deposited in the midribs on the bottom surface of the leaves during May and early June. Larvae mine the leaves and pupate within the mines. Adults emerge and feed on leaves until mid-July, when they enter litter and over winter (USDA Forest Service). Late spring frosts are responsible for holding the insects in check. In West Virginia, the weevil has regularly infested yellow poplar. In 1965, a heavy infestation started in the south western part of the state and, by 1968, had spread north and west throughout every county. The only exceptions were a few counties in the Eastern Panhandle which have no hosts. Large outbreaks also occurred in '76, '86, '87, '89, and '93. Although the trees appear to recover, stress may occur since the damage to leaves takes place from April through mid-July at the height of the growing season.

From **1993 Forest Health: A Status Report for West Virginia** by Ray Hicks and Darlene Mudrick, published by the WV Dept. of Agriculture



# Restoring the Environment By Building Highways?

by Chuck Merritt

Congressman Alan B Mollohan, through his position and experience in government and using the Environmental Protection Agency as a vehicle, is trying to do something good for the environment in North Central West Virginia. Or is he? A noble sentiment and much needed development for an already pillaged and despoiled area of our state. Just where is this blighted land that is about to receive his blessing of attention and compassion? It is the Blackwater River watershed. More specifically the wetlands, small streams and large tributaries that drain into the Blackwater River in the vicinity of towns of Thomas and Davis in Tucker County West Virginia. But, you say, that's where Blackwater Falls State Park is located, isn't it? Right you are! This state park along with near-by Canaan Valley State Park with its busy ski slopes, and the privately owned Timberline Resort and other resort developments in Canaan Valley are all within the Blackwater River watershed. But, you say again, it is always beautiful and often very busy with people enjoying the out-of-doors and a wide variety of sports and activities year-round. Correct again! And yet it has a dark past that has left a large portion of the watershed with a rotten and sickly circulatory system. The streams (not all, but significant ones) run orange with sulfuric acid mine drainage pollution or aqua clear with white deposits of heavy metal pollutants. Lots of water, but deadly! The Blackwater River, a fabled historic trout stream, is very dead below its junction with its tributary, Beaver Creek, at Davis. The timber barons of the late 19th and 20th centuries had their way with the lush virgin forests of the watershed. Beginning at the same time and continuing into the present, the coal mines followed by the rapacious strip miners, have condemned a large portion of the watershed streams and wetlands to a long term polluted condition that will continue far into the future. Even with our best efforts and intentions, what has been done may never be undone!

But have we learned or will we ever learn in the process? Or will our "good efforts and intentions" be co-opted and perverted into another round of abuse and human greed! The \$500,000 study that Congressman Mollohan has engineered is one that I have been aware of for some time. The waters and eco-system of the Blackwater River watershed are certainly

deserving on their own merits and are worthwhile to try to help, and we may just possibly learn from the sins of our forefathers in the process. It is the linkage of the effort, the money, the science, all the good intentions to a new insult to our beautiful planet Earth that I cannot stomach.

The title of the study (developed at West Virginia University) is "Combining Highway Construction With Ecosystem Restoration" and was submitted to the EPA in February of 1993. The summary of this research proposal is filled with the fore-gone conclusions that more four-lane highways will be built and specifically that Corridor H will be built transecting parts of the Blackwater River watershed in the process. May it not come to pass I hope, work and pray for every day! But the political (moneyed) realities are currently such that I am sure that linking highway construction to environmental restoration is the only way that the researchers could obtain the \$500,000 study and that Congressman Mollohan could so proudly exclaim to all of us humble citizens, that once again we are going to have our cake (a restored ecosystem) and eat it too (carve it up with consumer friendly four-lane highways)! Oh, how we humans love to believe that one! And how skillfully the politicians we elect to office feed that cake to us. But the cake (bull) they push and that we all try to digest is leaving us with empty bellies and worse, empty hearts. Good intentions and the good people aside (I personally know some of the people who will be involved with the study), just the title of the research project sends a sickening chill through me.

But you say, WE NEED JOBS! True, and so say the politicians, the business and the labor communities. The news media is flooded constantly with the noise of this lament. The latter part of the title of the research study, the part calling for ecosystem restoration, should provide jobs in appreciable numbers if undertaken with true purpose and not just studied to death. If, just maybe if we would undertake the job of ecosystem restoration with the zeal and determination that humans have shown for destruction of same, I believe we would find it to be a large and complicated job indeed, work aplenty there!

How will we pay for all of this ecosystem restoration work you ask? Through higher taxes either directly or indirectly passed on to all of us through the industries of human activities that are required by their nature to bear the brunt of the cost. And paid for most

importantly by the painful process of learning to take responsibility and accountability for our personal and societal binges of human self-indulgence! Ranging from expecting to always have ever more material comforts and play goodies, to the very personal and final solution of the numbers of human beings that crowd this country and planet. Which will, without human or naturally induced mass die-offs, smother the life out of our world.

Why should we now have to pay the costs? True, our forefathers were somewhat ignorant and from another age, even the previous generation pre-occupied with world wars and cold wars can be somewhat excused (though not much!). But the truth is that unlike our supposedly just courts where the sins of the mothers and fathers are not visited (at least not directly) on the sons and daughters, the court of environmental degradation lays the punishment most heavily on the heads of the off-spring. the costs are ours! We can plea our predecessors were foolish, ignorant, distracted, unconscionable, greedy and all the rest, but the costs are ours nonetheless. What possible excuse can we claim to our children for continuing to up the costs and punishments that will be visited on them by the very just and very impartial court of natural environmental law?

I fervently hope that \$500,000 study to be conducted will develop methods and positive, practical results in the field of surface water quality restoration and wetlands

## from the heart of the mountains

(from page 2) entertaining ourselves to death, and for the "have nots" means barely making a living or grinding poverty.

For my first five or six years living in West Virginia, I had the illusion that a modestly external but inwardly rich country life was still possible. The nearest mall from where I live is an hour and a half. We barely get television reception without the cable. The kids here still seem like kids, even the rough ones, compared to the strange breed of Nintendo-addicted, style-conscious city kids.

But the four-lane road to DC. is being built, with all that it means. Robinson Jeffers, an American poet, said in 1925 that "when the monster lies at the cities' feet, there are left the mountains.... Corruption is never compulsory." But I think Jeffers couldn't foresee superhighways and telecommunications networks.

Even in the mountains, we see a city mentality developing, and no one is more ashamed of their countryness now than West Virginians. We are so anxious to be like

preservation. the prospect of creating jobs while doing something about paying the debt that is due and is owed to this earth and to our children's benefit is an encouragement. But, and this is an important moral point, I would not sell my abused and not so virginal sister to the highest bidder just because she had been previously raped and abandoned. Even is the prospective "John" was promising to clean her up and buy her dinner and gaudy clothes for the evening tryst!

Corridor H, the four-lane highway, if it is built, is just another round of use and abuse to the environment and the rural people affected. And more environmental debt for our children to pay. A huge dose of abuse disguised under expensive gaudy clothes! Lets get on with the job of learning to live much more in harmony with our home. Jobs created through gentle up-grading of necessary highways and through ecosystem restoration, now those would be positive results!  
Chuck Merritt, C H A, Central West Virginia  
PO Box 11  
Kerens, WV 26276  
304 478 4922

Support CHA Receive a copy of the "Down th Road" audio tape, entirely by West Virginia musicians, and a 'H-NO! FIX LOCAL ROADS' bumper sticker for \$11 to

Down the Road/CHA, PO Box 11, Kerens, WV 26276

everybody else.

At Epcot Center, the most frequently overheard comment is how real the robots look. I couldn't help but see it the other way around: how robot like the people look. In fact, I wonder if anyone doubts anymore that the robots are an improvement over people: they don't get tired, they don't need vacations, they can say and do the same things over and over without getting bored, they never go to the hospital, they never die, or have a depression or laugh too loudly, or do anything in poor taste.

Yes, it is always good to get away. One always learns a lot, and how gratifying it is to return home—especially to a home with as much texture and natural rough edges as West Virginia still possesses. Hang on to these, folks. The future comes darkly in the directions we are choosing to go.

by James Ralston

### Join the West Virginia Highlands Conservancy

Category	Individual	Family	Organization
Senior/Student	\$ 12	—	—
Regular	15	\$ 25	\$ 50
Associate	30	50	100
Sustaining	50	100	200
Patron	100	200	400
Mountaineer	200	300	600

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Make checks payable to: West Virginia Highlands Conservancy  
Mail to: P.O. Box 306, Charleston, WV 25321

### Membership Benefits

\* 1 year subscription to the Highlands Voice

\* Special meetings with workshops and speakers

\* Representation through WVHC efforts to monitor legislative and agency activity

The WVHC, at age 27, is the oldest environmental group in West Virginia. The Conservancy has been influential in protecting and preserving WV's natural heritage. Your support will help WVHC to continue its efforts.