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EARTH FIRST!

YULE EDITION

December 21, 1988

Vol. IX, No. II

THE RADICAL ENVIRONMENTAL JOURNAL

THREE DOLLARS

Triple Victory in Three Day Revolution

by Darryl Cherney

The California Department of Forestry is one of those agencies that makes you question the purposefulness of your non-violence training. In the battle by North-coast Earth First!ers to save the remnants of old growth forest in northern California, CDF has consistently misled us in its attempt to expedite the process through which timber firms must go before commencing logging operations on private lands. In this case, we were trying to save a grove "owned" by Eel River Saw Mills, and we were being told mistruths about when the logging would begin. First, CDF told us that they would approve Timber Harvest Plan (THP) 520 on Friday, October 21. Then they said the 24th, then the 25th ... Normally such bureaucratic piss-poo simply makes me wonder how these guys can even tie their shoes. But on this occa-

sion, there were 250 local citizens determined to defend this grove, known to them as Goshawk Grove in Sanctuary Forest. It was my job to tell them when the sale was approved. And I was getting my information from banana brains in green suits.

However, there was an advantage to this first Sanctuary Forest plan (there are several) being postponed: It freed some of us northern Californians to go to the Oregon EF! Rendezvous and bring back 21 yahooping Oregonians.

One particularly outrageous aspect of the approval of this THP was that Proposition 70 money had been allotted to our community to purchase this land along with several other parcels that comprise the 900 acre Sanctuary Forest, a virgin tract of Coast Redwood and Douglas-fir at the headwaters of the Mattole River

on the border of Mendocino and Humboldt Counties. Ten years of struggle had led the Mateel (Mattole and Eel Rivers) Community to successfully apply for \$4 million of the \$750 million parks acquisition bond recently approved by California voters (see Mark Williams' article, Mabon 88). Eel River Saw Mills had committed to negotiate the sale. However, Eel River Saw Mills Vice President Dennis Scott insisted on unreasonable terms: 1) no media; 2) no community participation; 3) approval of THPs; 4) less land; 5) instead of money, old growth redwood logs bought from Maxxam as payment. Dennis is the kind of guy who makes you want to burn bulldozers in your off hours.

By October 25, citizens of southern Humboldt and northern Mendocino counties were glued to public radio station KMUD for updates on whether Goshawk

Grove would be logged. We knew the equipment was in place. Our local suing mechanism, EPIC (Environmental Protection Information Center) had prepared the paperwork, but it would take several days after the plan's approval to get a temporary restraining order (TRO). If the California Department of Forestry approved their vile plan, our blockade, we hoped, would hold off Eel River Sawmills until EPIC could get its TRO.

Just when I thought it couldn't get any more tense, pressure quadrupled. On the 24th, a call came in from the Mendocino Environmental Center in Ukiah. The Cahto wilderness, a 16,000 acre ancient Doug-fir and Coast Redwood forest, was being roaded - past the winter logging deadline, by Eel River Saw Mills! [Cahto is managed by the Bureau of Land Management (BLM). Though most public land in northern California is managed by the Forest Service, the BLM does have jurisdiction over a significant amount of acreage, including sizable pockets of old growth coniferous forest such as in the Cahto wilderness. Cahto is not officially part of the National Wilderness Preservation System, but the BLM calls it a "wilderness," even while leaving it open to logging.] Like the privately "owned" Sanctuary Forest, the BLM's Cahto wilderness was the focus of a 10 year struggle by local citizens. Within its perimeters lies Elder Creek, with water so pure it is one of only three hydrologic benchmarks used by the US Geologic Survey to determine clean water standards for the entire country. BLM could see that this was clearly an area to be logged. After all, if there were still three pure creeks in this country, they must not be doing their job. The roading operation was on the Elk Horn Ridge, the next ridge over from Elder Creek. This ground is sacred to the Cahto Indians, a small but tenacious tribe that has been relegated to a 20 acre rancheria by the occupying forces.

Only two months before, the Cahto had been unknown to most environmentalists. But Earth First!'s new Ukiah organizer Judi "Bulldozer" Bari linked with the small Cahto Wilderness Coalition and began sending out fact sheets. Then she organized a 30 person reconnaissance in the guise of a "wilderness walk." We were surprised by the news of the road being punched in, but we weren't unprepared. BLM's new Resource Management Plan, entailing liquidation of half of California's BLM old growth forest in the next ten years, would not go unchallenged. However, urgent questions arose: Would we divide our forces into two actions, Cahto and Sanctuary? Would the Goshawk Grove plan even be approved? And where was the beer? Oh, I needed some Sierra Nevada and fast.

At 4:45 PM on October 25, CDF resource manager Len Theiss (rhymes with lice) approved THP 520. Many of the Oregon Earth First!ers, including all stars Mary Beth Nearing, Mike Jakubal, Anne Tillinghouse, and Andy Caffrey, were already reconnoitering Cahto. Those remaining used the phone tree to alert locals that both Cahto and the Sanctuary would see action on the 26th.

OCTOBER 26: Along the Briceland-Thorn Road, 15 miles west of Garberville, sits Our Lady of the Redwoods Monastery. It is for "Our Lady" that "The Sanctuary" is named. And she must have been smiling that morning as over 150 local residents gathered to defend the remnant old growth forests. EF! notable Greg King hung Carrie Pierce's "Save the Mattole" banner. Petrolia High School students formed what may have been the youngest blockade ever. The 76 acre parcel of woods was crawling with defenders.

The local sheriffs were there, too, as were the fallers for Canavari Logging, sub-contracting to Eel River Saw Mills. But there were no arrests this day. In



Patience Muse of Florida EF! is dragged off the field of protest at the Hunt Club intervention.

Florida EF! Saves Paynes Prairie

by Myra Noss (with contributions from Reed Noss)

The smell of diesel in the breeze and the roar of engines across the fields alerted us to the approaching bulldozers. Four of us had just scrambled up the trees marked for destruction. Within seconds, the cops were gaping up at us, warning us that we were on private property and were trespassing. That we already knew!

The site was swarming with press, cops, and destruction workers. Trying desperately to get us down, the foreman told us we were in the wrong trees. He handed the local newspaper reporter his business card and said he wanted a picture of the tree coming down with us in it.

From my perch I could see the bulldozer headed our way. One protester played cat and mouse with the dozer; she then jumped on the front bucket and was promptly arrested. The driver of the machine reached our tree. Patience Muse tried to

reason with him. The cops dragged her off the property, but she soon reappeared. This time they arrested her. As she was being led away, the dozer operator began clearing the brush around our tree, purposely slamming the machine into the tree. Linda Waite and I held on tight. We did not intend to come down until the land was saved. We stayed in the trees for nine hours, departing only when our volunteer attorney informed us that the county had issued a stop-work order because of the commotion our direct action had caused.

The private property we occupied is a 45-acre tract slated for the site of a 622-unit apartment complex, to be called "The Hunt Club." This small area is significant because it directly adjoins Paynes Prairie State Preserve, an 18,000-acre refuge just outside of Gainesville, in north-central Florida, managed by the Florida Park Service. A development of this intensity next to a natural area would lead to all

types of cross-boundary impacts, and set a dangerous precedent. Natural areas need buffer zones!

Paynes Prairie is an outstanding mosaic of wet prairie, marsh, and sinkhole ponds and lakes, fringed by upland hardwood forests (mesic and xeric hammocks), small swamps, and pine flatwoods. At times in the past, when the major sinkhole that drains the prairie has been plugged by debris, the entire prairie basin has been a lake. A steamboat was stranded in the prairie when the lake suddenly drained in 1891.

Paynes Prairie is home to the regional endemic Round-tailed Muskrat, and numerous species of water and wading birds. Bobcats, River Otters, and many other mammals use the preserve. The area was once known for its diversity and abundance of snake species, but two 4-lane highways built across the prairie

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A View of THE VORTEX

'Tis an unfortunate truism that the agendas of activists, including Earth First!ers, are shaped by politics. Election results and legislative actions late in the 100th Congress will influence many Earth First! campaigns. A brief summary of late 1988 political events will provide an idea of where EF!ers and other Earth defenders will be active in 1989.

The EF! Biodiversity Project will have as a tool a strengthened Endangered Species Act. Late in the session, House and Senate conferees reached agreement on a bill to reauthorize the ESA. It increases funding for species protection and recovery, adds limited protection for candidate species, and increases protection for listed plants. Though not likely, these measures could aid efforts of Arizona EF!ers striving to save Mt. Graham and its Endangered Red Squirrel and other endemic subspecies which merit Endangered or Threatened status. (Other late Congressional action approved construction of telescopes atop Mt. Graham, as explained in our last issue.) It is also remotely possible that Florida's Sherman Fox Squirrel, recommended for listing by Florida EF! leader Reed Noss, will benefit. Unfortunately, the reauthorization bill granted shrimpers a delay in the requirement that they employ turtle excluder devices (TEDs) to lower their incidental killing of marine turtles. Direct action in the Gulf of Mexico is thus needed.

Congress also renewed the Marine Mammal Protection Act - but without adding significant protection measures for dolphins in the Eastern Tropical Pacific, over 100,000 of which are killed by tuna fishers each year. Hence, the Sea Shepherd Society's upcoming dolphin campaign will be extremely important and, likely, confrontational. Sea Shepherd, by the way, is seeking volunteers for the voyage. Contact Paul Watson in British Columbia (see Directory) or Sea Shepherd in Redondo Beach if interested.

There was a little positive maritime news: Congress strengthened the Marine Sanctuary Act. This may assist activists in Alaska, Massachusetts, Florida and especially West Coast states (where the environmentalists are strongest) in their efforts to protect their coasts from offshore oil drilling.

Over a year ago, EF! co-founder Mike Roselle and four Greenpeace climbers hung a banner on South Dakota's Mt. Rushmore proclaiming WE THE PEOPLE SAY NO TO ACID RAIN. Unfortunately, legislators have not likewise said NO to acid rain. Though a majority of representatives signed a letter urging passage of clean air legislation, the Clean Air Act, due for reauthorization since 1982, was not improved. Congress will consider clean air again early in 1989. Perhaps EF!ers' renewed involvement on this issue would help.

Executive Director Bart Koehler and his associates at the Southeast Alaska Conservation Council will necessarily resume their efforts to gain passage of legislation to reform management of Alaska's Tongass National Forest. A Tongass timber reform bill passed the House this year but died in the Senate.

Even farther north, the Arctic National Wildlife Refuge will not face the feared onslaught this year, about which we've reported in past issues. However, while Alaska's Coastal Plain was not further opened to oil development, neither was it protected by Wilderness legislation, as was proposed by Representative Morris Udall.

Nor did Mo's American Heritage Trust Act pass. If this bill passes in the 101st Congress, it will help activists in their efforts to save undeveloped private lands. The act would provide regular funding for the Land and Water Conservation Fund, a source of money for land acquisitions to expand or create National Parks and

Wildlife Refuges.

California Earth First!ers now seem bound to continue their campaign, described by Darryl Cherney in this issue, to save the BLM's northern California old growth forests. With George Bush as President, the BLM is not likely to mend its ways. This also means Lynn Jacobs and the Grazing Task Force will, perforce, persevere in their fight against public lands ranching.

Activists face an especially stark outlook on BLM lands in southern California. Senator Pete Wilson won his reelection bid against Leo McCarthy. Presumably, Wilson will remain an obstacle to passage of Senator Cranston's California Desert protection proposal - a proposal that is well above average, though vastly inferior to EF!'s 17 million acre California Desert Wilderness proposal.

San Diego Earth First!ers will be telling more developers than ever before to "go build in hell." Two slow-growth propositions lost on election day, and the San Diego City Council almost immediately thereafter approved four contracts for construction of 7378 houses in Mission Valley and northern San Diego. As part of the California Floristic Province - one of 5 such Mediterranean climate regions in the world - San Diego has more species listed under the Endangered Species Act than any other county in the country. Hence, the strengthening of said act could be of particular importance here.

President Reagan, ever lending an attentive ear to his constituents, blocked enactment of a Montana "wilderness bill" passed by Congress and denounced by Earth First!ers. Not long after Wild Rockies EF! publicly denounced the bill, Reagan vetoed it. No doubt Reagan was moved by the legendary eloquence of the Montana EF!ers. Their eloquence notwithstanding, however, they face an uphill battle. Regrettably, mainstream environmentalists hailed the 1.4 million acre bill, before its pocket veto, as a victory, thus inviting Montana's legislators to introduce even weaker legislation in 1989. Wild Rockies EF! paints a surprisingly sanguine picture of the volatile Montana wilderness situation in this issue.

Senator McClure's diabolical Idaho "wilderness" bill, which mainstream environmentalists condemned, also was stopped. Our few activists in that state face an even tougher battle than Montana EF!ers face, given the reactionary propensities of Idaho legislators. Again, Wild Rockies EF! shows optimism in their article in this issue, despite the seemingly adverse situation.

Another of Senator McClure's deplorable measures did pass. The widely hailed drug bill which President Reagan recently signed into law included a rider which will make it a crime to be caught on public lands with tree spiking tools. See "Ned Ludd" for pertinent information.

EF!'s Nevada activists (both of them) are beset by Congressional proposals to protect meager acreages of Nevada's National Forest roadless areas. The House passed a 730,000 acre bill (not literally), but Senator Hecht and Representative Vucanovich were only willing to accept protection for 132,000 acres, so Congress will debate the issue again in 1989. Hecht, thankfully, will not be part of that debate, as he was defeated by Democrat Richard Bryan.

Our old growth defenders may indirectly benefit from passage of the largest river protection bill ever, which adds 40 Oregon rivers to the National Wild and Scenic Rivers System. Unfortunately, the bill allows studies to continue on the proposed Salt Caves hydroelectric dam on the Klamath River. The Klamath flows through forests not far east of the North Kalmiopsis roadless area, site of one of our oldest and most intense campaigns, as described again in this issue; and very near the

Mountain Lakes Area discussed in this issue. Oregon voters gave further protection to their rivers by approving a ballot initiative adding 500 river miles to the state Scenic Waterways System.

Small portions of areas proposed for Wilderness by Washington EF!ers were so designated. Congress passed Wilderness legislation for 1.7 million acres of Mt. Ranier, North Cascades, and Olympic National Parks. Also, the Bowerman Basin off Washington's coast, a prime sea bird area, will finally gain limited protection as a Wildlife Refuge.

New Mexico news was similarly uninspiring. Congress established a 114,000 acre El Malpais National Monument and 263,000 acre Grants National Conservation Area. Within the Conservation Area, 98,210 acres are Wilderness. Wilderness legislation for BLM lands in New Mexico will likely be introduced in 1989. NMEF! is asking for protection of over 5 million acres, but expects less than half that to be designated.

Arizona wilderness proponents are in a similar situation. Legislation recently established several small protected areas, such as the BLM's San Pedro National Riparian Area, and inadequate BLM wilderness legislation will probably be introduced in 89.

Utah BLM wilderness will continue to be a matter of great debate. However, informed persons report that legislation may still be years away. The good news in Utah is that Representative Wayne Owens won reelection. Owens not only favors extensive Wilderness for Utah, he also favors reintroduction of the Gray Wolf in Yellowstone National Park and has introduced legislation to that end. Unfortunately, Wyoming Senator Malcolm Wallop, who helped thwart Owens' efforts on behalf of wolves in 1988, also won reelection.

Eastward, politicians were no kinder to wildlands. North Carolina EF!ers gnashed their teeth at Senator Jesse Helms after he blocked passage of a bill to protect 467,000 acres of Great Smoky Mountains National Park as Wilderness. Virginians for Wilderness have a little more to console them. Their proposed Shenandoah Wilderness continues to be ignored by Congresspersons, but Congress did add 25,200 acres to existing Wilderness Areas in Virginia, as well as 2500 acres in West Virginia. Congress also approved a bill to add the Alabama's Sipsey Fork River to the Wild and Scenic Rivers System and to enlarge the Sipsey Wilderness, a splendid deciduous forest described years ago in EF!

Not satisfied with a bill passed by Congress to designate 91,500 acres of Wilderness in Michigan's Huron, Manistee, Hiawatha, and Ottawa National Forests, Midwest Headwaters EF! will develop its own proposal for forests and prairies in the Midwest. As part of this effort, MHEF! will hold a roadshow next spring, promoting local Wilderness proposals.

Congress tossed Oklahoma and Texas activists a few morsels, passing a bill to designate two small Wildernesses in Oklahoma's Ouachita National Forest, and adding 693 acres to Wilderness in Texas. More significantly, Congress allocated \$10 million to purchase land for Texas' Lower Rio Grande National Wildlife Refuge. TX EF!ers, in their defense of the five Endangered cavebugs in central Texas (see last issue), may benefit from the strengthened ESA; but they face developers not inclined to heed environmental legislation.

Lastly, we all face George Bush. In 1988, this man became "environmentally conscious" - meaning no more than what the term implies: Bush is now aware that there is an environment. It is reasonable to expect that Bush's selections for Interior Secretary, Agriculture Secretary, and other key posts will force us to redouble our efforts to stop the felling of National Forests, the domestic grazing of public lands, the over-development of National Parks, and the plethora of other problems we've been combatting for years. There's no rest for the weary.

-John Davis

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Although we do not accept the authority of the hierarchical state, nothing herein is intended to run us afoul of its police power. *Agents provocateurs* will be dealt with by the Grizzly Defense League on the Mirror Plateau.

Submissions are welcomed and should be typed or carefully printed, *double spaced*, and sent with an SASE if return is requested. Electronic submissions are even better, either on Macintosh disks or via Econet (login "earthfirst"). Art or photographs (black & white prints preferred, color prints or slides OK) are desirable to illustrate articles and essays. They will be returned if requested. Please include explicit permission to reprint slides. Due to our tight budget, no payment is offered except for extra copies of the issue.

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All poetry should go to: Art Goodtimes, Box 1008, Telluride, CO 81435.

John Davis, Editor

Dale Turner, Assistant Editor

Art Goodtimes, Poetry Editor

Heleen Wilson, Cartography

Kris Sommerville, Business Manager

Nancy Zierenberg, Mailing & Shipping

Dave Foreman, Publisher

Contributing Editors and Correspondents: Peter Bralver, Jasper Carlton, Chim Blea, Lone Wolf Circles, Dan Dagget, Mary Davis, Rick Davis (Japan), Karen DeBraul, Bill Devall, Barbara Dugelby, Roger Featherstone, Mitch Freedman, Ed Grumbine, Lynn Jacobs, Greg King, Christoph Manes, Michele Miller, Sally Miller, R. F. Mueller, Reed Noss, John Patterson, Karen Pickett, Doug Peacock, Ned Powell, Rabinowitz, Jean Ravine, Randall Restless, Mike Roselle, Jamie Sayen, John Seed (Australia), Tom Skeele, Tom Stoddard, Robert Streeter, Paul Watson, Mark Williams, Howie Wolke, George Wuertner.

Contributing Artists: Brush Wolf, Lone Wolf Circles, Canyon Frog, Lourdes Fuentes-Williams, Mike Gouse, T.O. Hellenbach, Sky Jacobs, Juniper Berry, J. Luoma, Mad Jack, Christoph Manes, Peg Millett, Millipede, Mike Roselle, Claus Sievert, Carol Simpson, Jim Stiles, Karen Tanner, Gila Trout, Bill Turk, B. von Alten, Robert Waldmire, Malcolm Wells, Macey Willow, Helen Wilson, John Zaelit (deceased).

Contributing Photographers: Joe Cempa, David Cross, Roger Featherstone, Doug Peacock, Scott Smith, Howie Wolke, George Wuertner.

Mailing: Tucson Earth First! Group

SCHEDULE

Earth First! The Radical Environmental Journal is published 8 times a year on the old pagan European nature holidays: Samhain (November 1), Yule (December 21 or 22), Brigid (February 2), Eostar (March 21 or 22), Beltane (May 1), Litha (June 21 or 22), Lughnasadh (August 1), and Mabon (September 21 or 22). Deadlines for articles are three weeks before the cover date: October 10, December 1, January 10, March 1, April 10, June 1, July 10, and September 1. The newspaper is mailed Third Class on the cover date.

Dear \$\$\$ for Brains,

- 1) Lay off COORS, its good beer and they have settled with the damned union.
- 2) Watch the foul language it is not acceptable and proves nothing positive.
- 3) Just because a person belongs to Earth First! and cares about "Mother" EARTH, does not mean they are automatically a Democrat, or anti-Republican, or Pro-Woman's Lib, or against "big" business, or anti-government, or filthy-minded, or atheistic, or Pagan, or Pro-union, or anti-military.

I do, however, support folks like Ed Abbey, Dave Foreman, Lynn Jacobs, and Howie Wolke. Oh - and Neal Tuttrup.

4) It is refreshing to see the articles in OUTSIDE MAGAZINE, etc. about 'ole Cactus Ed Abbey! Isn't it?

5) I will not RENEW my membership until you folks quit acting like a bunch of illiterate anarchists. *That is not* the answer. I subscribe to SOVIET LIFE Magazine and they are decent folks. You all have a Paranoid (yes - sick) attitude about those on the so-called Political "Right".

Many whom you purport to close ranks with are abusers of the environment just as well as the many of those you are outspokenly "against".

I think you are mining people's feelings and emotions and using NAZI tactics.

Wait a minute, I'm just as anti-establishment as you are, but that doesn't make me think that all homosexuals, all woman's libbers, all non-Mormons, all Socialists and Communists and Liberals, all Libertarians, and all of those who believe in satan-worship are "Friends of the Earth".

The need for and the idea behind the Earth First! alliance is sound.

Try to be more like "Mother Earth" - try to be a haven for all. You do not see this attitude in Nature. It is not natural.

-ANONYMOUS, St. Louis, MO

To answer ANON. and other curious correspondents, we will soon publish an update on the issues surrounding Coors "beer." -Dale

Dear Mr. Foreman:

Recently I've read about marijuana growers clearing natural vegetation on national forest land to grow their "crops." In addition they have made it unsafe for unsuspecting people passing through. This apparently is a widespread problem that is expanding rapidly.

As a supporter of Earth First! I have never read in your publication about this problem. Unfortunately, many of your activists fit an "imagined" profile of these



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money mongers.

Would you please publish a renouncer to this hideous practice and distance us from the unconscionable potheads.

-James A. Corcoran, W. Bloomfield, MI

Dear Sirs:

I would be interested in receiving any information about your UFO Organization. I would also like any free samples regarding items that you sell, or free samoles [sic] of your publications. I sell UFO books and other items pertaining to the unidentified Flying Objects.

Also I would be interested in a contact to where I could get a list of names (U.S. names preferred as Foreign names are of little use to me.) If you would like a list of my prominent buyers let me know and I will promptly send it to you.

I would also like to know if you know people interested in new age information (not related to the New Age Magazine).

-Bill Bemis, Versailles, IL

To the Editor:

I was reading an article in Western Wildlands by Dr. Thomas Nimlos, soil scientist at the U of Montana. The article has to do with agricultural subsidies and their impacts on soils and secondarily on wildlife. What he had to say clicked with conversations I had had with two friends who work for the SCS (Soil Conservation Service) in eastern Montana. According to Nimlos's article, earlier agricultural subsidies encouraged the plowing of highly erodible soils and the draining of wetlands to put into crop production. A farmer can get money from the government for keeping land out of production if his soil is deemed highly erodible. Since it only requires plowing land for two seasons to qualify it

as agricultural lands, this encouraged many landowners to merely break the sod with no real intention of growing anything except government checks. But the government checks go far. Montana newspapers reported that Montana's personal income was depressed except for agriculture which was up due to federal subsidies. Some economy we have in this state - government subsidized grazing, logging and farming. And these same people complain about welfare!

More than half of Montana's land is considered highly erodible. Thus subsidies are a huge part of the income of Montana farmers and it's "no risk" since they get paid up to \$50,000 per year for not growing anything. Most of these agricultural lands should not be growing anything but wildlife. An economist with the SCS head office figures these lands are much more valuable as wildlife and recreation (hunting primarily) lands than for agriculture, but they remain in agriculture because of subsidies. Not only that, this economist says it would be far cheaper to buy these properties and make them public lands than to continue agricultural payments. The yearly payments to many farmers actually exceed the cash value of the lands!

With the recent passage of the \$3.9 billion drought relief agricultural package, it's timely to question whether the rest of us are getting our money's worth from these agricultural subsidies and what the implications of these programs are for wildlife and fisheries.

-George Wuerthner, Livingston, MT

Dear SFB:

I applaud the CAL EF! women for vocalizing and actualizing their unrest with the patriarchy and personal suppression. But I strongly disagree with the women's caucus' admitted sexism and condescension toward men. Feminism is not a "superior gender game," but a self-empowering, self-liberating act. "The EF! men may be assholes, but at least they're trying" is the identical patronizing attitude women are struggling against. As women take on "male" skills, they should receive equal criticism and compliments

IN MEMORIAM TO GEORGE CALLIES

Great threats to the established evils of our society are hard to come by and George Callies was one. It was the harshness of the society he challenged that finally did him in. Ultimately the nature of his life spirit, so in conflict with the conditions of his life, made an early death inevitable. Like the Great Bear, George was big, natural in his instincts, intimidating to many who did not understand him - especially the Forest Service. A highly skilled media coordinator and spokesperson, in lending his voice to the Earth First! movement, George enflamed the Freddies to revenge, as they saw his name and image over and over saying that they could expect to see more monkeywrenching.

His image was that of an unstoppable force in defense of Earth. The Forest Service retaliated by suggesting to another Earth First!er that George gave the group a bad name and should be kicked out. Forest Disservice officials were overheard asking each other, "What are we going to do about George Callies?" They tapped his home and searched it for incriminating evidence. Finally two federal agents stopped a city bus George was riding, sat down beside and behind him, and tried to intimidate him into a confession of his own or another's "guilt" in a well-known spiking that took place in Oregon in 1984. George, despite his weakened state from recent pneumonia and separa-

as men. We should be moving away from this superiority grip, not embracing it. It is reminiscent of my days as a lesbian teenager "coming out". I hated all men (the source of all evil), which is a very reactionary, elementary stage of feminism.

Ecologically-minded women should be exploring their individual balance within the larger life cycle, fighting the institutionalized oppression of all beings, and encouraging women to question their lifeways. There needn't be an absence of masculinity for feminism to be influential.

We don't need less macho, but a more assertive macha.

-Sher Pierson (a gay eco-fem mountain woman that lives 7 river crossings from a road with a macho EF! poet/artist)

Friends,

The article about the California Rendezvous last issue contained an important omission. One of the outstanding things about this Rendezvous was that we had communal food prepared by Micky Dulas and a team of dedicated kitchen flakes. We regret the omission.

-Judi Bari, Ukiah, CA

Dear Shit fer Brains:

The writings of Christoph Manes are consistently some of the more intelligent and inspiring in the *EF! Journal*. From time to time, however, I perceive in them some possible misunderstandings of science, and in particular of evolutionary biology. A case in point is Christoph's recent article, "On Becoming Homo Ludens."

I do not wish to detract from Christoph's central thesis that we take ourselves too seriously, and that most humans today need to loosen up and become "bumbling, halting, drunken, joking. . ." - with that I heartily agree (witness my hangover this morning, as I write this). But I do take issue with Christoph's notions on "the limits to natural selection."

Christoph asserts that "there is no evolutionary mechanism determining the development of individuals after they reproduce viable offspring." This is blatantly untrue for humans, other social animals, and indeed any species where the survivorship of young is influenced by older individuals in the population. A very important mechanism in evolution is kin selection, and its corollary, inclusive fitness (where an individual's Darwinian fitness is determined not only by its own survival and reproduction, but also by the survival and reproduction of other individuals to which it is closely related).

In many species, there is an element of competition between parent and offspring, and behaviors have evolved to ameliorate this competition. But in some social animals, the knowledge held by older individuals in the population is passed on to younger reproductive or pre-reproductive individuals, to their benefit. Hence a grandparent can enhance his/her inclusive fitness by teaching grandchildren things that will contribute to their

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"BEEN THERE 47 DAYS - SPOTTED OWL FEEDS HIM RED TREE VOLES"

Florida EF! ...

Continued from page 1

basin have led to drastic declines, due to road-kill. Bald Eagles and Sandhill Cranes nest in the preserve, and it is the primary wintering site for these species in eastern North America. Up to 10,000 or more cranes and hundreds of eagles use the prairie in winter and during migration. The ecological significance of Paynes Prairie has been known since the late 1700s, when the area was described by the pioneer southeastern naturalist, William Bartram. At that time, Bison still roamed the prairie (a small herd has been reintroduced).

The state of Florida has proposed to purchase 6000 acres around Paynes Prairie as additions to the preserve. These additions would serve as a buffer zone, and link the preserve to other, nearby natural systems. About half of the 45 acres we are defending is on the state's acquisition list. Unfortunately, the Paynes Prairie additions rank low in priority on the state's Conservation and Recreation Lands (CARL) list. With the extreme rate of growth and habitat destruction in Florida, the state cannot buy land nearly fast enough.

The government of Alachua County, in which Paynes Prairie is located, is largely responsible for the Hunt Club fiasco. In 1979, the Alachua County Commission gave preliminary approval to this "planned unit development." Over the next few years, permits were issued while site plans drastically changed. In 1985, the county accommodated the developer - Martin Hackman, a land speculator from Boca Raton - by characterizing the changes as

"minor," summarily approving them without forcing him to go back through the permitting process. This process would have subjected Hackman to stricter construction requirements and limited the density on the site to substantially less than what was approved in 1979. As it now stands, 622 apartment units are approved, right up to the edge of the Paynes Prairie basin. Alachua County failed in its responsibility to require Hackman to submit a site plan that would protect the sensitive prairie ecosystem (which, we believe would be no development at all).

Nearby residents were the first to fight the Hunt Club project. (Established area environmental groups appeared uninterested, as usual.) When it appeared that the residents were losing, in stepped Earth First! We researched the project, and discovered that this was a precedent-setting development for the area surrounding Paynes Prairie. Use of the property by Endangered and Threatened Species (Bald Eagle, Eastern Indigo Snake) was well documented, but was never considered in the permitting process. The site contains significant archeological artifacts, and was apparently a major Alachua Indian village site. Furthermore, additional housing in this region is not needed - Gainesville already has a 10-30% vacancy rate in apartments. If additional apartments are ever needed, many areas in and around the county might accommodate it without significant impact, but NOT THE PRAIRIE!

With development imminent, Florida Earth First! organized a vigil to wait for the bulldozers. If we could delay Hackman's crews for just two weeks, his building permits would expire; because he had received two previous extensions, no

more were allowed by law. We guarded the prairie day and night from September 27 to the day the dozers arrived, October 4. Many other citizens joined EF! in the watching, and many even pledged themselves to civil disobedience. At times up to 100 demonstrators occupied the site. Unlike many radical environmental actions, on this action we actually had a majority of county residents on our side! Even the local newspaper, an unabashedly pro-growth monopoly, switched from criticism to guarded praise of the protest (they can only ignore popular opinion so far).

Meanwhile, we checked every possible legal angle to stop the Hunt Club. Lots of dirt turned up. Martin Hackman and his irresponsible son, Jeffery, are land-speculating scum [as their surname might suggest] with a history of real estate violations in corrupt South Florida. There were foreclosures on Hackman's Hunt Club property. He may have been involved with illegal procedures on government loans, because he had never completed the necessary environmental surveys. The one survey that had been done, in 1985, revealed an archeological site important enough that the federal government was considering acquisition. Why was this project ever allowed? Because the county commissioners promote growth at any cost.

In the end, there was no easy way out for the Alachua County Commission. Caught firmly between an immovable object (a determined developer) and an irresistible force (a tree full of protesters and a commission room packed with indignant citizens), the commission voted to appeal an earlier circuit court ruling that had cleared the way for destruction. Without the strong display of public interest

generated by the EF! protests, the county would never have appealed. Surprisingly, a judge has ruled in favor of the county in its appeal, and the Hunt Club, for now, is stopped. Another appeal, by the developer against the county, is still pending - Hackman doesn't intend to give up. The 10 protesters who were arrested will appear on December 12, pleading not guilty and the "necessity defense." We had no intent to trespass, only the intent to stop the destruction. Meanwhile, the state's CARL program is trying to hasten the acquisition process for 26 acres of the Hunt Club tract. If Hackman loses his appeal, and agrees to sell (the state rarely exercises its power of eminent domain, except to build roads), the remaining area may be purchased by other state funds and set aside for historical preservation.

Florida was long overdue for direct action in defense of Nature. The natural communities that we picture in our minds as La Florida (land of flowers) have been mostly destroyed by human numbers and greed. With this action, our first major civil disobedience, Florida Earth First! received news coverage from around the state, and the press caught our message - NO COMPROMISE! We have heard rumors that other developers in the Gainesville area are reassessing their plans to destroy sensitive areas, for fear of generating our wrath and losing money on projects that are stalled by public opposition. They haven't seen anything yet!

Money is needed to support the legal efforts of the "Prairie 10." Please send contributions to Florida EF!, POB 13864, Gainesville, FL 32604.

Myra Noss is a long-time Florida EF! leader and 1 of the 10.

Sapphire Six Fined \$25,000 for Damages

Another Kalmiopsis Kangaroo Court

by Kelpie Willsin

The southern Oregon establishment is doing its best to oppress the Sapphire Six, an activist group arrested in the summer of 1987 for occupying a yarder in the Sapphire timber sale in Siskiyou National Forest's North Kalmiopsis Roadless Area. At the time, we received the maximum possible sentence for our misdemeanor and a lecture from the judge on our "communist" behavior. While in jail, guards encouraged white supremacist inmates to beat us up. To top it off, we were served with a civil suit by Huffman & Wright Logging (owner of the yarder) asking for \$7800 in "actual" and \$50,000 in punitive damages. Although general legal precedent indicates that punitives should not be allowed in civil disobedience cases, Judge Downer ruled against our retrial motion to exclude them.

Undaunted, five of the six appeared in court in Roseburg, Oregon, on November 2 for a jury trial to decide the damages. Sapphire Six's brilliant attorney, David Atkin, had filed a countersuit against Huffman & Wright for their failure to stop their employees from throwing rocks at us while we were chained to the tree gobbling machine. The jury would have the choice of ordering H&W to pay us any amount up to \$22,500, ordering us to pay H&W up to \$58,000 or dismissing either or both cases entirely.

Our strategy was to convince the jury of three things: that we were human beings who did not deserve to be physically attacked by loggers for expressing our beliefs, that we were acting strictly in accordance with the principles of non-violent civil intervention, and that the assignment of punitive damages against people exercising their first amendment rights would set a dangerous precedent. Accordingly, for the jury's sake, we all decided

to dress like human beings! Dubbed the "Make-up Action Group," or MAG, we donned dresses and suits for the trial.

The proper way to look at the trial was as a piece of theatre. In fact, at times I felt as if I were stuck at a 5 day Fellini film festival. The first act was jury selection. Twelve Roseburg citizens were paraded before us, and we learned that all took Reader's Digest, all had a brother who was a logger, and all believed in the right to protest the policies of one's government.

The trial began the next day with opening arguments from the plaintiff's (H&W's) attorney Mark Rutzick (Retch-sick) and our attorney, David Atkin. Retch-sick spoke repeatedly of "tree spiking" and "sabotage." Even though the other side had no evidence that property damage or tree spiking occurred as a result of our action, the judge refused to grant our motion disallowing those words. From then on, the trial was a witch hunt of Earth First! Each of us was grilled on the stand for hours. They tried to find out who our "leaders" were and portray us as a satanic tree worshipping cult.

Rutzick works for the high-dollar Portland law firm of Preston, Thorgrimmson and Slime. Unfortunately, this may not be the last time we see him. Recently, he represented the timber industry in their intervention in a lawsuit against the government for not protecting the Spotted Owl. He also represented the government in an Oregon nuke plant boondoggle a few years ago. We wondered how Huffman & Wright, a relatively small subcontractor, was able to afford such an expensive lawyer. It seemed no coincidence that the president of Douglas Timber Operators, a powerful timber industry organization, sat in the court room for most

of the trial. Rutzick's favorite ploy was to shake a copy of *Ecodefense* at us and ask if Dave Foreman was our leader. Of course, we had no trouble vehemently denying that! His closing arguments to the jury were most amusing. Rattling a large chain with one hand and shaking a fist full of spikes, he said that CD actions occurred after the Round River Rendezvous each year and described the RRR as a "traveling crime spree." His appeal to the jury was based solely on fear and intimidation.

Each of us got a chance to tell the jury our reasons for the action when David called us as witnesses for the defense. We were allowed to talk about our concerns for biological diversity and our commitment to the principles of non-violent civil disobedience. We also had expert witness Kayla Star testify on non-violent civil disobedience. She gave some of the history of NVCD in the abolitionist, labor and civil rights movements and pointed out to the six women in the jury that their right to vote was only won through NVCD. She also talked about the famous Boston Tea Party and said that though it was considered sabotage, it was obviously a very American thing to do. David gave a stirring final argument, appealing to the American ideals of freedom, truth and justice. He told the jury that they had the great responsibility of guarding constitutional rights, not just for the defendants, but for everyone.

In the end, I think we won a small amount of the jury's sympathies, but they would have a lot of explaining to do to their timber town buddies if they had let us off. The other side was awarded \$25,000 in punitive damages and \$7800 in "actual" damages (they wanted us to pay the full value of the trees they didn't haul

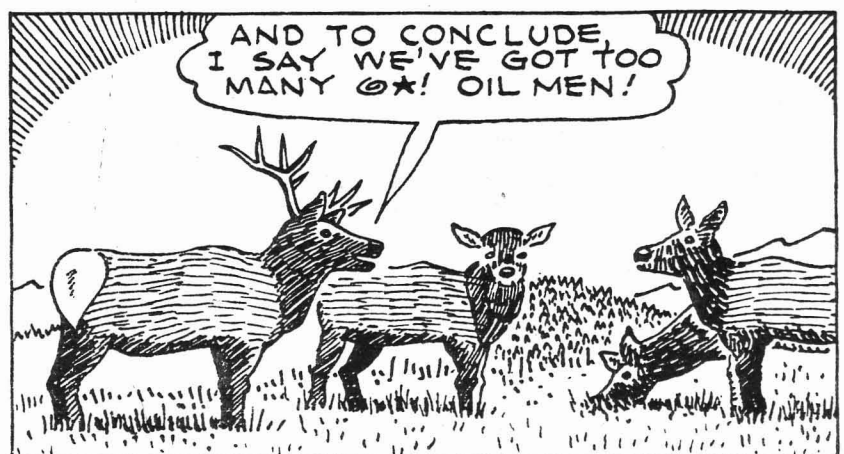
that day). The jury dismissed our countersuit.

The verdict was delivered on November 8, election day. All day I had been repeating to myself as a mantra, "the American people are not fascists, the American people are not fascists..." News of the verdict and election results reached me at about the same time. Since at least 52% of the people did not vote, perhaps there is some hope, but the segment of the population that votes and serves on juries is not to be trusted with our freedoms!

In recent years there has been a national trend toward corporate lawsuits against protesters. The University of Colorado Center for Intimidation Lawsuits has tracked over 100 cases where corporations have sued private citizens. In none of these cases have punitives been awarded. We are the first group to be charged punitive damages.

Sapphire Six strategy now focuses on an appeal. We are fortunate to have excellent legal counsel from David Atkin and advice from experts and law students. This case has important implications for the future of first amendment rights nationwide. It is essential to all of us that we stop this nonsense now and set a strong precedent. So far, the defendants and David have covered almost all the expenses out of their own pockets. David has not been paid and as a result is experiencing financial difficulties. Bringing an appeal means more costs. Please send donations to: Earth First!, POB 3499, Eugene, OR 97403. Note on check: Kalmiopsis Legal Defense Fund.

Kelpie Willsin is an EF! leader and one of the Six.



b. von alten

Three Day Revolution

Continued from page 1

Eureka, Judge Ferroggiaro was hearing EPIC's plea for a restraining order, and the sheriffs were under orders not to bust heads ... yet. When darkness fell, the judge had not yet ruled. Everyone would have to return, if they wanted the forest saved. And they did.

I had gone to Cahto. There, the two man road crew arrived at 7AM, encountered our blockade, stood awestruck, mumbled into their CB, and left. No loggers came back that day. The worst problem we had was from a local redneck marijuana cultivator. It seems we were blockading more than just a logging road and our friend was interested in harvesting something other than trees. He was mad, but he hated BLM as much as we did, so we reached an uneasy truce.

An important development in the Cahto action was the arrival of Gray Owl, a man whose blood flows back to the days of the country before the white man came. Gray Owl brought us an uplifting message: The Cahto tribe might still have rights to this land. They had not been notified by BLM that their sacred grounds were being logged and they were considering taking action. However, as our band of 40 eco-aven- gers had dropped into the wilderness like a ton of bricks, preliminary negotiations were needed before the Indians took action. We retired to our camp on Elk Horn Ridge that evening with new resolve.

The Cahto wilderness is adjacent to a Nature Conservancy preserve. The watershed they share cradles the South Fork of the Eel River. The preserve was saved only because in 1953 an ornery fellow named Heath Angelo sat in front of a bulldozer to stop the logging ... and then bought it. We liked the idea that 25 years before us someone had done what we were doing and had saved some wilderness. We all decided that should we be arrested, we would call ourselves Heath Angelo. And to further connect us to old Heath, his grandson, Peter Steele, was the caretaker of the preserve. The spirit of the late Heath lived on, and was taking press calls.

OCTOBER 27: Day two at Sanctuary's Goshawk Grove, sheriffs had blockaded Briceland-Thorn road. If you looked like a demonstrator, you didn't pass (hard to imagine how they did that when just about everyone in southern Humboldt looks like a demonstrator). The judge was to rule on the TRO sometime after 9AM, but logging was to begin at 7. This time, the sheriffs would not wait for a ruling. They wanted to bust some hippies. For there were dangerous women, children, and aging hippy men out there.

Richard Gienger, 42, veteran of the Battle for the Sinkyone and the Sally Bell Grove, was one of the victims. He must have looked a little too happy sitting on that dozer. He was clubbed, maced, and had his back wrenched while trying to remain limp.

Young Dylan Snodgrass didn't resist when the feral pigs grabbed him. They bashed his kneecaps. He hobbled out of the old growth and into Garberville General Hospital.

Gentry Andrews must have looked threatening hugging that tree. So the brown shirts tried one of their pressure points to the face maneuvers.

All the while, the forest was being felled and not just on top of protesters. Cops were in there too, cursing the hippies who were endangering their lives. (The fact that the loggers would fall trees on top of cops is cause for speculation...)

After three hours of this madness a TRO was issued. Nonetheless, the cops refused to stop the logging. Nine arrests later, they did finally stop it. But Eel River Sawmills employees threatened to cut another Sanctuary parcel in spite. A vigil would have to be maintained, and still is to this day.

Day two on the Elk Horn Ridge at Cahto, we were in place at 6:30. The road crew came at 7:15, then left as before. But this time, at 10AM, to a chorus of "You Can't Clearcut Your Way to Heaven," a convoy of Mendocino County sheriffs, federal marshalls, CAMP goosesteppers (Campaign Against Marijuana Planting), BLM officials, Louisiana-Pacific security (L-P has adjacent holdings), and California



photo by David J. Cross

First log trucks approach protesters at Sanctuary Grove action.

Highway Patrol men rolled up the Jack of Hearts Road.

They had trouble interrupting our songs. In fact, Andy Caffrey's video shows that every time we stopped singing, they came toward us, and every time we started singing, they walked away. Finally, the cops asked us to leave. We decided to move, slowly, along the very haul road we were blockading. In case anyone had ideas about walking fast, we had a secret weapon. Her name was Luna. Luna is as old as the ages and as slow as molasses. She draped our huge Earth First! banner over her shoulders along with two others and took up the rear.

The 15 starry vehicles rolling at our heels tended to enliven our gait. So Luna moved to the front position. NO ONE passed her there. But Luna wasn't the only obstacle slowing down the parade. Unknown parties had dashed before us and thrown slash and boulders into the road. As we reached the first of the 24 barricades, the concept of monkeywrenching dawned upon the minds of locals new to EF! And they liked it.

Each pile was different. My favorite was the deluxe combo - a huge pile of sticks with a boulder surprise inside. Each could have been signed - Picasso, Mondrian, Rembrandt, Dali, Jakubal. It was agreed that if the BLM must allow road cutting, it was generous of them to leave the slash along the sides for these endeavors.

The funniest incident was when four sheriffs could not move a giant boulder that three unknowns had placed there. They unwound their wench, wrapped up the boulder and pulled. To their chagrin, the rock followed their muscle wagon in reverse down the road. When they wrapped the cable around a tree to leverage the boulder down the hill, the rock remained stationary and the vehicle began to skid toward the cliff.

Four of us were cited for "Vehicular Trespass," an embarrassing charge for an EF!er. Apparently we had inadvertently parked on Louisiana-Pacific's land, and while this protest was not leveled against them, their security figured that they should be in solidarity with their fellow Earth rappers, Eel River Sawmills. A fifth comrade, Jim Flynn, became the first "Heath Angelo" to be physically arrested. The spirit and name of Heath Angelo made the newspapers as he went to jail.

When we returned from the hill we were apprised of the latest success and violence from the Sanctuary. We also learned that a third action had occurred. A temporary restraining order had been issued as part of a lawsuit against our perennial villain, Maxxam. But local residents had informed EPIC and the Sierra Club, plaintiffs in the case, that Maxxam was violating the judge's order and logging in Salmon Creek, a 3000 acre virgin Coast Redwood wilderness, the largest of its kind anywhere, public or private. When they heard of the violation, Cecelia Gregori, EPIC president, and Lynn Ryan of the Sierra Club, sped to the woods. Sure enough, log trucks were rolling out. Max-

xam decided that the two women posed a threat, and blockaded their car with a log truck. The two women were cited - with vehicular trespass. But the woman had forced Maxxam to shut down their operation in compliance with the law. Trespass citations and arrests for the day totaled 16.

Despite five press contacts, the few persons who covered our actions didn't get the story right. The environmental story of the week was two whales trapped beneath ice near Alaska. That makes for nicer news than a blood and gut revolution in northern California - a three day revolt in three locations involving 300 people that was to result in three victories. The media had made itself obsolete. The revolution carried on regardless.

Thursday evening, Gray Owl, our liaison with the Cahto tribe, returned. He brought important messages. The Cahto were negotiating with BLM. Gray Owl said what we were doing was more important than we could realize: these hills were sacred. Magic was afoot.

OCTOBER 28: The third day's blockade was especially memorable. After hauling a log across the road to keep us from being run over, we started singing. The sight of us singing "This monkeywrench of mine, I'm gonna let it shine," must have given the road crew food for thought. The two men were cordial; one even admitted that the Earth was in deep shit. They then went to call the police.

The sheriffs arrived at 10AM - three hours down-time already. Before they could ask us to leave, we began slowly walking up the log road, singing "We're All Dead Ducks." Soon the barricades came into view. I don't know what kind of adrenaline tablets some folks eat, but these blockades were awesome! The cars could not even keep up with our slow walk due to the need to constantly stop and remove debris, which the sheriffs dutifully placed back alongside the road. An hour later we reached a trench so big you could fit a piano in it. No muscle wagon was traversing this baby.

We agreed to slip silently over the side. We had heard the stories of busted heads at the Sanctuary, and we did not expect this hole to endear the police to us. Andy courageously stayed behind to film their reaction. The cops called our hole "The Tank Trap."

As we sneaked through the woods back to the South Fork of the Eel, our new Laytonville EF! organizer, Rick Cloninger, tuned into his portable scanner. The news he proclaimed was unbelievable. The Interior Department had shut down this logging operation upon direction from the Cahto Indians and Senator Alan Cranston's office!

The Oregon contingent was ecstatic. After this summer's grueling campaign in the North Kalmiopsis Roadless Area, and watching 1/2 mile of the Bald Mountain Road invade the area, they needed a morale boost. Earth First! had convinced even liberals that sometimes you have to put your body on the line and sometimes it even works.

The next day we demonstrated at the jail in Ukiah to FREE HEATH ANGELO. Heath had become a jailhouse celebrity, not because of his politics, but because he had begun a hunger strike and was giving away his food. He was freed on Monday.

THE FUTURE: The ball is now being carried again by the Cahto Wilderness Coalition, which is totally stoked that after ten years of fighting BLM's bureaucracy, 35 howling banches in Earth First! shirts had come to their rescue. Laytonville EF!'s first meeting drew over 40 people. The Sanctuary Forest timber plans are in litigation; protected for now by preliminary injunctions. The Sanctuary Forest group has all winter to negotiate with Eel River Sawmills, and the Cahto Tribe has all winter to negotiate with the BLM. Andy is collaborating on a video project with an award winning videographer, and Judi Bari is organizing drum-ins at BLM headquarters. Laytonville EF! has discovered more old growth beyond the Cahto area about to be cut. State Senator Barry Keene wants to put a moratorium on logging of lands that have Prop 70 money allocated for their acquisition. Our next big action is planned for Maxxam's company town of Scotia and is called "Day of the Living Dead Hurwitzes." Hundreds are expected to attend the December 8 rally, including loggers and millworkers fed up with deforestation and de-employment. With the exception of the *Los Angeles Times* and our local KMUD radio, the media never did get the story right.

But we got the story right. The revolution is under way.

Darryl Cherney of South Humboldt EF! is one of EF!'s most beloved musicians and organizers.



**MOVING?
SEND
US YOUR
NEW
ADDRESS!**

WOLF ACTION UPDATE

mostly by Tom Skeele

There is much talk and a fair bit of action nowadays on behalf of restoring wolf populations all across the continent. People are starting to defend existing Gray Wolf (*Canis lupus*) populations (especially in British Columbia, Alaska, and Wisconsin), and to push for reestablishing wolves where once they roamed (particularly in the Northern Rockies, the Southwest, and the Red Wolf in the Carolinas). The following is a summary of pro-wolf efforts across Turtle Island, some that include Earth First!ers, and some that need a greater no-compromise voice supporting them.

BRITISH COLUMBIA

The provincial Ministry of Environment is managing BC's wilderness into a mockery of the "Super, Natural" landscape. They have employed a wide range of ecologically-devastating practices, including wolf "control" tactics (aerial shooting, trapping, poison-baiting, and hunting), large-scale forest burning to create artificial pasture for ungulates, and importation of exotic game. These practices undermine natural selection and natural predator/prey relationships, at high cost to the citizens. Only members of the hunting and livestock industries benefit.

With last year's success under our belts, the Earth First! and Friends of the Wolf winter BC wolf campaign is already strong. Most of the two dozen who are committed to intervene, the Wolf Action Group, met over Thanksgiving to discuss strategy.

The BC Environment Ministry's carnivore coordinator has stated that there will be no hunt in the Quesnel Highlands this winter, and that Environment Minister Strachan is still undecided about the Muskwa killing. Nonetheless, the BC government needs to hear from Lobo lovers and thus activists still plan to go north. The time and site for the intervention remain uncertain, but the intervention will happen. The EF! Direct Action Fund has committed to financing this action, but more money, gear, and volunteers are needed.

WHAT YOU CAN DO: There are five basic ways to voice your discontent with BC's wolf-kill policies: intervention, protests, complaints, education, and boycotts. If interested in joining us in BC or contributing money or gear, call me ASAP. Those not visiting BC this winter (please don't go as a tourist) can help from home:

1. As mentioned previously in the Journal, January 9 will be a day of international protest against BC's wolf-killing. Earth First! is working with Friends of the Wolf on this day of demonstrations, and actions are planned for Seattle, Portland, San Francisco, L.A., Denver, and Missoula. We hope people will organize actions elsewhere, also. Activists can use a connection of any kind with BC: a travel agent, professional sporting event involving a BC team, any airlines flying to Vancouver - Air BC, Air Canada, Canadian Air International, Delta, Continental, American, United, Ward Air, and San Juan Air. Even if these companies don't fly direct from your town, they are still appropriate targets. Whether you want to do the organizing, or just learn where you can join in, call the EF! Wolf Action Network (see Directory) now.

2. Write letters again to the Premier, The Ministry of Environment, and Ministry of Tourism. The Environment Ministry's "control" policy has been given biological blessings from its own "biologist," and only the social ramifications of the issue may stop them. Tell them you will boycott BC and educate others until all the killing is stopped. Call the BC Tourism office toll free (800-663-6000) and the above listed airlines (800-555-1212 and ask for the listing in your area) with the same message.

Minister of Environment and Parks, Honorable Bruce Strachan, Parliament Bldgs, Victoria, BC, V8V 1X4, Canada
Minister of Tourism, Honorable Bill Reid, same address

If you'd like to put on an educational program on behalf of BC wolves and EF!'s campaign, contact the Network. We have a slide show and a film you can borrow, plus plenty of literature.

Another effort for BC wolves is Humans Opposed to the War on Lobo (HOWL). Ron Baird explains this new part of the campaign:

Because tourism is the second largest income producer (behind logging, unfortunately) *Earth First!* December 21, 1988

nately), and sport hunting is sixth or seventh, the provincial government is vulnerable to a boycott of BC tourism. We are asking that any individuals or groups who wish to support a *coordinated* boycott, write us a letter (on official stationery when appropriate) stating your endorsement of a boycott and something about your group (including purpose and number of members). We are appealing to everyone who deplores the killing of wolves - individuals, environmental/animal rights/green/peace groups, school classes, garden clubs etc.

Please don't go to British Columbia until the killing stops. Ask others not to go and tell us that your not going. In coordination with the efforts of other groups, we will relay this message to the government of British Columbia.

-Ron Baird, HOWL, c/o Box 1166, Boulder, CO 80306



ALASKA

Here is the latest on wolf-killing practices in Alaska, condensed from the November 1988 newsletter of the Alaska Wildlife Alliance:

In response to the many letters from citizens protesting the exploitation of Alaska's wolves, Governor Cowper and his staff have been sending replies to the effect that there is no wolf "slaughter" in Alaska. The reply letters claim that Governor Cowper has cut state funding for wolf control and that aerial shooting and aerial trapping of wolves have been stopped.

The governor's actions to reduce wolf exploitation resulted from constant public pressure as well as pressure from the Alliance and other organizations through administrative and legal channels. By his own admission, the governor stopped state-funded "official" wolf control to avoid what he felt was the inevitable legal challenge. The cessation of aerial trapping (now partly replaced by "land-and-shoot" wolf hunting), what we consider hidden wolf control, was a result of public and legal pressure on the Administration and the Board of Game. The very letters which the Cowper Administration suggests are now unnecessary are the ones that helped bring about any progress on behalf of wolf protection in Alaska.

But even with respect to the reduction and reform of "official" wolf control, what has been done can quickly be undone. In fact, Cowper himself could be responsible for just such a reversal through his appointment of pro-wolf control Samantha Castle, an advocate for the professional hunting community, to the Alaska Board of Game last January. Ms. Castle replaced Dr. Victor Van Ballenberghe, who was often the key vote for reform. As a result, the Board of Game is now much more likely to reinstate official wolf control programs or aerial trapping when they again come before the Board for review.

In spite of whatever advances have been made on paper for their protection, *the slaughter of Alaska's wolves continues*. According to Alaska Department of Fish and Game records, and with no authorized legal aerial shooting, last winter 1064 wolves were reported killed, an increase of 39% over the winter of 1986-87. This represents the highest reported wolf kill in 10 years! And this does not include wolves killed illegally or just not reported. With little funding for wildlife regulation enforcement and prosecution, illegal killing of wildlife is rampant in Alaska.

-Alaska Wildlife Alliance, POB 191953, Anchorage, AK 99519

In addition to the marginal progress reported by the Wildlife Alliance, the National Park Service recently banned same-day airborne hunting of wolves in eight National Preserves in Alaska. Park Service officials said that they would work to change state game laws in order to make the ban permanent. NPS feels that

the land-and-shoot policy is essentially a program of predator control, and that NPS is mandated to avoid such programs on its Preserves. Of course, the Alaska Department of Fish and Game opposes the ban.

WHAT YOU CAN DO: Write letters of support for efforts to curb the killing of wolves to:

Governor Cowper, POB A, Juneau, AK 99811

Boyd Evison, NPS Regional Director, 2525 Ganchell St, Anchorage, AK 99503

Wayne Reguland, Deputy Director, State Game Division, AK Dept of Fish & Game, 333 Raspberry Rd., Anchorage, AK 99518.

YELLOWSTONE

Not much has happened since Congress appropriated \$200,000 to study the possibility of Gray Wolf reintroduction in Yellowstone National Park. With the recent national election (and a yet-unknown change of guard in involved agencies - NPS, FWS, but not FS as the FS chief is a career appointee) and the fires this summer, the agencies halted efforts to proceed with the reintroduction mandated by the Endangered Species Act. (The Gray Wolf is listed as an Endangered Species.) What little good can be said about the issue at present is as follows:

1) The amount of money appropriated is not as important as the fact that Congress is pursuing it. 2) Representative Wayne Owens (D-UT) will most likely reintroduce to the House his bill to mandate the completion of an environmental impact statement concerning reintroduction of wolves in Yellowstone Park. 3) Senator McClure (R-ID, known for his alliances with energy and timber beasts) now says he favors restoring wolves not only to Yellowstone, but to Central Idaho as well. (Wolves are returning to the third area in the Northern Rocky Mountain Recovery Plan, Glacier National Park, on their own). 4) The natural fires in Yellowstone this past summer may encourage reintroduction efforts because of the resulting increase in browse for the ungulates in the area. A boom in ungulate populations will underscore the need for natural predators within the Park.

WHAT YOU CAN DO: Write to Yellowstone Park Superintendent Barbee and ask him to again focus on the wolf issue now that the fires are out. Also, commend him for sticking to his guns on the let-burn policy, as it was good for wolf reintroduction as well as for the entire ecosystem. Write to Senator McClure and thank him for supporting wolf reintroduction. Those people wishing to be active on the Yellowstone wolf issue, consider contacting not only the Network, but also Defenders of Wildlife. They publish "Wolf Action," a newsletter for wolf activists.

Robert Barbee, Superintendent, Yellowstone National Park, WY 82190

James McClure, US Senate, Washington, DC 20510

Cindy Shogan, Defenders of Wildlife, 1244 Nineteenth St, NW, DC 20036

NEW MEXICO

Efforts for reintroduction of the Mexican Wolf (a subspecies of *Canis lupus*) in the Southwest are thwarted by the failure of public agencies to perform their mandated responsibilities. The EF! Biodiversity Project is working to correct these failings through administrative and legal avenues. The Regional Forester in the Southwest has long been sitting on a formal petition demanding that the Forest Service conduct a comprehensive Habitat Suitability Study for the Gila/Blue Range Wilderness complex in western New Mexico and eastern Arizona. Such continued denial of their responsibility to reintroduce extirpated species is against the mandates of both the Endangered Species Act and the National Forest Management Act, and EF!ers should publicize this.

Worse yet is the attitude of the New Mexico Department of Fish and Game. In a recent letter to the Biodiversity Project, Director Bill Montoya stated: "... my agency is committed to assisting in the perpetuation of this unique subspecies. This may ultimately mean that the wolf can only be conserved in captivity..."

This is bullshit for the following reasons: 1) Neither the state nor the federal government has done a Habitat Suitability Study. 2) Neither has ever investigated the degree to which that habitat can be restored. 3) Neither has taken into consideration its legal responsibility to pursue these studies in order to prevent

the extinction of an Endangered Species. Earth First!ers must demand that the FS and Fish and Game Department close roads and revoke grazing allotments that are in the way of perpetuating the Mexican Wolf.

As reported in past issues of the Journal, Arizona and Texas officials have also prevented Mexican Wolf reintroduction in their respective states. Texas went so far as to pass legislation barring such reintroduction, while Arizona's Game and Fish Department put the issue "on the back burner."

It has been suggested that the state of New Mexico, given the heat it is getting over this issue, might propose an enlarged Mexican Wolf compound providing "normal" living conditions for perpetuation of the species. Although this might be better than the small captive breeding facilities now scattered around the country, it is by no means good enough for the wolf!

WHAT YOU CAN DO: Write to the US Forest Service and the New Mexico Department of Fish and Game. Tell them you support Mexican Wolf reintroduction in the Gila/Blue Wilderness complex and White Sands Missile Range and that they have a moral and legal obligation to work for such reintroduction. Write letters to editors to spread the word nationally about the plight of Lobo in the Southwest. Sotero Muniz, Regional Forester, FS, Fed Bldg, 517 Gold Ave, SW, Albuquerque, NM 87102

Bill Montoya, Director, NM Dept of Fish & Game, Dillagra Bldg, Santa Fe, NM 87503

NORTH and SOUTH CAROLINA

The Southeast Red Wolf Recovery Program seems to be meeting with the most success of any of the wolf recovery efforts. Here is an update on the program from the Sept/Oct issue of the Defenders of Wildlife magazine, *Defenders*:

The US Fish and Wildlife Service's Southeast red wolf [*Canis rufus*] recovery program continues to experience both setbacks and surprises. On July 8, a pair of red wolves and their two male pups were released on Bulls Island, South Carolina. Only three weeks later, researchers stopped receiving a signal from the female's radio collar. Wandering apart from her mate and pups at dusk, the female had been killed by an alligator and dragged under brackish water, canceling the transmissions... The male has taken over caring for the pups, and for reasons FWS doesn't entirely understand, they are now avoiding the area where the female was taken. According to project leader Warren Parker, this is some indication that the inexperienced, captive-bred wolves may be acquiring essential survival skills for life in gator-infested Cape Romain National Wildlife Refuge. The two species coexisted before humanity threatened both with extinction; now the alligator has again increased in numbers, while recovery of the red wolf in the wild is just beginning... A necropsy on the female wolf's partly eaten carcass has shown that she dieted chiefly on raccoons, suggesting that the reintroduced wolves have learned to hunt well despite receiving supplemental feeding. Parker hopes to release another adult female on Bulls Island late this fall.

Meanwhile, at Alligator River National Wildlife Refuge in North Carolina, two single wolves left with pups after their mates died last spring are both caring for the young, showing that the species may have stronger survival instincts than researchers were once sure it possessed. Also, a young female wolf has moved into the territory of the single male parent. They seem to be developing a pair bond, and researchers hope they will mate this winter. Red wolf pairs formed in captivity can be unstable if the wolves are of significantly different ages, but this liaison could be different because selective factors are present that don't exist in captivity. Parker says the apparent courtship of the two is "natural selection at its best"...

... Although no one wants to lose released wolves, those individuals were not genetically essential to the species' recovery. It is the free-born pups that represent the reintroduction project's future.

-Defenders, 1244 Nineteenth St, NW, DC 20036

WISCONSIN

A group calling themselves "The Timber Wolf Alliance" is concerned that Wisconsin's remaining 22 Gray Wolves

Melcher and Montana Wilderness Bill Bite the Dust

EARTH FIRST! SAVORS TWO GREAT VICTORIES

by Wild Rockies Earth First!

GREAT NEWS! With a presidential veto and the electoral defeat of Senator Melcher (D-Burlington Northern), the Montana wilderness bill has hit the big time!

President Bonzo Reagan vetoed the bill November 2. According to a *Los Angeles Times* editorial titled "Political Outrage," "The Montana bill was the first of about 100 wilderness acts to be rejected supposedly because of the substance of the proposal. The real sin of the Montana bill, of course, is that it landed on the President's desk just before the election."

For years, wilderness politics has been the primary issue in Montana. With Reagan's veto, the allocation of public roadless areas reached the national spotlight.

Only months ago, things looked grim. State and national conservation groups sold out. Burned out from 10 years' work on the bill and desperate to chalk up a "win" for their members, the Montana Wilderness Association, The Wilderness Society, and the Sierra Club bargained away 5 million acres of public land in order to designate 1.4 million acres of "rocks and ice" Wilderness. The resultant legislation should have been called the Montana Wildlands Development Act.

Their bill was only slightly larger than that supported by the Montana Wood Products Association! The wilderness "advocates" supported releasing most of Montana's roadless areas "for development and vehicular use." To add insult to injury, the professional environmentalists publicly praised Senator John Melcher, a staunch foe of wilderness.

Enter the good guys - Reagan and right-wing Montana politician, Conrad Burns, Senator Melcher's election opponent. The National Republican Senatorial Committee (NRSC), which ran Burns' campaign, didn't have a winning issue until it shifted its efforts to an anti-wilderness campaign. (Voters hadn't been fired up by NRSC's first big issue - that Philippine dictator Ferdinand Marcos had thrown a \$2.6 million party for Melcher in 1983.) NRSC charged Melcher with being anti-jobs.

Anything can happen in politics. Thus, John Melcher, a leading obstructionist to wilderness preservation, was branded pro-wilderness.

At the same time, wilderness supporters worked for Melcher's defeat. Why? The senator hated grassroots conservationists and sabotaged wilderness protection efforts. Last spring, for example, Melcher created national news when he ordered the president of a conservation group to be prohibited from speaking, only minutes before scheduled testimony at a Washington hearing. (In 1984, due to Melcher's opposition to wilderness, EF! staged an occupation of his offices.)

Through chain letters and newspaper articles, the word spread: "Dump the Lump."

In the greatest mistake of his 25-year political career, Melcher forced his Montana Wilderness Act through Congress in the final days before adjournment. The NRSC and Burns blasted him from one side; grassroots wilderness supporters

may soon disappear from the state. The Alliance is a coalition of environmental, outdoor and business organizations working to bring accurate information about wolves to the public.

Timber Wolf Alliance, Sigurd Olson Environmental Institute, Northland College, Ashland, WI 54806-3999

CONCLUSION: The fact that these wolf updates are becoming longer with time shows that much is happening for the protection and reintroduction of wolves. Today, diminished populations of Gray Wolves roam in northern Minnesota, northern Wisconsin, Michigan's Isle Royale National Park, northwestern Montana, Alaska, much of Canada, and a small part of northern Mexico; but their native range covered almost the whole of North America, and the range of the Red Wolf covered most of the Southeast. Let us redouble our efforts to reestablish the Gray Wolf and Red Wolf throughout their natural ranges.

Tom Skeele, EF! Wolf Action Network coordinator, can be contacted at HCR 79, POB 1046, Crowley Reservoir, CA 93546; 619-935-4720.

blasted him from the other. Melcher's only defense came from the professional wilderness lobbyists and, thankfully, there aren't many of them.

Many undecided voters began applying the Bush-Dukakis Rule. Support for Burns stemmed primarily from rejection of Melcher.

With a flurry of publicity, Reagan vetoed Melcher's bill. Burns beat Melcher. And now, Montana wilderness is on the national agenda.

THE FUTURE - WILD ROCKIES WILDERNESS LEGISLATION

With the unprecedented involvement of President Reagan and the defeat of Senator Melcher, the battle for the Wild Rockies will never be the same. For years, grassroots wilderness supporters reacted as politicians, timber firms, mining promoters, and professional environmentalists divvied up the National Forests. Now, we will set the agenda. The following points give an indication of how:

1. With coverage in major newspapers and TV networks, 6.5 million acres of Montana wildlands are now a national issue. With minimal effort, this spotlight can be extended to Idaho, which is currently allocating 9 million roadless acres. This 15.5

million acre total is the most significant unprotected national treasure of the United States (the size of 3 New Jerseys).

2. Nationwide, wilderness supporters are bitter. They now know how poorly they were represented in Washington DC. The professional environmentalists have sold out for the last time. Grassroots activists will no longer be dealt out of the picture.

3. As Wild Rockies wilderness enters the national arena, it will be aided by the right-wing fanatics. No longer need we wrestle with a shrewd opponent like John Melcher. We'll be maneuvering instead around lightweights like Senator Steve Symms (R-Idaho) and Senator Burns (R-MT) - expected to take his cues from Symms. Symms and Burns are the new Dan Quayles of the Senate, classic James Watt ideologues. Their rhetoric works with local welfare ranchers and public dole loggers, but neither can engage in a national debate without shooting himself in the foot.

4. Wilderness opponents like the Montana Mining Association, Montana Petroleum Association and Montana Logging Association have blown their credibility. They let the Republican National Senatorial Committee lie repeatedly about strategic minerals, mill closures, and the like. It worked, but only in the heat of an

election.

5. Wilderness opponents have burned their political bridges. By blindly playing into the hands of the NRSC as NRSC won the Senate battle, wilderness opponents lost the war. The resource thieves will miss their ally, John Melcher. And, since they eat their own, they are expected to have less friendly relations with middle-of-the-roads, like Representative Pat Williams (D-MT) and Senator Max Baucus (D-MT).

WHAT YOU CAN DO:

1. Write the Americans for Wilderness Coalition for a detailed copy of their Wild Rockies wilderness proposal: AWC, Box 4784, Missoula, MT 59802. Donate if you can.
2. Write every Congressperson you can. Ask them to introduce and support the AWC proposal to designate 6.5 million acres of Montana's roadless areas and 9 million acres of Idaho's roadless areas as Wilderness: US Senator, Washington, DC 20510; US Representative, DC 20515.
3. Send copies of your letters and responses to AWC.
4. Tell your friends in other states that this is the most important political gesture humans can make since they first invaded the Wild Rockies. Have them write their Congresspersons and contact AWC.

Old Growth Strategy Revisited

by Mitch Freedman

ed. note: The following is reprinted, slightly condensed, from the Washington Earth First! Newsletter (POB 2962, Bellingham, WA 98227; free, but donations needed). This exemplary newsletter offers ideas valuable for activists in all parts of the country.

Allusions to war and war analogies cropped up repeatedly at a major old growth strategy conference, sponsored by The Wilderness Society, at Portland State University in late September. This was the first gathering of its kind for this issue, and the attitudes of the participants have changed dramatically since what we used to call the "old growth co-opters" meetings of two or three years ago. The Portland meeting brought the top national and regional representatives of The Wilderness Society, National Audubon Society, National Wildlife Federation and Sierra Club to meet with this area's coalition groups (Oregon Natural Resources Council, WA Wilderness Coalition) and grassroots activists, such as myself and Audubon "Adopt-a-Forest" participants. In total, some 160 people participated.

The first key conclusion to draw is that old growth, or "ancient forest," as TWS calls it, is now a national issue. Recent articles in *Sports Illustrated* and *Time* magazines, debate by Congress, and increased commitment of resources from the national groups, NAS and TWS in particular, all evidence this. One important question that this conference had to resolve, then, was who would set goals and strategy, the national fat-cats or the people who have been involved since the outset. The chips landed decisively on the side of the latter.

An example of the last point was when Jay Hair, executive VP for NWF, address-

sed the conference. Hair arrived shortly before his talk, having virtually no understanding of the local situation, as he and NWF have been only remotely involved in this issue since they fired Andy Stahl over a year ago. So when Hair spoke he intoned no sense of urgency or desperation - what the grass roots feels very deeply. Hair, who frequently refers to EF!ers as terrorists, also mentioned that nobody should break any laws, we should rely on the system. He then sat down to polite applause.

Next spoke Andy Kerr of ONRC, a hard-line warrior for old growth. Kerr inspired the gathering, calling for another round of wilderness bills. He spoke with controlled anger and relied on (perhaps) sarcastic opprobrium to drive home his message. Seventy thousand acres of old growth each year, said Kerr, are being logged from Oregon's forests alone. This figure disregards the additional acres of standing old growth rendered ecologically unviable by the fragmentary effects of roadbuilding and clearcutting around them. Kerr stated that because of the desperation of the situation, "some have taken to the trees. Others have even taken to vaccinating the trees." Kerr's speech was well-received, and the applause sent a message that even Jay Hair picked up. The time is now.

Hair returned to the lectern, his tone much different this time. He spoke of mobilizing the nation with marches in every city, especially Washington DC on the 20th anniversary of Earth Day in 1990. The leader of America's largest and most conservative conservation organization then said, "Quite frankly, I think it's time we kick a little ass."

I watched in amazement as the more reserved activists, opposed to an old

growth logging moratorium as unrealistic or inhibitory to coalition-building, were rolled by the angry, the desperate, those that Richard Grossman calls the "thrice burdened."

While proper credit was never openly given to Earth First! for our role in forcing this issue into the nation's face, it certainly was tacitly recognized. Near the weekend's close, a California man, active with the Sierra Club, stood to voice his intolerance of any mention of patience with a complex issue. "In five years," he said, "we'll all be Earth First!ers, and we'll all be getting arrested."

Our suspicions finally quantified and confirmed by TWS's recent "End of the Ancient Forests" report, the five-years-left theme was echoed frequently. Perhaps it's the tension of this time constraint which has led to increased acceptance among mainstream activists of the validity of tree spiking as a tactic. EF!'s "role in the ecosystem" is understood, and increasingly appreciated. While that's comforting to know, it also may indicate an emerging strategic weakness, and even reflect a failure on our part to adequately push the limits of the debate. More on that later.

The hero of the conference was NAS's Brock Evans, a long-time skilled voice for the planet, especially our part of it. Evans led the congregation in a pledge to never use the word "harvest" in reference to trees. He had a strong influence in shaping the final strategy consensus. Mechanisms of that strategy are lobbying, litigation, appeals, media, and public education. As the conference began to drag into debate and whining over strategy options, Brock appealed back to the grass roots anger. Exchanging his suit and tie for a jean jacket and hiking boots, he took the lectern and spoke of "dreaming big dreams." His decisive and inspirational approach was effective at gaining support for his proposals, which were instantly adopted.

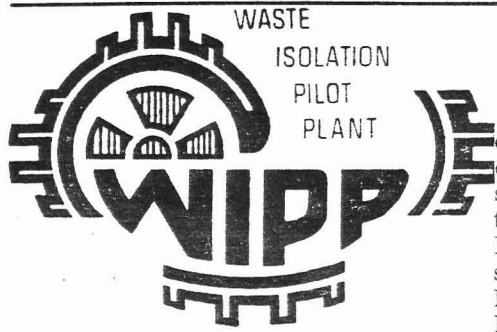
The consensus was that a coalition be formed to include all active local and national groups (with funding from the latter). The goals of the coalition are as follows: an immediate deferral (read "moratorium") on all old growth logging; wilderness bills for WA, OR, and CA to include our largest, most important places; an "ancient forest preserve system," including corridors and buffers, throughout the Northwest.

Now is no time for us as Earth First! to fall into this strategy, however. It is time for us to expand the debate, to push the limits of imagination. If we become lax in the support of the big money groups, the present latent threat (of widespread spiking, monkeywrenching, and massive civil disobedience), the club balanced precariously over the heads of the FS, industry, and even mainstream environmentalists, will dissolve. And with it will dissolve our chances of winning. With spike and hammer, we renew our commitment to victory for the forests in this, the old growth war.

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Campfire blockade on Elk Horn Ridge in the Cahto Wilderness.



by Daniel Gibson

The Iroquois Indians used to live and plan according to the principle of "Seven Generations." All decisions made by the Iroquois were considered in light of the possible effects they could have on the seventh generation following the decision. This stands in marked contrast to the typically short-sighted decision-making process that shapes modern America, one that could have disastrous consequences for us all.

The Waste Isolation Pilot Plant (WIPP), nearing completion in New Mexico, is a perfect example. Critics of the project state that there are many profound questions about WIPP involving environmental effects, safety, health, transportation, emergency response, and legal and economic concerns. Yet, proponents of WIPP continue to push for its imminent opening.

WIPP is intended to serve as the world's first permanent repository for nuclear wastes. So far, \$770 million has been spent on WIPP, carving out burial chambers in salt beds near Carlsbad in the southeastern corner of New Mexico. Budgeted for some \$2 billion in eventual costs, WIPP is operating under the authority of the federal Department of Energy (DOE). Its prime contractor is Westinghouse Corporation.

The wastes to be buried at WIPP are the trash of nuclear weapons production - gloves, tools, clothes, equipment, left-over bomb materials and so forth. Contaminated with radioactivity, they are labeled "low-level" wastes, but this is a misnomer. Almost all nuclear wastes generated from bomb production are automatically labeled "low-level." They actually contain significant amounts of plutonium, americium and other radioactive isotopes (up to 1%), as well as other hazardous wastes such as chemical solvents and heavy metals.

Plutonium is well-named. Its root word is the name of the Greeks' god of death and the underworld - Pluto. As the most deadly and toxic substance ever created, plutonium can induce cancer or other life-threatening illnesses for as long as 250,000 years. One particle ingested or inhaled by an individual retains the capability to spark a deadly disease for up to 30 years. It has been proven that "low-level" radiation can cause cancer, leukemia, sterility, thyroid disorders, genetic mutations, miscarriage and birth defects. It is also believed to speed the aging process.

The wastes to be buried will remain toxic for 8000 generations. The Seventh Generation consideration of the Iroquois seems paltry in comparison. Plutonium is the mad genie mankind has let out of the bottle. It must be isolated, essentially, for eternity.

The disposal of radioactive waste is perhaps the greatest single environmental challenge facing humanity today. In a report recently released by the General Accounting Office (the Congressional oversight group), it is estimated that it will require some 20 years and \$80-130 billion to clean up existing contamination of ground, water and air at DOE's 16 weapon production and research centers across the country.

Los Alamos National Laboratories in New Mexico is the birthplace of the world's first atomic bomb and site of the nation's on-going bomb research and development program. It alone contains 6.7 million cubic feet of "low-level" waste and 750,000 cubic feet of transuranic, or plutonium-contaminated, waste.

Whether or not the wastes to be buried at WIPP can be isolated from the biosphere for the required eons is an open question. Exhaustively answering this question is central to any rational consideration of WIPP as the nation's first nuclear repository.

On September 13, 1988, the General Accounting Office testified before a Congressional committee that WIPP was not ready to be opened and that the Department of Energy should not be given jurisdiction over the WIPP site until DOE can

Hiding Waste in Pandora's Box

demonstrate its ability to meet safety and environmental standards. Their conclusion has been supported by Representative Mike Synar (D-OK), chairman of the Environment, Energy, and Natural Resources Subcommittee; Representative Phil Sharp, chairman of the Energy and Power Subcommittee; DOE's own Office of Safety Appraisal - Brookhaven National Laboratories; the National Academy of Sciences; the New Mexico state Environmental Evaluation Group; and numerous citizens.

Representative Richardson (D-NM) has been the most vocal critic of WIPP in the recent past among the state's Congressional delegation. Yet Richardson is now pressing for a compromise with New Mexico's other Congresspersons to allow WIPP to open. The compromise would allow part of the plutonium-contaminated WIPP waste to be emplaced before compliance with Environmental Protection Agency standards is demonstrated.

Concerned Citizens for Nuclear Safety, an information organization based in Santa Fe, has emerged as a leading opposition force to WIPP. In a recent press release CCNS stated, "The many unresolved issues of critical importance associated with WIPP include: hydro-geologic site problems; potential disaster in the areas of transportation and emergency response; inability to meet on-site health and safety standards; legal and state's rights questions; and DOE's poor track record with radioactive materials elsewhere across the nation."

WIPP SITE OVERVIEW

WIPP is designed to hold 210,000 tons of radioactive and hazardous waste garbage - some 6.3 million cubic feet. The waste will be shipped and buried in 50-gallon metal drums. An estimated 900,000 drums will be buried at WIPP during its 20 to 25 year "operational life."

The WIPP facility consists of a series of vertical shafts and horizontal chambers bored out of the salt formation. The storage chambers are located 2150 feet beneath the surface.

One of the primary criteria in selecting the salt formation as the burial medium was the belief that it was extremely dry. This has not proven to be true. Brine seepage into the chambers is already occurring at a significant rate.

The Scientists Review Panel (an independent group composed primarily of U of NM faculty) reported recently, "We believe that this rate of inflow could be sufficient to saturate the repository with an appreciable volume of water after the mine is closed. . . . The drums will corrode in the brine and their contents will be exposed to chemical and bacterial decay."

Another reason for selecting salt as the burial medium was its plasticity. The theory was that within a few decades it would "flow" or "creep" back into the chambers, sealing them off from the biosphere. However, as "closure" occurs, large cracks are appearing in chamber floors and walls. This fracturing could provide pathways for brine inflow and exit from the site.

Critics are concerned that brine inflow could mix with the wastes, creating a radioactive slurry. This slurry might then migrate off-site, and into the nearby Pecos River or Rustler Aquifer, which lies some 1300 feet above the storage

chambers.

Another hydro-geologic problem is posed by a reservoir containing more than 15 million gallons of highly pressurized brine found 800 feet below the chambers. Additional problems cited with salt as a disposal medium are numerous: it is highly water soluble; it is highly corrosive (in a few years it will eat through the metal barrels, releasing their contents); and when it is heated it attracts water (the stored wastes are hot thermally, as well as radioactively). If heated sufficiently, it would become plastic enough to allow material, such as the tons of waste, to sink.

The WIPP site is located amid one of New Mexico's most productive oil and gas fields, as well as the nation's largest single potash source. Over the decades, many mineral bore holes have been sunk on the WIPP site. These bore holes must be plugged and sealed in such a way as to preclude water intrusion or exit from the site for many millennia.

The Scientists Review Panel report states, "Forty wellbores and three shafts have currently been identified for plugging. The research program to develop and demonstrate the effectiveness of seals and plugs is just getting underway."

WASTE MAKEUP

Among the "low-level" wastes explained earlier will be 250,000 cubic feet of waste that is so hot it must be handled by robotic machinery. Furthermore, DOE has recently disclosed that 80-90% of its nuclear wastes are contaminated by other hazardous wastes used in conjunction with weapons production. The hazardous wastes include toxic cleaning solvents and heavy metals. The DOE believes that none are in liquid form. "All liquids, corrosives, pressurized gases and explosives are banned from WIPP," says DOE. Yet DOE also says it is not sure what is in each of the drums, as its records of drum contents don't cover those filled in the 1950s or 60s. How radioactive materials and hazardous wastes will interact is unknown.

The waste mixture also contains organic materials and bacteria which will create potentially explosive pressurized gases in the repository. How the gases and pressure will affect the movement and properties of the waste is also unknown.

TRANSPORTATION

DOE estimates that 1000 to 1450 waste shipments will arrive by truck each year at WIPP. In the Final Environmental Impact Statement, DOE called for 75% of the WIPP waste to travel by rail, but this was later abandoned as too expensive.

Transportation routes cross 23 states, from Washington to South Carolina, and several Indian reservations. DOE had planned for construction of by-passes around six New Mexico cities on the routes (Santa Fe, Hobbs, Los Alamos, Roswell, Artesia, Carlsbad) but the money (\$200 million) has not been released.

US 285 in New Mexico will carry numerous WIPP shipments (those from INEL in Idaho and Rocky Flats in Colorado, among others). US 285 is a two-lane road with a crumbling, pitched shoulder. Winter storms along the road often arise suddenly. Most of the route has no room for a truck to pull over in case of an emergency.

Estimates of traffic accidents involving WIPP trucks range from 25 during the life of the project (DOE figure) to 44 (the state's WIPP watchdog committee, the Environmental Evaluation Group). DOE says the possibility of the waste transport casks (called TRUPACTs) being breached is "extremely low." The same was said about the sequence of human mechanical errors that led to the disasters at Three Mile Island and Chernobyl.

Numerous parties have criticized the TRUPACT testing process. They point out that extreme cases involving collision between a train and a truck or two trucks colliding or a truck falling off a cliff have not been simulated. Indeed, DOE records show that over the past 12 years there have been 173 accidents involving transportation of nuclear waste, many of them minor, but several involving actual spills of nuclear wastes into the environment. In case of an accident involving radioactive contamination along the transportation routes, DOE is authorized to provide a maximum of \$500 million to pay for decontamination (if possible), loss of property and injuries.

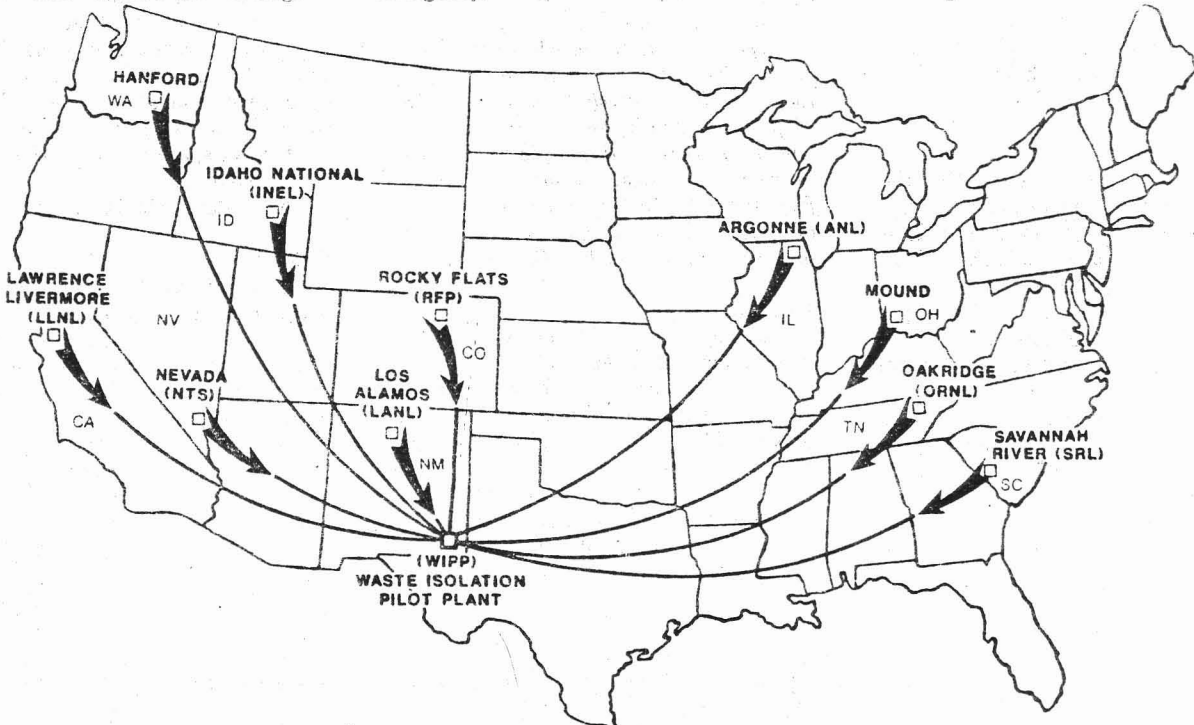
In response to some who have said that DOE is asking the state's emergency response personnel to "commit suicide in the line of duty," DOE has conducted a series of training seminars in New Mexico and recently distributed 100 emergency response kits to crisis crews. However, while New Mexico has received some emergency training and equipment, similar needs along WIPP routes outside New Mexico have not been met.

LAST CHANCE TO STOP THE WIPP

Despite all these problems, and despite President Carter having called in 1980 for cancellation of WIPP, two days after the Reagan Administration assumed power, the new DOE secretary announced WIPP would proceed as authorized by Congress. In July 1981, DOE began sinking the first shaft at the site. Over the next six years Congress did not hold a single hearing on WIPP and work proceeded as planned. In 1987, the New Mexico state legislature, under Governor Garry Carruthers (a former assistant to Secretary of Interior James Watt), provided DOE with an exemption from meeting the state's hazardous waste law. EPA says this exemption prevents them from enforcing the stringent regulations for hazardous wastes previously passed by Congress as part of the Resource Conservation and Recovery Act.

Late in 1988, however, one final piece of legislation required for opening WIPP was slated for Congressional review. This is the WIPP Land Withdrawal Bill, the final approval to transfer jurisdiction of the land from the Department of Interior to DOE. Debate over this bill has provided the public with one final opportunity to shut down the project.

Congress has been unable to reach consensus on WIPP. In the final days of the 1988 Congressional session, the withdrawal bill remained mired in several House committees, after passage by Senate committees under the sponsorship of Pete Domenici (R-NM). New Mexico's Congressional delegation has been trying to hammer out a bill acceptable to all sides, but skepticism has arisen from many unexpected sources inside and outside the government.



Locations that may interact directly with WIPP.

FUTURE PROSPECTS

With all the complexities; the political, scientific and engineering problems; and the long time frame involved in opening WIPP, many people fear if it does open it could end up serving as a high-level nuclear dump, as well as a bomb waste facility. Yucca Mountain, Nevada, selected as the nation's high-level dump site, may prove unworkable. It has extremely complex geology (apparently including recent volcanic activity), and the first exploratory shaft has yet to be sunk.

This makes WIPP look increasingly attractive to the people who wish to dump our nation's monstrous nuclear wastes as if sweeping dirt under a rug. Such blindness could result in the worst environmental disaster the people and animal life of planet Earth have ever known.

Daniel Gibson is a widely published journalist and environmentalist.

Addendum: The November 7 issue of High Country News (Box 1090, Paonia, CO 81428) includes an article by Steve Hinchman on the escalating radioactive waste problem. The following paragraphs from that article indicate the status of WIPP and the severity of the overall problem:

The delayed opening of the nation's first nuclear waste dump has started a chain reaction that may shut down the Department of Energy's nuclear weapons plants in the West.

Shortly after the DOE announced that its Waste Isolation Pilot Plant in Carlsbad, NM, would not open this fall as scheduled, Idaho Gov. Cecil Andrus banned all further shipments of transuranic nuclear waste to Idaho. Over the past two decades, the DOE has used its Idaho National Engineering Laboratory near Idaho Falls as temporary storage for transuranic wastes produced at the

department's other plants. Currently, over 9.2 million cubic feet of transuranic waste and contaminated soil sit on the lab's grounds awaiting shipment to the WIPP dump.

Once Idaho closed its borders Oct. 19, attention turned to the Rocky Flats weapons plant outside Denver. Rocky Flats, which builds plutonium triggers for nuclear bombs, produces the lion's share of DOE's transuranic wastes. DOE officials asked Colorado Gov. Roy Romer for permission to expand its temporary waste storage capacity at the plant to handle one to five years of waste.

Romer refused, citing the high population density around the plant, and gave DOE officials four months to find an alternative disposal site....

ON THE WAY TO NOWHERE THE CONTINUING QUEST FOR JUST THE RIGHT SPOT

by Jeri McAndrews

When it first came it was the weight of raindrops

It seemed next the weight of flowerheads

It wasn't long before it weighed as much as pebbles

Soon after the assaults were of bird body size

Followed by the weight of a man's shoe

And by increments larger and larger

The barrage of killing forces

Dead dying air

Dead dying trees

Dying dead rivers

Dead oceans

Insects on Three Mile Island that no longer exist

Lost Battles

[ed. note: For background information on the following article, see Art Goodtimes' news piece in our last issue on the threat

of two radioactive waste dumps in southwest Colorado.]

I went to a Naturalist Writers Conference in Taos and tried to concentrate on craft. While there I dreamed of my homeland and its latest crisis; technocrats on the front range, colorful Colorado, wish to dump their assorted crap into our rural backyard.

Last week the Department of Health sat before the COMPACT Waste Site Appropriateness Committee making pale testimony. This session was called a "Hearing" when in fact it was a "Telling." COMPACT was telling us that what we had to say in reference to their heinous plot, was not allowable evidence. The only testimony they would listen to was A) Whether or not the proposed facility will have a large enough capacity to hold waste after Phase I is over and Phase II begins. B) Whether setting up this particular waste dump will adversely affect the economy of an already existing dump site.

Rather like a board of Fascists "Hearing" from their soon to be annihilated victims testimony pertaining only to A) Whether or not the gas chamber in question will be large enough to do the job, and B) Whether it will economically affect the operation of another annihilation site.

So the great tossing of irrelevant information begins, topographical speculations, fictitious foundations from which to base evil doings.

But as sure as I'm Irish and brought up on Yeats, I know that cauldrons of toxic waste filled trucks weaving through the largest mountain in America, in order to set in motion our cherished out-of-sight-out-of-mind scenario, rings imbecilic.

This was my Taos dream: I see a boy. A man is pulling out one of his fingernails and the nail as it comes out looks like a long dagger, the kind Ayatollah Khomeini

brandishes, only smaller. Blood drops. The man repeats his hurt pulling another fingernail from the boy's hand. More blood spills. He then tries to break the boy's forearm. I do nothing but stand by and watch dumbfounded.

When I awake I don't know why this dream surfaced or what it means. Later that day when I am in a Juniper Grove making a circle of wild plants to dance in, I sense the meaning.

It is the earth as battered child. I stand by paralyzed as the Department of Health and the Environmental Protection Agency, both bureaucracies of illusion and conclusion, fast-track a Nuclear Waste Dump into my backyard.

My backyard happens to be the headwaters of the Little Colorado and Colorado River. The tributaries above and flowing into the Grand Canyon.

The WIPP that is for the time being let go of in Carlsbad New Mexico is picked up to crack the Colorado Plateau.

But if everybody, everywhere says No Way COMPACT, then the trucks will be unable to deliver the "Bads."

I heartell the new game of luck in Nevada these days is called Radioactivity Roulette ... the winner gets none, the loser gets it, in personal private places.

Jeri McAndrews is a dancer, poet, and co-editor of the excellent new Earth-oriented Four Corners area literary/arts quarterly Shandoka (Box 1103, Telluride, CO 81435).

To again provide an update from High Country News (11-7), Colorado has withdrawn its proposal to site a low-level nuclear waste repository at Uruvan, and will seek a different site. However, Umetco Mineral Corp.'s application to dispose of radium soils from the Denver area at Uruvan is still pending before the state.

Letters...

Continued from page 3

survival and reproduction. Of course, this is not the case for mayflies, mantids, or spiders (Christoph's poorly chosen examples), but it sure as hell is for humans.

It is no accident that we are capable of living beyond our reproductive prime. In our species, rationality and teaching have been favored both by natural and by cultural selection - until recently, when the blatantly irrational and ultimately destructive behavior of short-term profit-making has taken precedence.

"Reason" is no maladaptive hypertrophy in our species. I see no evidence that humans are behaving too rationally. To the contrary, our fundamental problem is too little reason, and too much ignorance and superstition. Is it reasonable to destroy the Earth, our home? Is it reasonable (or ethical) to drive to extinction other species, with which science has shown we share a common ancestor, and are interdependent in a delicate web of ecological relationships?

Our problem is not science, but rather politics and short-sighted economics superseding science, and the application of technology in a fundamentally irrational way. I blame Christianity, and other anti-scientific superstitions, for much of this mess. Science, alone, is not our salvation; rather, we need an ethic that prescribes non-destructive behavior, yet is consistent with what we know, scientifically, about the world. Leopold's land ethic and deep ecology both fill this bill.

-Reed Noss, Gainesville, FL

Dear John,

I have read several times in *EF!* the suggestion that young men and/or women be given some monkeywrenching to do as part of a rite of passage to adulthood. This scares me for several reasons.

First, although primitive cultures put future warriors through ordeals, the ordeals are not against adult enemies where they could be hurt.

Second, dramatic political actions require a certain wisdom and understanding of the culture to be effective. We may agree that certain blatant monkeywrenching targets exist (like road building equipment in wild areas) but there is a danger that *EF!* activity could degenerate into poorly focused hooliganism. Adolescents are, by their less complicated view of the world, prone to this.

The alternative of adult direction brings with it an awesome responsibility for the children's welfare. At a time when the chil-

dren are eager to "become an adult" they are not free to judge the danger or consequences of their acts.

-David Briars, Craftsbury, VT

Dear EF!

Greetings! Since I am sending you money (although not much) I'd like to give you my opinion about something. My boyfriend and I both work for the Forest Service (I am in Recreation/information). Both of us are very conservation minded. We realize the F.S. is screwing up in a lot of ways, but I wish you would put more in your newspaper about the landrapping done by private logging companies. I know you fight the F.S. because it's your public lands, but if you could see what Weyerhaeuser has done to the forest around where I live, you'd be appalled. Thousands of clearcuts without even tree breaks between them. Weyerhaeuser will be through here soon and will move on. Why? There are no trees left to cut!

I'm not trying to defend the F.S. I just wish you'd talk more about the private logging companies who influence legislation with their wealth and power. Some of my fellow employees and I laud your conservation efforts, but I'm not real crazy about the tree-spiking and bomb threats. However, any action is better than no action, right?

-Bonnie A.

Since we depend largely on submissions from local activists, what we print is directed by what Earth First!ers are involved with. If somebody has great poop on Weyerhaeuser, we'd love to see it. (John notes that we ran an article in Lughnasadh which dealt with Weyerhaeuser's disposable diapers.) Lest you think we've totally neglected private logging companies, see most any issue from the last couple of years for coverage of MAXXAM, the largest private holder of old-growth redwoods. -Dale

Dear Dave,

Those of us who publish in the environmental movement need to have the same acumen with the press as the world's most famous environmentalist of bygone eras, Mayor Richard Daley of Chicago. Let me explain my point.

The famous environmental mayor in question often had to appear before the press at tense moments. As those times he was able to convert nonsense into non sense.

Take for instance the 1968 riots at the Democratic convention. When asked by the press what the police were up to the Mayor replied, "The police are not here to create disorder, the police are here to

preserve disorder."

Or another statement to the press when he didn't like some things that were printed about him: "I have been chastised, I have been vilified, I have even been criticized."

Well, the press, being interested in environmental mayors, published all of these remarks. This displeased his press secretary, so he called a news conference and told the press, "I wish you would publish what the Mayor meant and not what the Mayor said."

What is all this leading up to? My own wish that the press would publish what I said and not what they meant. What am I speaking about? A recent article in *Backpacker* quoted me as saying that I believed all the discussion in the media about the split in the environmental movement was media hype. They they went on to quote me in saying that I thought the focus away from Washington, D.C., was wrong (but not in these exact words). I never said anything like that. Indeed, I think just the opposite. The Washington, D.C., preoccupation is something the environmental movement will have to overcome if it is to succeed. If they had quoted me as saying that I like the green notion of giving equal emphasis to social justice, militarism and the environment then they might have defined how I diverge from Earth First!

So I send this along as a warning. Do not trust what you read in magazines and papers. If it says someone said it, what it most likely means is that some anxious, underpaid, overworked journalist who knows his income is driven by sensationalism thought it. Indeed, as an editor I have adopted the motto, never trust a newspaper or magazine, go find out for yourself.

-Steve Rauh, Oakland, CA

Friends,

An ad from the current *Outside* magazine tells how you can "Own 20 acres (or more). . . Spectacular unspoiled beauty" in the mountains of Montana. The seller is Yellowstone Basin Properties, A Patten Company (POB 3027, Bozeman, MT 59772; 1-800-252-5263).

Here in New England the Patten Corporation is Public Enemy #1 - largest, greediest, most unscrupulous of land speculators. Maine *EF!* is waging war on them - we've been mailing out newsletters and "Patten packets" and generally keeping on their ass. Now they are in Montana. I'd be glad to send background info if anyone out there wants to go after them.

-Gary Lawless, Gulf of Maine *EF!*, 61 Main St, Brunswick, ME 04011.

Dear Earth First!ers,

Like most of you, I want to do something important with my life. Whether it's pulling dolphins out of nets, reforestation, closing roads, building homes for fish (artificial reefs, for instance) doesn't matter. I'd be happy doing anything as long as it helps heal OUR MOTHER!

I'm seeking employment. It could be seasonal or full time. I could apprentice or go back to college.

I enjoy physical work - I've planted trees. I'm smarter than the average coon and I enjoy learning. Recently I put our *EF!* mailing list on a computer. I especially love the water - I'm a sailor and snorkler. I'm dependable as the tide, and I'm happy in the forest too.

Certainly there's an Army and a Navy of others who believe one should be able to earn a living without raping the Mother and are looking for good work also. I'd love to be part of an *EF!* collective doing this!

Let's have a regular section in the journal to discuss and list such jobs. Imagine the work force we could generate!

HIRE ME FIRST! A hard-working thirty-year-old Mother's boy,
-Raccoon, Rt. 7 Box 115A, Santa Fe, NM 87501

Several of our advertisers, such as the Western Environmental Jobletter (POB 800EF, LaPorte, CO 80535) and The Job Seeker (Dept. A, Rt 2 Box 16, Warrens, WI 54666), already provide environmental employment directories. -Dale

Mitsubishi Headquarters, Duesseldorf, West Germany, 6.30 pm, 31.10.88.

Dear friends,

Actions in solidarity with the tribal people of Sarawak took place today in 25 West German cities. In 6 cities the offices of Mitsubishi were occupied, the rest took place at Malaysian and Japanese consulates and timber stores.

Here in Duesseldorf, 50 people gathered inside the German headquarters for Mitsubishi, attracting newspaper and television media. Participating groups included Regenwalder Zentrum, Robin Wood, the BUND (Federation for the Environment and Conservation in Germany), ARA and Greenpeace.

After outlining the links between Mitsubishi and rainforest destruction, the protesters occupied the offices for 4 hours until the manager produced a letter stating that they had contacted the head office in Japan asking that they investigate Mitsubishi's involvement with rainforest logging in Sarawak.

-For the Earth, Patrick Anderson.

Park Service Plans Doormat To Denali

by Dave McCargo

With the collapse of oil prices and a hemorrhaging state budget, the latest economic buzzword in Alaska is tourism. Tourism sounds good because of the perception that it is a clean, labor-intensive, and self-sustaining industry. Even environmentalists have climbed on the bandwagon.

The scheme which has been discussed the most is South Denali, "South Denali" referring to the south side of Denali, formerly Mt. McKinley, National Park.

First, a brief geography lesson. Denali National Park looks roughly like an equilateral triangle with one side bordering the George Parks Highway and the Alaska Railroad on the southeast. It was expanded to its present size by the 1980 Alaska National Interest Lands Conservation Act (ANILCA). Southeast of Denali NP is Denali State Park (DSP). It, in turn, resembles a reversed L bordered on the northwest side by Denali NP and on the southeast by the Susitna River with the George Parks Highway and the Chulitna River running roughly through its center. The salient topographical feature in DSP is Curry Ridge, which parallels the highway and the Chulitna River, and provides the best and most easily accessible views of Denali.

The South Denali idea arose in 1951 when Dr. Bradford Washburn, who first mapped Mt. McKinley, proposed a lodge in the Tokositna area 15 miles west of what is now the Parks Highway. During the late 1960s, NPS and a few conservationists became worried that someone would build a hotel near Wonder Lake and argued that south of Denali would be a better place to do it. In 1969, NPS advanced a proposal to acquire 305,000 acres of state selected land southwest of the National Park, and build an \$18 million hotel on Curry Ridge in what is now Denali State Park, a tramway up the Ruth Glacier, a fly-in camp at Spink Lake, and a headquarters complex. A 1968 US Department of Commerce tourist study and the 1969 NPS proposal stimulated enough interest that the Alaska Legislature created a 282,000 acre Denali State Park (DSP) in 1970 which it expanded to 324,240 acres in 1976.

The George Parks Highway between Palmer and Fairbanks was completed in 1972 and visitor traffic in Denali NP skyrocketed. With it came willy-nilly state land disposals and the usual tacky growth outside the Park entrance. NPS continued to push for a resort south of Denali. Part of NPS's rationale for shunting tourists to the south side of the National Park was that surveys intimate most of them are primarily interested in seeing the Mountain, and the views are better on the south side.

With oil revenue flooding in, the state did not show much interest - until the price of oil began to tumble. In 1986, NPS and the Alaska Division of Parks and Outdoor Recreation (DPOR) published the South Denali Concept Proposal. Then, despite a growing budget crisis, DPOR squeezed \$100,000 out of the Legislature to redo the DSP Master Plan and the Department of Commerce & Economic Development pitched in another \$100,000 for planning with NPS. NPS, for its part, tapped into a Bill Mott slush fund for \$200,000 for a regional overview study by DOWL Engineering, and an EIS. The DOWL report, in turn, will be the basis for the proposed revision of the DSP Master Plan.

Which brings us to the present.

The core of the DOWL Report and the proposed DSP Master Plan continues, of course, to be South Denali. In general terms, a private developer would build a destination lodge or hotel complex in or near DSP. Ancillary facilities might include a tramway, access roads, campgrounds, trails, a youth hostel, and a bridge and shuttle service across the Chulitna River to the Eldridge Glacier in Denali NP.

In questioning the concept of South Denali, one must begin with NPS because it has been the biggest proponent of large-scale development over the years.

NPS's contention that South Denali will relieve pressure on the north side of Denali NP is a red herring when viewed in its historical context. NPS has championed one grandiose bauble after another, and one must wonder if it has

the best interests of the Park in mind or just wants to promote tourism. It even excluded the Ruth Glacier, one of the most spectacular sights in Denali NP, from Wilderness suitability in the Denali NP Draft General Management Plan because it wanted to make it accessible to tourists. The Ruth Glacier was put back in the NPS's Final GMP and Wilderness Recommendations, but there would be 60,000 acres in three non-Wilderness nodules at the terminus of the Ruth and Tokositna Glaciers to allow for cabins and developed trails. The 1986 South Denali Concept Proposal and the South Side section of the Denali NP GMP confirm that NPS's image of South Denali has not changed much in 20 years.

As a practical matter, NPS has limited control over what happens on the north side, as evidenced by the growing clutter outside the Park's entrance; and if NPS is serious about discouraging traffic into the Park, it would not consider building a \$5 million visitors center and allowing the concessionaire to replace the Denali NP Hotel. NPS reasons that by participating in South Denali it will be able to influence what happens.

NPS hangs its hat on the hypothesis that most tourists who visit Denali NP park want to see the Mountain, and the South Side is a better place to do it. What is to prevent South Denali from becoming just another stop for the tour companies, or worse, enabling them to increase traffic in the Park by marketing a better package. The shuttle bus tour from Park headquarters to Eielson/Wonder Lake is the highest rated tourist activity in Alaska, and it is hard to imagine the tour companies bypassing a proven attraction for a possible look at the Mountain from the south. A South Side stop might have the opposite effect of augmenting the shuttle bus tour into the National Park.

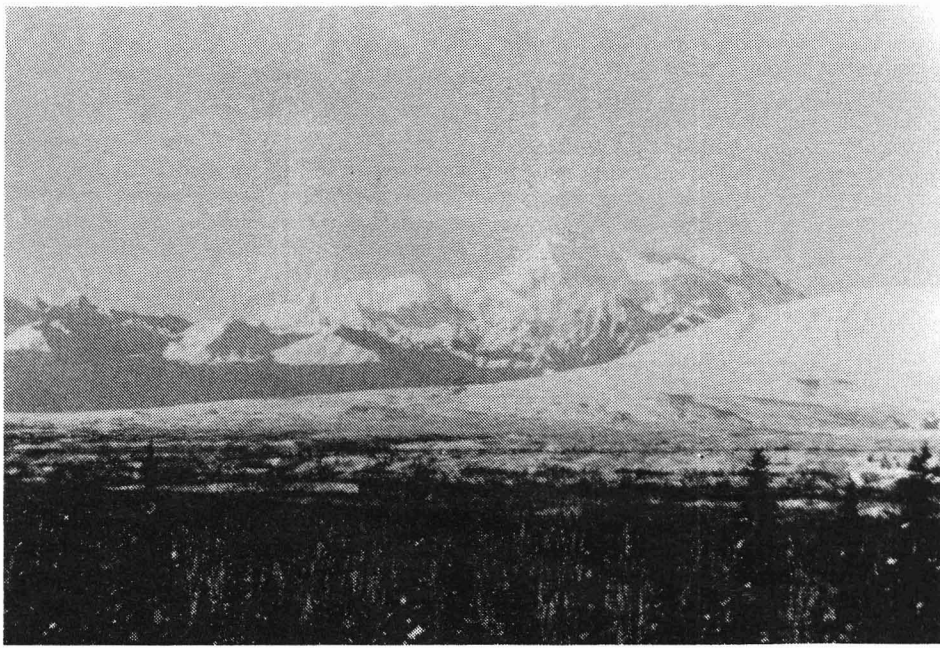
NPS has taken a "doormat" approach to DSP - save a National Park by trashing a state park. True, the state parks do not have the statutory protections and administrative insularity that the National Parks have; but the potential is enormous if Alaskans do not accept the idea that a state park system has to be second class. Unfortunately, NPS is abetting the state in making a second class state park system a reality.

The South Side project would put pressure on the south side of Denali NP itself by increasing access. Aircraft overflights will likely become a severe problem over which the NPS presently has no control; trailheads and facilities west of the Chulitna River will induce traffic which, in turn, will serve as the impetus for yet more development, such as another hotel and a tramway up one of the glaciers.

It has yet to be demonstrated how tourism will benefit Alaska over the long run. Destination tourism is heavily subsidized, highly cyclical, and companies like Gray Line and Westours do most of their contracting elsewhere. Destination tourism tends to lock out the locals, which has been demonstrated in places like Colorado and Hawaii. Alaskans constantly complain about being manipulated by outsiders; yet, the very nature of our economic policies, if they can be called that, makes us economically and politically beholden to someone else.

The state has a poor record in planned development. There are presently no area land-use controls, and Department of Natural Resources has been carelessly disposing of land along the road corridor, including the Indian River subdivision which DPOR wanted added to DSP. The state did not restrain development outside the entrance to Denali NP, such as by restricting land sales, and zoning private and state lands. The Parks Highway from the Chulitna River north to Broad Pass is the last wilderness stretch of highway left, and South Denali may destroy it.

South Side is being proposed in tandem with two other south-central resort projects. An Austrian developer wants to build a \$230 million resort in Eagle River near Anchorage. The resort would be on Eklutna Native lands and the ski area would be in the Chugach State Park. DPOR has rewritten the Master Plan for CSP just as it is doing for DSP, and is conducting a joint feasibility study with the developer. Mitsui has obtained a 55 year lease in the Hatcher Pass Public Use



Denali from north end of Denali State Park, near Hurricane. Courtesy Alaska DPOR.

Area, perhaps Alaska's most popular winter backcountry recreation area, for a big resort near Government Peak. DNR ignored the Master Plan it had written a year before and added 8000 acres to the 2600 originally proposed for development. Meanwhile, Sebu is expanding Alyeska in Girdwood south of Anchorage, and there is talk of building a downhill ski area on Tincan Mountain in the Chugach National Forest.

Many Alaska conservationists see the Eagle Valley and South Side proposals as a sign that anything goes in the state park system. Unfortunately, DNR and DPOR have considerable latitude, given the way the statutes are written or can be interpreted. In the case of DSP, the Legislature failed to define its purpose, so DPOR is using the planning process to write a mission statement that will accommodate its development goals.

The DSP Master Plan leaves important questions unanswered. For example, should a visitors center be sited before or after a developer has chosen a location for a resort? Would a visitors center be a catalyst for development in itself? What happens if a visitors center is built at the north end and a developer builds on the south end? In view of the myriad of possibilities, the DSP Master Plan has simply left the door open by carving out development zones at each end of the Park.

Alaska environmentalists have been divided on South Denali. They do not want to be perceived as nay-sayers, so there has been little outright opposition to South Denali. The DSP Master Plan hearing record suggests the sentiment of most environmentalists is that controlled development is o.k. but outside DSP. Had Alaskan environmentalists said "No" long ago, "Denali Disneyland" may not have gotten this far.

It is wishful thinking to believe South Denali could be contained, even if the state and the borough were so inclined. If the scheme is realized, the scenario will be piecemeal land disposals, strip development on both sides of DSP, spur roads, further incursions in both Denali NP and DSP, towns, and perhaps a city. Strip development will restrict wildlife movement and fragment the region into island ecosystems, including both Denali NP and DSP.

Conventional wisdom is that South Denali will be difficult to stop, given the state's unconditional support for it. At best, one might argue, environmentalists might keep a resort out of DSP and exact from the state and borough a few concessions such as land-use controls, restraints on land disposals, designating the Parks Highway north of DSP a Scenic Highway, and perhaps a meaningful borough park south of DSP. Nonetheless, big ideas in Alaska have a habit of dying overnight, and there is a chance South Denali could fold under its own weight.

The first piece of qualified good news is DNR appears to be cold-shouldering loan guarantees for the ski area in Eagle River, which infers it will take a similar position on South Denali; however, the real decision lies with the Department of Commerce & Economic Development, the Governor, and the Legislature if it ever gets that far. Second, after a decade of reckless spending, Alaska is facing a three-quarter billion dollar budget

shortfall next fiscal year; and subsidies to developers may decline. Third, the United States is headed for an economic cataclysm and tourism will be one of the first casualties. Finally, it's an open question yet whether or not large destination resorts are viable in Alaska.

The trick is to pull the plug on government hand-outs, and the place to start is NPS, in this instance. NPS has committed itself to coming up with \$4 to 5 million to construct a visitor complex which it plans to operate with DPOR. It is unlikely that DPOR can find the money on its own, and South Denali may look significantly less appealing to a developer and the tour companies without it. NPS is playing a dangerous game because projects like South Denali are an invitation for environmentalists to begin scrutinizing its budget. They will not be pleased to see NPS planning a \$5 million visitors complex when there is little or no money for more pressing needs such as land acquisition, law enforcement, and badly needed studies.

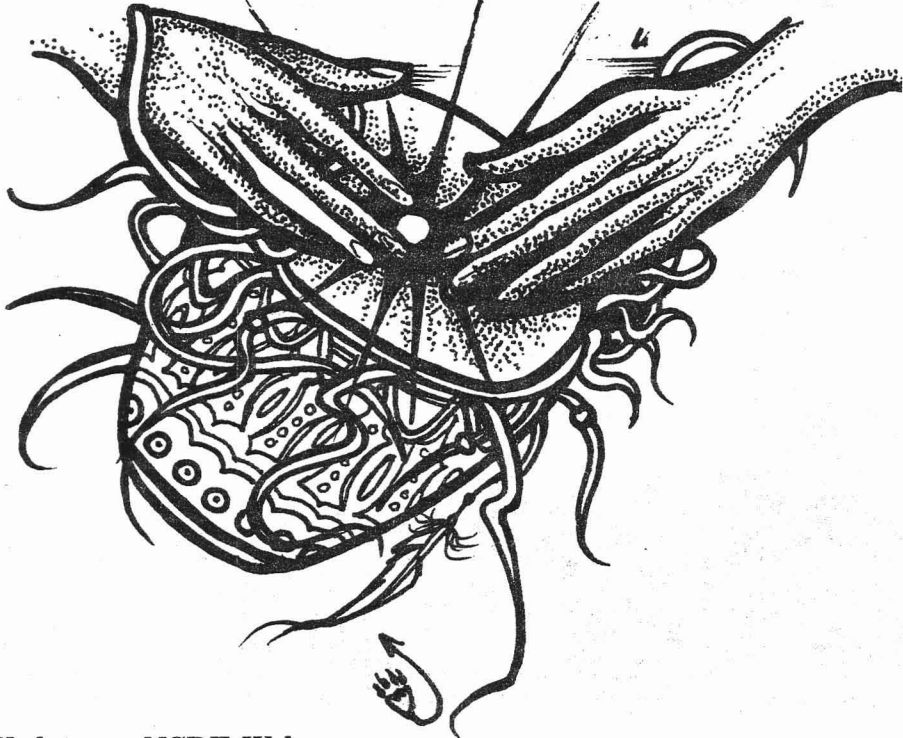
Although NPS must prepare an Environmental Impact Statement prior to building a visitors complex in DSP, it will be water under the bridge if South Denali is not stopped soon. Letters should be addressed to Boyd Evison, Regional Director, National Park Service, 2525 Gambell St., Anchorage, AK 99503-2892 with copies to William P. Mott, Director, NPS, POB 37127, Washington, DC 200013-7127, and your Congressional representatives. Send copies to Representative Sidney Yates, Chairman, Subcommittee on Interior, Appropriations Committee, US House of Representatives, DC 20515, and to Robert Byrd, Chairman, Subcommittee on Interior and Related Agencies, Appropriations Committee, US Senate, DC 20510. Say that NPS is wasting money supporting a state and private venture which will have severe environmental impacts.

Not long ago, one could drive up the George Parks Highway between Wasilla and Fairbanks and see almost nothing but unspoiled wilderness. Now, except for a stretch between the Chulitna River and Broad Pass, the creeping cancer of subdivisions, the Anchorage-Fairbanks Intertie, gas stations, shopping malls, and junkyards have filled in the blank spaces. It has been only a few years from wilderness to rubbish, and what remains we had better not take for granted.

Dave McCargo is an Alaska environmental activist and a frequent contributor to our pages.



TRIBAL LORE



Update on NCDE Wolves

The Gray Wolves of the Northern Continental Divide Ecosystem have fared fairly well recently. As discussed in "Return of the Native" (Mabon 86), wolves are even frequenting the US side of the NCDE. During the summer of 1988, no Gray Wolves actually denned on the US side of the border in the Glacier National Park area. However, two packs which roam south of the border, the Wigwam River pack in the Whitefish Range and the Magic Pack which ranges along the North Fork of the Flathead, both produced six pups each. Since these packs contain sub-adults that will reach breeding age this winter, it is hoped that a few of them will split off and form breeding units. There is reportedly also a lone female wolf by Libby, Montana, on the Kootenai National Forest. If she or any of the splinter groups that may develop also breed next year, the future of the wolf will look promising, as there could then be three or four breeding pairs near the Montana-British Columbia border within the next year.

The wolf pack destroyed by the US Fish and Wildlife Service last year (see back issues) on the east side of Glacier Park has not recovered. One wolf, though, did escape death and reputedly still is roaming on the Indian reservation and killing cattle on occasion.

—George Wuerthner

Update on Rocky Mountain Front

As reported at length in *EF!* Beltane 86, Montana's Rocky Mountain Front is under threat of oil and gas development. The Montana Congressional delegation introduced legislation in October of 1988 that would have designated most of the Front as Wilderness or wilderness study. The bill included study status for the 120,000 acre Badger-Two Medicine area. But President Reagan vetoed the bill. The election of Conrad Burns, who upset Senator John Melcher, decreases the chances for a better Montana wilderness bill. Burns was elected on the premise that he would work against any more Wilderness designation in the state of Montana.

—George Wuerthner

Bridger-Teton Plan Threatens a National Treasure

The Bridger-Teton National Forest in northwest Wyoming is the center of a national conflict over oil and gas policies. The battle between the US Forest Service and the conservation community could have grave consequences for the entire Greater Yellowstone Ecosystem.

If the final Bridger-Teton Forest Plan is adopted as it was recently revised, oil and gas development would be allowed at the boundary of Grand Teton National Park. All 1.3 million acres that could have been either leased or protected under the B-T Forest Plan have been made available for oil development.

In the latest version of the Plan, Bridger-Teton officials countered the wishes of thousands of citizens who asked that certain sections of the Forest be off limits to oil development. Neglecting warnings from their own staff about the threats of oil and gas development to Grizzly Bears, they released critical Grizzly habitat to drilling. The B-T manages 17% of the Grizzly habitat in the Greater Yellowstone Ecosystem that is

deemed most critical to the bear's survival — the most of any Forest in the region.

With their newest approach to oil and gas leasing, Bridger-Teton planners have put themselves in a bind. In vast areas of roadless "primitive" terrain, called Management Prescription 2A, the Forest will allow oil and gas development under the designation of NSO, or "no-surface occupancy." NSO restrictions theoretically prevent oil companies from occupying the proposed drilling site.

Such widespread application of NSO leases on the B-T has never worked in the past, and is sure to outrage the oil industry, as it already has the conservation community. With no-surface occupancy, oil companies are forced to drill directionally into a site, which is costly. By design, NSOs could prevent development if the stipulations are enforced, but that has rarely been the case. In addition, these regulations apply only to the exploration phase: If the company finds oil, full field development, including rigs and pipelines, will inevitably follow. This summer, Amoco successfully pressured the B-T to overturn the NSO status at an exploratory well site near Sohare Creek.

Public pressure can make a difference. It stopped oil development in the Cache Creek drainage near the town of Jackson, and development by Phillips Petroleum on top of the Line Creek Plateau in the Beartooth Mountains. To exert pressure, write the supervisor of the Bridger-Teton National Forest, Box 1888, Jackson, WY 83001.

—Greater Yellowstone Coalition, POB 1874, Bozeman, MT 59771

No Jails for Whales!

On September 17-18, Chicago and Madison Earth First!, in collaboration with the Midwest Whale Protection Federation and Trans-Species Unlimited, protested the oceanarium project now under construction at Chicago's Shedd Aquarium. Shedd is planning to bring 3 Beluga Whales, 3 False Killer Whales, and 6 Pacific White-sided Dolphins to Chicago to display them in a \$43 million fish bowl, to increase tourism at Shedd. To show the public that we don't like Shedd's new slave program, Chicago *EF!* leafleted and dramatized the whale capture. Our performance attracted the attention of the tourists at Shedd, as well as the media.



Chicago *EF!* protests captive whale program at Shedd Aquarium.

We were shown on two TV stations and interviewed on two radio programs. We distributed 1000 leaflets, which explained why holding these cetaceans in captivity is wrong: Beluga Whales can live to the age of 35 or more in the wild, but have an average life expectancy of 5 years in captivity. To stock this oceanarium, Beluga Whales will be captured in Canada during their birthing season. The False Killer Whales will be purchased from Japan, the worst violator of the International Whaling Commission's 10 year moratorium on whale hunting. No records are kept of the number of whales that are injured or killed during the capture, transport, and entry into the facility.

We are not finished harassing Shedd's villainous scheme. Since captive whale programs are becoming more popular in the US, we are anxious to hear from any *EF!*ers living near one of these monstrous projects. Perhaps a national day of protest can be organized. If you are interested, or would like to receive information on captive whales, write Chicago Earth First!, POB 6424, Evanston, IL 60204.

To oppose Shedd's project, write: William Braker, Director, Shedd Aquarium, 1200 S Lakeshore Dr, Chicago, IL 60605. To protest captive whale programs in general, write: William Verity, Secretary of Commerce, US Dept of Commerce, 14th & Constitution Aves, NW, Washington, DC 20230.

—Gina Litherland, Chicago *EF!*

Unique Virginia Pond Faces Onslaught

As reported in *EF!* earlier this year, US Forest Service plans threaten one of western Virginia's most beautiful areas, Pond Ridge, on Mill Mountain west of Staunton in the George Washington National Forest. This 4224 acre roadless area has been unharmed by humans since the early 1930s.

In the late 1850s, a road was built onto Mill Mountain for iron ore mining. There were 2 iron ore pit mines near the crest of Mill Mountain. During the Civil War, this low grade ore was used in munitions for the South. A tank operation and a small logging operation also worked in the area. The tank was shipped by train to the tannery in Iron Gate, VA. Mill Mountain Lumber Co. operated a steam sawmill off the road to the mines, near one of the area's many streams. The logging, tank, and mining operations all but stopped by the time of the Great Depression.

The Pond Ridge ecosystem has never been cut or roaded, and shows only faint signs of previous use. Pond Ridge features a unique mountain pond, 1 of only 4 such ridge-top ponds in Virginia. The Mill Mountain Timber Sale and the Slick Slide Road construction would establish 15 clearcut units and 6 miles of road in the roadless area. One of these clearcuts would be within 50 feet of the pond. Temporary skid trails would also be built on Pond Ridge. The pond serves wildlife throughout the area, and never goes dry.

Devastation resulting from the timber sale and road construction would include the following:

1. The pond area would become a probable candidate for "improvement" by the Virginia Department of Game and Inland Fisheries, i.e., bulldozing all the grasses, mud, and logs out of the pond and the natural vegetation away from the edge.
2. Off-road vehicles would use the new roads to invade the area. In one trip through the pond, an ATV could ruin it forever.
3. Black Bear habitat would be destroyed.

At present, the area's roadlessness protects the bears from hunters' disturbances during mating season.

The Pond Ridge area has a common boundary, along the top of Mill Mountain, with the Rich Hole Wilderness Area. There had been no usable roads in the combined area since 1930, then the Fredries put 2 miles of pre-sale road into the area in 1987. This road should be ripped up and replanted and the entire 4224 acres should be added to the Rich Hole Wilderness.

The Fredries plan to reevaluate the timber sale in 1990 and sell it in 1992. We need scientific help with reports to help us save the area. We need legal help to appeal if the area is put back up for sale. We need financial help for phone bills, postage, food for volunteers.... Anyone wanting to help in any way or wanting to see the area, contact: Brenda Vest, POB 266, Millboro, VA 24460; 703-997-9448.

We also need letters written to protest the Mill Mountain Timber Sale and Slick Slide Road construction. Tell these people that Pond Ridge should be added to the Rich Hole Wilderness Area: George Kelly, Forest Supervisor, George Washington NF, POB 233, Harrisonburg, VA 22801; Victor Gaines, Warm Springs District Ranger, Rt.2 Box 30, Hot Springs, VA 24445; Representative Jim Olin, US House of Representatives, Washington, DC 20515.

—Brenda Vest

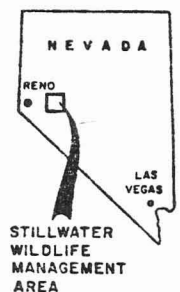
Rough Mountain Also Threatened

Across Mill Mountain from Pond Ridge in Virginia's George Washington National Forest lies the Rough Mountain Wilderness Area. This Wilderness Area finally became official on June 7, 1988. As you know, some areas are protected as Wilderness Study Areas while Congress and the President decide if they should be designated Wilderness. Rough Mountain, however, has never been protected at all.

This area is being damaged by ORVs, firewood cutters, bulldozers, etc. The Fredries will do nothing to stop these abuses until a final map is put out in 1989. Originally, we were informed that the railroad property line would be the boundary on the Padd's Creek side of the Wilderness. Now we hear that the roads cut into the area by wood cutters will be excluded from the Wilderness Area.

This Wilderness may shrink from its original 9300 acres to 7000 or less, because of illegal roads, before the Forest Service finishes the "official" boundary map. The Fredries seem to be using the Rough Mountain Wilderness Area as an example of how to abuse an Eastern Wilderness. To help us stop these abuses, contact: Brenda Vest, POB 266, Millboro, VA 24460; 703-997-9448.

—Brenda Vest



BuRec Killing Birds to Save Fish in Nevada

Claiming a mandate from the Endangered Species Act, the Bureau of Reclamation has formed a plan that would dry up the Stillwater National Wildlife Refuge, a critical wetland in Nevada, in order to preserve an Endangered fish in nearby Pyramid Lake.

Western Nevada already holds the distinction of having two Refuges, Winnemucca Lake NWR and Fallon NWR, abandoned for lack of the water that had made them important for wildlife. Water developments in the region, part of the first BuRec project in the nation, have diverted most of the free-flowing water that once fed these former wetlands. The water that does reach them now has a salinity exceeding seawater, and is laced with heavy metals and agricultural poisons.

The Stillwater NWR is one of the last remaining marsh areas in the region, and is therefore critical to wildlife. In some years its marshes feed as many as 30,000 White Pelicans, along with 12,000 Tundra Swans and 250,000 other migrant waterfowl following the Pacific Flyway. An in-

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Tribal Lore...

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ternational panel has classified it as a "hemispheric reserve," critical to the Western Hemisphere Shorebird Reserve Network.

These wetlands have shrunk to 15% of their original size, and that shrinkage was the reason for creating the 24,000 acre Stillwater NWR in 1948. However, no water rights were appropriated for the Refuge, and the lack thereof may mean the end for this oasis.

The threat comes from BuRec's response to the Endangered Species Act. The nearby Pyramid Lake contains an endemic fish, the Cui-ui (pronounced kwee-wee), which spawns only in streams. Historically, they spawned mostly in the Truckee River which feeds the lake. Due to agricultural diversions, though, the Truckee rarely carries enough water to cover the delta where it enters the lake. Thus the delta has become a barrier that blocks the fish from entering their natural spawning waters.

The Cui-ui was listed as Endangered in 1967, requiring BuRec to help protect it. Their solution was a plan to increase the Truckee's flow by some 47,000 acre-feet of water each year, using water that has been diverted to flow down the Carson River.

It so happens, though, that almost all the water for the Stillwater NWR comes from the Carson River, by way of irrigated farmland serviced by BuRec. The planned reduction in water sent down the Carson would shrink the Stillwater's remaining wetlands by more than 80%, drying up 4000-5000 acres of marsh and poisoning the remainder with concentrated salts and chemicals.

Conservation groups have organized the Lahontan Valley Wetlands Coalition to prevent this tragedy. Their efforts have focused on purchasing water rights for the Refuge from upstream agricultural users. They are seeking both private and federal funds to secure the future of the Stillwater NWR without further jeopardizing the Cui-ui. Late in the 100th Congress, legislators did vote to allocate funds for purchase of some of the water rights that are needed to restore water flow into the Stillwater NWR. This may alleviate the crisis somewhat.

For more information, contact the Coalition at: POB 50706, Reno, NV 89513.

Incinerator Protesters Acquitted

After a seven-day jury trial, 19 Detroit protesters were acquitted of disorderly conduct charges stemming from a demonstration at the construction site for a trash-to-energy incinerator. The group, claiming that incinerator gases pose health and environmental threats, blocked the entrance to the site on May 16.

Jurors were apparently swayed by a defense of necessity, the argument that incinerator-related threats placed them "under duress" which justified their actions.

Immediately after the decision, the demonstrators returned to the construction site and picketed for about an hour.

Wyoming Fence Blocks Antelope and the Law

Despite the efforts of environmental groups, two court rulings and hundreds of dead Pronghorn, a 28-mile-long fence still cuts through the grasslands of southern Wyoming, in the Red Rim region near Cheyenne.

It came to public attention in 1983, when herds of Pronghorn "antelope" (not a true antelope), fleeing a series of blizzards, stacked up against the barbed-wire fence where they starved and froze. The fence, enclosing more than 20,000 acres of private, state, and federal land, prevented the Pronghorn from escaping the storms and reaching their natural feeding grounds. At least 700 died that winter.

Environmentalists nationwide were outraged, and people came from as far away as New York to cut the fence, constructed in 1978. The Wyoming Wildlife Federation pressed suit against the Daley Ranch, where the fence lies, and its owner, Taylor Lawrence. They contended the fence violates an 1855 law against blocking access to federal lands. The fence also does not have a smooth bottom wire (to allow wildlife to slip beneath it), as required of private fences beside federal lands. A Federal District Court and a US Court of Appeals both ruled against the rancher. He has since appealed to the

Supreme Court.

Both sides agree that federal fence regulations have not been enforced. Both are seeking the precedent this case will establish, regarding whether the regulations should be enforced.

In the meantime, only mild winters have prevented the recurrence of 1983's disaster. Another hard winter could bring more deaths on the altar of welfare ranching. (*The New York Times*)

Stumps Snort! Plants Stump

On October 13, a 300 pound stump was cemented in front of Forest Service headquarters in San Francisco, blocking the main entrance. The genteel and chivalric group Stumps Suck! took responsibility for the action. Speaking on promise of confidentiality, Roger (a pseudonym) gave details: "This stump was planted out of our frustration with eco-theatre and non-violent direct action." Roger admitted that though Stumps Suck! is used to taking direct action with Earth First! scooping the credit, SS! must put themselves in the media to gain credibility. "We're not used to being media sluts, but we have to make a show of force to shut down the Freddies. We hold them fully responsible for the greenhouse effect due to deforestation." Roger said his group used a special quick setting cement to insure concrete hardness before building maintenance personnel could remove the stump. Freddie bureaucrats were delayed in giving orders to their chainsaw-wielding minions in the woods when they discovered the side entrance doors glued closed.

Oregon Counties Get Rich Off Deforestation

Because of a deal made over 70 years ago, 18 Oregon counties receive big sums of money each year based on timber sales from federal land.

Counties with former Oregon & California Railroad Co. land, which reverted to the government in 1916, received a total of \$108.9 million during the last fiscal year. The money comes from timber sales on former O&C land, and constitutes up to half the annual income for some counties. (*Medford Mail Tribune Extra*)

Nova Scotia Spray Protesters Plead Guilty

Three Nova Scotia women pled guilty to charges of assault and property damage, based on incidents during a protest of herbicide spraying on a forest near Tatamagouche. The incidents occurred as local police broke up a 36-day, round the clock blockade of the proposed spray site.

The women, Judy Davis, June Daley, and Bernadette MacDonald, claimed in court their right to defend the forest and themselves from herbicide spraying and other environmental abuses. They were arrested while trying to make citizens' arrests of forestry workers who were illegally spraying the herbicide Roundup in a high wind. They and other participants of the blockade have expressed their willingness to escalate the fight against environmental abuse. (*The Weekly Record*, Truro, Nova Scotia)

The protesters based much of their concern on a recently released study of the effects of Roundup and related herbicides. Entitled "Ecological and Public Health Implications Associated with the Use of Glyphosate Herbicides," the report was published by a public health consultant, David H. Monroe (6534 23rd NE, Seattle, WA 98115; (206)522-6046).



A stump appeared one evening outside the Federal Building in San Francisco.

Duke Power Invades Western NC

In a previous issue of the Journal, we reported on the threat to the largely unspoiled Jocassee watershed in western North Carolina and South Carolina posed by a proposed Duke Power Co. transmission line. The following is an update on that threat, reprinted from the fall issue of *Katuah Journal* (POB 638, Leicester, NC 28748).

The controversy over the erection of a high power transmission line in Transylvania and Jackson Counties is mounting. Duke Power Co. of Charlotte, NC has gained the approval of the NC Public Utilities Commission (PUC) for its purchase of Nantahala Power and Light Company (NP&L) in western North Carolina. The company now has right-of-way access to sell its nuclear-generated power to Alcoa and TVA customers in Tennessee. The PUC ignored a last ditch effort by local mountain people to form an energy co-op as an alternative to Duke's purchase of NP&L. To transport this power, Duke has proposed clearcutting a swath of forest about 1300 feet wide by 30 miles long. The line would stretch from Lake Jocassee in South Carolina to a substation in the town of Tuckasegee in Jackson County, NC.

Residents of the Lake Toxaway area are greatly upset that their view of Toxaway Mountain will be spoiled - to the extent that they hired top lawyers and enjoined Duke from any further construction until they revealed plans for an alternative route. Tom Sweatt of the Lake Toxaway Property Owners Association points out that "there are a lot of people who have spent a lot of money to build homes where they can have a good view of Toxaway Mountain." In addition, Sweatt argues that Duke's proposed route would endanger rare and threatened plant communities and encroach on pristine trout waters in Jackson County.

Unfortunately, an alternative route for the powerline proposed by the homeowners and other concerned groups trespasses through more of Nantahala National Forest than Duke's proposed route and will pass close to the homes of residents of the Owens Gap area. Certainly the alternative would reduce the visual impact of the line on the Lake Toxaway homeowners, but the line would impact other residents and fragment an eminently important habitat area in the Nantahala National Forest.



Shuksan EF! protests Georgia-Pacific rainforest destruction.

Los Angeles EF! Update

Los Angeles Earth First! held a protest during World Rainforest Week in October aimed especially at the Japanese and Malaysian consulates - Japan being the largest importer of tropical hardwoods from Southeast Asia, and Malaysia being the largest hardwood exporter in Southeast Asia. Sixty protesters gathered with masks, a giant whale balloon, banners, leaflets, and loud voices. We held a press conference in front of a bank building housing Japanese consulate offices in Little Tokyo (L.A.'s Japanese business section), drawing two Japanese cable TV stations and L.A. press. After leaving a mason jar containing a monkeywrench and broken saw blade pieces at the consulate, we marched to Japanese External Trade Organization (JETRO) offices in the Citicorp Building. On the way a few EF!ers detoured to deliver another gift of jar, monkeywrench, and broken saw blades at the Malaysian consulate. One EF!er was arrested and released shortly afterwards for aggressively leafletting the Malaysian tourism offices. We ended the day in a circle, throwing a Japanese haiku back at JETRO - a pine seedling chant.

L.A.EF! is involved in a diversity of regional issues as well. In particular, we have continued to fight against trash and toxic incineration in the bad-air capitol of the Southwest. Even when we add only a few people to press conferences, hearings or protests on toxics, we make a difference.

We joined citizens here opposing a military contracting company's plans to test a new breed of toxic waste incinerator in Van Nuys, inside L.A. With the assistance of the Department of Health Services (DEATH) and the EPA's go-ahead, the Marquardt company, reputed to have burned Agent Orange locally, attempted to schedule a test run. The citizens won, but now everybody may lose if they proceed with plans to test in the desert instead. Meanwhile, a projected commercial toxic waste incinerator, which many EF!ers and others here have fought, is now under construction in the city of Vernon, L.A. area. Authorities broke their commitment to do an environmental impact document.

Recent months also heard howls for the wolf in L.A. About 15 protesters gathered again in front of the Ambassador Hotel in L.A.'s trendy Wilshire district, and several went inside to the offices of Tourism British Columbia with banner and leaflets to protest the BC government sponsored lobocide scheduled for this winter.

-Peter J. Bralver, Los Angeles EF!

Shuksan EF! Protests Rainforest Destruction

October 13 was a typical rainy day in Bellingham, but this did not dampen our spirits as we climbed the ladders to Georgia Pacific's roof. In less than two minutes Mitch, Mike, and I were unfurling our banners: GP DESTROYS RAINFORESTS and GP: ECORAPERS. Our 12 cohorts, who were protesting at the front gate of GP, came up the street to celebrate our success.

My only disappointment was how quickly GP had a security guard on the roof to cut down our banners. We should have slowed him down by blocking the ladder with one of our bodies. The security guard asked us to leave and meet "the man" downstairs. We politely refused, stating we enjoyed the rain and figured we had better bargaining power on the roof. He was not pleased. We then gave him background on GP's role in rainforest destruction. The man in blue finally ar-

rived. He offered to not arrest us if we would come down and give our names. We took his offer, reserving our right to return if GP didn't close its operations in Brazil by October 31, 1988.

October 31 was the International Day of Protest for the Penan Tribe in Malaysia. Nine of us from Bellingham drove up to British Columbia. We joined a dozen Canadian protesters at the Malaysian Consulate in downtown Vancouver. We marched into the Consulate office demanding to see the person in charge. The Canadian Secretary was oblivious to the issue of the Penan. We voiced our concerns for the Penan and resumed our protest outside.

-Tony Van Gessel, Shuksan Earth First!



October 31 rainforest protest at Malaysian Embassy, Washington, DC.

Protesters Converge on Malaysian Embassy

On October 31, TERRA International, Survival International, and Friends of the Earth demonstrated in front of the Malaysian Embassy in Washington, DC, to support the Penan in their fight to save the rainforest they have inhabited as hunter-gatherers for generations. Though less conspicuous than usual, Earth First!ers added their support. The 50 demonstrators put on quite a show, about half of them donning rainforest creature costumes.

Randy Hayes of the Rainforest Action Network, quoting from a Malaysian government press release, told the demonstrators that since the state claims it is only felling trees on state forests earmarked for rural and agriculture development, the Penan lands must be thus earmarked. It seems that the government strategy is to assimilate the indigenous peoples into the mainstream - the same problem the Crow Indians in Montana have fought for a hundred years. Meanwhile, the destruction of the Penan's homeland continues and the Malaysian government sends out special envoys to persuade foreign buyers otherwise.

Despite increased pressure by the state, i.e., 2-year prison terms and heavy fines for anyone blocking logging operations, the Penan, in their fight to save their culture, remain undaunted. On October 28, they set up 3 more road blocks.

Further good news is that Representative John Porter (R-IL) introduced House Concurrent Resolution 396 urging the Malaysian federal government and the Sarawak state government to halt destructive logging practices in native peoples' territories and recognize the rights of native peoples to the ownership of their land. It also calls on the US government to condemn imports of tropical timber which are not from sustainable sources.

WHAT YOU CAN DO: 1. Write His Excellency Albert S. Talalla, Ambassador, Embassy of Malaysia, 2401 Massachusetts Ave, NW, Washington, DC 20008, and express your concern for the remaining Sarawak rainforests, the oldest and most prolific on Earth, and their indigenous peoples. Request that all charges against the tribespeople arrested last year for blockading commercial logging on their lands be dropped. Also request a repeal of the recent law regarding arresting and imprisoning obstructing indigenous peoples trying to protect their livelihood. 2. Write Representative Porter (US House of Representatives, DC 20515) in support of his resolution. 3. Write your representatives and encourage them to support H. Res. 396. 4. Find the nearest outlet for tropical hardwoods and be creative.

-Carcajou

Jarbidge Alert!

The Bureau of Land Management (BLM) has proposed to amend the Jarbidge Resource Management Plan (RMP) which guides management of the 1.7 million acre Jarbidge Resource Area (RA) [in the Owyhee Country of southwest Idaho; see *EF!* back issues listing for articles on Owyhee]. This landscape of vast plains and awesome canyons is to be further degraded by new cattle fences and pipelines.

The BLM contends that the RMP must be amended to allow increases in livestock developments in order to achieve the livestock allocations established in the RMP. These drastic livestock measures include doubling livestock fencing to 306 miles,

tripling livestock watering pipelines to 444 miles, and quadrupling livestock water developments.

As a bone for the conservationists, the BLM proposes to protect Salmon Falls Creek as an Area of Critical Environmental Concern (ACEC). Presently, Salmon Falls Creek is designated an Outstanding Natural Area with a 500-foot buffer along 30 miles of the eastern rim. The BLM proposes to drop the 500-foot buffer, throwing over 2000 acres back to the cows. At risk are nearly 30,000 acres of wildlands on the plateau surrounding Salmon Falls Creek. These wildlands are included in the Committee for Idaho's High Desert's comprehensive wilderness proposal for Idaho.

Please immediately write the Boise District BLM, 3948 Development Rd, Boise, ID 83705. Include these points: 1) **There was not adequate public notice of the proposed amendment.** 2) **The amendment is not site specific and the public has no idea where these livestock developments will be built.** 3) **Livestock should not be allocated the 47% increase in forage proposed in the amendment. (Wildlife would continue to receive only 5% of the vegetation allocated to livestock.) Wildlife forage allocations need to be significantly increased.** 4) **The Salmon Falls Creek ACEC should include a minimum 1/4 mile setback from the rim for Bighorn Sheep. Bighorn Sheep can be reintroduced to this area if their forage is protected from livestock.**

-Committee For Idaho's High Desert, POB 2863, Boise, ID 83701.

Biologist's Plan Would Save Southern Oregon Old Growth

From Klamath Falls in the south, highway 97 skirts the eastern shore of Klamath Lake for more than 20 miles until route 62 splits off to the northwest toward Crater Lake. The traveler on these roads through southern Oregon's Klamath Lake Basin will invariably pull over at the viewpoints to marvel at the breathtaking panorama: Looking westward, Klamath and Agency Lakes disappear into a backdrop of heavily timbered mountains rising more than 5000 feet from the basin floor to the tip of snow covered Mt. McLoughlin and surrounding wild peaks of the southern Cascades.

The spectacle explains the disproportionate number of cafes along highway 97. But beyond the visual niceties, those who explore these mountains will discover other equally impressive wonders.

The region incorporates two Wilderness Areas, the 36 square mile (over 20,000 acre) Mountain Lakes Area, and the 116,000 acre Sky Lakes Area. Protection was extended to Mountain Lakes in 1930, making it one of the three oldest protected areas in the Pacific Northwest.

Geologically, the area was shaped by

forces similar to - but much more ancient than - those responsible for nearby Crater Lake. The several peaks comprising the Mountain Lakes Wilderness are the remains of an ancient caldera formed several million years ago in the titanic collapse of a volcano that once covered 85 square miles and reached at least 12,000 feet in elevation.

Whereas Mt. Mazama's much more recent collapse created what is now the deepest freshwater lake in the nation (Crater Lake), its ancestor was reworked through repeated glaciations, during which great rivers of ice breached its rim. Today's end result is a ring of small tarns and 8000 foot peaks. The region begs the question: will future ice ages eventually carve up Crater Lake, as well? And what of Mt. Shasta to the south? Is it still forming, or facing a similar decline?

Sky Lakes Wilderness straddles the southern Cascades for 27 miles from Crater Lake National Park in the north to Mt. McLoughlin and the popular Lake of the Woods resort in the south. During summer, this area is mosquito heaven, which probably explains its relatively light use by backpackers during the warm months. After the first freeze of autumn, however, the area's many lakes and old growth forests become easily accessible.

The Mountain Lakes Wilderness and the eastern portion of the Sky Lakes Wilderness comprise roughly a third of the Klamath Ranger District (188,700 acres) of the Winema National Forest. Because of the relatively large percentage of Wilderness in this district, and because wilderness boundaries were set long ago - even before receiving official designation - chances for significant Wilderness additions are slim. Nevertheless, the fight to save the district's remaining old growth continues.

The Klamath District ranger is under heavy pressure to increase timber quotas. It is an oft-repeated story: quotas have been set by Washington bureaucrats instead of by local foresters. As a result, much or all of the district's remaining old growth will be logged in the next few years. In the coming weeks, the Winema NF supervisor and land use planner will determine the pattern of use/abuse for the next 10-15 years.

The prospects are not entirely bleak, however. Rick Hardy, a Klamath District wildlife biologist, is currently finishing a study of eagle and Spotted Owl habitat. Soon Rick and other staff persons will submit the results of years of field work and propose that 9000 acres of prime Spotted Owl habitat - above and beyond that already designated as Wilderness - be permanently withdrawn from logging consideration. (By the time this article appears, Rick's proposals will probably have been made.) These lands, almost entirely old growth timber, are located along the eastern margin of the Sky Lakes Area, and along the southern and western border of Mountain Lakes. Rick will also propose that 10,000 additional acres of eagle habitat be extended limited protection.

Preservation of these areas would help

buffer both the Mountain Lakes and Sky Lakes Wilderness Areas. In particular, protection would be extended at several key trailheads. Most importantly, however, adoption of Rick's proposals would withdraw from logging a 1200 acre old growth stand along Seven Mile Creek that is unlike any other grove along the eastern margin of the southern Cascades. The hush of the forest, its size and depth, are reminiscent of timber near the coast.

Unfortunately, the two roadless areas straddling Varney Creek (North Boundary Roadless Area and Odessa Roadless Area) on the north boundary of Mountain Lakes Wilderness are in imminent danger of logging.

Even though Rick Hardy's proposals do not go far enough, they still deserve Earth First! support as a step in the right direction. Forest Service personnel in this district are of high quality. However, because of increasing demands on diminishing resources, and quotas being set in Washington, even widespread support for protection within FS ranks cannot guarantee preservation for owl and eagle habitat.

In the Klamath Ranger District, as elsewhere, protection will ultimately depend on whether the public demands it. Letters from conservationists could make the difference in the upcoming planning sessions, in which the logging industry is certain to be heavily represented.

Letters should urge acceptance of all recommendations made by Rick Hardy, and should demand that roadless areas adjoining wilderness (i.e., along Varney Creek) be protected permanently. Send ASAP to Forest Supervisor Lee Coonce and Land Use Planner Jay Christensen, Winema NF, POB 1390, Klamath Falls, OR 97601 (503-883-6714).

-Mark Gaffney

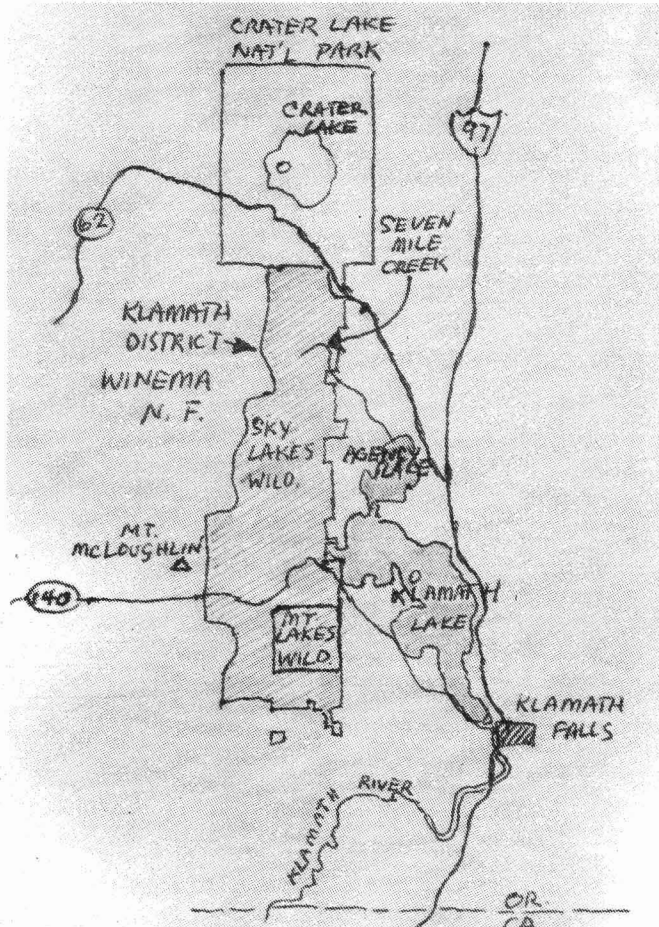
Decision on Hawaiian Off-shore Mining Due

As reported recently in *EF!*, the final environmental impact statement on selling leases to mine cobalt from underwater seamounts surrounding the Hawaiian Archipelago and Johnston Island is scheduled for November 1988. The Department of Interior is expected to approve lease sales.

The seamounts create currents that circulate nutrients which feed phytoplankton communities; thereby providing food for young fish whose parents spawn upcurrent so their eggs and young drift into these communities. Rare, endemic corals live on the mountains. Long living and slow growing (50 years to sexual maturity), these corals can only live in sediment free water. Whales, porpoises and sea turtles often swim around the seamounts.

If the mining leases are sold, bottom crawling machines will rip up the crust, which will be pumped to ships where it will be separated and the refuse (including chemicals added to aid processing and heavy metals not commercially feasible to recover) dumped overboard at the rate of one ton every ten seconds per ship. Whole

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Tribal Lore...

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ecosystems could be disrupted as the sandy bottom is changed to silt bottom. Some of the sediment could remain suspended for 49 years. Currents could carry it to island shores, including areas designated as Critical Habitat for the Endangered Monk Seal.

Governor John Waihee opposed the lease plan prior to election but now supports it. Write him at State Capitol, Honolulu, HI 96813 and request that the State of Hawaii withdraw its support based on the effect the mining will have on ocean ecosystems. Send a copy to the Secretary of Interior, C St, Washington, DC 20240.

—Pamela Quayle

EF! vs MBNFSADCMP/EIS

Due to work on voluminous appeals of the Inyo National Forest Plan and other Forest Circus scams, the Earth First! Alternative for the Mono Basin National Forest Scenic Area Draft Comprehensive Management Plan/Environmental Impact Statement (MBNFSADCMP/EIS — now that's a bad soup!) has not yet been completed (see article last issue). It promises to be visionary though, with emphasis on restoration of the Mono Basin to pre-diversion and pre-grazing conditions. The ultimate goal is designation of the MBNFSA as a Wilderness contiguous with Yosemite National Park, the Hoover Wilderness and Forest Service Roadless Areas to the west, and with BLM and FS Wilderness Study and Roadless Areas to the east. The biological integrity of not just

photo by Paul Hirt



The "Miracle of the Forest" on the Colville National Forest. Note the new and improved "shelter wood" or "seed tree" approach on some plots.

one isolated ecosystem but of adjoining ecosystems (Sierra Nevada, Eastern Sierra Nevada, Mono Basin, Great Basin) would thereby be preserved.

Letters are needed! Please write in support of the EF! Alternative, by January 19, to: Dennis Martin, Inyo NF, 873 N Main St, Bishop, CA 93514. For a copy of the EF! Alternative, write to Eastern Sierra EF! (address in Directory).

Dismantle the diversion dams! Let the waters flow!

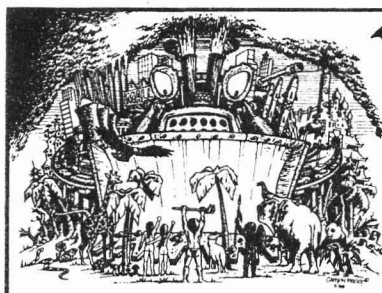
—Sally Miller, Eastern Sierra EF!

Miracle of the Forest Service

The Forest Service has begun a widespread public relations campaign to convince the public that clearcuts are harmless and wilderness is illusory. The following is from a (paper) Safeway shopping bag:

When you walk into a National Forest, you really believe you're the first person who's ever been here. Funny thing is, you're not.

These forests have been used for over one hundred years. From this timber



International News

Imperiled Wildlife in France

Ed. note: The following is excerpted from the chapter "Protected Areas and their Wildlife," in The Ecologist's Guide to France, by Mary Davis. This guide, published in 1988 by alternative publisher R. & E. Miles, is extremely valuable for those traveling in France, as well as for those who simply wish to know about the natural areas and environmental institutions in a European country.

Wildlife Preservation

Despite the efforts of French environmentalists to protect wildlife habitat, many species are threatened with extinction. Visitors to France are often surprised at how few birds and animals they see in French fields and woods.

Land that was once wilderness has undergone drastic changes. In the first century AD, 45 million hectares were covered with forests. In the tenth century 33 million hectares of forest remained; by the end of the eighteenth century, 9 million hectares; at the close of the nineteenth century, 8 million. As trees were felled, wetlands were drained. There were once 14 million hectares of marsh in France. Now there are 13 million, only 350,000 of which are in their natural state. The loss of habitat has been accompanied by a loss of animals and plants, in numbers of both species and individuals.

The forest began to grow back after the Industrial Revolution, as small farmers abandoned marginal farmland. This trend is continuing. France now has 14 million hectares of forest, as woodlands have regained since 1910 one-third of the area they now occupy. The expansion of the forests has brought about an increase in certain types of wildlife in some areas (deer, in Alsace, for example), but the gain overall is not what could be hoped. Abandoned lands recover only slowly. Most importantly, intense hunting occurs in most of France today, much as in the past.

French laws and regulations encourage the slaughter of fauna. The government signed the international Directive of Brussels of April 1979 for the protection of wild birds and their habitat (79/409/CEE), but has not embodied the directive in its laws and regulations. The directive *Page 14 Earth First! December 21, 1988*

was negotiated because the majority of the 650 species of birds that can be seen in Europe are migratory. Now birds protected in other European countries are killed as they cross France. The government still allows the hunting of not-to-be-hunted species such as killdeer, turnstones, and marsh sandpipers; the hunting of water birds during the migratory season; and the capture of small migratory birds with nets and birdlime. In 1987 the Ministry of the Environment increased France's infringements by authorizing, among other things, the hunting of two species, the dunlin and Brent goose, that had been totally protected by France's own regulations.

According to information furnished by the World Wildlife Fund — France (WWF-F), sixteen species of nesting birds, one species of reptile, and eleven mammals have become extinct in France. The mammals are the wild horse, aurochs, European bison, ibex of the Pyrenees, Corsican deer, wolf, monk seal, sea-calf seal, North African hedgehog, pipistrelle of Savi, Corsican pika. There is doubt about one of these species, the wolf. In *Le Retour des Seigneurs de Nos Forêts d'Europe* (Paris: Sang de la Terre, 1987) Christian Kempf reports that there are a few wolves in the Massif Central.

WWF-F lists the following species as the most endangered animals in France at present:

BATS: One-third of the 90 species of mammals in France are bats, and almost one-third of the bat species are threatened with extinction due to pesticide use and habitat loss.

BONNELLI'S EAGLE: Twenty years ago there were 670 couples in France, in departments along the Mediterranean; now there are only 27. One problem is scarcity of food, because hunters have slaughtered the small animals the eagles eat.

BROWN BEAR: Brown Bears disappeared from the Alps in 1937. There were 300 in the Pyrenees in 1930; now there are about 15. Environmentalists say that the Ministry of the Environment's plan to save the bears must be drastically and quickly revised.

CORSICAN DEER: The species is endemic to Corsica and Sardinia. It became extinct in Corsica (a department of France) in 1962 due to loss of its habitat to agriculture and illegal hunting; but 200 survive in Sardinia. The deer has just been reintroduced to Corsica from Sardinia.

GRAY SEAL: Today young gray seals from colonies in the United Kingdom occasionally run aground on the Atlantic Coast. Studies are underway to determine

whether and how to reestablish colonies in France.

LYNX: In 1980 a few lynx remained in the Pyrenees and the Alps. Since 1983 naturalists have been trying to reestablish the lynx in the Vosges, by releasing a few animals from Czechoslovakia.

RIVER OTTER: The otter was once abundant throughout France, but the animal became the victim of trappers. Now the only viable populations are in the west and in the center of France, where between 250 and 1000 individuals remain.

STURGEON: The sturgeon is now found only in the rivers Adour, Garonne, and Dordogne. Numbers have been reduced by the capture of immature fish, the killing of females bearing eggs (for caviar), and the destruction of spawning grounds.

WHITE STORK: The major population in France is in Alsace—9 couples in 1974 as opposed to 173 in 1948. WWF-F believes that the dramatic decline is due to hunting outside France, and is working to protect white storks in Mali where they winter.

HERMANN'S TORTOISE: In France this tortoise appears to have become extinct in the Pyrenees and to exist only in Corsica and in the southeastern massifs of Maures and Esterel (Var).

Among the mammals, the mink, European wild cat, and four less well known species have had their numbers severely reduced. Specialists consider that 19 other species of mammals are in latent danger; 30 species of mammals have shown a decline but the extent of the reduction is not known.

Other types of fauna and also flora are in difficulty. According to Vadrot, France has 4,762 species of plants of which 300 are trees or bushes. Since the beginning of this century, 40 plant species, including 9 endemic species, have become extinct. Another 61 species, of which 15 are en-

stand, settlers used wood to build their homes, and cut ties for the railroad. Hard to believe, isn't it. But that's the Miracle of the Forest. With careful management these forests have renewed themselves, year after year. That's why we call them, "Forever Forests."

Get involved with the new "Forests For Us" program and tell people all about the Miracle of the Forest.

If you want to get involved, send your name and address to: Forests For Us, POB 2000, Washington, DC 20013.

Forest Service Reform Guide Available

A new *Citizens' Guide to Reforming the Forest Service* identifies over thirty different possible reforms of the National Forest System, including budgetary, prescriptive, planning, and release reforms. Published by Cascade Holistic Economic Consultants, the 40-page booklet summarizes CHEC's proposals (presented at length in Randall O'Toole's 250-page book, *Reforming the Forest Service*), but also discusses proposals by the American Forestry Association, National Forest Products Association, the Forest Service itself, and environmentalists such as Gordon Robinson. Few of these proposals are mutually exclusive and the reader is invited to select preferences. The *Citizens' Guide* concludes with a list of suggestions for people who want to promote Forest Service reform.

The *Citizens' Guide* is available for \$2 from: CHEC, POB 3479, Eugene, OR 97403.

demically, are in extreme danger; 342 are sharply declining in number.

Nevertheless, the picture is not entirely bleak. All of the most endangered species of animals on WWF-F's list, except the sturgeon, are the object of preservation programs. There have already been successful projects of reintroduction and repopulation in France. The national park of the Pyrenees Occidentales saved the izard, an animal similar to the chamois, for example; and the national park of the Vanoise has helped to save the ibex. The bearded vulture illustrates the care being taken with reintroduction programs. The raptor is being brought back to the French Alps and to Austria, because only one hundred couples remain in Europe. Eleven years of study, planning at the international level, and the breeding of birds already in captivity preceded the release of the first birds for France, in the massif of Bornes last summer.

A program to save wounded wild birds and animals is an example of innovative work on species preservation. Naturalists, environmental organizations, and veterinarians have set up l'Union Nationale des Centres de Sauvegarde de la Faune Sauvage (UNCS; National Union of Centers for Saving Wild Fauna). At the centers the wounded wildlife receive medical attention and are kept until they are ready to be released. FIR distributes a pamphlet giving instructions on hurt raptors that can be applied to other birds and small animals. If you come across a bird or animal in need of help but do not have the pamphlet, call FIR's office near Paris to learn the location of the nearest center and, if necessary, how to ship the victim by express train service: (1)-47-71-02-87.

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Seal Plague Not Distemper

British scientists have found that canine distemper is not the disease killing seals in the North Sea (as reported in *Samhain '88*). Tests at the Institute for Animal Disease Research show that the disease is another member of the morbillivirus group, which includes (besides distemper) human measles, rinderpest, and goat plague viruses. The virus killing seals is most similar to those that cause rinderpest and goat plague, and has been rechristened "seal plague."

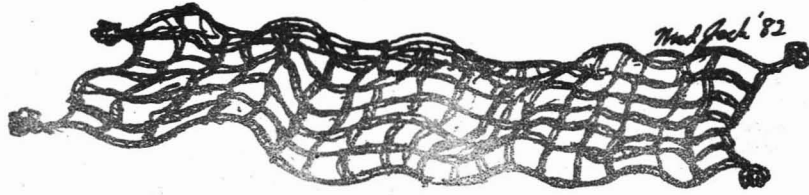
About two thousand seals along the British shores are reported dead from the disease, so far. Over 11,000 seals have died so far around the North Sea. Scientists have shown that ocean dumping of PCBs and other industrial toxins has weakened the immune systems of the seals, thus making them more susceptible to fatal infection.

Delegates at a recent conference on the seal plague expressed confidence that

British seals would not die out, since about a third of infected adult North Sea seals have survived the epidemic. (*New Scientist*)

In the beginning of October, a court in Hamburg rejected a suit filed by eight environmental organizations "in the name of the seals." In their suit, Greenpeace, the World Wildlife Fund, and six other groups demanded a ban on the dumping and burning of waste at sea as a measure to help seal populations in the North and Baltic seas.

The court based its rejection on the fact that the North Sea Seals were named as the plaintiffs, whereas only natural persons, not animals, have legal standing before a court. The judges also ruled that the environmentalists had not established proof of any causal connection between the seal deaths and the pollution of the seas. The organizations said they would appeal. (*This Week in Germany*)



NEMESIS NEWS NET

by Australopithecus

Elephants Protest Transmigration

Rick Davis, EF! contact in Japan and editor of the important monthly journal *Japan Environment Monitor* (400 Yamanashi-Ken, Kofu-shi, Saiwai-cho 18-11 Kofu, JAPAN) reports in the August issue of *JEM* on Asiatic Elephants protesting a project funded by the World Bank that has for several years been one of the internationally-funded programs most criticized by rainforest activists - the Indonesian transmigration project. Elephants in southern Sumatra have attacked villages and stampeded over houses of the new settlers, injuring and killing several who had invaded elephant habitat.

Meanwhile, in Sri Lanka's southern province, an angry Asiatic Elephant killed an Italian tourist who was photographing the pachyderm. The tourists's two fleeing companions scaled a tree and were fortunate that the elephant did not do likewise. (*L.A. Times*, 7-18)

Japanese Poach Pisces; Plan Plutonium Planes

The August issue of *JEM* also includes an account of Japanese poaching of fish in US waters in the North Pacific. Dissatisfied with the deep and comparatively barren waters between the 200 mile exclusive economic zones claimed by the US and USSR, Japanese fishers have been illegally fishing within the US zone, off the continental shelf, and sending the poached fish to the Tohoku and Kanto regions of Japan.

In other Japan/US news, Japan's Diet recently ratified the Japan-US Nuclear Agreement, including its guidelines for transporting plutonium by air. (See previous NNN report.) Japan's growing environmental movement (see recent *Earth Island Journal*) will try to repeal the agreement.

Half Embryo Yields Whole Antelope

Researchers at the Cincinnati Zoo's Center for Reproduction of Endangered Wildlife, hoping to save the rare Bongo Antelope of East Africa, are developing a technique to produce two offspring from one embryo. In July, researchers were rewarded by the birth of a healthy Bongo named Ditto, to a surrogate Eland Antelope mother who had received half an embryo. Ditto's other half did not yield the desired twin, but the Center is optimistic about future splitting, freezing, and transplanting of embryos. (*Boston Globe*, 9-12)

Japan's Pacific Ambitions Soar

Not content to spread their cancerous developments ON Pacific Islands (in Indonesia, Malaysia, Philippines, etc.), the Japanese are contemplating construction OF a Pacific island. The Shimizu Construction Co., Japan's leading building firm in volume of sales, has proposed building an independent city-state in the middle of the Pacific Ocean. To be named Marinna, the artificial island would be settled by a million people, Shimizu hopes. It would be a separate country, a free port similar to Hong Kong, but would be closely allied with Western nations and might host US military bases. Engineer Tadahiko Okumura, leading the \$2.3 million study into the project's feasibility, considers the logistical difficulties surmountable. Shimizu would build the city on a coral shelf area with shallow water of about 325 feet in depth. This would entail first constructing a circular dam 18 miles in diameter, anchoring it in the seabed, pumping out the water, and dumping in landfill. Okumura says the greatest engineering challenge would be providing the dam with waterproof section joints able to withstand earthquakes. (*Soundings Newspaper*, 8-88)

Yuppies and Freddies Doom Songbirds

A *New York Times* article of June 21 publicized the growing fear among ornithologists that the alarming declines in American songbird populations in recent years are results not only of tropical deforestation in Central and South America, but also of suburban sprawl and fragmentation of National Forests in North America. As young, upwardly-mobile professionals have flocked to the less developed areas surrounding US cities, and as old, immobile Forest Service bureaucrats have promoted cutting of National Forests, they have fragmented woodlands and other songbird habitats. The neotropical migrants include over 100 species, mostly warblers, vireos, flycatchers, and thrushes. Part of the songbird decline associated with forest fragmentation is directly attributable to nest robbers such as Blue Jays, Raccoons, and Opossums; and parasitical birds, such as Brown-headed Cowbirds - all of which thrive in edge habitats. Ironically, winter bird feeding aids some of these opportunistic species at the expense of songbirds, because songbirds winter in Latin America, while Blue Jays and other nest robbers remain north all winter. Yuddies and Yuccies (young upwardly-mobile dogs and cats) also disrupt native songbird populations. While there has been debate in ornithological circles about the relative significance of tropical deforestation and temperate forest fragmentation in causing songbird declines, a recent study in central Illinois confirmed the extreme significance of the latter. The Illinois Natural History Survey found that in fragmented woodlots, 80% of songbird nests were preyed upon. In a separate study in the 517,000 acre Great Smoky Mountain National Park in Tennessee and North Carolina, still largely comprised of intact forest, only 2% of nests were robbed.

Texas Burrowers Spread Too

A mammal less fleet of foot and less cunning than the wily Coyote - but, arguably, even more handsome - is likewise expanding its range, making an advantage of its ability to utilize diverse food sources. This is, of course, the comely Nine-banded Armadillo, which has spread from Chihuahua (the Mexican state south of Texas and New Mexico), and Texas and Louisiana, to Arkansas, northern Mississippi, Oklahoma, and even southern Missouri. The December 1987 issue of the *Progressive Farmer* (a laughable misnomer) decries the expansion of these shelled burrowers, in an article entitled "Nobody Loves an Armadillo." The Armadillo's range will, perforce, remain limited however; insofar as they are furless and cannot tolerate temperature extremes. (Nonetheless, their tails make them easily distinguishable from snowbirds and Californians.) Armadillos are unique among mammals not only in their suave and debonair appearance and demeanor, but also in their habit of giving birth to identical quadruplets. Once a year, the female bears four young of the same sex and genetic composition. Despite these fine qualities, many "progressive" farmers dislike Armadillos because of their proclivity toward excavation of gardens and crops. With their enviable diet of insects, grubs, and slugs, and their propensity for building posh underground homes, Armadillos sometimes even undermine roads and buildings while digging. The *Progressive Farmer* recommended removal of brush and cover and setting of box traps near dens and burrows to rid one's land of Armadillos. Thankfully, in the next issue, thoughtful readers responded to the article. In "Armadillos Do Have Friends," respondents said that Armadillos should be appreciated for driving away snakes, including rattle snakes; eating imported fire ants; and carrying the bacteria that cause Hansen's disease (leprosy). Armadillos do not spread leprosy and may enable scientists to find a vaccine for it, one writer noted.

Over 10% of World's Birds Endangered

A new report by the International Council for Bird Preservation states that of Earth's approximately 9000 species of birds, 1029 face extinction. Ten years ago, the Council estimated 290 species were so endangered. The rapid increase in endangered species is primarily due to tropical forest destruction and illegal trade in tropical species, especially parrots. The illegal trade affects even the most "protected" species, as evidenced by the Bali Starling. This bird's entire range is within a national park (in Indonesia), yet its numbers fell from 500 in 1978 to 55 in 1988. Corroborating the theories of island biogeography, the greatest rate of bird population decline in Earth's major rainforest areas appears to be in Indonesia. (*New Scientist*, 7-14)

Squirrels Near L.A. Carry Plague

Officials in the Angeles National Forest, north of Los Angeles, CA, have found ground squirrels carrying plague. Rangers have responded by disallowing picnickers from the Charlton Flats area. Humans can catch bubonic plague when fleas from squirrels carrying sylvatic animal plague jump off their rodent hosts and bite people.

In another bit of plaguing news, a Colorado man shot a prairie dog and was thence duly punished with bubonic plague. Apparently, one of the rodent's fleas bit him. (*Aspen Daily News*, 7-15)

Royalty Terrorizes Sudanese Wildlife

In Brigid 88 NNN, we reported on the gunning down of African wildlife by Saudi Arabian sheiks. The January 88 issue of "Antelope Specialist Group Gnewsletter" makes apparent that this is a recurrent problem:

Every year between November and March, members of the royal family of Saudi Arabia visit Sudan's mountainous region between the Nubian Desert and the Red Sea. They are accompanied by an "army" of people, advanced technological equipment, hawks to spot game, and helicopters to transport them to places otherwise inaccessible. They kill hundreds of animals, shooting almost anything found and salting the meat and flying it to Saudi Arabia. If this indiscriminate hunting continues, there will be no larger animals left in the region in 10 years.

San Juan NF Seeks Donations

In the lobby of the Del Norte District Ranger Station of the San Juan National Forest is a transparent box stuffed with dollar bills and a heart-rending appeal to the public. To wit, the massive wooden sign denoting Wolf Creek Pass (on US Highway 160 between South Fork and Pagosa Springs) has been retired, due to the combined ravages of motorists who have hit it, and the weather. A new sign will cost \$400. The impecunious Freddies can't afford that, in these times of budgetary austerity, so they are asking the public to donate to a noble cause. Of course, the San Juan NF, like most National Forests, has a massive road budget. Every day, numerous trucks laden with old growth spruce roll down US 160 to the mills (some passing over Wolf Creek Pass, and perhaps until recently occasionally sideswiping a ravaged sign posted there). They are roading and logging areas contiguous to the Weminuche and South San Juan Wildernesses. Letters from an aggrieved public, decrying the incongruity of soliciting public monies for a sign, while spending hundreds of thousands of dollars a year on logging roads, might cause the Forest Service to reconsider this new charity. Write: Forest Supervisor, San Juan NF, Monte Vista, CO 81144; and District Ranger, San Juan NF, Del Norte, CO 81132.

Monkeys Seek to Avenge Baby's Death

Last spring, a boy stoned a baby monkey to death in the Penang Botanical Gardens, 180 miles northwest of Kuala Lumpur, Malaysia. The boy was wearing a yellow shirt. He departed in haste after the

kill. Shortly thereafter, 60 of Penang Gardens' 350 monkeys charged tourists wearing yellow. It necessarily follows that monkeys are not color-blind.

Downey Stoops to Insult Animal Defenders

The following are excerpts from recent rantings in *Fur Age Weekly*. They are indicative of the type of mentality opponents of trapping and laboratory animal experimentation may face as furriers mount their campaign to save their anachronistic industry, and as lab researchers organize a backlash against animal rights groups.

Cleveland Amory, president of the Fund for Animals, finally met his match in television talk show host Morton Downey Jr. Amory's usual loud mouthed, obnoxious style wasn't enough to let him dominate the Morton Downey Jr. show when he appeared on the nightly program December 8...

Downey is brash, outrageous, aggressive, rude and offensive to those who don't appreciate honesty... Downey didn't worry about defending his opinion with quiet facts and figures. He attacked...

He waltzed onto the stage for the second half of the show wearing a fur jacket and a big grin, and walked over to Amory's supporters in the audience and taunted them with the fur. He said that both his wife and daughter wear furs...

...The debate heated up even more when Rick Simpson, president of the Incurably Ill for Animal Research, told how he was being treated for Multiple Sclerosis with a drug that was tested on animals, and now his health is improving.

Amory said "Sure, but to help one man, a million animals had to die."

Downey was enraged. "I don't care if 50 million animals were killed. One man is more important than any number of animals!"

...Dr Nancy Wiswall, veterinarian with the Humane Society of the United States spoke about banning bacon and eggs because of the inhumane way that the animals are treated.

Downey said that was absurd, and responded "What should we do, put them up at the Waldorf?"

After that, a pathetic looking creature stepped up to the "loud mouth," and announced that she doesn't use animal products of any kind. She said that people would be healthier without eating animal products.

Downey went in for the kill. "I smoke two packs of cigarettes a day, have at least five drinks a day, eat bacon and eggs every morning, I'm 55 years old, and I look just as good as you do."

An audience member yelled out "Mort, you look better than her!"

Downey closed the program by expressing deep affection for his family's pet parrot...

Can You Help This Woman?

The following is reprinted in part from a syndicated column which, though nigh on ubiquitous, may be overlooked by some among the radical environmental movement.

Dear Ann Landers:

You are my only hope. Please help me. I am desperate.

In September 1986, my husband and I went bear hunting in Canada. I spotted a dead moose along the road. We stopped and cut the antlers off. I didn't touch them. The next day, I shot a bear. My husband showed me how to clean it. About two weeks after we returned home my husband complained that the balls of his feet were going numb. A week later he was paralyzed from the waist down.

We have been to several hospitals and dozens of doctors. They all say they don't know what it is. They do know it's a virus and have stuck a label on the case, saying it is "transverse myelitis." This means he has an infection of the spinal cord, but no one knows what caused it...

Ann was able to offer no certain help:

I spoke with Dr Henry Betts, head of the Rehabilitation Institute of Chicago... he doubts there is a connection between the moose, the bear and your husband's illness, but he cannot say for certain. He said... your husband should be seen by a board-certified neurologist in a medical center where there is a good infectious disease department...

Might not Bear Magic to propitiate the spirits be more appropriate?

Wilderness Neglected: California's White Mountains

by Roland Knapp

Just east of the famed Sierra Nevada lie the White Mountains, rising 10,000 feet above the Owens Valley and stretching for nearly 60 miles along the California-Nevada border. To many, this precipitous massif, dark and brooding in the desert's summer heat, appears uninviting. The few backpackers, however, who do venture into these mountains find themselves in an unparalleled wilderness. Colin Fletcher wrote of his travels through the White Mountains in his book, *The Thousand Mile Summer*; over 30 years later, this 450,000 acre range remains much as he described it and is one of the wildest unprotected areas in the coterminous United States.

Yet the largely undisturbed character of the White Mountains is threatened. The recently-released Inyo National Forest Land and Resource Management Plan (INFLRMP) does little to ameliorate the many threats. Perhaps the most pernicious is the continued grazing of cattle in many east-side canyons. Besides carrying diseases potentially lethal to Bighorn Sheep, cattle have severely trampled and overgrazed fragile meadow and riparian ecosystems. The problem is so severe that the Inyo National Forest has spent the last eight years doing extensive stream restoration in the area. Despite having data showing overstocking, including at least one grazing allotment overstocked by 40%, the INFLRMP implements only one of the many grazing reductions proposed

in the Inyo NF Draft Management Plan.

Other threats include a renewed gold rush in the area, with hundreds of claims recently filed in the Sugarloaf area alone; continued hydropower development in west-side canyons; and the expansion of existing University of California research facilities. Even more disconcerting than these existing threats, however, is the proposed designation of only one-third of the roadless acreage in the White Mountains as Wilderness.

ECOLOGY

The White Mountains are the westernmost and highest of the Great Basin mountain ranges. White Mountain Peak (14,248') is California's third highest and, at 13,140 feet, Boundary Peak is Nevada's highest. Any precipitation making it across the lofty Sierra Nevada immediately runs into the White Mountains, where it usually falls as snow. These often heavy snowfalls give the range its name. Very little moisture remains for the Great Basin ranges farther east.

All these factors combine to give the White Mountains floral and faunal assemblages quite distinct from those characteristic of the Basin and Range physiographic province, along the edge of which the Whites lie. Above the characteristic pinyon-juniper woodlands live stands of Limber and Bristlecone Pine (including the oldest and most massive Bristlecones on Earth, some over 4000 years old), and higher still lie expansive tundra plateaus. In shady canyons on the

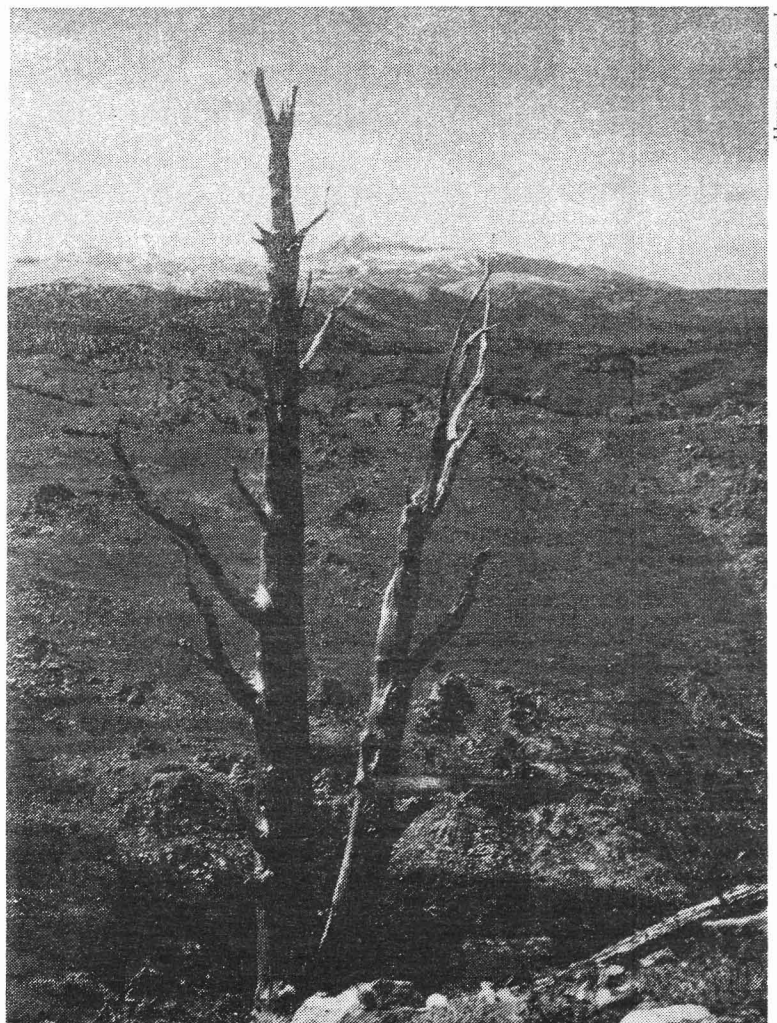


photo by R. Knapp

White Mountain Peak from the Blanco Mountain Roadless Area.

eastern slope, Quaking Aspen groves surround boggy meadows and line the several perennial streams as they tumble down to the dry basins far below. Martens scamper about the few moist forest patches and Wolverines are reputed to prowl the windswept plateaus above timberline.

This unique combination of classic montane and Great Basin flora and fauna gives the White Mountains astounding species diversity. Found there are 988 known vascular plants, including four sensitive species. Dozens more species undoubtedly await discovery. Approximately 60 species of mammals live in the White Mountains. In addition to the aforementioned Marten and Wolverine, mammal species in the range include the Ringtail, Mountain Lion, Mule Deer, and Desert Bighorn Sheep. Over 100 species of birds breed in the White Mountains. Though none are currently listed as threatened or endangered at the state or federal level, many are uncommon. These include the Sharp-shinned Hawk, Cooper's Hawk, Northern Goshawk, Northern Pygmy Owl, Yellow-breasted Chat, Golden-crowned Kinglet, and Scott's Oriole. Two amphibian and 25 reptile species inhabit the White Mountains. The rare Inyo Mountains Salamander (*Batrachoseps campi*) may be present. The Panamint Alligator Lizard (*Gerrhonotus panamintinus*) is endemic to the region; besides the White Mountains, it is known only from the nearby Inyo, Panamint, and Argus Mountains and the Nelson Range. The Threatened Paiute Cutthroat Trout (*Salmo clarki seleniris*) exists in the range. It was stocked there in 1946 by the California Department of Fish and Game to ease the danger of extinction, as it was declining in its native habitat in Silver King Creek (a tributary to the East Fork Carson River, CA).

POLITICS

Despite this biological abundance, the White Mountains are often viewed as only marginally deserving of Wilderness designation. True, the White Mountains lack the picturesque granite pinnacles, shimmering alpine lakes, gurgling streams, and meticulously maintained trails of the Sierra Nevada, but is this reason not to protect this Great Basin ecosystem? The US Forest Service seems to think so. The Inyo National Forest Land and Resource Management Plan bodes ill for this unique range.

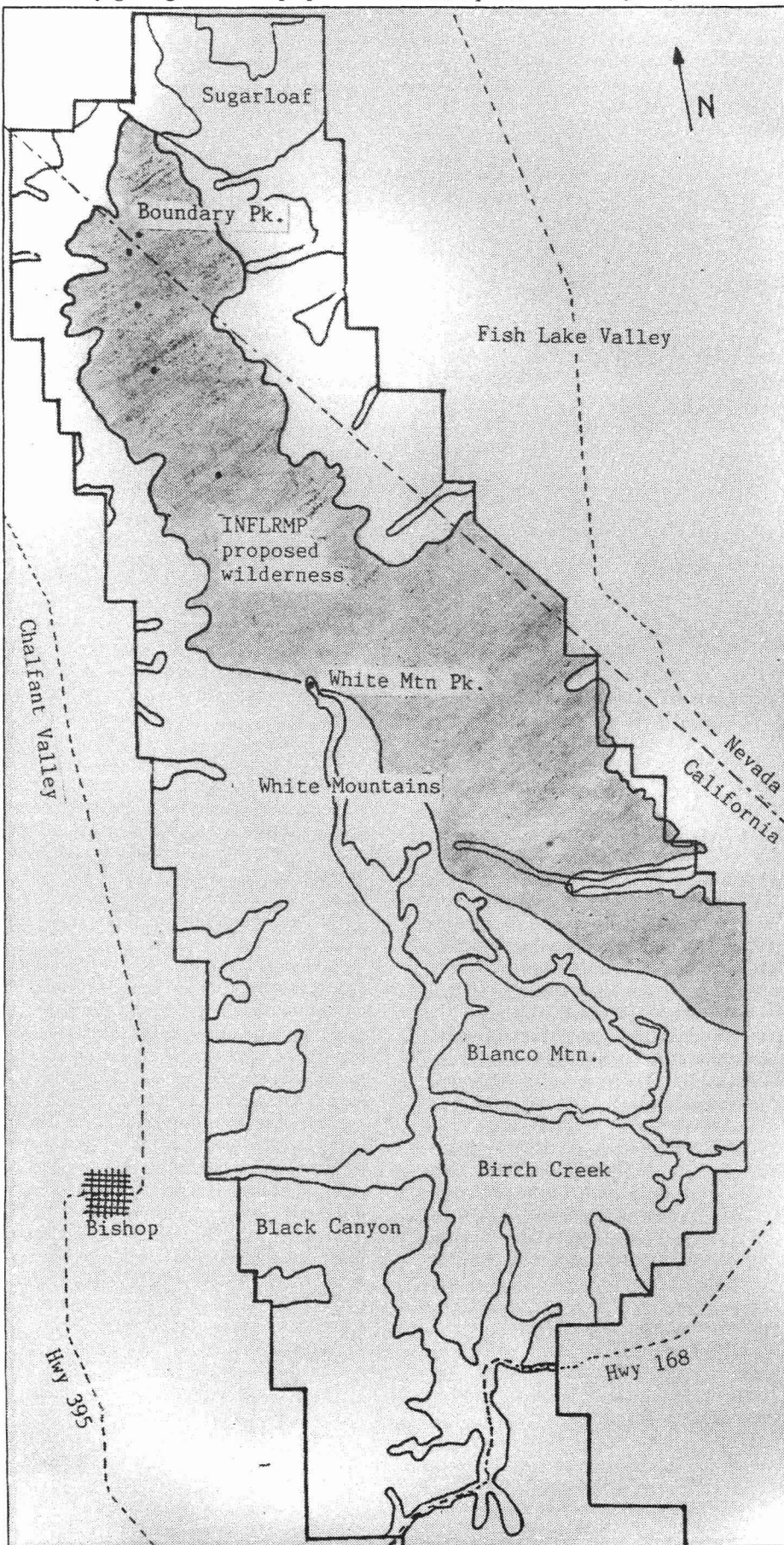
Not surprisingly, the desk-bound Inyo NF bureaucrats have made wilderness recommendations based on such inane categorizations as "scenic attraction" and "recreational challenge." Reeking of spinelessness and ineptitude, the INFLRMP proposes a mere 120,000 acre White Mountains Wilderness within the 251,868 acre White Mountains Roadless Area. The four other roadless areas, Sugarloaf (10,720 acres), Birch Creek (32,705), Blanco Mountain (16,348), and Black Canyon (34,804) are dropped entirely from Wilderness consideration. Although the FS wilderness recommend-

ation is a significant improvement over the 52,874 Wilderness proposed in the draft plan, it still represents only 35% of the roadless acreage in the White Mountains!

The White Mountains unit is the second largest unprotected Forest Service roadless area remaining in California (the Sespe-Frazier in southern California's Los Padres NF is larger) and is of critical importance to the approximately 100 Bighorn Sheep residing there. Despite the fact that the Bighorn Sheep are perhaps the most sensitive species in the range, the INFLRMP recommends only a small fraction of sheep habitat for Wilderness designation. The Bighorns in the White Mountains overwinter in low elevation canyons on the western slope of the range and move upslope in spring to take advantage of "greening" vegetation. By late June, they range above timberline onto summit plateaus. Yet the plan designates only the summit plateaus as Wilderness. The critical winter range and lambing areas are designated as "Mountain (Bighorn) Sheep Habitat." This designation will merely continue current (mis)management since other activities (e.g., mining, hydropower) would be disallowed only "if they present unresolvable conflicts with mountain sheep management objectives" (INFLRMP p.116). Clearly, the entire Bighorn Sheep range should be designated Wilderness, as only Wilderness "management" ensures a high probability of future herd viability.

The plan attempts to justify its mistreatment of the five Roadless Areas by arguing that the White Mountains have only a "low to moderate recreational potential." This reasoning is entirely contrary to the original intent of the 1964 Wilderness Act. In the 1982 RARE II lawsuit which led to a finding against the US Forest Service, Judge Karlton stated that "the Wilderness Act does not speak in terms of comparative ratings, but in terms of intrinsic values." The plan completely ignores such values; the four Roadless Areas dropped from wilderness consideration were apparently dismissed because "there appears to be little wilderness-type recreation use in the Basin and Range physiographic province (Appendix p.676, 682, 688, 706) and "opportunities for primitive recreation are low, as there is little diversity or challenge" (675, 681, 687, 705). These bizarre proclamations are made despite other statements such as "the natural ecological integrity and natural appearance of the area has been influenced to a very low degree." The White Mountains Roadless Area contains the proposed 120,000 acre Wilderness apparently because "the White Mountains area differs from many areas in that province by having outstanding scenic attractions and recreational challenges" (668).

Fortunately, the short-sighted White Mountains wilderness proposal presented in the INFLRMP has met resistance from individuals and environmental groups. The Sierra Club's White Mountains wilderness proposal includes 275,000



The White Mountains proposed INFLRMP wilderness is the shaded area; five roadless areas are unshaded.

Reweaving the Web of Life

by Edward C. Wolf

ed. note: The following is extracted (slightly condensed; reference notes omitted) from Worldwatch Paper 78, On the Brink of Extinction: Conserving the Diversity of Life. Like other Worldwatch Papers (Worldwatch Institute, 1776 Massachusetts Ave, NW, DC 20036), this one lucidly explains and documents a global crisis. This is one of the best available summaries of the problem of declining diversity. It is available from EF! Books. The excerpts printed here provide an overview of restoration efforts and may implicitly suggest to EF!ers the strengths and weaknesses of restoration ecology as now practised.

On August 26, 1883, the Indonesian island of Krakatau exploded in the largest volcanic eruption ever recorded, devastating the island's ecosystems. Slopes once cloaked with verdant tropical forest were transformed into a sterile landscape buried in cinders and lava. But Krakatau's explosion was not the island's biological epitaph. The remnant island of Rakata now supports a surprising diversity of insects, birds, plants, and trees that have gradually recolonized the site. To outward appearances, Rakata's ecosystems are flourishing once more. Despite a century of recovery, however, only one tree species now found on the island is characteristic of mature rain forest. Scientists predict that "progression... to the taller, richer, primary forest could take another 100 years or much longer."

As if to mark Krakatau's centennial, the largest forest fire in history coursed across East Kalimantan, Indonesia, in the spring of 1983. Drought, logging practices, and slash-and-burn farming combined to turn the usually fire-resistant rain forest into tinder. Ultimately, 3.5

million hectares of forest, an area nearly the size of Taiwan, were burned. Scientists are studying the plants, vines, and *Euphorbia* trees pushing up amid the charred trunks to learn how the forest heals. As with Rakata, a diverse ecosystem will return, but the process will take centuries.

Natural catastrophes are now dwarfed by the cumulative effects of everyday human activities. In the Amazon Basin, at least 15 million hectares of forest have been converted to pasture and cropland, and roughly half of this area is now abandoned. The thin, lateritic soils that underlie these Amazon forests often sustain crops or cattle for no more than four years. This land, worthless to conventional agriculture, is now a deduction from earth's reservoir of diversity.

But even such severely degraded tropical land need not be written off as a total biological loss. Pennsylvania State University biologist Christopher Uhl believes nearly all the land deforested so far in the Amazon has the capacity to regenerate....

Tropical forests are known to have expanded and contracted in response to past climatic swings. But scientists question whether human interventions might help accelerate the natural recovery of forests, grasslands, and wetlands. According to William R. Jordan of the University of Wisconsin Arboretum, "The quality of the environment in the long run is going to depend not so much on the amount of land we are able to set aside and protect from disturbance as on our ability to achieve an equilibrium between the forces of degradation on the one hand and of regeneration on the other."

The potential for human-managed regeneration is suggested by studies of how natural ecosystems repair themselves. Uhl has been studying tropical forest recovery in southern Venezuela and in Brazil's Para state in the Amazon Basin for more than a decade. In the San Carlos de Rio Negro region just north of the equator, Uhl documented the way forests return to small agricultural clearings. Saplings spring up in the abundant sunshine, roots and stumps sprout new growth, buried seeds poke through the soil, and animals leave seeds behind in their droppings. One measure of forest recovery is the total biomass—the cumulative weight of living plant matter on a forested site. Uhl studied farm sites in Venezuela that had been abandoned from 2 to 60 years and concluded that at least 150 years would be needed for complete forest recovery after slash-and-burning farming.

Recovery is slowed dramatically when disturbances are large and prolonged—for example, when forests are converted to pasture and then abandoned. As intact forests recede toward a distant horizon, fewer birds and mammals stray far enough from their forest refuge to bring seeds of the main forest trees. Leaf-cutter ants and mice devour the few seeds that arrive. Natural regeneration is slowed to an imperceptible pace. On a site laid bare by a bulldozer, Uhl concluded that "close to 1000 years may pass before biomass levels reach those of mature forest."

Human disruptions can have a synergistic effect, further retarding the natural regenerative mechanisms. Uhl has found, for instance, that when ranchers use fire to clear their pastures and then selectively harvest timber from adjacent forests, destructive forest fires occur more frequently. Fires cannot be set to control the growth of shrubs or promote the growth of pasture grasses without jeopardizing standing timber in the formerly fire-resistant forests....

While tropical forests can reclaim cropland and pasture, or even land scorched by lava, the process is painfully slow. And from the standpoint of biological diversity, slow isn't good enough. Once a tract of forest is reduced to isolated pockets, each of the fragments begins to lose species. If the fragments, particularly those amid abandoned lands, can be rejoined into larger areas quickly, at least some extinctions could be prevented.

Researchers are creating a new discipline of ecological restoration, based on lessons from the study of natural ecosystem recovery, that can speed the repair of damaged environments. Restoration aims to reestablish viable communities of plants and animals in all their natural diversity.

Advocates of restoration argue that the successful conservation of biological diversity depends less on keeping humans out of fragile ecosystems than on making sure they do the right things when they are there.

Reforestation with economically valuable tree species has been practiced for millennia. Reclamation of mined lands to protect streams and hold the soil in place has a long history. But deliberate restoration patterned on ecosystems that occur naturally has only recently begun to attract wide attention....

Like conservation biology, restoration ecology falls somewhere between basic and applied science. Putting ecosystems together is a good way to go about asking scientific questions about them. Restoration offers opportunities to test ecological theories....

... But restoration requires natural ecosystems as models and seed sources. As essayist Wendell Berry has observed, "We cannot know what we are doing until we know what nature would be doing if we were doing nothing."

The most extensive restoration research so far has focused on North American prairies. The nearly 300 million hectares of tallgrass prairies that once blanketed the midwestern United States have now been reduced by farming, grazing, and the invasion of exotic plants to less than one-tenth of 1% of their original expanse.

Aldo Leopold conceived of prairie restoration in 1934 at the University of Wisconsin Arboretum. Leopold, then director of the Arboretum, sought to recreate the native plant communities that original settlers had encountered in Wisconsin. As he suspected, the process is far more intricate than simply broadcasting seeds. Native species have to be reintroduced in a pattern and sequence that sets natural succession in motion. The work is complicated by the presence of tenacious alien species that have been inadvertently introduced to the United States. "You do not get a prairie... today by fencing off a piece of land and waiting for the grass to grow back," writes Walter Tuett Anderson in *To Govern Evolution*. "If you do that you get an interesting collection of weeds from all over the world."

Perhaps the largest and most rapidly expanding restored prairie is at the Fermi National Accelerator Laboratory (Fermilab) in Batavia, Illinois. Prairie has been restored to 180 hectares over 12 years, and the goal is a prairie that completely blankets the 240 hectare site. Unlike other restoration projects, the Fermilab site is large enough to sustain native animals as well as native grasses and flowers. Managers at the site have introduced trumpeter swans to "pothole" ponds in the prairie, and they plan to reintroduce sandhill cranes, Franklin's ground squirrels, and a variety of native prairie insects.

Fire, so destructive of species-rich forests in the tropics, defines the biological possibilities of the prairie, and managing fire is a key theme in prairie restoration. Once wildfires are suppressed, as they were when the first settlers began to plow the prairie sod, oak forest invades. This subtle biological change illustrates the delicate counterpoint of opposing forces that ecosystem restorers must perceive and manage. As William Jordan writes, "Remove the fires caused by lightning or set by Indians, and you have to replace them, or the prairie will quietly vanish... into the shadows of a forest."

At the 3500 hectare Konza prairie near Manhattan, Kansas, researchers have found that the diversity of prairie plant and animal life depends on the frequency of fires. Burning every four to six years results in more grass, taller flowering plants, and more insects than other schedules. Scientists have also reintroduced bison, elk, and pronghorn to part of the prairie to compare the impact of their grazing with that of domestic livestock. Though Konza is not a restored prairie, lessons learned there will guide efforts to reestablish tallgrass elsewhere. New insights may be applied, for example, to the effort to bring bluestem, switchgrass, and Indiangrass back to two former cattle ranches for the proposed National Tallgrass Prairie Preserve in Osage County, Oklahoma.

Restoration of coastal and freshwater

wetlands is widely practiced in the US, particularly on the Eastern seaboard. Marshes, swamps, and seagrass beds, though they typically contain just a few native plant species, play a critical biological role by providing spawning and feeding grounds for many fish species, and by acting as a living filter for wastewater. Natural wetlands have been polluted, drained, and buried by industrial and urban development. US environmental law [Clean Water Act, section 404] provides the incentive for restoration by requiring developers to replace degraded habitat with natural habitat equivalent in size and character. Environmentalists charge that restoration seldom achieves this equivalence, and reports of poorly supervised restoration with inappropriate species are common. Though restoring wetlands remains controversial, the legal and economic aspects of this work may hold lessons for other ecosystems.

The restoration of forests—as opposed to the planting of single species in reforestation—is limited. Forests pose unusual problems to restoration: They take far longer to reach maturity, and are more complex in structure and composition than other ecosystems. Few reforestation projects have aimed at restoring a diversity of species. Notable exceptions include the effort to recreate redwood forest on 14,500 hectares of logged land adjacent to Redwood National Park, and the volunteer effort to expand redwood and fir forest in Big Basin State Park, both in California.

As air pollution and acid rain continue to kill trees in Central Europe and eastern North America, forest restoration is likely to receive more attention. Where forests are already under stress, scientists must find ways to create a community of trees and wildlife that can survive on the acid-laden soils that are likely to persist for decades even if pollution sources are curbed.

The greatest challenge for forest restoration, however, lies in the tropics, where a panoply of forest types is being converted to farmland and pasture, or degraded by logging. Current estimates suggest that at least 10 hectares are cleared for each hectare planted worldwide. Moreover, almost all reforestation in the tropics consists of single-species plantations.

The most ambitious tropical restoration project yet undertaken is in the dry tropical forest of northwest Costa Rica. Dry forest, like rain forest, is unimaginably rich in species; unlike rain forest, its trees are deciduous and shed their leaves during the dry season. When Spanish conquistadores first reached Central America, dry tropical forest covered the Pacific Coast from Panama to northern Mexico. Today less than 1 hectare in 50 remains. While poor soils underlie many rain forests, the soils over much of the range of former dry forest are eminently suited to farming and grazing. Corn, cotton, and cattle have replaced the forest's rich web of plants, animals, and microorganisms.

University of Pennsylvania biologist Daniel Janzen believes that dry tropical forest can be grown from scratch. Janzen works in the 10,500 hectare Santa Rosa National Park, in Costa Rica's Guanacaste Province. He plans to use the few intact stands of tropical dry forest in Santa Rosa, the largest that remain in Central America, as a graft to restore the surrounding lands to their pre-Columbian ecological health. The expanded dry forest will be renamed Guanacaste National Park. With support from the Costa Rican government, the Nature Conservancy, and private donors, Janzen intends to purchase enough land from adjacent landowners to expand the park to 70,000 hectares. At that size, the park will be large enough for ecological communities to become self-sustaining again.

Reestablishing this forest requires much more than replanting trees. To recreate the ecosystems that preceded the Spanish conquest will take centuries. By controlling fires, managing livestock, regulating hunting, and reintroducing animal species, Janzen intends to give seedlings and forest wildlife a second chance. Eventually, natural regeneration will supplant human management as an intact community of plants and animals takes shape....

Continued from page 16

acres as Wilderness. In this proposal, the Blanco Mountain Roadless Area is joined to the White Mountains RA by closing the Crooked Creek jeep trail, but the Black Canyon and Sugarloaf RAs are eliminated from Wilderness consideration. For the Sierra Club, this is a strong stand, but the Club should be encouraged to support Wilderness for all these Roadless Areas.

California Congressional Representative Richard Lehman (18th District) is formulating a wilderness bill complementary to that of Senator Cranston's California Desert Wilderness Bill (S-9). Lehman's bill would protect additional lands in his district, including a portion of the White Mountains. Despite his reluctance to endorse the Sierra Club proposal, his proposal will probably be superior to that of the Forest Service.

Earth First! has produced a Wilderness recommendation for the White Mountains which shows the Sierra Club proposal to be moderate and the INFLRMP proposal to be truly laughable. The EF! proposal encompasses over 435,000 acres of the White Mountains, including all five Roadless Areas and 93,800 acres of "Wilderness Recovery Areas." It calls for numerous road closures, the removal of all three University of California research stations, and the immediate cessation of all cattle grazing.

WHAT YOU CAN DO: Write Dennis Martin (Forest Supervisor, Inyo NF, Bishop, CA 93514) and tell him that his plan for the White Mountains STINKS! Insist on 1) the Wilderness designation of all roadless areas, 2) the closure of all roads and jeep trails currently dividing roadless areas, 3) an assessment of the White Mountains from a biological, not anthropocentric, perspective, 4) an immediate cessation of all livestock grazing in the White Mountains ecosystem. Send a copy of this letter to Representative Lehman and urge him to support a BIG White Mountains Wilderness (US House of Representatives, Washington, DC 20515).

A detailed 41 page report entitled "The White Mountains of California and Nevada: An Activist's Guide" is available from Roland Knapp, 113 Vista Del Mar Dr, Santa Barbara, CA 93109. Donations to cover copying and mailing costs would be appreciated. This guide was funded in part by a grant from the EF! Foundation.

Roland Knapp is a graduate student in ecology at UCSB.

The Earth First! Directory

The Earth First! Directory lists the contact points for the international Earth First! movement. It is divided into four sections: 1) National EF! offices in the United States; 2) International contacts; 3) Active EF! Chapters or Groups; and 4) Contact persons where there is as yet no active EF! group. If you are interested in becoming active with the Earth First! movement, reach the folks listed for your area.

Earth First! The Radical Environmental Journal is an independent entity within the international Earth First! movement, and is not the newsletter of the Earth First! movement. It does, however, provide a forum for Earth First!ers around the world. This directory is provided as a service to independent EF! groups. If you would like to be listed as a contact or as a group, PLEASE contact Bob Kaspar (305 N. Sixth St., Madison, WI 53704 (608)241-9426). Please send address changes or corrections to him also. If you do not have a phone number listed, please send it to him. Bob acts as coordinator for local EF! groups for the EF! movement.

LOCAL NEWSLETTERS: Addresses marked with a "****" produce either an Earth First! newsletter or regular mailings for their area or issue. Contact them directly to receive their newsletter or otherwise be on their mailing list.

THE AX HAS FALLEN! IF YOU HAVE BEEN A CONTACT OR GROUP, AND YOUR LISTING DOES NOT APPEAR THIS ISSUE, IT IS BECAUSE YOU FAILED TO CONTACT BOB. YOU MAY GET BACK IN HIS GOOD GRACES BY DROPPING A POST CARD OR SENDING THE LATEST ISSUE OF YOUR NEWSLETTER TO HIM AT THE ADDRESS ABOVE.

NATIONAL EF!

ALASKA TASK FORCE
POB 1019
San Raphael, CA 94915
(415) 421-4581

EF! BIODIVERSITY PROJECT *
Jasper Carlton
2365 Willard Road
Parkersburg, WV 26101-9269
(304)428-5405

EF! DIRECT ACTION FUND *
Mike Roselle
POB 210
Canyon, CA 94516
(415)376-7329

EARTH FIRST! FOUNDATION
POB 50681
Tucson, AZ 85703

EF! GRIZZLY BEAR TASK FORCE
POB 6151
Bozeman, MT 59715

EF! INDEPENDENT ORGANIZER
Roger Featherstone
Box DB
Bisbee, AZ 85603
(602)432-4145

EARTH FIRST! JOURNAL
EDITORIAL CORRESPONDENCE
Earth First!
POB 5871
Tucson, AZ 85703
(602)622-1371

EARTH FIRST! JOURNAL
SUBSCRIPTIONS & TRINKETS
POB 2358
Lewiston, ME 04240
(207)897-6988

EF! RAINFOREST ACTION *
Bay Area Earth First!
POB 83
Canyon, CA 94516
(415)376-7329

EF! REDWOOD ACTION TEAM (RAT)
Greg King
POB 1031
Redway, CA 95560

EF! SPEAKERS BUREAU
Bob Kaspar
305 N. Sixth Street
Madison, WI 53704
(608) 241-9426

EF! WOLF ACTION NETWORK *
Tom Skeele
HCR 79, POB 1046
Crowley Reservoir, CA 93546
(619) 935-4720

PAW (PRESERVE APPALACHIAN WILDERNESS)
Jeff Elliott
POB 36
Jefferson, NH 03583
(603)586-4432

INTERNATIONAL EF! GROUPS

AUSTRALIA
John Seed
Rainforest Information Centre
POB 368, Lismore
New South Wales 2480
Australia
phone: 066-21-85-05

Marianne Heynemann
PO Box 256
Mitchem, 3132
Australia

BRITISH COLUMBIA
Paul Watson
POB 48446
Vancouver, BC
V7X 1A2 Canada
(604)688-SEAL

Boreal Owl
Box 1053
Kamloops, BC
Canada

Columbia Mountains EF!
Orrie Amnos
POB 1668
Salmon Arm, BC
Canada VOE 2T0

ENGLAND
Chris Laughton
c/o 57 Wood Lane
Greasby, Wirral, L49 ZPU
England, 1513187
(051)606-0207

Fearghuis McKay
72 Middleton St. George
Darlington
Co. Durham DL2 1AD
England (0325) 332314
(Greenet/Econet)

JAPAN
Rick Davis
400 Yamanashi-ken, Kofu-shi
Saiwai-cho, 18-11
Kofu, Japan
(0552) 28-5386

KENYA
Environmental Liaison Centre
(International)
POB 72461
Nairobi, Kenya
(254-2)24770/340849/336989

ONTARIO
EF! Canada
c/o M. Kaulbars
2709 Regina St.
Ottawa, ONT
CANADA K1S 5B6

PAKISTAN
Bob & Phyllis Ripple
Plot 45, A Street, Phase V
Defence Housing Society
Karachi, Pakistan

SCOTLAND
Grant Collie
6 Mansfield Place
Edinburgh, EH3 6LE
Scotland
UNITED KINGDOM

SPAIN
Marta Maranon
Espalter 10
Madrid 28014
Spain
91-239-5423

LOCAL GROUPS

ARIZONA EARTH FIRST! *
Julia Swanson
POB 3412
Tucson, AZ 85722
(602)792-2690

CALIFORNIA EARTH FIRST! GROUPS

CHICO EARTH FIRST!
Michele Miller
POB 5625
Chico, CA 95927
(916)894-7362

EASTERN SIERRA EF!
Sally Miller
POB 22
Lee Vining, CA 93541
(619)647-6411

LAYTONVILLE EF!
POB 372
Laytonville, CA 95454

VESSCA
POB 28318
Santa Ana, CA 92799
(213) 839-4247

LOS ANGELES EF!
1928 S. Sherbourne #10
Los Angeles, CA 90034
(714) 647-5590

NORTHCOAST CA EF! GROUPS

Northcoast California EF! *
POB 368
Bayside, CA 95524
Mickey Dulas (707)826-1621
Bill Devall (707)822-8136

UKIAH EF!
Gary & Bette Ball
POB 1415
Ukiah, CA 95482
(707)468-1660
Judi Ball (707)485-0478

South Humboldt EF!
Darryl Cherney & Greg King
c/o POB 34
Garberville, CA 95440
(707)247-3320

SAN DIEGO EARTH FIRST!
Claude Mathis
POB 311
Encinitas, CA 92024
(619) 942-8069

Todd Schulke
POB 674
Del Mar, CA 92014
(619)481-6784

SAN FRANCISCO BAY EF! *
Karen Pickett
POB 83
Canyon, CA 94516
(415)376-7329

SANTA BARBARA/ISLA VISTA EF!
6639 Abrego
Goleta, CA 93117
(805) 685-0183

FLORIDA EARTH FIRST! *
POB 13864
Gainesville, FL 32604
(904)371-8166

MAINE EARTH FIRST!
Gary Lawless
Gulf of Maine Books
61 Main St.
Brunswick, ME 04011
(207)729-5083

MIDWEST HEADWATERS EF! *
Hank Bruse
KA9TIF (short wave)
235 Travis Drive
Wisconsin Rapids, WI 54494
(715)423-5636

Paul Rechten
7405 Shields Rd.
Harvard, IL 60033
815/943-4178

Twin Cities EF!
650 25th Ave. SE
Minneapolis, MN 55414
(612)379-2855

MISSOURI EARTH FIRST!
The Gateway EF! Tribe
POB 1961
St. Louis, MO 63111
(314)752-5011

Big River EF!
POB 754
High Ridge, MO 63049
(314) 343-7756/285-3449

MONTANA EARTH FIRST! *
Yellowstone EF!
Randall Restless
Box 6151
Bozeman, MT 59715
(406)587-3356

Wild Rockies EF!
Jake Jagoff
834 Sherwood
Missoula, MT 59802
(406)549-2485(h)
(406)243-6273(w)

Jim Field
POB 4784
Missoula, MT 59806
(406)549-6082

NEW MEXICO EARTH FIRST!
Brad Lagorio *
2405 Meadow Rd SW
Albuquerque, NM 87105
(505)873-0299

Ron Mitchell
Route 14 Box 257B
Santa Fe, NM 87501
(505)473-4203

Rich Ryan
456 Amado St.
Santa Fe, NM 87501
(505)984-1097

NEW YORK EARTH FIRST!
Long Island EF!
POB 812
Huntington, NY 11743
(516)424-6499

OREGON EARTH FIRST!
POB 1437
Merlin, OR 97532

Portland EF!
POB 13765
Portland, OR 97213
(503)238-0351

EF! Siskiyou
Bobcat
POB 212
Williams, OR 97544
(503) 846-7342

S. Willamette EF!
Barry Martin/Karen Wood
POB 3499
Eugene, OR 97403
(503) 726-4738

TEXAS EARTH FIRST! *
Christi Stevens
POB 7292
University Station
Austin, TX 78713
(512) 320-0413

VIRGINIA/DC EARTH FIRST!
Robert F. Mueller
Rt. 1 Box 250
Staunton, VA 24401
(703)885-6983

WASHINGTON EARTH FIRST! GROUPS

Columbia Plateau EF!
Brian Barry
913 S. 41st #17
Yakima, WA 98908
(509)965-2241

Okanogan Highlands EF!
POB 361
Republic, WA 99166

Cheetwoot EF!
POB 10147
Olympia, WA 98502

Olympic Peninsula EF!
Robin McMillan
POB 368
Port Townsend, WA 98368

Seattle EF!
George Draffan
POB 95316
Seattle, WA 98145
(206)522-0441

Shuksan EF!
David Helm
POB 1731
Ferndale, WA 98248

Southwestern WA EF!
Boxholder #893
3203 SE Woodstock Blvd.
Portland, OR 97202

Walla Walla WA EF!
Environmental House
Whitman College
Walla Walla, WA 99362
(509)527-5378

WASHINGTON EARTH FIRST! *
Mitch Freedman
POB 2962
Bellingham, WA 98227
(206)734-6419

LOCAL CONTACTS

ARIZONA
Gristle
POB 1525
Prescott, AZ 86302

CALIFORNIA
Dakota Sid Clifford
15440 St. Hwy 174
Grass Valley, CA 95945
(916)273-7186

COLORADO Larry Hartsfield
543 E. 5th Ave.
Durango, CO 81301
(303) 259-1812(h)
(303) 247-7478(w)

DELAWARE/MARYLAND
Greg DeCowsky
Upper Shore Ecology Center
POB 71
Georgetown, MD 21930
(301)275-8091

FLORIDA
Black Rhino Vegetarian Soc.
MaVynne O. Betsch
Rt 3, Box 292
American Beach, FL 32034

PAN
c/o 1507 Edgevale Rd
Fort Pierce, FL 34982
(305)466-0833

IDAHO
Kay Morris
809 Ranch Road
Boise, ID 83702
(208)345-5718

ILLINOIS
EF! Edwardsville
POB 861
Collinsville, IL 62234

INDIANA
Marijean Stephenson
3415 Stone Road
Marion, IN 46953
(317)674-5670

IOWA
John Christensen
RR1
Storm Lake, IA 50588

LOUISIANA
ARKLATEX EF!
c/o Eddie W. Hand
504 W. Louisiana #4
Ruston, LA 71270
(318)251-2580

MARYLAND
Leonard J. Kerpelman
2403 W. Rogers
Baltimore, MD 21209
(301)367-8855

MASSACHUSETTS
Atticus Finch
36 Howard St. #2
Cambridge, MA 02139
(617) 876-6640

Andrew Power
1874 Commonwealth Ave. #7
Brighton, MA 02135

Connecticut Valley EF! *
POB 324
Rowe, MA 01367

MICHIGAN
Brian Lacy
1374 Harpst #1
Ann Arbor, MI 48104
(313)747-7127

Mary Miceli
Oakland University
128 W. Hopkins
Pontiac, MI 48055
(313)332-9426

MISSOURI
Sue Skidmore
1364 S. Plaza
Springfield, MO 65804
(417)882-2947

Herb Simon
POB 3
Holden, MO 64040
(816) 732-6400 (w)
(816) 331-9410 (h)

NEW YORK
Gary Bennett
127 Vassar St
Rochester, NY 14607
(716)461-0797

OHIO
S.E.C.T./Rick B. VanLandingham III
c/o Office of Student Activities
Student Union, Room 3518
University of Toledo
2801 W. Bancroft St.
Toledo, OH 43606

OKLAHOMA
James D. Chamberlain
1633 N. MacArthur
Oklahoma City, OK 73127

Todd Kirk
1536 N. Kingston Pl.
Tulsa, OK 74115
(918) 834-0771

Lynette Setzborn
2102 S. Cincinnati, Apt. E
Tulsa, OK 74114
(918) 582-0269

ONTARIO
Devon Hornby
49 Pendrith St.
Toronto, Ont.
Canada M6G 1R6
(416)535-3786

OREGON
Scott Kuipers
1125 Ogden Ave.
Bend, OR 97701
(503)388-8927

PENNSYLVANIA
John McFarland
POB 179
Pt. Pleasant, PA 18950

David Hafer
c/o Otzinachson
POB 65
Lewisburg, PA 17837
(717)523-3107

Antoinette Dwigna
842 Library Ave.
Carnegie, PA 15106

Tom "Bigfoot" Byers
1075 Steuben St. #2
Pittsburgh, PA 15220
(412)921-8269

TENNESSEE
Jeff & Kim Turner
1726 Forest Ave.
Knoxville, TN 37916
(615)522-8521

VERMONT
Pete Tinsman
Elmore, VT 05657
(802) 888-7630

VIRGIN ISLANDS
Freebird Creations
POB 8307
Cruz Bay, St. John, U.S.V.I. 00831
(809) 776-7512

WASHINGTON
Friends of the Wolf
USNW International Outlet
Carl Schwamberger
3517 1/2 Fremont N #7
Seattle, WA 98103

Friends of the Wolf
USNW Spokane Regional Outlet
Vicki Wolkenhauer
W 3915 Randolph Rd #21
Spokane, WA 99204

USUAL DISGUSTING PLEA FOR MONEY

The Earth First! movement runs on your financial support. We don't need as much as other groups since we are grassroots, volunteer, decentralized and have low overhead. Moreover, you get to select where your hard-earned money goes. Don't send your contributions to this newspaper, send them directly to one of these hard working groups:

*Earth First! Foundation, POB 50681, Tucson, AZ 85703 (contributions to the Foundation are tax-deductible)

*Arizona Earth First!, POB 3412, Tucson, AZ 85722

*Bay Area Earth First!, POB 83, Canyon, CA 94516

*EF! Biodiversity Project, Jasper Carlton, 2365 Willard Road, Parkersburg, WV 26101-9269 (Contributions to the EF! Foundation earmarked for the Biodiversity Project are tax-deductible.)

*Colorado Earth First!, Box 1166, Boulder, CO 80306

*Florida Earth First!, 6820 SW 78th St., Gainesville, FL 32608

*Grazing Task Force, POB 5784, Tucson, AZ 85703

*Humboldt County Earth First!, POB 34, Garberville, CA 95440

*Los Angeles Earth First!, POB 4381, North Hollywood, CA 91607

*Midwest Headwaters Earth First!, POB 516, Stevens Point, WI 54481

*New Mexico Earth First!, 456 Amado St, Santa Fe, NM 87501

*Nomadic Action Group, POB 210, Canyon, CA 94516

*Oregon Earth First!, POB 1437, Merlin, OR 97532

*PAW (Preserve Appalachian Wilderness), POB 36, Jefferson, NH 03583

*Portland Earth First!, POB 13765, Portland, OR 97213

*Santa Cruz Earth First!, POB 344, Santa Cruz, CA 95061

*Southern Willamette Earth First!, POB 3499, Eugene, OR 97403

*Texas Earth First!, POB 7292, University Station, Austin, TX 78713

*Washington Earth First!, POB 2962, Bellingham, WA 98227

*Wild Rockies Earth First!, c/o 834 Sherwood, Missoula, MT 59802

*Wolf Action Network, HCR 79, POB 1046, Crowley Reservoir, CA 93546

*Yellowstone Earth First!, Box 6151, Bozeman, MT 59715

This fundraising appeal is placed as a service to the Earth First! movement. **THANK YOU for your support!**

Earth First! Bulletins

***GRAZING PROTESTS.** Due to overgrazing by cows and sheep, Western rangelands have needed restoration for over 100 years. We aim to make 1989 the year we finally grab the bull by the horns and yank him off our public lands. The campaign will begin January 14 in Denver at the world's largest stock show and rodeo. While there are many reasons to protest the entire beef industry - water pollution, soil erosion, animal suffering, etc. - we will focus on the environmental destruction caused by the public lands livestock industry. We encourage any individuals or groups who share this perspective to join us.

We have sent an organizer's packet to over 200 local groups and individual activists. If you haven't received one, or if you want info on the Denver action, write Colorado EF!, POB 1166, Boulder, CO 80302; or call Eric Holle at 303-442-5518, or Mike Stabler at 303-494-0458. We urge those who can't join us in Denver to organize demonstrations at local BLM or Forest Service offices, stock shows, and other places involved with public lands livestock grazing.

***1989 ROUND RIVER RENDEZVOUS.** The 89 RRR committee wishes to announce early several changes and committee needs for next year's RRR.

CHANGES: First, the date will NOT center around July 4 as in the past. Instead it will fall between June 19 and June 25, encompassing both a full moon and the Summer Solstice! Second, the 89 RRR will NOT be in the Gila area, an area discussed at the 88 RRR, but further north, possibly in north-central New Mexico.

NEEDS: We need volunteers for ride coordination - ideally, one national ride coordinator and one coordinator for each area of the country (NW, SW, Central, SE, NE). All this entails is matching folks to carpools to New Mexico. We'll place your phone # in the Journal in future RRR articles.

If you know persons who would like to perform during the rally and party, please tell us so that we can send invitations to them. The committee has decided that there will be no payments or traveling money given to performers. Please contact the committee if you yourself wish to speak or perform, or to give a workshop.

Committee members are Ron Mitchell, Brad Lagorio, Lone Wolf Circles, Laura Ramnarace, Michael Robinson, Rich Ryan, Gary Schiffmiller, Bradd Schulke, and Gena Trott. Many of these are listed as contacts in the Journal. To contact the committee, call me at 505-521-1699, and I'll get you in touch with the appropriate member.

To cover costs for this extravaganza, the RRR needs \$20-25 for each person attending. Other than that, the only extras you need to bring are your technical climbing gear. Everybody knows that all environmental activists have their own ropes, biners, O-rings, and such, and in 89 you'll need them to get to the Rendezvous site. So, practice your climbing (and repelling!) and we hope to see you in 89.

-Bradd Schulke (for the 89 RRR committee)

***NO GROWTH DAY - February 4, 1989.** "Unlimited growth," as Paul Ehrlich has noted, "is the ideology of the cancer cell." Los Angeles Earth First! is calling for radical therapy to help remedy the situation: Mark Saturday, February 4 as NO GROWTH DAY - an anti-development day of outrage, a day to raise a hue and cry that shakes the politicians and earth rappers and rouses the locals into saying "No more tracts, no more freeways, growth is death!"

The idea started as a Southern California regional action. Plans already on municipal drawing boards here would, in total, add a city the size of Chicago to this water-thieving, desert-killing sprawl. In Los Angeles proper [an oxymoron?], talk show host Merv Griffin is duking it out with TV maven Aaron Spelling and the swingin' Sultan of Brunei for honor of largest house in town - construction crews are destroying rattlesnake and Bobcat habitat now.

The no-growth notion quickly spread, however, to a call for California statewide action. The San Francisco Bay Area, for example, failing to heed the lessons of the necropolis to the south, is developing itself into gridlocked oblivion. Residents of the Central Valley, from Chico through

Sacramento and down past Fresno and Bakersfield tell horror stories about plans afoot for what the chamber of commerce boys call the "fastest growing" part of the Bear Flag Republic.

However, though California may be a leader in the conceptualization of exurban sprawl and existential-traffic-jam-as-way-of-life, the madness, as well you know, is by no means confined here. So, how about a NATIONAL NO GROWTH DAY? Anyone in Tucson or Phoenix have any beefs with urban planning in the West? Any New Englanders tired of seeing strands of woods turned into weekend getaways for New Yorkers? Any New Yorkers itching for a shot at Donald Trump? It's up to you: Choose a local subdivision, bought-and-paid-for local official, and/or destruction company headquarters and plan an action.

Anyone anywhere willing to participate is asked to contact Ark ASAP, c/o L.A. EF!, POB 4381, N Hollywood, CA 91607 or at 213-698-8041, and apprise us of your city-stopping activities. In turn, we will provide local contacts a list of all planned activities for use in your own local publicity outlining the scope of No Growth Day activities. Additionally, Ark requests any information, studies, etc., you have on the impacts (environmental, health) of unchecked development, for use in compiling research sources.

-Mark Williams, Ark

***WILD ROCKIES EARTH FIRST! WINTER RENDEZVOUS, January 13-15.** The Wild Rockies EF! Winter Rendezvous will again be held at Boulder Hot Springs Resort in Boulder, Montana. The Rendezvous begins at 1 PM on Friday and runs until 1 PM on Sunday. Boulder is located between Butte and Helena on Interstate 15, and the resort is 2 miles south-east of Boulder on Montana 69.

Workshop topics will include the Friends of the Wolf/Earth First! expedition to British Columbia, the Wild Rockies Wilderness proposal, the campaign against corporate logging, Woo-Woo in the Wild Rockies, and more. Greg Keeler and other EF! favoriteu00 will perform, and Saturday will feature an open stage. Bring your ideas and musical instruments.

The management of Boulder Hot Springs Resort is graciously allowing us the use of all facilities at a bargain price. Hostel space is available for \$7 per person/night (bring sleeping bag). Private rooms are \$11 to \$18, and must be reserved in advance by calling the Hot Springs at 406-225-4273. All amenities are included with your room or hostel price.

Four collective meals will be served, for \$10. Bring your own lunches and libations. We ask for a \$10 deposit per person so that we can bulk order the food. A few hardship dishwashing scholarships will be given the needy. Mail your deposit to: WREF! Rendezvous, Box 6151, Bozeman, MT 59715. For more info, call 406-587-3356 or 549-6082.

STAFF POSITION, EF! FOUNDATION Dedicated and responsible environmentalist, with a history of Earth First! involvement, wanted for a part-time staff position with the EF! Foundation. 8-10 hours per week on the average. \$8/hour. Volunteer gratefully accepted. Stable location and ability to coordinate long-distance communication is essential. Minimum two-year commitment necessary. Tasks include processing and forwarding mail, fielding phone calls and inquiries and maintaining files. Some bookkeeping required. Fundraising skills helpful. Apply to: EF! Foundation, POB 50681, Tucson, AZ 85703.

ATTENTION ANTI-GRAZERS Material needed for book in progress on public lands livestock grazing. Photos, slides, graphics, cartoons, info, ideas, anything you have that portrays any aspect of welfare ranching in any manner, please send to: EF! Grazing Task Force, POB 5784, Tucson, AZ 85703. (602) 578-3173. If requested, will return originals, reimburse for postage and other costs, worship the ground you walk upon, etc.

***FOURTH INTERNATIONAL EARTH EDUCATION CONFERENCE, May 3-7, 1989, Seebe, Alberta, Canada.** The Institute for Earth Education's fourth international conference will be held at the Rocky Mountain YMCA's Yarnuska Centre in Calgary, Alberta. For information, write: The Institute for Earth Education, Conference Registration Committee, POB 288, Warrenville, IL 60555.

NEW ENGLAND EARTH FIRST!ERS:

Come to Rowe Conference Center January 27-29

Dave Foreman, Jamie Sayen, Kris Sommerville to do Workshop

Last January, Dave Foreman and Jamie Sayen conducted an Earth First! workshop at Rowe Conference Center in western Massachusetts which led to the formation of New England Earth First! and the Connecticut River Salmon Revival Run. An overflow crowd of more than 50 people attended that weekend get-together.

Rowe Center has invited Dave and Jamie back to do another workshop this winter. It's scheduled for the weekend of January 27-29. Topics for discussion will include creative defense of natural diversity, big wilderness for New England, Deep Ecology and further organizing of New England Earth First!. This will be a prime opportunity for Earth First!ers in the Northeast to meet one another

and develop plans for future campaigns. With a solid core of EF! activists already in place in New England, even more detailed plans can be made at this year's Rowe conference.

Rowe Center is a comfortable, yet rustic, facility high in the Berkshire Mountains of western Massachusetts, and features great vegetarian meals and good cross-country skiing. Contact Rowe Conference Center at Kings Highway Road, Rowe, MA 01367 (413)339-4216 for a copy of their brochure with full details on the center and how to register for the workshop. Don't delay in reserving a place at this year's Earth First! workshop. The conference center was completely filled last year with over a dozen people turned away.

JOHN SEED AND THE WALLIES RETURN TO THE US

John Seed is looking for folks to set up gigs for him in July and August 1989. He will conduct a 7-day re-Earthling workshop in New Mexico (including an extended Council of All Beings) from June 12-18 just before the RRR. Following the RRR he will do a roadshow with the Wallies and more Councils in New Mexico and Colorado.

The Wallies are four amazing young Earth First! musicians aged from 11 to 14 (they recently described themselves in a newspaper article as "a kinda environmental skateboard thrash band"). John plans to do a rainforest roadshow with two of them - John's son Bodhi and Janaka (now known as Emu), who knocked us all out at the North Rim RRR a couple years ago. The show will move from California north for about a month from July 10.

PEOPLE INTERESTED IN SETTING UP GIGS FOR THEM, PLEASE CONTACT JOHN AS SOON AS POSSIBLE. His address is Rainforest Information Centre, Box 368 Lismore NSW 2480, Australia, tel. 066-218505.

The shows will consist of a film, music by the Wallies and a rainforest revival rave by John. Organisers will be sent materials to promote the shows. John will also be available to do weekend Council of All Beings workshops in California, Oregon and Washington alongside the roadshow, and elsewhere in North America in August.

Earth First! Foundation On The Move

The Earth First! Foundation supports the aims of the Earth First! movement. We fund educational, scientific and research activities relating to biodiversity, ecosystem management, integrity of nature and human interrelationships with nature.

For several years the Foundation has supported roadshows which put the Earth first, grassroots newsletters which get the message of deep ecology out to local communities, gatherings of people interested in tropical and temperate rainforests, and a variety of grassroots educational projects.

The Foundation is registered with the IRS as a 501.C3 foundation. In order to maintain this status, we are required to keep detailed records and file reports with the IRS. It takes time and money to keep these records. These are the hidden costs of a foundation. In other words, for a foundation such as ours, it takes money to give money.

For the past several years much of the cost of maintaining the Foundation has been absorbed by the *Earth First! Journal*, a private organization, and by individual members of the Board of Directors, especially Nancy Morton. Most foundations give out about 60% of their donations and keep 40% to cover the costs of record keeping, "organization maintenance costs," in sociological jargon. The costs of maintaining the EF! Foundation have run only 4-9% because of the enormous commitment by volunteers on our Board.

In 1989 we will be in a period of transition. Nancy Morton, who has given more to the Foundation in time and effort, as

Treasurer and chief housekeeping officer, than any of us can calculate, is leaving the Board to pursue graduate studies in nursing. Several other members are leaving the Board because of other commitments. Long-time member Jeff Fereday, our attorney, is leaving to pursue his law career.

During this transition period, we need to consider finding a new address and several new members of the Board of Directors. We are considering establishing our home base in Tucson, San Francisco, or Arcata, California. We need a post office address which will be stable for the next three to five years, a paid, part-time coordinator familiar with the work of the Foundation and committed to the goals of the Foundation, and space to keep files of information required by the IRS.

We also need more money. At our last semi-annual meeting, we were unable to be generous because of the lack of funds and the need to maintain \$10,000 in reserves to pay for costs incurred during the periods of transition in 1989. Many grassroots groups with worthy proposals are in great need.

Because of IRS requirements, the Foundation has limitations on the type of projects it can fund. However, we consider the Foundation as one tool among many for furthering the effort to preserve biodiversity and all wild places.

If readers want the Foundation to continue to fulfill these functions, then positive action is required. In particular we need the following:

- 1) nominations for the Board of persons with fund-raising or legal skills. In particular we need attorneys interested in serving on the Board.
- 2) donations to specific projects (such as the Grazing Task Force) or general donations to the Foundation. All donations to the Foundation are tax deductible.
- 3) talented, committed persons who might serve as coordinators of the Foundation. We are seeking a part-time employee who will keep records, track projects and keep communication flowing between Board members.
- 4) support, criticism, and feedback from grassroots activists for the work of the Foundation and its funded projects.

Letters on any of these issues and donations can be sent to the Earth First! Foundation, POB 50681, Tucson, AZ 85703.

-Bill Devall

MIDWEST ROADSHOW TO COMMENCE

Midwest Headwaters EF! announces the "1989 Midwest Headwaters EF! Wilderness Romp". EF! speakers and musicians will travel through Minnesota, Wisconsin, Michigan, Iowa, Illinois, Indiana, and Missouri in March and April. We will create an EF! Wilderness Proposal as we travel. For info, if you want us to do a show in your town, or if you can help us, contact Roger Featherstone, Box DB, Bisbee, AZ 85603.

YELLOWSTONE: OUT OF

by George Wuerthner

The summer of 1988 set a number of records for the northern Great Plains and Rocky Mountains. It was one of the driest ever recorded. Rivers shrank and crops died. Heat waves blasted the land for months. But above all, the summer of 1988 will be remembered as the summer when Yellowstone National Park burned. Within the Greater Yellowstone Ecosystem, the perimeter of the charred acreage totaled 1.38 million acres. Not since the summer of 1910, when wildfires swept through 3 million acres of northern Idaho and western Montana, has the region seen fires on such a scale.

At the beginning of the summer, the National Park Service, as well as the Forest Service in adjacent National Forests, allowed lightning caused fires to burn unhindered, as had been policy for more than a decade. However, as the number of fires grew, both agencies faced increasing criticism of their lack of containment or suppression actions. Eventually, the entire "let burn" policy came under attack.

The fires became a daily news item on TV and in the papers and the impression given by most reports was that Yellowstone, the nation's first National Park, was in cinders. The call for suppression rose to firestorm proportions. In response, 10,000 firefighters were brought in from all over the country to battle the flames, and eventually both the Army and the Marines were called in to supplement and relieve civilian workers. In the end, more than \$120 million dollars were spent in a vain attempt to control the flames. As with all large fires ever recorded, it was a change in weather, not firefighting efforts, which stopped the fires. On September 11, snow fell over much of the Park, quelling the fires sufficiently that firefighters were able to successfully contain most Park blazes.

Acrimonious editorials and letters of indignation flooded local and national newspapers. Most of the nation, it seems, felt the Park Service had failed to protect Yellowstone. Congress threatened to investigate the agency's fire plans. (The NPS's "let burn" policy should be called a "natural fire policy," for under the plan, all human caused fires are suppressed immediately, as are any fires which threaten life or property.) Even President Reagan was drawn into the fray as he admonished National Park Service Director William Mott for supporting the let burn policies.

Yet when the smoke cleared in September, it appeared that much less of the Park had actually burned than at first surmised. In addition, despite the large acreage within the burn perimeter, the fires, in typical fashion, jumped about, resulting in a mosaic with many areas only

lightly singed or even untouched.

Many critics have called for expanded logging so as to prevent future conflagrations. This, despite the fact that most of the Yellowstone Plateau is off limits to logging by virtue of its Park status, and that most of the mountainous country surrounding Yellowstone is so steep and the trees so slow growing that logging is economically unfeasible. As it is, even in more accessible areas, timber sales are regularly below cost to the government - even by the distorted accounting methods employed by the government to justify its continued roadbuilding and wilderness destruction in this region.

Was the Park Service indeed negligent as critics suggest? If not, what happened in 1988 to make it such a spectacular year for fires? To answer these questions requires a review of fire ecology as it pertains to the Yellowstone Ecosystem.

Research has demonstrated that the Greater Yellowstone Ecosystem periodically, but infrequently, experiences episodic fires that burn vast acreages. In between these ecologically significant blazes, many small fires occur, most burning less than an acre. Under conditions of high humidity, cool temperatures, no wind, and little or moist fuel, nearly all fires go out on their own. In essence, sending in firefighters in these situations is nothing more than a make-work program for college students. The weather and fuels control fires, not people.

Nevertheless, the Yellowstone Ecosystem is a fire-adapted landscape. It is created by fire, not the small fires that occur nearly every year, but the large fires which may burn once every century - if that often. When tourists gaze at the Park's aspen fringed meadows and rolling forested plateaus, they see the successional results of massive wildfires which burned in the distant past. The fact that 80% of the Yellowstone Plateau is covered by Lodgepole Pine, a fire tolerant species, indicates the previous occurrence of fires.

The high elevation of the Yellowstone Plateau - average elevation over 8000 feet - and its extensive and almost monotonous forest cover, influence fires in several ways. First, the high elevation, along with low summer precipitation, inhibits biological decomposition of dead plant material. As a result, litter gradually builds on the forest floor. However, because the cool temperatures on the plateau limit plant growth, it may take 200-300 years before a significant amount of fuel accumulates.

Second, due to the plateau's elevation, annual precipitation rates are high, generally from 30-80 inches a year. In most summers, Yellowstone's high country is simply too wet to burn well.

Nevertheless, because of the extensive and nearly continuous forest cover, when

the fuels are finally ignited, the possibility exists for fires to burn substantial acreages, as they did in 1988. These infrequent large fires provide an energy and nutrient pulse through the Yellowstone Ecosystem. Fires releases nutrients bound up in litter, as well as changing their chemical structure, so that they are more "available" for plants.

Events such as the Yellowstone fires appear destructive only because of our human tendency to view them within the narrow confines of our lifetimes. Furthermore, resource management, as practiced by the National Park Service, US Forest Service, and other land management agencies, focuses on populations or individual species instead of ecological processes. Most people believe that to "save" Yellowstone it is necessary to prevent the "destruction" of trees. Yet, trees are only one manifestation of the forest ecosystem, and in order to preserve the forest it is necessary to preserve ecological processes, including fire. Failure to identify and preserve ecological processes dooms most resource management (whether it attempts to maximize number of deer to shoot, number of trees to harvest, or some other variable) to eventual failure.

Thus, on the Yellowstone Plateau, in order to preserve the forest, it is necessary to tolerate large wildfires. Small prescribed burns will not work - although they may be useful in lowering fuel accumulations, hence fire danger, near developed sites or towns, if that is a goal.

The exception to these general statements about periodic large fires in Yellowstone concerns the lower elevation portions of the Park between Gardiner and the Lamar Valley. Here, arid conditions of less than 10 inches of precipitation a year enable grasslands to dominate. In coves and on shaded slopes grow Quaking Aspen and Douglas-fir. Fire intervals of 20-25 years were common here prior to fire suppression.

Under normal circumstances, Yellowstone's high elevation Lodgepole Pine forests don't burn well. Out of 233 lightning caused fires between 1972 and 1987, 205 went out without burning even an acre. Unlike Lodgepole forests elsewhere in the Rockies, there is no developed shrub layer beneath the trees for the first 100 or more years after the Lodgepole stands are established. And because young Lodgepole Pines are shade intolerant, they cannot successfully regenerate in the shade of their parents' canopy. So, fire that sets back succession to bare soil tends to be followed by even-aged Lodgepole stands that develop into tall "doghair" stands with little ground cover. In fact, under many forests, as much as 85% of the ground is bare dirt. Except for a light litter of pine needles and branches, there is not much to burn. Fires that do burn in such forests tend to creep along slowly, barely producing a flame.

After a period of 100-300 years, depending on the site, the Lodgepole Pine forests begin to break up due to various factors including susceptibility to pine beetle attacks. Pine beetles only successfully attack trees greater than 8 inches in diameter. Since growth on the cold Yellowstone Plateau is slow, most Lodgepole stands 8 inches or larger are at least 100 years in age. The pine beetle can only successfully attack and kill weak, sick trees. Under normal conditions, most Lodgepole Pine stands are too crowded and hence too weak to repel beetle attacks. However, if thinned, whether by pine beetles themselves or by fires, the resulting healthy forests can repel beetle attacks. Because

of this, most pine beetle attacks focus on Lodgepole stands which have not burned for a long time.

As the beetles kill trees, the canopy is opened and light penetrates to the ground. This stimulates the growth of young Lodgepole as well as shade tolerant Subalpine Fir and Engelmann Spruce, which often begin to grow in the understory of mature Lodgepole forests. Understory trees, particularly the fir and spruce, form a "ladder" that allows fire to climb into the canopy and crown out. Thus, old mature stands are much more likely to burn and especially to crown out than young stands. In addition, the dead snags and blowdowns that normally accompany an aging Lodgepole stand provide more fuel than is in the younger Lodgepole stands, again ensuring that these are most likely to burn.

To anthropomorphize a bit, Lodgepole Pine does not want to be replaced by fir or spruce. Hence, it is to its advantage if something eliminates the mature trees as well as the young fir and spruce in the understory. Only fire does this.

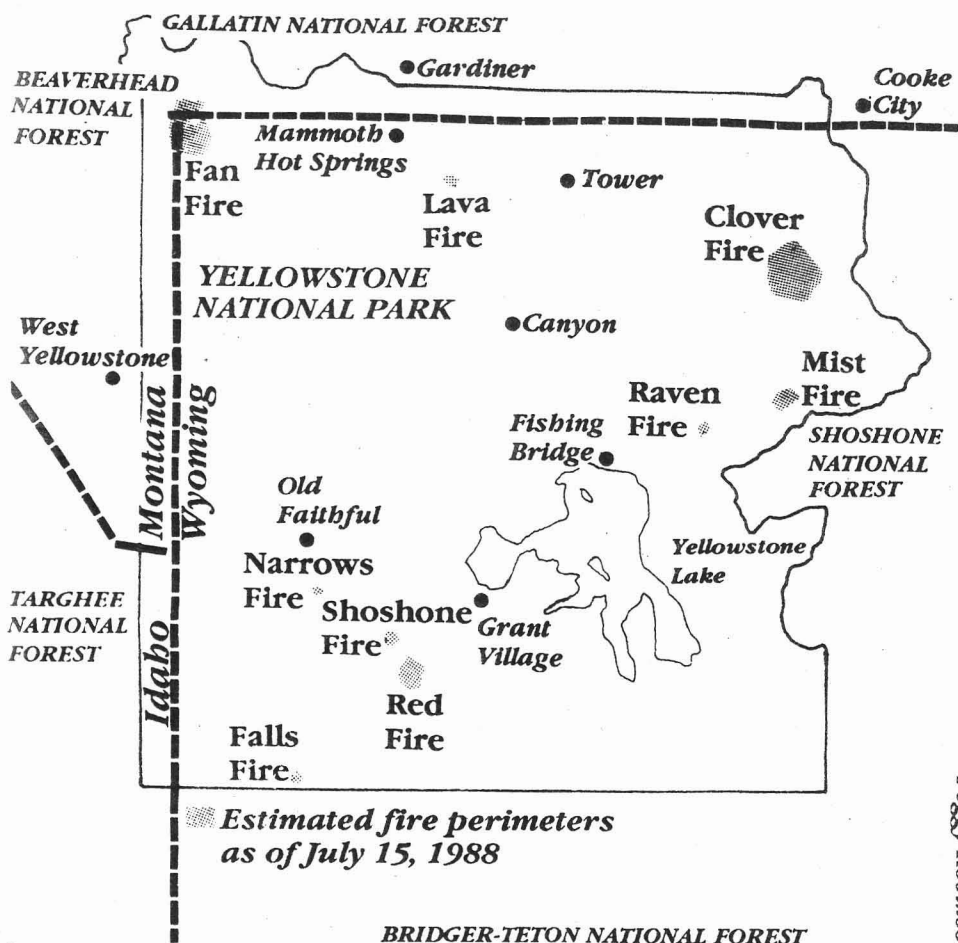
If a stand-replacing fire occurs, the Lodgepole is ideally suited for successful regeneration on the site. The tree has two kinds of cones - open and serotinous. The scales of the former open with cone maturity, thereby providing a steady supply of seeds to shower down on the forest floor. If beetles open the canopy, then open cones provide the seeds that develop into the occasional young Lodgepole. Unlike the open cones, serotinous cones have a waxy covering that only melts if temperatures rise above 113 degrees - which never happens on the Yellowstone Plateau except in a fire. If a burn occurs, serotinous cones open with 24 hours and reseed the site.

If Lodgepole seeds successfully germinate, the precocious young trees can begin producing cones when barely five years old. Subalpine Firs, in contrast, may not produce cones until 50-60 years old. To give the Lodgepole another advantage, cone serotiny is not expressed until the tree is between 30 and 60 years of age. Immediately after a fire, when another fire is highly unlikely and there is thus no advantage to having serotinous cones, the Lodgepole only develops open cones, thereby ensuring plenty of seeds for domination of the site.

For these reasons, Lodgepole Pine is the most likely tree to grow on a recently burned site. Since extensive fires occur with some regularity in Yellowstone, Lodgepole dominates the Park.

Quaking Aspen is also common in Yellowstone, but it tends to grow in the drier part of the Park on the edge of the grassland zone. Aspen usually regenerate by suckering - producing new shoots from existing root stock, rather than from seeds. If the above-ground aspen boles are destroyed by fire, avalanche, or insect attack, the roots send forth new suckers. Nearly all aspen groves survive for generations by this method. Though aspens produce a large quantity of seeds, they have very precise germination requirements, hence scientists believe that nearly all Rocky Mountain aspen groves have existed since the end of the last Ice Age by suckering rather than by establishment from seed.

Going into this summer, most of Yellowstone's aspen groves were decadent and in danger of dying out. There was almost no aspen regeneration in the park, even though aspen are well adapted to fire and most aspen live in a zone where fire frequency is estimated to be on a 20-25 year



Source: National Park Service
Reprinted courtesy High Country News.
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Redwoods League Slams Ugly Fires

In their Fall Bulletin, the Save-the-Redwoods League showed their distaste for the messy processes of nature. They briefly described the Park Service "let-burn" policy, comparing it to prescribed burning. The bulletin then stated that, "Sadly, this summer these fire management policies failed in many parts of the western United States, when lightning-ignited and man caused fires went rapidly out of control incinerating hundreds of thousands of acres, including over one million acres in Yellowstone National Park."

"The League has been monitoring pre-

scribed burns and lightning fires in national and state parks in the Giant Sequoia and Coast Redwood forests for many years. The League supports carefully controlled prescribed burns. Tighter restrictions are needed, however. In the recent past too many prescribed burns have burned too hot and have marred the scenic beauty in some Giant Sequoia groves...."

Disregarding the natural cycles of fire ecology, the bulletin goes on to explain that lightning-caused fires should be suppressed, as should those in the summer and other dry seasons.

-Dale Turner

Peggy Robinson

THE ASHES

interval. Large populations of Elk and other ungulates are one reason for lack of aspen regeneration.

In addition to discouraging aspen regeneration by browsing heavily on aspen suckers, Elk and other ungulates have reduced the amount of flammable grasslands and shrubs in the Park's northern rangelands through excessive grazing and browsing. (Yes, in the absence of predators, wildlife commonly overgraze a range just like livestock.) In most years, the range can no longer carry a fire. Also, since this open area is the most accessible portion of the Park, fire suppression has been most successful here.

Researchers have studied the relationship between Elk, fire and aspen near Jackson Hole just south of Yellowstone Park. They have found that although fires may stimulate the production of as many as 30,000 aspen suckers per acre, if Elk browsing is heavy, the number of suckers is reduced to pre-burn levels in three years.

However, if fires stimulate aspen regeneration over an extensive enough area, Elk herds may not crop all groves intensively enough to prevent sucker development into pole sized young trees. In essence, "swamping," as biologists refer to prey reproduction exceeding the capacity of predators to limit prey population, enables the aspen to regenerate. One of the expected benefits of this summer's fires is widespread aspen regeneration in the Park. However, given the high Elk numbers, Elk may still severely crop all new growth. We'll know in about three years.

Impacts of fires on wildlife were minimal. Only 244 large mammals are known to have died in the fires, most from suffocation. Impacts to wildlife in the years following the fires will be temporary. Some Elk may starve this winter, since 11% of the Park's total winter range was burned. In addition, the drought severely reduced plant production in unburned areas, so overall there is a significant reduction in forage. However, given the high Elk numbers, starvation of a large proportion of the herd would benefit the ecosystem.

Grizzly Bears may be affected since some Whitebark Pine burned. [See Tony Povilitis' accompanying article.] Whitebark pine nuts are an essential fall food for Yellowstone's Grizzlies, so a reduction could adversely impact them. However, salvaging of dead Elk and other carrion next spring could provide bears with a major protein addition to their diet.

Perhaps the greatest changes will occur in Yellowstone's famed fisheries. Sedimentation, particularly in the Upper Lamar River Valley where the Clover Mist fire perimeter encompassed 390,000 acres, could adversely impact trout by smothering fish eggs and aquatic insects. How

much sedimentation occurs depends on many variables including whether there is a significant snowpack this winter and how fast it melts in the spring. Usually within three years of a fire, revegetation is sufficient to prevent further sedimentation problems.

In contrast to the negative effects on wildlife, benefits to wildlife from fire are many. Regeneration of aspen, willow and other shrubs (provided the Elk don't eat them all) will increase passerine bird nesting habitat. Cavity nesters will find the numerous fire-killed snags ideal home building sites. If sufficient aspen are regenerated, potential for reestablishment of Beaver in the Park will increase. Although there is still debate about their disappearance, Beaver were likely eliminated by excess Elk browsing. The return of Beaver and their dams would slow sedimentation problems in streams because fine soil particles would settle out in their ponds. Their ponds would raise the water table, creating healthier riparian zones and wet meadows - favorite foraging grounds for Grizzlies, Elk, and other grazers. Whether the NPS will reintroduce Beaver remains to be seen, but there is no question that at one time they were abundant in the Park.

The most important factor in causing the 1988 fires to grow so large was drought. Not since officials began keeping records in the Park 112 years ago has there been such a dry summer. The previous winter in Yellowstone was relatively mild with below average snowpack in the mountains. Although rainfall was higher than normal in April and May, by June it dropped precipitously, and during July and August there was no measurable rain. Instead, uncharacteristic heat coupled



Mosaic burn by Yellowstone's Tower Fall.

photo by George Wuerthner

with high winds dried the landscape. By late July, the moisture content of litter on the forest floor was as low as 2-3%. (Kiln-dried lumber has a 12% moisture content.) Significantly, every major wildfire in North America's recorded history can be traced to severe drought.

The first blaze in Yellowstone during 1988 occurred on May 24 when lightning struck a tree in the Lamar Valley and it burst into flames. But as usually happens, the fire went out - without suppression. Lightning strikes in late June and early July, however, grew slowly. Nine fires were burning in the Park on July 15, most having charred less than 100 acres.

Then, on the 15th, winds expanded the Clover fire overnight from 4700 acres to 7000 acres. Several other fires increased as well. On this date, the perimeter of fires in the Park totaled 8600 acres and the Park Service, under pressure from critics, decided that new natural fires would be suppressed.

But lightning was igniting blazes at an unusual rate. On average, lightning causes 22 fires a year in Yellowstone. In 1988 it caused more than 50.

High winds fanned the flames and enabled individual fires to burn hundreds of thousand of acres in a single spectacular "run." For example, winds of 80 miles per hour on August 20 - called "Black Saturday" by firefighters - sparked new life in nearly exhausted fires. The Hellroaring fire, in the Absaroka-Beartooth Wilderness north of the Park, burned through 10 miles of timber in three hours.

It takes the convergence of high winds, low humidity, severe drought, sufficient fuel and an ignition source to cause a large fire complex. The chances of all these ingredients coming together in one year are exceedingly small, which is why fires such as seen in Yellowstone this year are unusual.

Despite the fires, the Park remained
continued on page 22

Fire and Politics Cloud Future of Yellowstone's Bears

by Tony Povilitis

The wildfires of 1988 in the Yellowstone area engulfed a staggering 1.6 million acres. What will happen to the already endangered Grizzly Bear, now numbering as few as 170 animals in Yellowstone Park? The complexities of fire ecology and land-use politics make it difficult to forecast.

ECOLOGY
Grizzly Bears depend on vegetation directly for food and shelter, and indirectly as a food source for animals upon which they feed. Fire obviously kills plants, but most have underground parts or seeds that allow them to quickly regenerate. New growth is usually vigorous, especially as more sunlight reaches the ground, and as nutrients from ash enter the soil. Beyond this gen-

erality, what can be said about the future is uncertain due to the many unpredictable environmental factors.

WEATHER: If draught continues, plant regrowth may be delayed, forcing bears to travel more widely in search of food. Heavy spring rains, on the other hand, could cause soil erosion, thus reducing plant growth in some areas. Given the current inadvertent human meddling with the world's climate, nothing about weather should be taken for granted.

WHITEBARK PINE: The meaty seeds of this pine are a major food for Grizzlies in Yellowstone, particularly as the bears prepare to enter their dens. If the pines are dead, many decades will pass before they are replaced.

ANIMAL FOODS: A lot of carrion could be available for bears next spring if Elk, Bison, and other large herbivores succumb to forage and cover shortages this winter. Yet many of these animals may search for food at lower elevations outside the Park, and if they die in those places, their carcasses may be near roads, ranches, towns, and other places hazardous to bears. Smaller animals eaten by Grizzlies, like voles, gophers, and ants, should quickly increase in numbers with renewed plant life.

Cutthroat Trout could eventually gain from improved habitat conditions as increased nutrients seep into slightly warmer waters. However, trout will die off in some streams from the effects of heat stress or drought, or from the siltation of water where soil erosion occurs.

FOREST COVER: The bears are likely to avoid the larger open areas created by fire. Bears fear poachers, harassment by tourists, and management officials, who use rubber bullets in attempting to "train" them to avoid people.

GARBAGE: How many bears snacked on the food and garbage processed by 10,000 firefighters is unknown. Those that did are likely to seek such foods again - and be captured or killed.

POLITICS

The fires cost surrounding states millions in lost revenues from tourism. Local politicians and community leaders lambasted the National Park Service for its ineptitude at controlling them. As fear grew that the tourist industry might be permanently damaged, the federal government promised to fund a public relations effort to offset Yellowstone's charred image. (Ironically, while tourism was well

below the norm for August, it was actually up by October.)

The fires have placed local economic well-being in the forefront of concern. Where might this lead? At a recent Senate hearing, Assistant Secretary of Agriculture George Dunlop argued that areas open to timber harvest present far less fire risk than those, like Yellowstone National Park and nearby National Forest Wilderness, that are not. With a narrow focus on economics, administration officials may soon prescribe timber salvage, more access roads, permanent firebreaks, and other new incursions into Grizzly habitat. Hence the greatest impact of the fires on bears and other wildlife may have nothing to do with ecology - but rather with the rendering of Yellowstone vulnerable to further economic exploitation.

Economic interests routinely outscore major preservation efforts in Yellowstone Park. For example, planned removal of the Fishing Bridge development from critical Grizzly habitat, restoration of the Gray Wolf, and federal acquisition of important habitat near the Park have all recently been blocked for economic reasons.

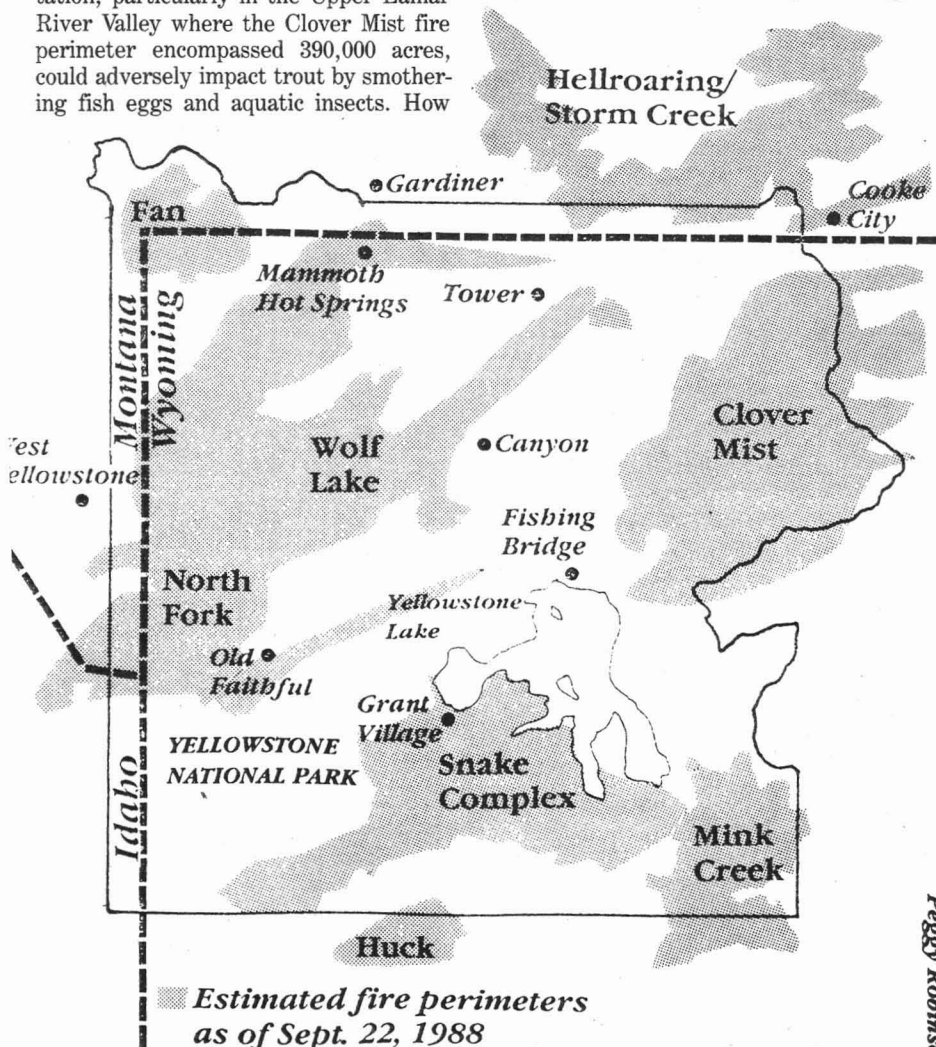
If some Park facilities go unused in the fires' aftermath, would the Park Service have the wisdom to dismantle them? The current developed areas at Bridge Bay, Lake Canyon, Madison, Mammoth, Norris, Indian Creek, Lewis Lake, Pebble Creek, Slough Creek, Tower Falls, Old Faithful, Roosevelt, Fishing Bridge, and Grant Village are too much for the Grizzly; because of them, bears are routinely killed, relocated, or forced out of key habitats.

Large natural fires in the Yellowstone country occur every 200-300 years. But what will become of Yellowstone in a mere 20 years, as the US population increases by 40 million, and the world population by a mind-boggling 2 billion? Will we find Nature in Yellowstone - including Grizzly Bears - or just another human playground, or zoo?

We've heard no voice for a new and better post-fire Yellowstone Park: one bigger, freed from overdevelopment, and fit to house Nature in the 21st century. By today's standards, this would not be considered a political option. It should be thought, for our future - and for the bears.

Tony Povilitis is a biologist based in Boulder, CO. He directs Campaign for Yellowstone's Bears, POB 416, Boulder, CO 80306 (303-494-5018).

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Peggy Robinson

Source: National Park Service
Reprinted courtesy High Country News.

Yellowstone . . .

Continued from page 21

open throughout the summer. Only on September 10, when a firestorm threatened to run right over Park headquarters in Mammoth, was the entire Park closed. Visitors expected a special opportunity to see wildfire in action. For most, it was a disappointment.

Although on rare occasions, such as Black Saturday, high winds may propel fires to great heights, ordinarily wildfires merely creep and sputter along – producing great quantities of smoke, but not much flame. One can easily walk away from the advancing fire front, and wildlife does so. A fire is analogous to a volcano. During a major eruption, a great volume of magma may be spewed from the crater, but most volcanic eruptions are more smoke and cinders than lava flows.

It is only when an understory of fir or some other fuel exists to ladder flames into the canopy, and high winds can propel the flames rapidly from tree to tree, that large acreages are burned and the fiery walls of flames we imagine actually exist.

However, when these conditions do develop, no power on Earth can stop them. This summer, high winds threw firebrands a mile or more ahead of the advancing fronts. Sparks leaped across roads, across the Grand Canyon of the Yellowstone, across lakes – all considered excellent fire breaks. Those who claimed the NPS could have stopped the fires if bulldozers had been freely employed did not see the firestorms that whipped flames across 35 miles of the Park in early September. When winds are pushing fires, it is insane to put anyone in front of them.

To its credit, the National Park Service resisted using the bulldozers except as a last ditch effort. Research suggests that bulldozers, by scraping away all soil layers, do more long-term damage to the landscape than the fires themselves.

Most firefighting is, to borrow a phrase from Shakespeare, “more sound and fury

– signifying nothing.” Yellowstone spent \$120 million on fire suppression, not because anyone who knew about fires thought they could stop them, but because the Park had to put on a good show (see sidebar). For political reasons, the Park had to appear that it was trying to contain the fires.

Despite the power of this summer's blazes, remarkably few people were hurt (one man was killed by a falling snag outside the Park) and few structures burned. Nevertheless, some property owners whose cabins outside the Park were burned have filed suit against the government.

Because of the bad press, the public's lack of understanding of fire's role in Yellowstone, and lawsuits by adjacent landowners, “let burn” policies not only in Yellowstone but throughout the West are in jeopardy. Though the Park Service has been misguided in some of its other policies, such as its management of Grizzly Bears (as evidenced by its failure to close the Fishing Bridge facilities), it deserves support for its fire management policies.

Yellowstone was not destroyed by fire. Of the 1.38 million acres within the fire perimeter, only 400,000 acres are thought to have actually burned. Of these, half were only lightly singed. By next spring, a new generation of Lodgepole Pine will be sprouting on the newly opened forest floor. By next summer, green grass, not charred stumps, will greet tourists. The charred snags will provide new homes for cavity nesting birds, while new fallen logs in streams provide fish habitat.

Fire is as essential to Yellowstone's ecological health as rain is to tropical rainforests' health. Yellowstone cannot be preserved in a static form; it can only be preserved if the ecological processes which shaped it are preserved.

George Wuerthner is a Montana-based field ecologist and widely published writer who regularly contributes to our pages.



photo by George Wuerthner

Fire inside a Lodgepole Pine. Next to it stands a Douglas-fir which is not burning. Lodgepoles have thin bark which offers little protection from a fire, while Doug-firs have thick bark – at least in old trees – which resists fires.

1988 FIRES and LARGE MAMMALS

by Doug Peacock

ed. note: The following is adapted from part of an interview of Grizzly Bear expert Doug Peacock by John Adair for Green Letter (POB 9242, Berkeley, CA 94709).

The 1988 fires in the Yellowstone Ecosystem will benefit the ecosystem's large mammals. The plants that come back after a typical fire that goes through Lodgepole Pine and doesn't destroy the soil are grasses, forbs, small bushes, and in wet areas sedges. Grass, sedges and forbs are the foods that ungulates need most. The Yellowstone fires will especially benefit Moose. Moose are colonizers, not herd animals, and they will colonize essen-

tially all the burned areas until they are stopped by some natural population regulating mechanism. The Elk population will explode in the next few years because the fires will give way to more meadows, which are what Elk need most. This is a problem because there are too many Elk in the Yellowstone Ecosystem already. Bison will also do well.

In the long run, Grizzly Bears will benefit. However, for a couple years there will not be as much food in the Park, and that means the bears will wander out of the Park into the National Forests, especially during dry periods when they'll go down to wet bottoms. That's where the people are, and without a lot of education and law enforcement, Grizzly Bears will be killed in conflicts with humans.

The same is true with Black Bears. The Black Bear is more of a forest animal than the Grizzly but Black Bears habituate much easier to humans and human food than do Grizzlies. Grizzlies seem not to like much about us except our garbage.

What all these benefits for wildlife mean for National Park Service policy is that the let-it-burn policy is right. People who want to protect Yellowstone should defend the policy.

These people should also work for wolf reintroduction in Yellowstone. Yellowstone is an ecosystem without all its members. The most obvious of the absent species is the Gray Wolf. This is an ideal time to reintroduce wolves to the Yellowstone Ecosystem, because by popular assessment there are too many Elk and Bison already. The wildfires will bring more Elk, Moose, Bison, and Mule Deer than the ecosystem can support. These animals no longer have predators. Coyotes take some deer, even a few Elk, but they're not effective predators. Grizzlies also kill a few winter-weakened animals in the spring, but again they are not effective predators. So the ungulates have no mechanism to limit their populations except for severe winters. We haven't had a severe winter in a long time, and perhaps given current weather patterns, there's no such thing as a typical winter anymore, so the ecosystem needs a predator right away to limit the ungulate explosion.

ed. note: In this issue, we have presented several assessments of the 1988 Yellowstone fires. While the authors' speculations on the after-effects of the fires vary somewhat (which merely underscores the fact that fire ecology is a new and necessarily inexact science), they all make it clear that we should support Yellowstone National Park's natural fire policy. Accordingly, let us write the Park, the Park Service, and the Department of Interior:

*Robert Barbee, Superintendent, Yellowstone National Park, WY 82190
Director, National Park Service, Dept of Interior, 18th & C Sts, NW, Washington, DC 20240*

*Secretary of Interior, same address
Remind these officials also of the need to reintroduce Gray Wolves in Yellowstone Park. – JD*

Burning Money

There is a joke among firefighters: “How does the Forest Service (or BLM, or NPS) stop a wildfire?” Answer: “It pours money on the flames until it rains or snows.”

There is more truth in this joke than most people would suspect. Scientific research has documented that firefighting efforts are ineffective when certain predictable conditions exist. If there is little fuel and the weather is cool, wet and windless, very few fires – if any ignite – will burn more than a few acres before going out. Sending in fire crews to suppress these fires is a waste of energy and money. The crews take credit for putting out the flames, but in fact, the fires would have died of their own accord within a few days.

At the other side of the spectrum, when there is a large fuel build-up and the weather is hot with low humidity and high winds, no firefighting force on Earth can stop an advancing blaze. Human efforts to stop such walls of flames are as fruitless as standing in front of a tidal wave. The wall of water will simply crash over you. Yet, eventually the wave retreats as does the fire, and it would be as foolish for any group to claim they stopped the ocean wave as it is for firefighters to say they stopped the conflagration.

The ingredients for a major fire existed in the Yellowstone Ecosystem this summer, and though many people think the National Park Service could have stopped the fires, the truth lies in the above joke: The federal government merely poured money on the flames until it snowed on September 10, which along with the longer and cooler nights, slowed the fire's advances.

Employing the 10,000 firefighters, the bulldozers and helicopters, is like office paper shuffling. They give the appearance of action when in fact nothing constructive is accomplished. Building two foot wide firelines with shovels or carving 20 foot wide paths with dozers may give people psychological relief, but it does little to control fires.

It was not reasoned logic which forced the Park Service on July 15 to begin attempting

to suppress all fires, after only 8600 acres had actually burned, but uninformed public pressure, inflamed by sensational media reports. Ecologists and fire behaviorists will admit quietly that most of the \$100 million used trying to stop the Yellowstone fires was spent in hopes of appeasing the public. Aside from the more important fact that the Yellowstone Ecosystem depends upon periodic perturbations like wildfires, it makes no economic sense, in a National Park where logging is prohibited, to spend millions of dollars trying to stop fires from consuming trees that have no value as timber.

One can even question whether fire suppression is cost effective where commercial logging is anticipated. In low value timber stands, such as cover much of the Rocky Mountains, fire suppression is financially dubious. If one could compute the annual cost of fire protection for, say, low volume Lodgepole Pine stands in the Northern Rockies, one would likely find that over the 100 year plus rotation period typical of Lodgepole stands, the total cost of fire protection exceeds the value of the timber. (The total cost of fire suppression would be difficult to determine because many variables are involved. For example, one justification often cited for building roads for below cost timber sales is to provide access needed to protect the trees from fire. How much of the road costs should be attributed to fire suppression and how much for timber extraction?) Environmentalists have long criticized the Forest Service for its below cost timber sales where the cost of road construction exceeds the value of the timber, but they have missed perhaps an even bigger subsidy in the form of fire suppression costs.

Of course, one could suggest that a rationale for fire suppression is to protect the productivity of the environment. It is true that a very hot fire destroys soil nutrients, leaving a barren landscape that may take centuries to recover; but such hot fires are unusual. Indeed, less than 1% of the area scorched in Yellowstone Park this summer burned this hot. Studies have

shown that firefighting impacts, such as bulldozed firelines, generally have a longer lasting effect on the landscape than the fires themselves.

From the foregoing, it should be apparent that, while the ecological costs have been documented, few have looked at the socio-economic costs of fire suppression. The expense of fire suppression to protect remote cabins and towns such as Cooke City, which is in a mountain valley surrounded by continuous coniferous forest, is also a type of federal subsidy. Scientifically, it can be shown that our fire fighting efforts cannot control blazes under severe fire conditions such as existed this summer, and that fires are an inevitable part of the West, given our ecological parameters. Providing fire protection to homes in areas where fires are likely to occur only encourages inappropriate development, just as federal flood insurance has led to the construction of homes on ocean barrier beaches and on river flood plains where they are eventually washed away.

Several individuals who lost cabins and other property to this summer's fires have filed suits against the government for restitution. Rather than pay these people for losses for which the government is not in fact responsible, we should bill them for the money spent trying to protect their properties. If people had to pay the real costs of having their little cabins in the mountains, it might slow the development.

With the limited understanding most people have of the ecological role of fires, it is not surprising that so many people criticized the Park Service let-burn fire policies this summer. Yet given the knowledge we now have about the ineffectiveness of our efforts to control flames, it is incumbent upon people to question the underlying assumptions of when and where fire suppression is appropriate, not only on ecological, but on economic grounds as well.

–George Wuerthner

"Where There Be Mountains, There Be Chestnuts"

by David Wheeler

ed. note: The following is condensed from David Wheeler's article in the fall 1988 issue of Katuah Journal. That same issue also describes efforts of botanists to employ selective breeding techniques to yield blight-resistant American Chestnuts. As Katuah shows, these efforts may bear fruit, and there is hope that the American Chestnut will someday return to its rightful place in the forests of the East. To subscribe to Katuah, the bioregional journal of the Katuah Province of the Southern Appalachians, and one of the finest bioregional journals on Turtle Island, send \$10 to Katuah, POB 638, Leicester, NC Katuah Province 28748.

I. The Forest of Old

Near this locality we also measured a chestnut that was thirty-three feet in circumference at four feet from the ground. It is a noble living specimen apparently sound, and of nearly a uniform diameter upwards for forty or fifty feet.

—S.B. Buckley, *Mountains of North Carolina and Tennessee* (1859)

Born as we are into the world of the 20th century, we do not truly know the Appalachian forest. What we know as "the forest" is a diminutive second growth sprouting from the seed and stumps of the original trees. What we are witnessing is the forest's incredible powers of rejuvenation and its determined endurance in the face of conditions that are becoming increasingly hostile to life.

We have never seen the full majesty of the climax forest. "Climax" means the fullest expression of growth for any given environment. It is a state of dynamic equilibrium in the variety of species and distribution of populations that can sustain itself until a major climatic shift sets new conditions for climax. The deciduous forest in eastern Turtle Island (North American continent) remained stable for thousands of years after the retreat of the last glacier. But within a mere 400 years of its discovery by European culture, the forest was completely changed.

In the lowlands, the climax forest fell back before the rush of European settlers. In the late 19th and early 20th centuries, the remaining forests high in the Appalachian Mountains were subject to timber extraction marked by a degree of destructiveness unparalleled in history.

The deadliest blow, however, fell in the first half of the 20th century when an introduced fungus disease from the Orient completely decimated the American Chestnut (*Castanea dentata*), the largest and most prolific tree in the forest. The eastern climax forest was permanently altered.

II. The Life of the Chestnut

Chestnut, of this sorte there is very greete plenty; the tymbre whereof is excellent for building, and is a very good commodity, especially in respect of the fruit, both for man and beast.

—Morton, *New English Canaan* (quoted by Charles Sprague Sargent in *Silva of North America*, 1896)

The American Chestnut Tree was a member of the family *Fagaceae*. The leaves resembled the leaves of the beech, although larger and longer, being six to eight inches in length, "oblong-lanceolate" (like a long ellipse, sharply pointed at both ends), heavily toothed along the edges, with prominent veins on the underside. The dark, gray-brown bark was fissured in a distinctive criss-cross pattern.

The leaves unfolded late and were followed in late June or early July by the long, pendant catkins of drooping white flowers that made a striking show on the Appalachian hillsides. Chestnut flowers gave off a strong odor, fragrant to some and disagreeable to others. Because they bloomed well after the last spring frost, they set a reliable crop of nuts for wildlife to feed on each year.

After the first frost in October, the prickly burs began to open and drop their sweet chestnuts into the leaves on the forest floor. The nuts were smaller than the imported chestnuts of today, being one-half to one inch in width, two or three to each bur.

The American Chestnut was adaptable to a variety of habitats and grew faster than any other hardwood tree in the forest: two reasons for its widespread success. The chestnut had a thick crown which, in the open, could spread to 100 feet in width. The tree grew rapidly on poor and shallow soils as well as on deep,

fertile soils, and only avoided limestone-based soils. It was moderately tolerant of the shade of other trees, and so could grow up through their shade until it in turn overshadowed them and suppressed their growth.

The chestnut tree is thought to have originated in China. The first seeds could have been carried into North America in the food pouches of migrating humans. The oldest evidence of the chestnut tree on this continent was found in Yellowstone National Park and dates back 50 million years to the Eocene Era.

Once established on Turtle Island, the chestnut tree migrated widely. Signs of its presence have been found in Alaska and Greenland. But climatic changes gradually pushed the species into the eastern half of the continent. About 20 glaciations have occurred during the last two million years. Each time, the ice sheets pushed all before them, then as they retreated, the chestnut followed. The chestnut moved slowly, probably because it was self-sterile, and at the time of its demise it was still a relative newcomer to its northern habitat. Evidence shows that *Castanea* arrived in the Connecticut River Valley a scant 2000 years ago.

In 1914 Yale Professor Arthur Graves gave the range of *Castanea* as extending "from southern Maine to the valley of the Winooski River in northern Vermont, to southern Ontario, and along the shores of Lake Ontario to southeastern Michigan, southward in the eastern part of its range to Delaware, and in the west to southeastern Indiana and extreme southern Illinois, while it extends along the southern Appalachians to north central Georgia, central Alabama and Mississippi, and central Tennessee." In the southern mountains the tree was common on slopes between 2000 and 4000 feet in elevation, but it was seen also in the low bottoms and up to 6000 feet on the highest peaks.

It was in the Southern Appalachians that the American Chestnut attained its greatest dominance and its grandest size. Gifford Pinchot in 1897 told of trees reaching 120 feet in height and 13 feet in diameter. Although the chestnut usually grew to only 50-70 feet in height in the northern part of its range, a standard tree in the Southern Appalachians would be 90 feet tall and 4-6 feet in diameter, often living beyond 500 years of age.

Only the Yellow Poplar (*Liriodendron tulipifera*) rivaled the American Chestnut in size. Because of its rapid growth and greater tolerance to shade, the chestnut was dominant throughout its range, while the poplar was usually restricted to choice cove habitats. Today the Yellow Poplar [also called Tulip Poplar] inhabits many of the sites formerly dominated by chestnut. The chestnut often comprised 25% of the forest, reaching densities of 70-85% on the mountain slopes of Katuah. So plentiful was the species that a member of DeSoto's expedition through the Appalachians in 1520 declared, "Where there be mountains; there be chestnuts: they are somewhat smaller

than the chestnuts of Spaine," thus providing the first recorded reference to the species by a white person in the New World.

III. Chestnut Ecology

A Cosby farmer used a hollow chestnut tree as a barn for a pig and a cow.

—Dr. Frank W. Woods (University of Tennessee)

The American Chestnut Tree was an integral species in the climax forest of the East. Oak trees, Red Maple, and sometimes Eastern Hemlock and Gray Birch, were other tree species that, along with the Yellow Poplar, grew alongside the chestnut. In the shadow of their high crowns grew hazel, holly, and dogwood trees; huckleberries and other *Vaccinium* species; and Spicebush, Flame Azalea, Dog Hobble, Mountain Laurel, and rhododendron: the familiar understory plants of the mountain forest. These species interacted with the chestnut trees to provide the conditions for their mutual growth. The forest's soil chemistry and water patterns were influenced through their many generations of continuous habitation.

This association provided optimal conditions for a wide variety of wildlife. Many animals ate the chestnuts — a nutritious, abundant, and dependable food source. Whitetail Deer and Turkeys moved among the giant trees. Red Foxes dened in fallen, hollowed trunks. Raccoons stored chestnuts in their holes high above the ground, while chipmunks carried nuts to their small holes among the boulders. Eastern Gray Squirrels and Blue Jays quarreled over trees-full of the succulent feast. Immense flocks of Passenger Pigeons paused in their migrations to gorge on the sweet nuts. In winter, Elk pawed the ground to turn up chestnuts hidden in the leaves beneath the snow.

These animals in turn fed the great predators: the Gray Wolf, Mountain Lion, Red-tailed Hawk, Peregrine Falcon, and Golden Eagle.

In the fall, high in the trees the Black Bears bent or broke branches to pull chestnuts from their spiny husks to provide the calories necessary for them to survive their winter sleep. Dead chestnut trees provided hollow trunks that were the bears' preferred denning sites and secure places for the females to birth their cubs.

Indians hunted the animals that fed on the chestnuts and also foraged for the nuts themselves to store for the winter. As their agriculture developed, chestnut bread, made of chestnuts ground into corn flour and tied in corn husks to boil, became a staple dish. Indians also used an infusion of the chestnut leaves medicinally to cure the whooping cough.

When the white settlers came, they valued the chestnut tree for the use they could make of it. Most of the newcomers were farmers, so they cleared the chestnut trees and used the logs to build their cabins and fences. Because of its high tannin content, chestnut was highly resistant to rot, and was the best coffin

wood.

Mountain families also counted on the fall chestnut drop. Hogs were allowed to free-range in the forest, and the family fed on fall chestnuts in the form of pork during winter.

For everyone in the Appalachian forest, the chestnut tree was an important fact of life. It was often taken for granted simply because it was so common, until, in the early 1890s, a boat returning from a trading trip to the Orient docked in New York harbor.

IV. The Destroyer

The amber buds of the chestnut are unfolding into long green fans, though it will be long ere the trees decked with their drooping tassels hum like great hives with the music of the bees.

—Edith Thomas (quoted by Harriet Keeler in *Our Native Trees*, 1900)

Unbeknownst to anyone, an invisible stowaway rode aboard that ship. Nursery stock of Oriental Chestnut trees that were being imported into the country carried in their tissues a fungus disease later known as *Endothia parasitica*, the chestnut blight. Oriental trees had lived with the blight for thousands of years and had developed an inbred resistance to the fungus, but the native American trees were vulnerable to the invading organism.

Observers on Long Island first saw the effects of the blight in 1893, but it was not identified until a forester at the New York Zoological Gardens recognized in 1904 that it was a fungus disease which was killing the tops of chestnut trees under his care. *Endothia* already had a headstart on the scientists. The blight spread by two kinds of spores. In summer, infected cankers on the trees oozed a sticky mass of spore material that stuck to the feet of birds and insects and was thus carried long distances to other trees. In winter, clouds of microscopic spores were carried by the winds. On landing in a crack in the bark of a chestnut tree, the spores grew into the wood, causing large cankers (or swellings) on the trunk. The cankers were visible as orange-tinted depressions in the bark with small orange bumps protruding from them. The cankers grew through the phloem, to the cambium, and into the tree's xylem layer, eventually girdling the tree.

Pennsylvania made the only attempt to stop the spread of the blight. In 1911 the state gathered a team of eminent scientists and spent \$500,000 on their efforts, but to no avail. The blight moved inexorably southward — almost 25 miles each year — through the chestnut stands.

By 1938 F.H. Miller, forester in the Great Smoky Mountains National Park, announced that "fully 85% of the chestnut in the Park has been killed or affected by the blight." Undamaged trees were found, particularly at the higher elevations, even late into the 1940s, but eventually virtually all of them succumbed to the invader. An estimated 3.5 billion *Castanea* trees withered to the ground. The mighty chestnut was vanquished.

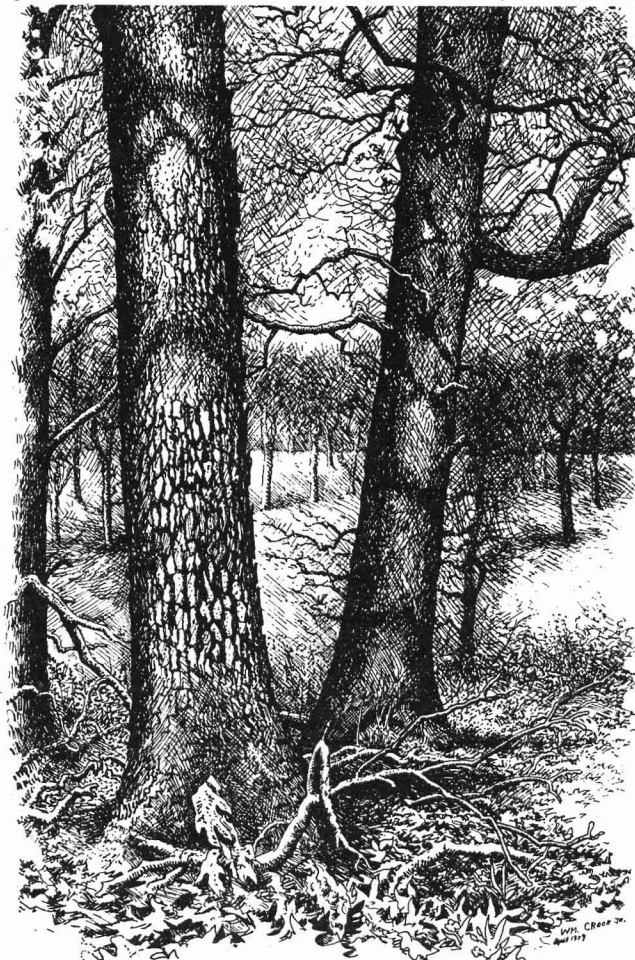
No one was making wildlife surveys in the early 1900s, but it was apparent to any hunter that the loss of the chestnut severely curtailed populations of several species of Appalachian wildlife. Black Bears and Wild Turkeys were particularly threatened. Between the loss of the fall chestnut mast crop and the inroads of over-hunting, both those species were almost eliminated from the Southern Appalachians.

The chestnut tree is not extinct, but it has been banished into a strange limbo. Root systems still live underground, and they still send up sprouts that in some places have become an important understory shrub. But before the young saplings can reach maturity, their bark cracks, the cankers appear, and the small trees soon die. Without leaves to support them, the chestnut roots are slowly losing their vigor underground. Few of the saplings reach nut-bearing age, and large American Chestnut trees surviving above ground are very, very few.

But isolated trees do survive, and through the work of science passionately applied and sheer faith in the resiliency of the chestnut, hope for the former forest giant is growing. A concerted effort on the part of a large number of aware volunteers could undo the damage we have done and restore the American Chestnut to its natural habitat in Appalachia.

"Where there be mountains, be there chestnuts once again!"

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The Corporate Takeover of Friends of the Earth

THE DREAM IS OVER

by Hungry Coyote

Two years ago Friends of the Earth gained the unfortunate distinction of becoming the first national environmental organization to fall victim to a hostile corporate-style takeover. The conflict at FOE, which has been variously characterized as San Francisco vs. Washington, Labor vs. Management, Yippee vs. Yuppie and Benevolent Patriarchy vs. Elite New Order was perhaps most accurately described, in *Outside*, as:

"A clash between two increasingly irreconcilable factions of the modern environmental movement: those grass-roots environmentalists who, like David Brower, are most comfortable on wilderness trails; and the "professional" environmentalists, managers, lobbyists and attorneys for whom the movement is less a passion than a career. Ultimately, the showdown at FOE says as much about the environmental movement today as it does about Brower."

The contemptuous attitude of this new generation of "professional" environmentalists toward the idealists that gave the movement its initial momentum was perhaps best expressed by FOE's 29 year old Conservation Director Geoff Webb, in a recent *Mother Jones* interview:

"Dave (Brower) hasn't actually done anything in a long time... If he did do anything at all, it was talking about Nuclear War... Dave's moral ability to make that argument is greatly diminished by his personal behavior. He is just the sort of person he decries... He is just the one who would push the button."

Webb's cynicism toward Brower, who was twice nominated for the Nobel Peace Prize, is matched by his equally self-righteous and indignant dismissal of grassroots radicals, particularly Earth First!: "(They) are hard pressed to point to anything themselves they've accomplished. They're basically just doing 'guerrilla theatre'."

David Brower, 76, the indefatigable visionary leader of the modern environmental movement, founded Friends of the Earth in 1969, shortly after his forced resignation from the position of Executive Director of the Sierra Club. During the 17 years Brower held that post, he led the Sierra Club's evolution from a genteel social club of 2000 hikers to a major environmental force 77,000 strong. Brower went on to found Friends of the Earth in his own image: lean, decisive, decentralized, iconoclastic, prescient in defining new environmental issues, and most importantly, uncompromising.

"FOE," he stated, "would not be clearly organized or directed by some old tired bureaucratic formula from the top. Find good people with the right ideas and let them move ahead their way." Under Brower's leadership, FOE gained influence in the environmental movement commensurate with the much bigger groups, FOE's role was twofold: to raise new issues and move them onto the agendas of the mainstream groups; and, much to the consternation of the larger groups, to take uncompromising stands on issues once thought to be their exclusive domain.

Brower's reputation, style, and vision attracted a cadre of loyal staffers. "That's why members joined us," noted former FOE Wildlife Projects Director David Phillips. "They could say, 'I'm supporting a group working on a subsistence level to save this planet.'" "But," he continued, "increasingly the members complained, 'You're not out there in front of the bulldozers.' Many then joined the more militant environmental groups like Earth First!"

When Brower retired from FOE's presidency in 1979, many supporters felt that the organization had lost its center. "There had always been great trust that people making decisions shared values, and Brower's views held sway," observed Charlie Drucker, former FOE energy staffer. "When he left, it was unclear where new values were to come from." Brower's improbable choice as his successor, Edwin Matthews, a Manhattan corporate lawyer with the international firm of Coudert Brothers, set the stage for the inevitable showdown at FOE.

Matthews' presidency led to "a father-son conflict," according to Herb Chao Gunther, former FOE board member. "Father creates the organization, turns it over to the son who fails miserably and goes on to sabotage it." Matthews was

dismissed by FOE's executive committee within a year, but remained on the board to become leader of its anti-Brower majority.

Matthew's leadership role at FOE and his position at Coudert Brothers have since raised disturbing questions about FOE's future direction. Clients of the business-oriented law firm include multinational energy conglomerates and banks, such as Utah International Mining, Krupp, Inc., Citibank, Morgan Guaranty, and Chemical Bank. When asked by *Village Voice* reporter Anna Mayo whether he felt any conflict of interest, Matthews replied, "I have never found any conflicts." He went on, "If you're going to buy a company, that has nothing to do with environmental issues... I don't believe in 'us' and 'them'."

In 1980, Brower yielded to the Matthews-led board faction and acquiesced to the appointment of former Capitol Hill lobbyists as FOE's administrators. These new administrators quickly advanced a "professional" centralized model to restructure FOE. Predictably, this split the staff in two camps: the Brower-led San Francisco staffers and most of the field representatives versus the Washington, DC, lobbyists and the Seattle office staff.

The next few years saw the gradual elimination of FOE's most autonomous staffers - its far-flung field representatives. Among the first to be axed was FOE's Wyoming Representative, Howie Wolke, who would go on to co-found Earth First! FOE staffers were convinced that the cuts were both part of a political agenda and an attempt to cover up the administrative inabilities of the new management team.

FOE's 11-year veteran mid-Atlantic Representative Lorna Salzman was fired in May, 1984, for "insubordination," i.e. her demand that FOE's volunteer branches and field reps have veto power over the Congressional endorsements made by the director of FOE's political action committee (PAC). Lovingly called, "my little street fighter" by Brower, Salzman rallied FOE's beleaguered staffers with her outspoken criticism of the FOE board and its PAC, which she described as "a self-congratulatory exercise in career-building." "Just look at this board," she preached, "they're a power elite. I'm no Marxist but class analysis can be useful sometimes. And there's no way, considering this board, that you're going to get a populist, decentralist, bio-regionalist, or radically ecological view."

Salzman views the transformation of FOE to FOE-PAC as symptomatic of the infiltration and corruption of the environmental movement by four groups: "Fast-talking political operatives" who suck up to Congressional aides to insure themselves access to the political power brokers on Capitol Hill, "public-interest administrators" loyal only to themselves and their cronies instead of to issues and members, "power-hungry flakes" and "pseudoliberals" wanting to appear respectable and moderate, and "bland non-entities who live to put another feather in their caps for prestige but otherwise have no environmental credentials."

By June of 1984, the board decided to cut another 30% of the FOE staff to pare \$350,000 from the then \$1.5 million annual budget. Predictably, the 12 targeted personnel included a disproportionate number of field representatives and those San Francisco staffers who tried to affiliate themselves with District 65 of the United Auto Workers Labor Union (an effort the FOE board allocated \$10,000 to fight).

What the board didn't know was that Brower would not give up. He prepared and paid \$350 for a full page ad in the July, 1984, issue of *Not Man Apart* titled "Save The Team!" The Brower appeal stated, "the motivations behind these cuts are deeply wrong," and noted that alternatives to wholesale firings existed, including the substantial pay reductions offered by the staff.

The ad was discovered by an assistant executive director and the entire press run was immediately impounded. The papers, a spokesperson assured the press, would be "ecologically recycled."

On July 2, 1984, the FOE board held an extraordinary six-hour trans-continental conference call, debated Brower's al-

leged insubordination and then voted to throw the Archdruid off the board of the organization he founded.

Brower was reinstated to the FOE Board Chair a month later, after filing suit against the board's illegal action: no quorum was present when the board voted and some directors weren't given the opportunity to vote. Brower also extracted an agreement to restructure the board, cutting it from 27 to 15, and provide for membership elections of directors. The board agreed to find a new CEO outside the organization. In February of 1985, the FOE board again turned to an unlikely leader to heal the organization's wounds. The selection of former electrical engineer Karl Wendelowski from MIT to be FOE's new CEO (at a \$55,000 annual salary) hardened everyone's line on the over-professionalism debate.

The April 1985 election narrowed the board's anti-Brower majority to a one vote, 8 to 7, margin. One of the four new directors was former Colorado Plateau Regional Representative, Gordon Anderson, who became the only person ever nominated by members' petitions to be elected to the FOE board. Anderson ran on a campaign pledge to decentralize FOE and allow members a decision-making role in setting policies and funding priorities. "The eight majority directors consistently thwarted every pro-grassroots motion we introduced," remembers Anderson.

After six months of continued intrigue, the September 21 board meeting confirmed the staff's worst fears. Wendelowski outlined his plan for the complete reorganization of FOE and threatened to resign if the board did not approve it. Under Wendelowski's leadership, the "old FOE" would be abolished, four more San Francisco staffers sacked, and the Washington office strengthened.

Only one day earlier, Wendelowski had called the FOE staff together to dispel rumors that a new round of staff lay-offs were in the works. The renewed targeting by Wendelowski of FOE's International Soft Energy and Nuclear Energy Alternatives programs raised speculation, among critics of the restructuring, of a hidden agenda. Brower criticized FOE's Washington administrators for having been "soft on radiation and radioactive waste," and having taken positions that would "delight the Atomic Industrial Forum."

Village Voice writer Anna Mayo noted that Coudert Brothers, the law firm of Edwin Matthews, Brower's principle adversary on the FOE board, may also have nuclear "aims counter to those of FOE." Coudert Brothers is "the first large American law firm to establish offices in Hong Kong, Singapore, and Beijing and is likely to be handling some of the nuclear energy business that is the 'sine qua non' of the 'new China trade'." Two Coudert associates are members of the Trilateral Commission, the international planning group of energy, manufacturing and banking corporate executives and government leaders led by David Rockefeller. Coudert Brothers, according to Mayo, is also a "liaison between the federal government and the World Bank" (which funds massive Third World energy projects).

Wendelowski tendered his resignation letter on November 4. On November 23, the board met to consider whether to accept Wendelowski's resignation. Unbeknownst to the San Francisco staff, the pro-DC board members and the DC staff had developed a strategy to close the San Francisco office, fire its remaining troublesome staff, bust their labor union and oust Brower and the other pro-San Francisco directors.

Meeting participants listened in astonishment as Friends of the Earth Foundation (FEF) President Alan Gusow, a wealthy retired artist, described how the Foundation, which contributed almost half of FOE's operating budget, had just suspended their financial support until "management difficulties" were resolved - and Brower's interference stopped.

"It was the most silver-tongued description of blackmail you could ever imagine," remembered one staffer.

As tensions mounted, anti-Brower director and Methodist minister Paul Burks faced his adversary and screamed, "SHUT YOUR GOD DAMN MOUTH!"

Reverend Burks led the charge against Brower with an acrimonious character attack asserting FOE's headquarters would be moved to Washington to "get it away from David Brower."

"The November 23rd FOE board meeting may be remembered as the first lynch mob in conservation history where a preacher brought the rope," noted one staffer.

Two weeks later, the majority directors shifted their offensive to the courtroom. Their first lawsuit against Brower sought to block his use of FOE's mailing list to contact members, and to stop his requested vote by members on their removal.

"They have only one choice to explain why things haven't worked, and that's to try Brower. He's the most visible," said San Francisco-staffer David Phillips. The majority directors hired Skadden, Arps, et al., a business-oriented law firm that specializes in over-seeing corporate takeovers, to represent them.

Brower again defied the pro-DC directors and sent a letter to members informing them of recent events within FOE they would not read about in *Not Man Apart*. The letter generated \$25,000 in contributions to fight the DC takeover. In response, the pro-DC directors filed another still pending lawsuit against Brower for recovery of the funds raised by the letter as well as "unspecified damages." The pro-DC directors' unsuccessful legal maneuvers cost FOE an estimated \$30,000 and were funded by member donations contributed for environmental advocacy.

Brower recommended that the recall election of the pro-DC directors be supervised by an impartial referee, such as the American Arbitration Association. Instead, led by the FOE President, millionaire chemical engineer Dan Lutten, the majority directors forced through an election procedure fraught with questionable irregularities including promotion of their own candidates at the organization's expense in contravention of FOE's by-laws and production of an election ballot which gave nine times as much space for the pro-DC directors to explain their side of the recall issue as they allowed their opponents.

Many FOE members, particularly those in California and in remote communities, did not receive these biased ballots in time to participate in the election because the pro-DC directors insisted on sending them by bulk mail from Minnesota against the recommendation of a bipartisan committee appointed by the board.

Although the pro-DC directors insisted that first class mailing would be too expensive, they also authorized the release of three propaganda mailings prior to the recall election as part of their smear campaign against Brower. These were all sent first class. At the same time, the majority directors denied the pro-San Francisco directors equal access to the FOE mailing list.

As a result of what Brower's attorney Bryan Kemnitzer called, "the underhanded tactics used by Edwin Matthews to create what is clearly an unfair ballot and election procedure designed to reduce and skew the vote," the pro-DC directors survived the recall election by 181 votes out of 5613 received by the deadline. A year later, incidentally, the FOE board would secretly adopt the policy introduced by Seattle Director Mark Terry and abolish free competitive board elections.

With the resignation of David Brower and the other six pro-San Francisco directors following the election, the DC hijacking of FOE was finally complete, leaving the organization with a staggering \$627,000 debt, loss of its most experienced staff and valuable programs, closure of all but one (Seattle) of its 14 field offices, departure of 18 of its 21 branch leaders, and a significant loss of members, including its most charismatic one.

Despite Geoff Webb's proclamation, "We have wrestled our demons to the ground," the departure of Brower and his supporters did not alleviate the financial problems of the "new FOE." In May 1986, the Cook Trust Foundation filed a lawsuit in California Superior Court against the FOE board for misappropriation of donated grant funds, seeking \$50,000 in ac-

Monkeywrenching Mainstream Education

by Michael J. Cohen, Ed.D.

Imagine the following scenario in which a school system is in such chaos that it closes for a week of meetings between administrators, faculty, parents and students:

The trouble starts when a 6th grader accuses his math teacher of being a Nazi propagandist and brainwashing him against the natural world. Forty other students in different grades similarly confront their history, English, social studies and science teachers. Still others complain to

tual damages and \$500,000 in punitive damages.

"The Cook Trust lawsuit has had a chilling effect on FOE's ability to raise funds from the environmental foundation community," according to one insider.

The Kendall Foundation, once FOE's largest contributor, also withdrew its annual support grant in 1986. According to one Washington attorney, FOE's directors could also be held personally liable for not fulfilling their fiduciary responsibilities should members file an expected class action lawsuit demanding repayment of the \$300,000 in their outstanding personal loans to FOE.

FOE's continued erosion of foundation support and membership renewals (FOE has dropped to 8000 members, from a peak of 39,000 in 1981) may be partly a result of its inability to define a new niche for itself among the fiercely competitive Washington-based lobbying groups. Tom Turner, former editor of *Not Man Apart*, observed, "FOE no longer does what needs doing, it does what it thinks will sell."

"FOE's recent fund-raising appeals solicited support for Acid Rain, Tropical Deforestation and Nuclear Power, three programs for which they have no Washington staff," according to a DC environmental consultant.

A former supporter put it more bluntly: "PotomacFever has become the AIDS of the environmental movement, and FOE is its latest victim."

As a final irony, FOE's commitment to the nuclear proliferation issue has been reduced to "demonstrations at the Nuclear Regulatory Commission and the Capitol Hill power plant," according to a FOE appeal. These "guerrilla theatre" operations were coordinated by Conservation Director Geoff Webb. More recently, Webb, along with FOE Director Liz Raisbeck, was credited for engineering the ouster of Cynthia Wilson, the latest in a long succession of FOE Executive Directors.

To many former FOE associates, the decline of the organization can also be traced to public reaction to the boards' "ends justify the means" corporate takeover tactics. Critical of the majority directors' conduct, Gordon Anderson suggested, "forget about FOE ever again being on the 'cutting edge' of environmentalism. For FOE, the dream is over."

While almost 50 dedicated staffers lost their jobs in the course of the takeover, a dozen subsequently banded together to form Earth Island Institute and continue their varied programs - including Rainforest Protection, Marine Mammals, Third World Dams - and to publish *Earth Island Journal*, now a highly-acclaimed international news magazine. The success of Brower's new organization, which has recruited 25,000 members, is a dramatic contrast to the demise of the Brower-less FOE.

For Brower, the dream is still an Earth National Park, which he tirelessly promotes with his non-stop public speaking tour, the annual Fate of the Earth Conferences, and his latest mission, the Restore the Earth Movement. Brower's enthusiasm and eloquence continue to inspire a constant upwelling of grassroots radicalism. "The Sierra Club made the Nature Conservancy look reasonable," he preaches. "Friends of the Earth once made the Sierra Club appear reasonable and Earth First! made FOE appear reasonable. Now we need some people to make Earth First! appear reasonable. There's that much to be done."

"Hungry Coyote," a former FOE supporter, is a co-founder of "COYOTES WOULD PUKE," a Seattle-based "truth squad" dedicated to exposing the facts behind the corporate takeover of FOE. Coyote requires anonymity to maintain effectiveness in this endeavor.

the American Civil Liberties Union that having to go to school is like being drafted into the military at age 6, and trained as anti-Nature infantry.

Some parents enter a class action lawsuit demanding equal time for integrating the natural world into their children's education and daily school de-briefing from defamatory, anti-Nature curricula. A few families visit Washington, DC, and ask their representatives to sponsor a bill officially declaring war on natural systems so that the existing state of war against Nature will no longer be hidden. They also advocate tax incentives for those who live organically.

Students, teachers and parents form picket lines around schools and board of education offices protesting anti-Nature educational practices. Several students have already refused to attend school, choosing instead to visit local Nature centers and environmental organizations to obtain more facts about how Nature works.

Although this scenario has not happened, it could, and should if we expect to improve the health of the environment and of ourselves.

LEARNING FROM NATURE

Over the past 30 years, as an independent Ed.D. educator and psychologist, ever enamored by Nature and its expression in people, I have explored the natural world. While constantly living outdoors, my students and I find that the natural world shares its secrets with persons having inquiring minds attuned with the wind, hills and stars. The vital information we obtain is not being taught in school, nor is it generally available to the public. By identifying with Nature's deterioration from its contact with the modern world, we can easily see that mainstream society engages in an undeclared war upon the natural world within and without.

OUR SYNTHETIC TROPICS

We fervently war upon the natural world because the ancient roots of our culture and biology evolved in the tropics, from which we later migrated. Unlike other migrants (indigenous peoples who established peaceful co-existence with Nature), the essence of our mainstream lives is the fallacious notion of *tropicmaking*. Tropicmaking is the subconscious belief that to survive we must gain power to change the natural world so that it reflects our womb-like origins, by building artificial tropic-simulating houses, schools, offices and lifestyles. In these artificial tropics, fortressd from the constantly signaling pulse of Nature, we spend over 95% of our time.

To mainstream society, tropicmaking is survival and Nature the God-given resource with which to build our tropic-like, modern world anywhere. Tropicmaking welds our survival feelings to artifacts. To build the artificial tropics, we have wared against Nature for centuries, in the process trashing three continents, their indigenous cultures and our peace of mind. Our war with Nature creates the discomforting uproar within today's individuals, society, and environment.

THE WAR MACHINE

Our tropicmaking upbringing trains us to fight the natural world. Until we acknowledge our undeclared war on Nature, we will perceive modern problems as misunderstandings, rather than as the brutal effects of armed combat. We fight the same environmental battles again and again because we see mainstream's transgressions as ignorance, not war. More than philosophies, information and laws are needed to stop tropicmaking. With resistance on all fronts, we must force the mainstream to realize that it cannot win its assault against the natural world. Only then will it make peace.

IN DEFENSE OF NATURE

Earth First! responsibly counters the mainstream's tropicmaking with courageous actions that at times restrain these assaults. But such actions take place on the dangerous political and physical battlefields where few have the courage or means to fight. To win peace, EF! must also attack aggression at its source. We must fight in society's less protected tropicmaking training camps - our homes, schools and counseling centers. There, the mainstream brainwashes and technologically arms people to turn the natural world into money, power and artifacts.

MONKEYWRENCHING EDUCATION

EF! actions should confront and re-educate in the classroom, PTA, schoolyard, school board, and other training camps. EF!ers can do this by seeking to legalize truancy, demanding equal class and outdoor time for Nature, identifying anti-Nature propaganda, boycotting school, withholding school tax payment, developing alternative curriculums, introducing experiential outdoor education, confronting prejudicial information in the media, encouraging cooperation rather than competition in schools, and providing holistic information about how Nature works. Costs of anti-Nature education can be increased by holding sit-ins, and by monkeywrenching school buses, buildings, and classroom bells. Many students and teachers suffering under the yoke of excessive authority would happily participate in monkeywrenching the educational system when they recognize that the system conquers their inner nature as part of its quest to conquer the natural world.

The educational community has yet to recognize that mainstream education trains young people to fight Nature. When we make the field of education into a battlefield, educators will recognize the war. It makes an excellent war zone because, like Earth First!, its purpose is to question and illuminate. The openness of the academic's inquiring mind exceeds that of the average corporate executive or bulldozer operator, and may better heed the monkeywrenching demands delivered to it.

BACK TO BASICS

The greatest difficulty in initiating educational monkeywrenching is undoing the damage already done to each of us, for, bound by compulsory education laws and standard of living myths, we spend more than 18,000 impressionable childhood hours in mainstream's anti-Nature schooling. Our schooling imprints us with anthropocentric, Nature-destructive techniques which we often practice out of habit while disagreeing with them in principle.

As a means for you to evaluate mainstream's basic myths about Nature, below I list a sampling of 20 alleged facts taught as truths at home or school. Mark whether you believe them to be true or false with respect to the natural world. The answers appear below.

TRUE OR FALSE WITH RESPECT TO NATURE?

1. $1 + 1 = 2$.
2. $2 - 2 = 0$.
3. Planet Earth's basic component is sub-atomic particles.
4. The behaviors of mineral entities are predictable under standard conditions of temperature and pressure.
5. $I = E/R$, $Ca + 2HOH = Ca(OH)_2 + H_2$
6. People differ from other life forms in that we are feelingful and cultural.
7. People best learn about life through five senses.
8. Instincts are innate automatic behaviors.
9. The Constitution guarantees each citizen the right to life, liberty and the pursuit of happiness.
10. The difference between life and death has been clearly defined.
11. Earth consists of animal, vegetable and mineral matter; animal and vegetable matter are alive, mineral matter is dead.
12. Atmospheric oxygen is produced by sunlight, water, and carbon dioxide combining in the presence of chlorophyll.
13. Your life is one year old after you have lived one year from the date of your birth.
14. Feelings are subjective and not factual.
15. The shortest distance between two points is a straight line.
16. Columbus discovered America.
17. The Earth's diameter is approximately 8000 miles.
18. You think, therefore you are.
19. Freedom, liberty and justice are the basic tenets of modern society.
20. Competition leads to survival of the fittest.

ANSWERS (based on the book How Nature Works)

1. False. "One" can't be found in Nature because one is static and Nature constantly changes. For example, one tree is never exactly the same as another, and one tree, because it has grown or otherwise changed, is different a moment after it is identified as one. "One" is a static, divisionary concept of modern consciousness; while Nature is a timeless, pulsating continuum.
2. False. Zero signifies nothing and there is no place in Nature where nothing exists. (Yet we found our mathematics and computer technology on the truth of 0 and 1.)
3. False. Earth's basic component is affinity or attraction between any and all entities.
4. False. Because the natural world is always fluctuating, there are few if any places in Nature where standard conditions occur.
5. False. Most formulas are created in stabilized laboratory conditions, not fluctuating natural environments. In the real world, electrical flows vary with temperature, and calcium (Ca) is seldom if ever found as an isolated element; it is usually combined with other atoms.
6. False. Many other life forms contain these properties and all entities contain some aspect of them.
7. False. People have as many as 25 different senses by which they can learn, although many of them disappear if they are not exercised.

8. False. "Instincts" are often responses to signals from Nature that we don't recognize.

9. False. The Bill of Rights offers this. The Constitution changed the original statement to *life, liberty and the protection of property*.

10. False. No fully satisfactory working definition of life has ever been created because life is an experience and definitions abstract experiences unholistically.

11. False. Earth is a living organism and over time all aspects of it show signs of life, including rocks.

12. False. Atmospheric oxygen is the end product of billions of years of evolving relationships between the entities of organism Earth.

13. False. Your life is over 4 billion years old for it is part of the life of the living organism Earth (Gaia).

14. False. Feelings and sensations are expressions of tension or relaxation by which the natural world intercommunicates on some level in plant and animal life, and in minerals as well.

15. False. With rare short-term exceptions, there are no straight lines in Nature.

16. False. Many indigenous natural organisms and peoples discovered this continent long before Columbus sailed from Spain.

17. False. The Earth is a living organism whose atmosphere acts like a cell membrane and extends far beyond the solid portion of the planet. People live inside the planet, not on it.

18. False. Being is a combination of many life relationships, not thinking alone.

19. False. The underlying economic and political tenet of Western society is tropicmaking.

20. False. The "fittest" is the organism that during stressful circumstances best establishes cooperative relationships with its environment.

From these misleading basics we see the dynamics of our war against Nature. Isolated from real life experiences, education's distorted language tools allegedly teach us how to know life through symbols. But instead their misguided design empowers us to further build up the walls of our tropicmaking closet.

SUBSTANCE ABUSE

Mainstream educators can't resolve our dilemmas because by the time they discover them, these dilemmas have become addictions, and mainstream education is not designed to cope with addictions. Substance abuse is not confined to drug users. We're hooked into nuclear bombs, toxic chemicals, wildlife destruction, adverse personal relationships, *ad nauseum*, because, like drugs, the substances causing these dangers also provide us with immediate gratifications which temporarily relieve the stress that our war with Nature creates.

EARTH KINSHIP

In the 1960s, having experienced Earth as a living organism which regulates and regenerates itself, I founded outdoor, BS and MS degree programs based on this understanding and involving Earth Kinship teaching methods. Our Earth Kinship curriculum underlies all aspects of the National Audubon Society Expedition Institute, the only ongoing accredited environmental education graduate and undergraduate degree program based on Earth being a living organism. [See the author's new book *How Nature Works: Regenerating Kinship with Planet Earth*.]

Earth Kinship studies are experiential and emotional. They appear radical and untraditional because our traditions have brought us to this stressful situation.

Alone, ancient ways and traditions won't thwart modern problems because these traditions evolved to meet different problems, settings and times. Modern society must learn that the life of Earth is based upon long evolved affinity bonds between all its entities and that in people's consciousness these bonds are usually expressed as feelings. Only education that rationally counteracts tropicmaking on feeling levels fully addresses the dilemmas of modern survival.

Earth Kinship reduces addictions and stress because it experientially liberates our survival feelings from their attachment to tropicmaking and welds them to a love for life. Interestingly, one of the criticisms of Earth Kinship is that it brings the public into contact with natural areas, and there isn't enough available wilderness for this to be tolerable. That's exactly the point! Earth Kinship creates a need for additional natural areas, and an understanding that natural places should be valued for what they are rather than for how they can be "improved." In time, this will create a demand for a Nature-supportive economy.

On all levels, we should monkeywrench tropicmaking education until it recognizes and rejects mainstream's war against Nature and instead reinforces our inherited Earth Kinships. I offer you my books, workshops, and expertise in this effort.

Michael Cohen's latest book, *How Nature Works*, is available from EF! Books. Michael can be contacted at the Northeast Audubon Center, Sharon, CT 06069.

Return of the Natives (Or, Off the Cow!)

by Katey Palmer

We all know that cattle grazing has adversely affected the Western landscape. The presence of Prickly Pear, Cheatgrass, non-native annual species, and a seeming overabundance of sagebrush suggest overgrazing, as do degraded riparian habitats, arroyo cutting, and the lack of native wild-life species. But many of us do not understand how grazing has caused such dramatic changes in the Western landscape. To answer this question, it is essential to recognize what the pristine, pre-grazing vegetation in the West was, and to understand the ecology, morphology, and physiology of its component species.

Reviews by Vale (1975) and by Young and Sparks (85) of the journals of trappers, and of later adventurers, miners, and homesteaders, suggest that the pristine vegetation west of the Rocky Mountains was dominated by shrubs with an understory of perennial grasses. Young and Sparks describe the series of plant communities in the Intermountain West as the sagebrush/grasslands. According to historical accounts, Big Sagebrush was the dominant shrub species with Wormwood, Greasewood, Bitterbrush, Rabbitbrush, and Saltbush being locally dominant. Reynolds (79) estimates that Big Sagebrush, *Artemisia tridentata*, once covered 100 million hectares (almost 250 million acres) of the Western United States. Travelers on the Oregon Trail first mention sagebrush at Fort Laramie, Wyoming, and they describe the Snake River Plains as being densely covered with sagebrush. Only the wet valley bottoms, moist canyons, and mountain slopes were dominated by grass stands.

Mack (81) and Mack and Thompson (82) discriminate between the types of native perennial grasses found east of the Rocky Mountains on the Great Plains and west of the Rockies in the Intermountain West. They refer to the plains east of the Rockies as *Bouteloua gracilis* or Blue Grama Grass Province, and the steppes of the Intermountain West as the *Agropyron spicatum* or Bluebunch Wheatgrass Province. The *A. spicatum* Province is located between the Cascade/Sierra Nevada Ranges on the west and the Rockies on the east, and the coniferous forests of British Columbia in the north and the warm deserts of southern Nevada and Utah in the south. It is characterized by native perennial bunchgrasses such as *A. spicatum* and *Festuca idahoensis* (Idaho Fescue) in scattered tussocks. The *B. gracilis* Province is characterized by native perennial sod-forming grasses such as *B. gracilis* and *Buchloe dactyloides* (Buffalo Grass), the two most common species of the Shortgrass Prairie.

According to these authors, one can predict whether or not a grass species coevolved with ungulates by studying its mode of tillering (production of new shoots), its growth form, and its reproductive method. Branson (53) found that the height of the growing point on the apical meristem and the ratio of flowering to vegetative stems are also indications of a plant's susceptibility to grazing.

The morphology of the plant species in the *A. spicatum* Province indicates their high susceptibility to grazing, whereas that of plants in the *B. gracilis* Province suggests that they coevolved with grazing mammals. *B. gracilis* and *Buchloe dactyloides* have extravaginal tillering, i.e., their new stems emerge horizontally and their apical meristems are low to the ground, thus protecting them from grazers. *A. spicatum* and other bunchgrasses have an intravaginal tillering mode which causes their new stems to emerge vertically with growing points elevated and exposed to grazers. They generally reproduce sexually and have a high ratio of fertile to vegetative stems, causing them to be susceptible to grazing pressure.

Studies on the effects of grazing on different native bunchgrass species (Rickard et al. 75, Caldwell 81, Wallace 87) indicate that they are poorly adapted to grazing. Grazing causes decreased tiller production, decreased growth and biomass, and a decrease in the number of flowering stems and basal area of certain native Western bunchgrass species.

The bunchgrass growth form of many species in the Intermountain West increases soil heat flux which speeds spring thaw and results in resumption of growth early in spring when precipitation is still available. However, early spring growth raises a plant's apical meristems above the ground and makes them vulnerable to grazers when few other plant species are available as forage. Once a bunchgrass'

apical meristems have been removed, the plant is unable to produce axillary buds and new leaves, and it may not survive. If it does survive, it is at a disadvantage in competing for resources with species which begin growth later, and with species whose underground parts, e.g., rhizomes, allow them to regenerate if their aboveground parts are trampled or grazed.

Historical accounts and ecological factors corroborate the morphological evidence supporting Mack and Thompson's theory that the vegetation of the Intermountain West did not coevolve with large grazing mammals. Historical accounts suggest that Bison were rare or missing altogether from the Intermountain West, while there may have been over 40 million Bison east of the Rockies by the time of European contact.

Mack and Thompson (82) report that in the Intermountain West, there are no native species of *Onthophagus*, a genus of dung beetle which occurs where large mammals occur. In contrast, there are 34 native species of *Onthophagus* east of the Rocky Mountains where large grazing mammals are known to have occurred historically.

Young and Sparks (85) report that after the post-Pleistocene extinctions of native species of mastodon, camel, horses, and bison ancestors on the Upper Snake River Plains, rabbits, rodents, and harvester ants became the primary consumers in the sagebrush/grasslands. The Pronghorn "antelope," an American native of the sagebrush/grasslands ecosystems, remained but was rare, according to professional hunters. The Pronghorn depends on Big Sagebrush for a major portion of its diet; its rumen microflora, essential to digestion, are not inhibited, as are the microflora of cattle rumen, by the volatile oils in Big Sagebrush.

The lack of phrases "sod-busting" and "sod houses" in the journals of pioneers in the Intermountain West suggests that there were no or few sod-forming, i.e., grazing resistant, grasses in that area.

Comparison of the cryptogamic cover east and west of the Rockies also suggests that there were few large grazers in the *A. spicatum* Province. In the arid Intermountain West, cryptogams, e.g., mosses and lichens, cover all undisturbed soil not occupied by grass tussocks. Where large ungulates, even at low densities, trample vegetation, there is a permanent loss of the cryptogam cover. In the *B. gracilis* Province, cryptogamic species are restricted by sods and grazing, and represent only a minor component of the vegetation.

THE EFFECTS OF THE GRAZING ASSAULT

In a review of studies on the effects of grazing on numerous grass species, Weaver (30) concludes that the growth, vigor, and reproduction of grasses are directly related to the development of the underground plant parts. The success of seedlings depends on the ability of the plant to develop its root system before developing its aboveground parts. A plant's degree of tillering is an index of the extent of its root system and, therefore, of its growth rate.

In experiments on both native sod and bunchgrasses, Branson (56) found that the intensity of clipping, i.e., simulated grazing, is inversely proportional to the growth of shoots, and of roots in particular. Weaver (30) found that grazing has particularly negative effects on seedlings, which, as a result, extend their roots less and in turn are susceptible to drought and to trampling by grazers.

Studies (Cottam & Evans 45, Gardner 50, Rummell 51, Blydenstein et al. 57, Pickford 60, Potter & Kremetsky 67, Smith & Schmutz 75, Chew 82) which compare the effects of grazing to the effects of not grazing on different vegetation types throughout the West indicate the changes in species composition and community structure that grazing causes. In general, grazing results in a decrease in native perennial grass species, particularly the bunchgrasses and tall grasses, an increase in shrub cover, and an overall decrease in the density of vegetation. Once the native plants are weakened or removed and no longer provide competition, non-native species can become estab-

lished. These include annual forbs, Eurasian grasses adapted to grazing, and, in general, less palatable and less nutritious species.

In a study of competition between the alien winter annual *Bromus tectorum* (Cheatgrass) and the native *A. spicatum*, Harris (67) found that Cheatgrass demonstrated more rapid root elongation and germination, and thus dominated in areas where it was able to invade.

In addition to the effects grazing has on plant morphology and community structure, it also has negative effects on soils, which in turn affect the vegetation. Daubenmire and Colwell (42) found that grazing resulted in decreased aeration of soils, water accumulation on soil surfaces, and increased runoff, among other effects. Rauzi and Smith (73) found that in

major component of plant adaptation to herbivory. Detling suggested that the compensatory growth response is energetically less expensive than developing and maintaining morphological or biochemical deterrents to grazers.

IS THERE LIFE AFTER GRAZING?

According to classical succession theory, once a disturbance ceases, vegetational succession should occur in predictable stages until the single predictable climax is reached. Several researchers (Ellison 60, Anderson & Holte 81, Mack & Thompson 82) suggest that this model of succession does not apply to the arid and semi-arid grasslands of the Intermountain West, which once disturbed by heavy grazing do not revert back to their original climax communities. Mack and Thompson report that Eurasian weeds dominate both successional and climax sites following grazing in the Intermountain West. On the other hand, disturbed sites in the *B. gracilis* Province are recolonized by native annual dicots or aliens that are eventually replaced by native sod-forming perennials.

Grazing in southern Idaho has changed that region's appearance perhaps "forever." Yensen (81) reports that grazing there has removed the native perennial grasses and allowed the alien Cheatgrass to become firmly established. According to Stewart and Hull (49), Cheatgrass now accounts for 75-95% of southern Idaho's herbage production, and only mechanical means or fire can remove it from the range.

Daubenmire (40) discriminates between what he calls the climatic climax of an undisturbed *Agropyron* bunchgrass prairie and the biotic climax which results from changes in succession due to overgrazing. In southeastern Washington, the climatic climax consists primarily of *Agropyron spicatum*, and also of *Poa* and *Bromus* species. The biotic climax on the other hand, consists of small unpalatable annuals including many borage species, and the small wiry-leaved perennial *Poa secunda*, all of which can endure hot, sunny conditions, and overgrazing. SO?

A study of historical accounts and the ecological research indicates that the vegetation of the sagebrush/grassland communities of the Intermountain West is distinct from the grassland vegetation of the Great Plains. Based solely on morphological characteristics, it is apparent that the vegetation of those two geographic areas evolved in response to different environmental factors. The vegetation of the Intermountain West did not coevolve with, and is therefore not adapted to, large grazing mammals.

Once the native vegetation is destroyed by heavy grazing, alien disturbance-adapted species become established and prevent the native species from recolonizing. In numerous areas in the Intermountain West, even 20-50 years after grazing has been stopped, the trend of vegetational changes due to grazing (and to climate) has continued. In many cases, although there have been slow increases in native perennial grass cover, there has been little indication of recovery to the original pre-grazing climax vegetation. And, in the case of invasion by alien species such as *Bromus tectorum*, recovery of the native perennial vegetation may require mechanical and/or chemical removal of the entrenched alien species.

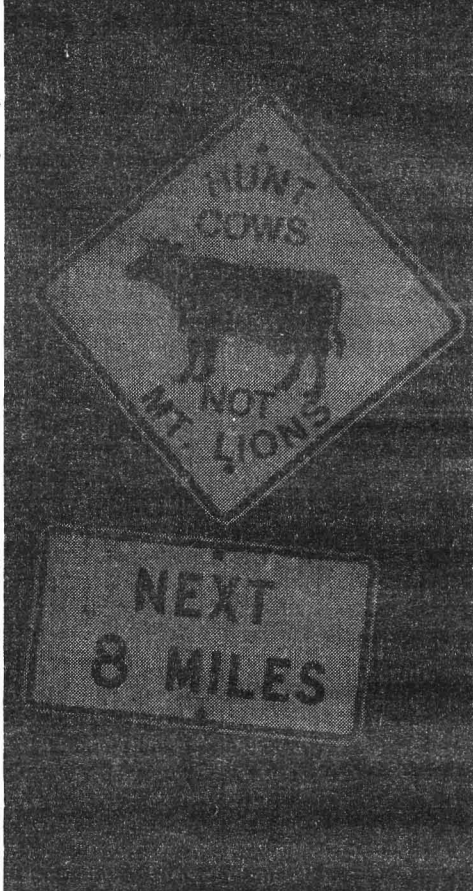
If one is satisfied with a vision for the West of alien weeds, severely depleted wildlife, degraded streams, and cows and humans as the dominant species, then this information is irrelevant. If however, one favors full rehabilitation and recovery of all native flora and fauna, it is clear that removal of cattle from public lands in the Intermountain West is the logical and necessary first step.

Katey Palmer is a field biologist with a Masters in plant physiology and genetics. She is working with Eric Holle on the Day of Outrage Against Welfare Ranching scheduled for this January (see *Bulletins*).

Due to lack of space, we have omitted the author's extremely valuable bibliography, which correlates to the citations in the text. For a copy thereof, write Katey Palmer, c/o POB 1166, Boulder, CO 80306.

Excellent though her article is, leave us not accept, without questioning, her last statement in the second to the last paragraph. Why employ chemicals to remove introduced species? Why not instead employ welfare ranchers to remove their fellow aliens? - JD

photo by Mike Howell



Part of a new generation of open range signs in California.

two of three soil types in northeastern Colorado, heavy grazing reduced water infiltration rates. Based on historical accounts and photographs, both Bryan (25) and Duce (18) concluded that arroyo formation in the semi-arid West occurred at the time of livestock introduction and was not related to geomorphological processes.

As the species composition and the structure of the native vegetation change as a result of grazing, so do the resident native wildlife communities. Numerous researchers (Weller 58, Gjersing 75, Howard & Wolfe 76, Reynolds 79, Reynolds & Trost 80, Jones 81) have documented declines in species diversity and in populations of Ferruginous Hawks, and numerous duck, small mammal, and lizard species, in response to grazing. THE POSITIVE (?) EFFECTS OF GRAZING

Researchers who attest to the positive effects of grazing on grasslands have invariably studied sod-forming, rhizomatous, and/or bunchgrass species which have coevolved with grazing mammals. Bunchgrasses that have evolved with ungulates exhibit morphological and physiological adaptations to grazing. Caldwell (81) found that the Eurasian wheatgrass *Agropyron desertorum* produced more tillers and leaves per bunch and contained less nitrogen and biomass per unit of photosynthetic tissue (i.e., it did not concentrate its resources) than native Western bunchgrasses. It also adopted a prostrate growth form in response to grazing. Detling (82) found that *B. gracilis* and *Agropyron smithii* (Western Wheatgrass, a Eurasian introduction) had, among other responses, increased rates of photosynthesis when their tillers, leaves, or shoots were removed.

Based on a literature review and his study of heavy grazing by wildebeest, zebra, and gazelle on Tanzanian savannas, Menaughton (79) concluded that compensatory growth after tissue damage is a

The Wheeled Bane of Nature

by R. F. Mueller

The Earth First!/deep ecology movement is known for its profound conviction of the destructive unity of technology, of how, in the words of Christoph Manes (Brigid 86), "nuclear missiles (and deforestation and factories and bureaucratic minds) do, in a sense, come out of your tube of toothpaste." Yet our rantings are sometimes so generalized that they fail to recognize the intimate specifics of the monster we oppose. A glaring example of this myopia - and one shared by the public at large - is our attitude toward the passenger automobile.

Why pick on the automobile? To be sure, the mechanical sibling we grew up with is only a part of the problem of technology. However, it bulks so large in its frivolity and destructive power that it epitomizes our predicament. And like Sierra Clubbers, who subconsciously (or consciously!) revel in the latest freeway that speeds them to their favorite wilderness, many of us accept the automobile without a whimper of protest.

We are bothered by roads on our public lands, and nothing riles us more than off-road vehicles in the back country. Nonetheless, we don't seem to be aware that far more natural areas all over the world are being wasted by the "remote action" of ordinary vehicles on ordinary roads than by all the recreational vehicles that exist or ever will exist. The vehicles you see far from any wilderness are destroying that wilderness and you are in the driver's seat as much as the bubbas in 4 X 4s! Let's look at the evidence.

First we must recognize that the bulk of our technology is related either directly or indirectly to building and sustaining what is essentially a pleasure fantasy vehicle (this includes such types as the pickup truck). Even a large proportion of vehicles in other classes - tractor trailers, service vehicles of all kinds, etc. - service the passenger fleet. Most mines, stone quarries, railroads and factories are involved. Indeed our entire industrial infrastructure would be more on the

Chinese scale but for the automobile.

Through its direct demands and the lifestyles it makes possible, the automobile fells forests, fills in estuaries, and poisons oceans. The frenzied mobility cars bring enables people to live and play far from their work places, resulting in the colonization of remote mountains and lake shores. The automobile is probably the greatest single contributor to tropical forest destruction, not only through oil and mineral exploration and road penetration but indirectly by bringing about such cultural aberrations as fast food, which encourages cattle ranching and other destructive activities in remote wildlands.

Few people are aware of the enormous and diverse shower of pollutants from cars. If we listen to government and other establishment propaganda, we gain the impression that virtually the only pollutants from automobiles are exhaust emissions and that these are subject to "cleanup" by emission controls. However, exhaust emissions are only a small part of the total. When in 1970 I led a study of the pollution of a typical urban river in Maryland (RF Mueller and RM Lahn, "The Anacostia River, Ecological Imbalance of an Urban Stream Valley," NASA Doc X-644-70-446), we found that oil and other automotive chemicals that were dripping onto streets and parking lots washed into the river and made it uninhabitable for most life forms, including amphibians, reptiles, many fish and even insects. It is also well documented that there has been a steady buildup along highways of many toxic constituents, such as cadmium, copper and organic compounds that come from the wear of tires and other automotive parts. These pollutants wash into rivers and thereafter into estuaries and bays such as Chesapeake Bay, which, though subject to propagandistic "cleanup" campaigns, still receives no protection from the automobile. The net result of exhaust emission controls such as the catalytic converter may merely be locally cosmetic since supporting industries such as platinum mining

and refining pollute heavily. [Platinum is a key ingredient in catalytic converters. The North Woods of Wisconsin and Minnesota are threatened by proposed mining for platinum and other rare minerals.]

If we accept the proposition that all technological energy ends up as pollution [see earlier Journal articles by RF Mueller, including "Technology & the Rumford Effect"], we must conclude that even the kinetic energy of a moving vehicle is a pollution form. We can see this if we remember that hundreds of millions of wild and domestic animals (among them, 50,000 or so humans) are killed each year on our highways. This kinetic energy also creates noise and disturbance that forms a barrier to shy and endangered wildlife (as is shown by the case of the Florida Panther).

Anyone who has seen the glassy eyes and flushed visage of the average yokel shopping for his latest new car knows that this machine is a drug more powerful and destructive than all the cocaine in the Andes. And here 'new' is the critical word because it is the new car syndrome that is the exponential factor in the addiction. Under the driving force of the Madison Avenue pushers, the industrial holocaust of nature is multiplied ten-fold or more over what it would be under a more rational vehicular repair and replacement regime.

An integral part of the prevailing system is the financial institution that gives the addicts "easy credit" financing. Under its tutelage the gullible buyer is convinced that a shiny new vehicle depreciating out front is better than accumulating savings or real property.

Given the all-pervasive nature of the automobile and our institutionalized dependence on it, what action can we as individuals take to limit its impact on Nature? Anything that diminishes or delays the manufacturing and use of automobiles helps. We can live so that we depend less on cars. We can live near our work places and/or near public transportation. We can

walk, bicycle, or carpool. If we must own a vehicle, it should be small and as old as is compatible with high fuel efficiency. It should be acquired by cash or barter. Of course, second hand vehicles require more upkeep than new ones and may use more fuel, but they can be made efficient and quite reliable for moderately long trips.

We can also cut the power of the automobile by adopting lifestyles such as have been advocated in this journal by Robert Streeter (Beltane 86), Rick Davis (Brigid 88) and others. Diminished consumption of industrial junk of all kinds and self reliance strategies such as organic gardening all reduce vehicle use. Also we must educate the brighter minds and give backbone implants to our spineless politicians. Time was during the early 70s when it was popular for politicians to support public transportation and even to speak harshly of Detroit; but in the wake of the decline of the domestic auto industry, these salutary signs gave way to unabashed worship of this vulgar mammon. Lee Iacocca has been given the status of a national hero for his "success" at Chrysler Motors when he should be stamped public enemy #1 for what he's doing to the planet.

I'll end this piece on a note of praise. For years, the activists among us have used their old heaps to good effect, turning the industrial beast against itself in countless direct actions to protect wildlands. Certainly this is the highest use to which Henry Ford's misbegotten child has ever been put, and it will serve Nature well in this way until technology collapses, or the ice age returns, or both.

R. F. Mueller is a regular contributor to our pages, and a VA EF! contact. The old heap he sparingly drives conceals his background, for he is a scientist formerly in the employ of NASA.

How Far Should We Go?

by Tom Stoddard

Some environmentalists say Earth First!ers are saboteurs, destroyers and even terrorists. They say we go too far and alienate potential friends. These anemic environmentalists are as flabby as Kobe beef, boozed and massaged by the system into near apathy. They want to save the Earth provided it is no more difficult and dangerous than walking to the corner for their newspaper. Their commitment to rescue this ailing sphere is about as ridiculous as Jimmy Swaggert's morals.

The humans trying to destroy Earth have passionate determination. They are motivated by that magic elixir, greed, and its first cousin, power. Using the destroyers' gauge, Earth First!ers look as pastoral as a mountain meadow. How far should EF!ers and other serious conservationists go to save this battered orb?

Maybe as far as water hungry promoters wanting to drain Mono Lake for profligate Los Angeles humans. Perhaps as far as auto makers and oil drillers bent on concreting the countryside and depleting natural resources. Hopefully as far as the R.J. Reynolds, Liggett & Meyer and Skoal go in providing air pollution, carcinogens, and litter. Certainly as far as Maxxam, Georgia Pacific and Boise Cascade in destroying our old growth forests. But probably not as far as the Catholic and fundamentalist crazies bombing Planned Parenthood Centers.

Possibly as far as Consolidated Coal and Kennecott Copper carving vast open pit wounds in the Earth. Surely as far as hazardous waste disposers, leaking underground tank owners and government deep mine radioactive burial experts polluting the aquifers. But perhaps not as far as Union Carbide and Dow Chemical creating Bhopallic witch's brews of PCBs, DDT, aldrin and dieldrin.

Assuredly as far as dedicated litterers desecrating every stream and seaside with Bud bottles, Big Mac cartons, and plastic wine dispensers. Certainly as far as the humanistic and religious fanatics wanting to waste Earth's resources keep-

ing every misbegotten human alive at any cost. Undoubtedly as far as the Vicar of Christ and other religious ostriches who encourage every human to breed us into SRO population crises causing deforestation, drought, and desertification. But maybe not as far as poachers, hunters, furriers and smugglers who kill and deal in Black Rhinos, Snow Leopards, Cougars, Grizzlies, and Harp Seals for every shade of human superstition and vanity.

Maybe as far as every hamburger chomping ORV SOB who wants to leave the Earth a wasteland covered with 4 X 4 tracks of Bridgestone Desert Duelers. Reasonably as far as the gill net fishermen using and losing plastic nets which "incidentally" kill millions of sea mammals, sea birds, and non-commercial fish every year. Perhaps as far as farmers draining their deadly fertilizers and pesticides into Kesterson and other National Wildlife Refuges. Assuredly as far as the corrupt governments trying to liquidate the Inuit, Penan, Maasai and other native peoples who have lived for millennia in harmony with Earth.

Maybe not as far as the sheep ranchers who poison wolves, Coyotes, eagles, California Condors and other "varmits."

Potentially as far as the timber firms, slash and burn farmers, and hamburger ranchers who are destroying 75,000 acres of Earth's tropical rainforests every day.

Monkeywrenchers, Stumps Suck and Ecoavengers are not going far enough fast enough to outdo Mother Nature's enemies. Defenders have too long been too tepid and too slow. Maybe that is why we are losing the race to save our planet. If we resolve to go as far as the destroyers, it would leave damn little we can't do. If we want to save Earth we had better quit taking our marching orders from our friends and start taking them from our enemies. That is how far we should go!

Tom Stoddard is a former bank vice-president living in California.

WESTERN MOJAVE LAND TENURE ADJUSTMENT PROJECT FINAL

ENVIRONMENTAL IMPACT
STATEMENT / REPORT

SEPTEMBER 1988

**BUREAU OF LAND MANAGEMENT
DEPARTMENT OF THE AIR FORCE
SAN BERNARDINO COUNTY**

BLM demonstrates their sensitivity to multiple uses.

The American Dream Gone Awry: A.B. Guthrie's Frontier Fiction

by Friedrich Hecker

A.B. Guthrie is perhaps the best American novelist to deal with the Old West. In his fiction about the Western frontier, he skillfully transcends the limits of the average Louis L'Amour style gun-and-gallop horse opera with its simple, repetitive plot and worn-out clichés. Guthrie's outstanding narrative skills, his sweeping prose, his unique sense of time and place capture the mood and spirit of the 19th century frontier and create in the reader's mind an authentic picture of an important stage in American history.

Guthrie's Western fiction reflects a microcosm of the American character. His intent is to make us understand what went wrong in the course of American history and how American society turned into what it is now, particularly with regard to its relation with the natural world. He probes deep into the very essence of the American Dream, revealing its underlying dichotomy. There exist two opposite poles within the American Dream, being constantly at odds with each other. One is the original dream, as envisioned by Thomas Jefferson, of the free and democratic society based upon the pastoral ideal of the independent yeoman farmer living close to the land. Its opposite is the exploitative, expansionist philosophy of manifest destiny, based upon the Judaeo-Christian imperative to subdue the Earth.

These two notions cannot peacefully coexist, and in the end, one must prevail. As American history demonstrates, the original Jeffersonian version of the American Dream faded into oblivion as the nation embarked on a course that ultimately led to the rise of the industrial, megalomaniacal culture prevalent in contemporary America. William Kittredge said it well in his book *Owning It All*, in an essay entitled "Redneck Secrets":

There was a great dream about a just and stable society, which was to be America. And there was another great dream about wilderness individuals, mountain men we have called them, who would be the natural defenders of that society. But our society is hugely corrupt, rich and impossibly complex.

Why did the dream go awry? One possible answer is that Jefferson himself, by promoting the purchase of Louisiana, a vast territory to the west, set off a chain of events that started with the expedition of Lewis and Clark in 1804 and ended with the official closure of the frontier in 1890, when the Superintendent of the Census announced that the entire continent had finally been settled and subdued. Jefferson's decision paved the way for heedless westward expansion and large-scale exploitation of the natural world, which in turn became the foundation for a centralized, industrial America alien to Jefferson's vision of democracy.

What we learn from this is that man tends to destroy the very things he loves. This insight constitutes the central theme of A.B. Guthrie's frontier fiction, particularly his novel *The Big Sky*, a classic of Western American literature.

Published in 1947, *The Big Sky* tells the story of Boone Caudill, who runs away from his father's farm in Kentucky at age 17 and heads west, where he wants to live the free life of the mountain man. On his way to St. Louis, he is joined by Jim Deakins, another young man holding similar ambitions. Journeying up the Missouri River on the keelboat *Mandan*, the two meet Dick Summers, an experienced mountain man, who will become their mentor and friend. In a fort along the river, Boone encounters his uncle Zeb Calhoun, who had gone west ten years earlier and who is now a mountain man like Summers. In the conversation that ensues between Boone, his uncle, and Dick Summers, the reader is offered a foreshadowing of the author's central theme:

"She's gone, goddam it! Gone!"
"What's gone?" asked Summers. . . .
"The whole shitaree. Gone, by God, and naught to care savin' some of us who seen'er new." He took the knife from his belt and started jabbing at the ground with it, as if it eased his feelings. He was silent for a while.

"This was man's country onc't. Every water full of beaver and galore of buefler any ways a man looked, and no crampin' and crowdin.' Christ sake!"

Summer's gray eye slipped from Boone to Uncle Zeb.

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"She ain't sp'iled, Zeb," he said quietly. "Depends on who's lookin'."

"Not sp'iled! Forts all up and down the river, and folk everywhere a man might think to lay a trap. And greenhorns comin' up, a heap of 'em - greenhorns on every boat, hornin' in and sp'ilin' the fun. Christ sake! Why' n't they stay to home? Why' n't they leave it to us as found it? By God, she's ours by rights. . . . God, she was purty onc't. Purty and new, and not a man track, savin' Injuns', on the whole scoop of her." (p.142,143, Bantam paperback edition, 1972)

In this passage, Uncle Zeb expresses the basic irony implicit in the mountain man's free-wheeling existence, for the mountain man contributes to his own demise by killing off the Beaver and laying out the trails across the wilderness on which the settlers soon follow. Boone, however, remains oblivious to his uncle's pessimism, and travels on to fulfill what he believes to be his destiny, namely, to live a free life in the wilderness. Under the tutelage of Dick Summers, Boone succeeds in becoming an expert mountain man. He immerses himself the wilderness, both *physically*, by roaming the Big Sky country of western Montana, and *symbolically*, by marrying into the Blackfoot tribe, thereby severing his ties to white civilization. The following passage eloquently demonstrates Boone's close identification with the land:

By day Boone could get himself on a hill and see forever, until the sky came down and shut off his eye. There was the sky above, blue as paint, and the brown earth rolling underneath, and himself between them with a free, wild feeling in his chest, as if they were the ceiling and floor of a home that was all his own. (p.117)

The vast wilderness that stretches before Boone's eyes has as its only limits the sky above and the earth underneath. By placing Boone between the two, the author is trying to convey the idea that he really is an integral part of the wilderness, not a detached observer. Guthrie im-

THE POETICS OF DEEP ECOLOGY PART XV: AMBIANCE

by Lone Wolf Circles © 1988

In researching appropriate contemporary music for Bill Devall's newest book, we looked beyond work with ecologically oriented lyrics to albums evoking a deep ecology "presence," the nutritive medium of heightened awareness. Ambient music, 'Ambiance' (or 'ambience'), derived from a French word, describes "the specific *environment* or distinct atmosphere" such music elicits. It is wordless, adagio, the milieu of receptivity moving slowly like a wide jungle river - time to see everything that passes, unhurried, without comment. . . .

Such minstrelsy is an attempt to recreate the peaceful bliss of the placid skies between tempests, the eye of the storm and its pervading quiet. To color for you the contemplative dry-wash before the inevitable floods; to induce that vulnerable state of mind, that openness and intensity of experience humans deny themselves in order to bear the bombardment of unnerving stimulus.

Far too often the "New Age" composer fails as a catalyst of perception, ministering to a monotonous musical score for vegetating hipsters satisfied with "meditating the world into wellness." "Peaceful and meditative" often substitute for the more accurate adjectives "soporific and unremarkable." The worst examples ride on the hypnotic drone of their synthesizer, an electronic wonder used now not only to pioneer new and distinct phonics, but as a saccharine and mechanical imitation of existing instrumental sounds. The synthesized drum and bass have robbed most country music of its responsive intimacy and rural flavor, ripped the spontaneity and emotive heart from the breast of new age jazz.

Ambient music, when it works, lays us naked and unpretentious on the riverside moss, opens our eyes wide with the glint of sunlight on the rolling waters, encourages the use of our six senses with its mood of relaxed expectation. It contributes not to the contentment of sleep, but

explicitly expresses here one of the basic tenets of Deep Ecology, namely, that humans are a part of Nature.

Boone's life in the wilderness, however, is doomed. His uncle's gloomy prophecy will soon fulfill itself, for Boone aids in the destruction of what he loves by hiring out as a guide to Elisha Peabody, who is seeking a wagon route across the mountains for westbound immigrants. Boone Caudill and Elisha Peabody symbolize the two opposite poles of the American Dream. Boone, the wilderness individual, revels in the freedom of a way of life for which Peabody feels no sympathy. The worldview of the Indian, as personified by Boone, is anathema to Peabody, who epitomizes followers of the utilitarian, anthropocentric ethic in which the natural world is reduced to a mere accumulation of resources. During a conversation with Boone, Peabody expresses his disgust with the Indians' way of thinking:

"It is development I'm interested in, future development. You appear to think, because the Indians haven't made use of this great western country, that nobody can."

"They live in this country. They live off of it, and enjoy themselves and all," Boone answered. . . .

Peabody took a deep breath, as if to make sure he had wind enough for his argument. "When country which might support so many actually supports so few, then, by thunder, the inhabitants have not made good use of the natural possibilities. . . . That failure surely is justification for invasion, peaceful if possible, forcible if necessary, by people who can and will capitalize on opportunity." (p.263,264)

Boone is not aware of the vital service he provides to the culture pushing steadily westward. By guiding Peabody across the mountains and showing him the lay of the land, Boone digs his own grave. The year is 1842 and soon hordes of settlers journey west on the Oregon Trail. The way of life which Boone cherishes will soon be history. At the end of the novel,

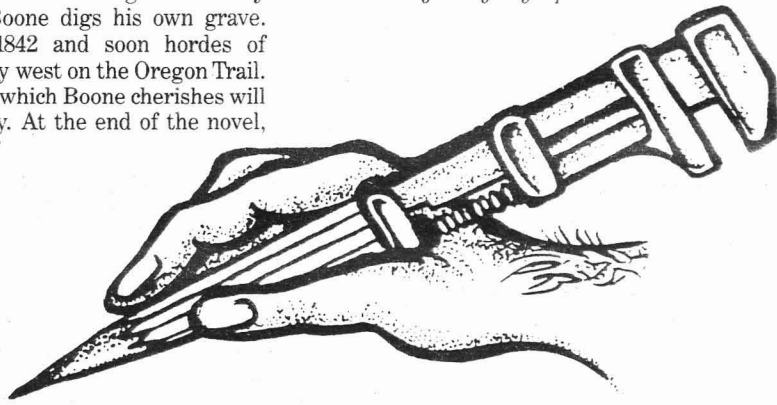
Dick Summers, who had given up his mountain man life five years earlier, and now lives as a farmer near Independence, Missouri, accurately assesses the mountain man's basic dilemma:

"There was beaver for us and free country and a big way of livin', and everything we done it looks like we done against ourselves and couldn't do different if we'd knowed. We went to get away and to enjoy ourselves free and easy, but folks was bound to foller and beaver to get scarce and Injuns to be killed or tamed, and all the time the country gettin' safer . . ." (p.366)

What is important here is the fact that the author adds further insight to the central idea of the novel by telling the reader, through the voice of Dick Summers, that destroying what we love is a matter of predestination, rather than an inadvertent by-product of our actions. Summers' reflection that "we couldn't do different if we'd knowed" is all too true, as a look at history demonstrates. In *The Way West*, a sequel to *The Big Sky*, this insight reaches its consummation as Dick Summers himself hires out as a guide to a group of settlers bound for Oregon's Willamette Valley. Although aware of the implications of what he is doing, Summers cannot escape the self-destructive course of the mountain man's destiny.

A.B. Guthrie's fiction dealing with the frontier West amounts to more than mere adventure stories. *The Big Sky* is a parable of a basic weakness in human nature. Guthrie makes us understand the course of American history, which is essentially the story of a great dream gone awry. For this, we are much in his debt.

Friedrich Hecker is one who took the way West, and found his home in the Basin and Range Physiographic Province.



the immediacy of the moment, experience without dialogue - like the hushed alertness of predator or prey watching for movement in the tall grass. It must inspire - meaning literally "to breathe in," the way deer pull into their being the indicative smells of their environs; the aromatic clues to their survival, to the pulsating world around them.

One of the finest ambient instruments is the flute, whether wood, clay, or bamboo, long recognized in primal culture as a voice of the Spirit. The flautists breathe their very essence into the hollow recesses, air bent over an edge into a soft whistle, both gentle breeze and howling storm liberated in measure by nimble fingers over spaced openings. Taste its Andean flavors in Sukay's "Pacha Siku" and "Mama Luna," Urubamba, Inti-Illimani's "Flight of the Condor," and Pukaj Wayra's "A mi Tierra." Experience the spiritual body of Amerindian flute (reviewed in Part XIII) and the pure liquidity of Japanese shakuhachi, played most notably by master Masayuki Koga on the traditional "Cry of the Distant Deer" and anglo Richard Warner's derivations on "Quiet Heart."

James Newton, a hot black jazzman, devotes about every fifth album to an "environment" project. On "Echo Canyon" he interprets a special place in northwestern New Mexico where millennial forces of nature have sculpted a spectacular amphitheatre twenty stories high and over a thousand feet across. Every sound, each illustrative note is reflected back from both the left and right in quarter second and half second intervals, dissolving together in a distant, primeval rumble: "the spirit traveling to new places, to the source of creation, when you really connect with an environment."

A lilting flute overcomes the excesses of synthesizer on Joanna Brouk's "Sounds of the Sea" over the Orca recordings of our friend, Jim Nollman; and mellow flute solos embroider Dr Roger Payne's humpback whale renderings on Larkin's

"O'cean." The versatile Paul Horn has recorded extraordinary solos "Inside the Taj Majal" and "Inside the Great Pyramid," joined other musicians for the elfin-inspired "Magic of Findhorn," and dubbed "Inside the Powers of Nature" over the sound of lovers and children, thunder-showers, birdsound and whalesong.

Piping bird and water sounds into your home or workplace aids that total right-brain takeover we so sorely need, yet must never replace our insistent and direct experience with the *real thing*. "Environmental music" does not take the place of "environment." Rather, it should be an incitement for us to get "out there," an inducement to *protect* that melodious wilderness.

Flute and other acoustic instruments are mated to the sounds of nature on cassettes by Tucson based "Soundings of the Planet." On Dean Evenson's "Desert Dawn Song" the life of Saguaro-studded Catalina canyons awakens explosively to the rising desert sun. We hear the jungle birds and softly breaking waves of Yalapa in consort with piano, harp, flute and sitar on his "Tropic of Paradise." Their related efforts include "Peaceful Pond," the collaborative "Whistling Woodhearts," "Alive Tree'O" and "Lifestreams."

We previously reviewed the work of Ancient Future and The Paul Winter Consort, ambient music's finest, but look also to groups such as Do'a, Shadowfax, Northwind, Codona, and Oregon. Strings are bent to the limits of global fusion by masters Jim Bowie, William Ackerman, Al Dimeola, Michael Hedges, Alex DeGrassi, Egberto Gismonti, Gabriel Lee, and the inscrutable Carlos Lomas. Like a tattered Quinche poncho, ragged with holes in its detailed and cryptic design, the threads of the human species are rent asunder. Indeed, our *only* purpose, our *only* work, is to weave ourselves *back* into the fabric of life. Determined, rhythmic, melodic.

Ambient. . .



THE GRIZZLY DEN

by Howie Wolke

Smoke, Fire, and Bovine Excrement Or, The Sad Saga of Alston Chase

The extensive Rocky Mountain forest fires of 1988 have been extinguished by deep wet early snows. On the frigid Yellowstone Plateau, in the limestone wilds of "The Bob," on the rugged slopes of the Salmon River Mountains and elsewhere, the smoke is gone. But the political shit has just begun to hit the fan.

The fires of 1988 were just another natural event; a sudden, if somewhat unpredictable, cataclysm resulting in major short-term change in the unending process of secondary ecological succession. The results of the fires are at once locally dramatic yet globally insignificant. Ecologically speaking, the fires are both beyond our control and beyond any rational value judgments. They just *are*, as many like them have always been. And like the natural fires which preceded them, they and those which will follow are necessary to the long-term health of most forest and rangeland ecosystems in the Rockies, the Pacific Northwest, the taiga, and in many other parts of this continent.

Most knowledgeable outdoorspersons, biologists, and even government land managers are well aware of the ecological "benefits" provided by natural wildfire. Nutrient cycling, seedbed preparation, creation of snags and deadfall, reductions in soil acidity, elimination of forest pathogens, and maintenance of habitat mosaics are some of them. Of course, not all result from each fire. In fact, there are so many environmental variables (climate, weather, slope aspect, slope steepness, soil profile, existing vegetation, downed fuel, natural fire breaks, etc.) that nearly all generalizations are exaggerations. The only sweeping statement that we can really make is that most Western ecosystems evolved with periodic fire and that many organisms depend upon its recurrence. That in itself is reason to maintain large nature reserves in which fire can play its historic role.

Of course, the exact nature of that role varies tremendously with both local and regional geography. And we're just beginning to learn about those variations. For example, "cool" surface fires historically burned every 20-30 years or less in low elevation Ponderosa Pine stands in the northern Rockies; but on the high plateaus of southern and central Yellowstone, "catastrophic" fires historically raged through the extensive forests of Lodgepole Pine, spruce, and fir at intervals of every century or much longer.

My purpose here is not to provide a dissertation on fire ecology. Others can do that better than I. Instead, because the 1988 fires produced so many sensational media reports, and because some self-serving yahoos such as Wyoming Senator Malcolm Wallop have used the fires as a political or rhetorical springboard and truth be damned, I want to cut through the bullshit and set the record straight on what we *should* learn from the big burns. Simply put, Yellowstone, as well as virtually all other National Parks and Wildernesses, is too small. In order to understand why this lesson is so important, it is crucial that we recognize the errors of those who oppose enlarging our nature reserves.

Perhaps the worst fire opportunist of all is Alston Chase. Recall that a few years ago he wrote *Playing God in Yellowstone* (see critique by Peacock, Sessions, and Foreman in Yule 86). After its publication, Chase became the new darling of the news media, the Yellowstone Ecosystem's instant "expert" of the 80s.

I read Chase's book while in jail in Sublette County, Wyoming, for ecological sabotage, and I've since read his drivel in various publications. The common thread in his writing seems to be that our wildlands are already so altered by humans that we need to meddle more, not less. Also, he seems to oppose additional

Wilderness or National Park designations. I say "seems" because he never makes clear what he wants or doesn't want. What is clear to me is that more than any other author I've ever read, Chase possesses the uncanny knack of carefully researching a subject, writing a logical narrative based upon some important shreds of a larger truth, and then drawing precisely the wrong conclusions. Moreover, from reading his book, it is inconceivable to me that he has ever spent much time in the woods. (His depicting of Lodgepole Pine as a species that typically replaces stands of Quaking Aspen in secondary succession is an example of why I doubt his field experience.) Unfortunately, though, his recent misguided attacks (in *Outside*, *High Country News*, and *The New York Times*) on Yellowstone's "let burn" policy — a sound policy now threatened by the politics of hysteria — have added fuel to a bandwagon that ought to have its tires spiked.

To be fair, I must admit that Chase is occasionally right. For instance, the future of Yellowstone and other nature reserves is threatened by the politicization of fire management. Policy should reflect what we know about ecology, not reelection politics or efforts to maintain the tourist count in National Park gateway communities.

Chase's exasperating misinterpretation of the Park Service's so-called "Natural Regulation" policy and his scientifically indefensible generalizations ("In prehistoric times, the area [Yellowstone] was swept with fires every 25 years or so" — *Outside*, 12-88) create annoying diversions. Chase and other writers have correctly pointed out that allowing nature, depleted as she is, to simply run her course is foolish and will not result in a Yellowstone unfettered by human events and intervention. But the problem isn't the principle of natural regulation, the problem is poor implementation. Yellowstone's Gray Wolves, Beaver, Mountain Lion, Lynx, Quaking Aspen, and other species have either been extirpated or so dramatically reduced that major reintroduction and restoration programs will be necessary before the ecosystem and its processes can once again properly function without our band-aid approach to conservation. Furthermore, Yellowstone's boundaries — as well as those of adjacent National Forest Wilderness and nature reserves elsewhere — need to be expanded to include whole ecosystems instead of political units. Then, nature will continue on course; evolution will carry on; and all of us human and non-human critters will benefit.

The fires of 88 have provided a forum for the absurd and the ironic as well as the ignorant, sensational, and self-serving. Malcolm Wallop wanted Park Service Director William P. Mott fired during the fires, while still supporting his boss Don Hodel, one of the most anti-environmental Interior Secretaries ever. Ronald Reagan admitted that he wasn't aware of the "let burn" policy. ABC radio told the nation that much of Yellowstone had been "destroyed." And Alston Chase seriously suggested that the Park Service could have averted the summer's events by setting prescribed burns to reduce combustible fuel (really!). As any ecologist knows, Yellowstone's Lodgepole Pine forests did *not* evolve with the frequent light surface fires associated with Ponderosa Pine, Giant Sequoia, or sagebrush/aspens habitats. To the contrary, Lodgepole evolved with periodic "catastrophic" events, such as the 1988 fires. Therefore, prescribed light surface fires would do little to emulate or promote the natural processes associated with such ecosystems. And natural processes, not particular stands of trees, are what we need to protect. Moreover, any first year forestry student knows that even light sur-

face fires will kill the thin-barked Lodgepoles. Fuel accumulations that would result from Chase's suggested burns would actually be far "worse" than those he would attempt to artificially eliminate. (I do agree with Chase, however, that prescribed fire might be appropriate for low elevation sagebrush/aspens/Douglas-fir habitats in northern Yellowstone, where fire historically burned at more frequent intervals.)

Nonetheless, Chase's biggest flaw is that he, like the bureaucrats he regularly attacks, remains oblivious to the big picture: Again, *none* of our nature reserves are large enough to protect entire ecosystems including all surviving indigenous species. They're too small to allow natural events such as wildfire or insect outbreaks to run their course without the "need" to squelch them in order to protect commercial timber, resorts, mines, and other

Growth & Earth First!

WHAT MAKES THE EARTH FIRST! MOVEMENT? *green fire*
WHAT SETS US APART? *green fire*
WHAT IS OUR GREATEST STRENGTH? *green fire*
WHAT IS OUR MESSAGE? *green fire*
WHEN SOMEONE LOOKS INTO AN EARTH FIRST!ERS' EYES,
WHAT DO THEY SEE? *green fire*

So, what about growth in the EF! movement? Are we for it, against it, or does it not matter? Well that depends on what we mean by "growth." Is growth simply adding to the numbers? Is growth a function of media coverage, numbers of wild-eyed hooligans ranting around the country? Does growth mean including in our numbers every animal rights/leftist/anarchist/vegan group that is enamored of us only to later scream betrayal because of the irreverent style of one of us? Do we measure growth in these ways?

Or do we measure growth by the only thing that really matters? Wilderness.

As Earth First! has developed over the last eight years, as we have grown from a gang of five to a movement with over 12,000 "adherents," our maturity and clout have increased.

But, as our measure of success (battles won) has increased, so has the strength of our enemy. The developers are learning from our mistakes. Every time we hold actions, those who destroy wilderness learn from our mistakes. Each time we put together a campaign that is ill-conceived, our opponents gain strength. We can't afford to make mistakes.

The measure of our growth has to be our efficiency. Our success will be determined by the extent to which we use the incredible talent we have within the movement. As we reach out for new warriors we need to attract people who go beyond the molds of convention: people that have broken away from the old chains of political dogma and conventional thought. This has never been a problem before. Our kick-ass redneck image, our beer-guzzling roughneck approach, that green-fire in our eyes that tells the developing scum, "these people are crazy, they really do want to save wilderness" — these have attracted resourceful warriors. For Earth First!, nonviolence has been a tactic, not necessarily a way of life. The fact that we've all been "loose cannons on the deck" has been to our advantage.

The way we need to grow is in our ability to build a network of individuals that can go toe to toe with the corporations. We can't do it with money, power, or connections; but we can do it with guts, huevos, common sense, by using all the tools in our pouch in innovative ways. We will never be a well oiled machine, nor should we be. We are the rice in the radiator that congeals into a mass that stops the system. We will always have internal spats, but as long as we can contain the internal fomentation at a level that doesn't interfere with our external fomentation, we will prevail.

I find it amusing that EF! now has a generation gap! David Brower learned from Bob Marshall; thought he was a fuddy-duddy, and went on from there. Foreman and Roselle learned from Brower, and went on. Now a batch of irreverent young upstarts think Foreman and Roselle are out of touch. They will learn from them and go on from there. This means we are keeping the kettle bubbling.

developments either within or adjacent to the reserves. They're too small to properly function without reintroductions, culling of herds, or maintaining artificial winter ranges to compensate for usurped habitat. In other words, they're too small, too developed, or both, to self-regulate.

In light of this, it's nothing short of astounding that people such as Chase, and Senators Wallop, McClure, Hatch, Hatfield, and others have the audacity to claim concern for the environment while opposing more Parks and Wildernesses. Despite Alston Chase's clever observation that today's administrators "cannot do the job" (from which he seems to conclude that we don't need additions to existing nature reserves), more and bigger Parks and Wildernesses are precisely what we do need. Many more, and much bigger. *That's* what we should learn from the recent infernos.

As the movement grows, we find it harder to maintain the spirit and drive that sets us apart from the pack. All new outfits have it to some degree, and as they mature, it is the first thing to go. This seems to be the most difficult problem the movement faces. Sure, there are others: money, gender, hierarchy, etc. But while they lead to some rough innings, we're still in the game. If we lose our spirit, the ball game is over.

Our moderating tendencies (most seem to come from the outside) tell us to curb our wild side. What would the movement be without our "drunk and ignorant" image, our "fuck the human race" chapters, our misanthropy? Movement for a New Society's wilderness branch or worse. Those that attack our irreverence haven't had a new idea since Roosevelt died. They fear green fire. We need our wild side as surely as we need our brains. Without that wild-eyed green fire, we are Democrats, liberals. Humor, song, dance, the written word, the spoken word, vitality, fecundity (not of the breeding sort) — all of these are Earth First! We are the green apple of Mother Nature's eye. We were grown wild, free, deep in the confines of wilderness. We are proud of our heritage. Without green fire, we are wimps.

We've been called cold, heartless, uncompassionate, Nazis. What those throwing the insults have missed is the teachings of the wilderness itself. Wilderness is not fair, it's not easy, it's not nonviolent, it's not picky about what it digests. It's not supposed to be. Wilderness means diversity: of thought, of spirit, of knowledge. What permeates wilderness is the feeling that all is one. What benefits one species, benefits all. What hurts one species may benefit everything else, but that hurt doesn't often go to the point of extinction. When we spend time in the wilderness, we find that a common bond holds all species together. That bond is life; life means the death of something else. That is natural. All species are prey species for something else. The common bond that all species have is the green fire burning within. We started to lose that common bond when we moved out of the trees and savannas. We lost more when we moved into cities. Green fire still burned, but not in us. We could feel it, but were afraid of it. We need to rekindle that fire.

We are beset by consternation over labels. What are we? Leftist, rightist, anarchist? I hope not! The "old-fashioned" farmer had an ethic that meant care and love of the earth and of the animals that supported him. His methods and philosophies came from generations of working intimately with the land. He was of conservative stock and his care of the land was conservative. When something threatened survival, that conservative changed his tune. Penny sales, revolts against power lines, milk dumping — hardly mild mannered. Conservatism became radical conservatism. In that same spirit, the typical Earth First!er is conservative. Conservative in thought, conservative in action and conservative of that spark of green fire.

To sum up: there are ways in which the Earth First! movement should grow. We should increase the sum total of the wilderness that is us. We should increase the common-sense ingenuity that is our edge. We must make the Green fire burn more brightly.

"Viva the revolution!" burn those dozers, hug those trees, be a pain in the ass of industrialism, los clavos! Earth First!

—Roger Featherstone



Circle of Time

(For the Young)



by Donald Eugene Briggs

author's note: *Stories can instruct, entertain, maintain a sense of community, and act as a library of knowledge; whatever their social function, they communicate a worldview and a way to explain a group to itself. Trickster tales have been important to the life and mythology of nearly all indigenous peoples in North America. To some, the voice belongs to Coyote, to others it might be Raven or Hare. Interdependence among different species is significant. Trickster stories, as a type, seem to personify the paradox inherent in human nature. Coyote, we know, is both beneficent and greedy, full of lust and willing to share, clever and sometimes just plain stupid.*

The trickster tale and a biocentric way of thinking, however, cannot be relegated to a distant past of Native American history: Like Coyote, who learned to avoid poison bait, the trickster character also refuses to die. As with other shifts in thinking – represented by such ideas as “wilderness,” a music of place, permaculture, or ecological land trusts – we might recreate the content to match a form which places the health of the planet first. This, after all, is the way culture works.

Long ago, in a land with rocks and trees and all kinds of creatures – a place known to some now as Turtle Island – the life of Wapiti, her family, and her community began to change in very subtle ways: It was as if time were trying to tell her something. And yet, the land was as rich as ever.

Wapiti's home was a synecdoche of life on the blue-green planet. Since the retreat of the glaciers, all kinds of plants and animals had settled in, including some of the hairy Two-Leggeds. The slow dance of time had been marked by the steam and magma and ash that sometimes exploded through the Island's crust – the mountains had known volcanoes. And now, Lodgepole was in this place, and the Creek connected to a Douglas-fir forest by Bluebells, and Aspens, too, with Sapsuckers easing into autumn, were home. This was a place where dawn came easy. On this day, though, when the light of day and the dark of night were equal, there was no real reason, but Wapiti began to have strange dreams – dreams about a time when the cleverness of the Two-Leggeds was causing problems for others in the community.

Wapiti found that she was not the only one bothered by such dreams. Osprey and Dace and Raccoon each told similar stories. Here, I must tell you that in *this Long Ago*, on certain days during certain seasons, all the animals could communicate with one another; and because of this, they understood how the behavior of each one affected the rest.

Fortunately, Wapiti was wise. She and her mate were held in high esteem by all the other animals – including the Two-Leggeds. Together, they lived to appreciate

the quality of light in that place, and their rituals of give and take, death and birth, of seasons and days and nights all helped to keep the circle of time in motion. There were other dancers in this work, of course, who lived on many continents and in many different kinds of places, from deserts and prairies to thick woods, fragile tundra, and even mountains taller than those formed by the volcanoes. Wapiti herself had adapted to many of these places and she helped to show others the kinds of dances to match their own texture of light. The balance, she knew, could be very delicate and hard to see. This is why dreams are important.

Anyway, to resolve the dilemma posed in her dreams, Wapiti, upon waking one morning, decided to summon Coyote for help. This was *not* an easy choice: Coyote is a clever trickster who likes to cause mischief – he is said to be the one who started death in the world and other not-so-pleasant things. To be fair, Coyote has also done a lot of good things, like finding fire for the people and passing it around the world (with his tail, of course). He can also make the best out of difficult situations, and he can change shapes and appear as a different person. And he is always ready to give advice, some of which might even be true.

Particularly, Coyote understands that time moves in spirals, like whirlpools in creeks, or dust devils on the plains in summer. Coyote can travel into spirals of time

and find places which we call the past and the future; unfortunately, though – for him, at least – he does not always end up where he expects to be, and does not always achieve his goals. This can cause him a lot of embarrassment. For example, the contemporary bard, Terry Yazzolino (a sweaty mammal grounded in the Pleistocene), tells a story which takes place in the Greater Yellowstone: One time, Coyote was drinking – simultaneously – coffee and bloody marys at the Town Cafe in Gardiner, and decided he could help Fly escape certain death at the hands of some Two-Leggeds by doing a “Dance that Changes Time.” Well, Coyote got this dance mixed up so badly that when he walked out onto the street, there was Mastodon trying to mate with a new shiny Winnebago. This, of course, is another story, but suggests why Wapiti's choice was not easy.

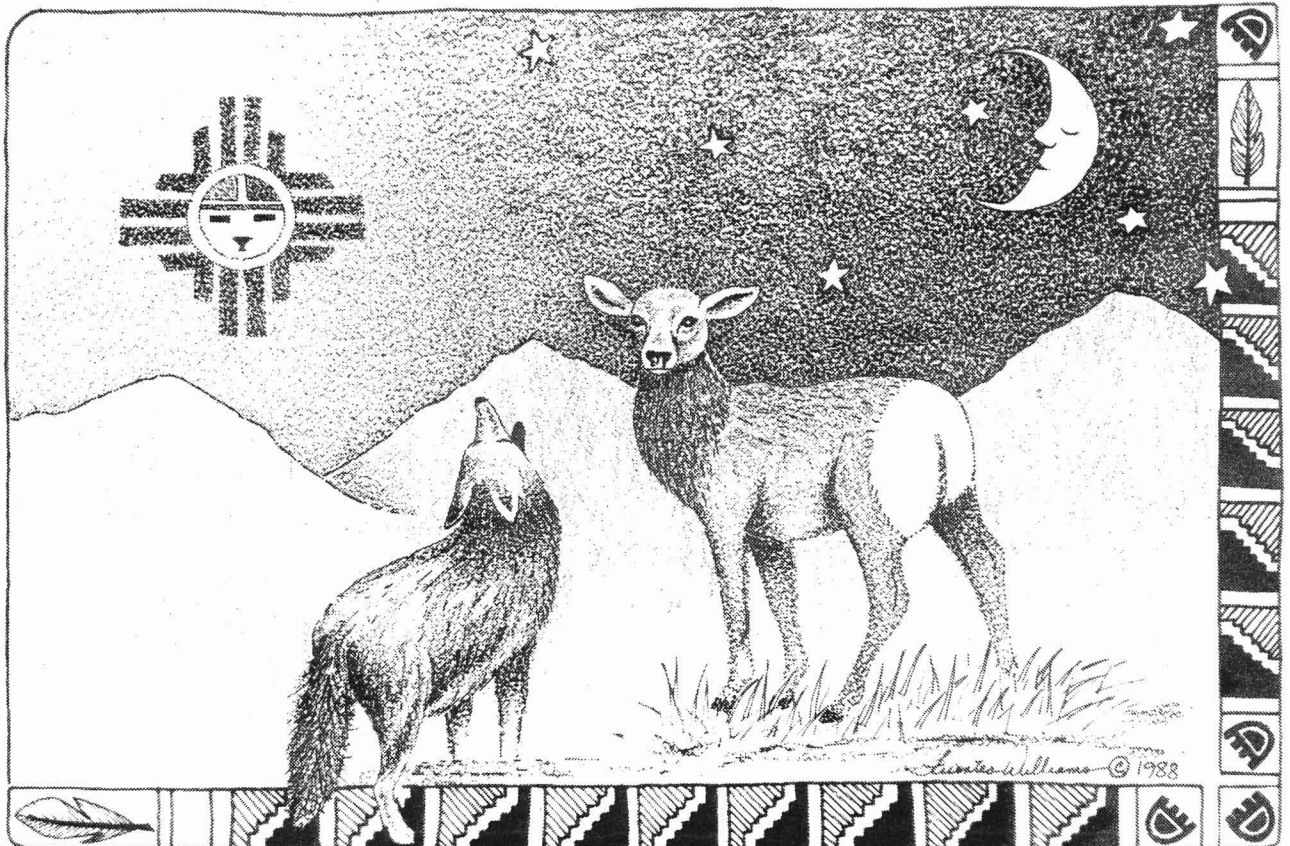
In weighing her options, Wapiti at last decided that this *particular* skill of Coyote's was necessary to help resolve the dilemma posed in her dreams. And, despite Coyote's notorious mischief, he *does* have the ability to understand the beauty of each place, whether mountains or plains or forests or deserts. It is important to know that, in this circle of time, beauty is not an abstract quality, but a *very real* place, which can be learned.

So, then, to prepare Coyote for his journey, Wapiti gave him some sweetgrass and began her instructions. “Please,” she said,

“listen to me *very* carefully . . . I want you to locate the time of my dreams and find those Two-Leggeds who can help provide answers, those who keep a vision of healthy communities and many generations alive in their stories and songs, their ways of life. To the first peoples, these will be called by names like shaman, sorcerer, and medicine priest or priestess. Others might also share a concern for the land, and within their various occupations be known as healers, storytellers, artists, teachers – and maybe even monkeywrenchers. At some point in their lives, all people will feel the need for such arts. Those you seek might not be, at first, very noticeable, so please use all of your senses. And remember, I want you to plant the seeds so their knowledge will grow and allow others to make the connections that will provide answers to the problems I feel in dreams.” As Wapiti continued with her directions, she began to assemble a collection of objects on the ground near Coyote.

Well, as I've said, Coyote can be an anxious character and he was very excited with the idea of a new adventure. After all, his mission sounded *very* important. But before Wapiti could finish her instructions, Coyote lit some of the sweetgrass and launched into a shape-shifting dance: After offering a prayer with the smoke, he spun around in a circle three times and vanished.

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Coyote and the Monkeywrench

by Peter Bralver

Coyote left his tent in the morning. Over the hill he saw a family of quail. He took the soup from his dinner last night, soaked it onto dry bread crumbs, and shaped it into seeds. Then he put leaves and brush around his face. “I am a tree, eat my seeds!” he said to the quail. Two fat young quail came up to him to eat and Coyote snapped their necks and wrapped them up in his blanket.

The next time he saw quail he wasn't so lucky. “You're Coyote,” the quail said. This time Coyote didn't get any.

Coyote sat down at the edge of the road and made a fire. He took the fat, dead quail out and cooked them. After he ate he heard someone coming up the road. Coyote put the leaves back on and pre-

tended he was a tree again. The person coming up the road was a human being. He was wearing overalls and carried a bag of tools. He was a mechanic. He didn't see Coyote.

After he had passed by, Coyote sneaked up behind him, grabbed him, and wrestled him to the earth. Then Coyote took out some scraps of quail meat. “Here, eat this,” Coyote said.

The mechanic ate the quail meat. Then Coyote let him up. “Now you have to do something for me to pay me back for the quail meat,” said Coyote.

“What do you want, Coyote?” asked the mechanic.

Coyote took one of the quail bones and ground it into powder. He mixed the powder with fat from the quail. He took a monkeywrench out of the mechanic's bag

and rubbed the quail fat and powdered bone all over the monkeywrench, then put it back in the bag. “You'll know what to do,” Coyote told him. Then he sent the mechanic on his way.

After the mechanic had gone a way up the road, Coyote sneaked along behind him. When the mechanic came to a big bulldozer, Coyote crept closer and pretended to be a tree. Coyote whispered as the wind: “Hey, this is the monkeywrench! Take me out of the bag and touch me to the bulldozer.” When the mechanic did so, the bulldozer turned to a pile of golden pollen and forest dust. Coyote threw his voice into the monkeywrench again: “Go do more.”

Coyote followed the mechanic for thousands of miles of roads. Thousands upon thousands of bulldozers, chainsaws,

logging trucks, yarders, highway building machinery, helicopters, and seismic trucks turned into heaps of golden forest dust.

The long road came to an end. They were at a giant fence circling miles of buildings. At a gate in the wall stood a guard. The guard saw the mechanic. “Hi, mechanic, where you been?” asked the guard.

“Out hunting,” the mechanic said. “Now it's time to go to work.”

Coyote watched the mechanic walk under the giant sign over the gate, which read: “WORLD WILDERNESS RAPERS AND WAR MAKERS MANUFACTURING.”

“Good!” said Coyote; “I know he's got that wrench. Now I can go get some more quail.”

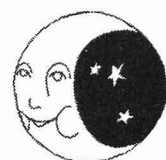
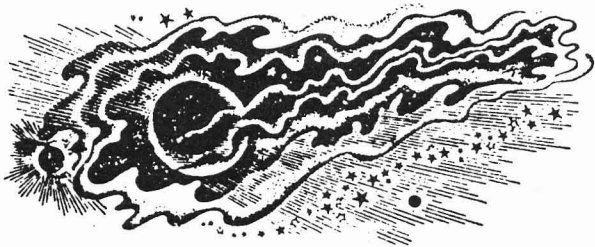
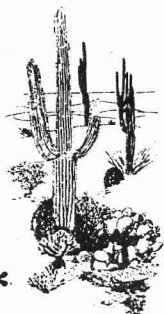
Peter Bralver is a mathematician and a leader of EF! Los Angeles.



Armed with Visions

clear as cut glass
& just as dangerous

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FLOWERING

The avalanche lilies
were still this morning,
white faces bowed
in mist and silent rain.
Wind, sun came back
and the lilies believed again,
dancing so hard I thought
they would break their stems,
fly from the mountainside.
Fields and fields,
jubilant flashing lilies—
their spent pale ghosts
surround me now,
as the stars glitter
so wild with light
they cannot contain themselves.

John Daniel
Portland

MEDICAL WASTE

Amongst the tidepools,
barnacles and bracken
lies a sack of human blood.
Atop a dune of gleaming sand
syringes drip filth.
Human intestines and even limbs
are carried high by the tide;
a ghastly modern flotsam.
Beachcomber beware!
The womb of life
spits back death.

Phillip R. Knight
Bozeman

WANT AD

Since you no longer ask
I'll tell you what I want to be
As I grow, not when
Up, if you insist, although
There are other directions you slight,
So necessary.

A subsistence artist, not con
Looking for a lively-hood
Although there are other common senses
I'd hope to raise from this musical chair culture
Before our noise is ended
And we wind up asses
Without chairs.

I want a home
Where my buffalo buddies can roam
And you don't even allow pets.
This land is not your land
Or mine (sorry Woody)
To lay claim to, sell, or abuse.
So you can take your techno-legislative solutions
To ideologic, economic pollution
And stuff them up your ballot-idiot-box-hole.
This body votes daily for inter-dependence.

I want to live in the REAL estate.
I want a home where I can share with the present
With respect for past and future.
Even if it's cloudy all day.

Richard Pan Ludens
South Sterling

WHAT HE SAID

"I ride fairly regularly
through a National Forest in the East now
when I can get to Camp David
and I'm amazed
and I know you're all aware
that what people think
is nature being preserved
but how such a useless tangle
and then the taking over
by lesser valued trees
is taking place because
there is a lack of harvesting
in there that would keep
those forests more alive
and what they were supposed
to be"

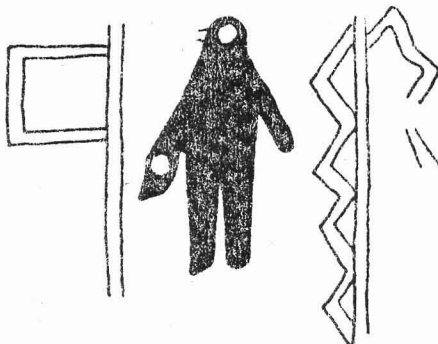
-- your president
at the Weyerhaeuser Corp.
Klamath Falls Ore.
Feb '83

John Ross
Arcata



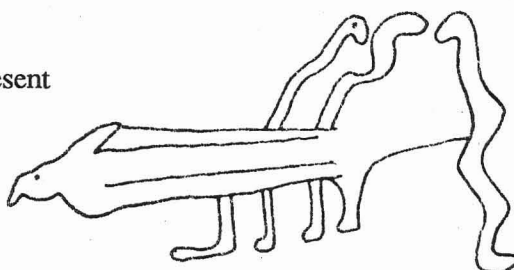
October rains
curtain the islands
as We struggle to use the shortening days
the Old Women mimic the Bear
gathering the last of the berries

Scott F. Young
Cedar Falls



Road Kill, U.S. 40

Raptor.
Sky lord.
Thunderbolt wings.
Lightning claws.
You really are
just feather and bone.
Ruth Gow
Sequoia



TAKING OFF A ROOF

Snow melts off the near hills
As I bend to the work
Shovel forced under shingles
Push
Rip up
Nails pull away
Kim pulls roof
Rolling it away
Hard

Bent over
October mornings
smoky autumn light

Later --
Sun high
hills brown
dry waves of the prairie
breaking
against the mountains

We wait for the dumptruck

Sit on the roof
Drink beer
Joke

of giving neighbors bad impression
of our profession

Rooftop
after
Rooftop

Under these house
Bones of
Bear and Buffalo

Michael Adams
Eldorado Springs

MY CHURCH

The sky is her ceiling.
The earth is her floor.
The mountains her walls.
My church has no door.

Pat Foust
Port St. Lucie

QUESTION

Why even think about suicide
when anything can happen--
one minute you're sitting at home
staring into the fish tank and
the next minute your friend Mark calls
to tell you he's driving out west
from Chicago in a new blue van
which you hop into after a night
of no sleep and since no one
has any speed you gobble down
18 chocolate covered espresso beans
and in 20 minutes you're too buzzed out
to worry about the calories besides
now it's time for lunch and
you're sitting under a television set
in a bar in Vail Colorado
with a grilled cheese sandwich
watching an old lady at the next table
eating some roast beef
and wondering why the sight of her
chewing
is absolutely the saddest thing
you'll ever hope to see.

Leslea Newman
New York



THE AGES OF GAIA: A Biography of Our Living Planet, James Lovelock, WW Norton & Co, 1988, 252pp, \$16.95.

Jim Lovelock has dropped the other shoe at last. He has written his long-awaited sequel to *Gaia: A New Look at Life on Earth* (1979), the book in which he first proposed to a wide audience the now well-known Gaia Hypothesis. Many readers found the earlier book enlightening, but also exasperating. It had an open-ended quality: for every connection Lovelock found that suggested a living Earth, his evidence hinted at a dozen more. Now Lovelock has published his attempt to tie up the dangling threads of the first book, but characteristically he leaves many more new ones.

The new book is personal, chatty, not at all rigorous, but written with wit and style. Sample this tidbit: "At the risk of having my membership card of the Friends of the Earth withdrawn, I say that only by pollution do we survive. We animals pollute the air with carbon dioxide, and the vegetation pollutes it with oxygen. The pollution of one is the meat of another." (p.26)

The greater part of the book consists of Lovelock's account of the coevolution of life and climate through time. Only one chapter is scientifically demanding, and the author invites the reader to skip that. In the introductory chapters he attempts to answer criticisms of the earlier book from both scientists and environmentalists. Many scientists didn't like the Gaia Hypothesis because they believed the idea was teleological — concerned with purpose, for heaven's sake — and also because it lacked a credible mechanism to account for the biosphere's apparent ability to regulate climate. Lovelock answers both objections, satisfactorily in my view, in his new book.

But environmentalists also were uneasy with Lovelock's first book. Certain parts seemed to bestow a license to pollute. (Didn't you get that sense from the above quote, even though you understood what he meant?) The earth's regenerative power and self-regulatory capacity are, it seemed to say, greater than anything we can do to damage it. But Lovelock has rethought this earlier view, and now repudiates (or clarifies) it. He argues that we can appreciably damage the biosphere with our assault on the tropical rainforests and the ozone layer. He now proposes a new science of what he calls geophysiology, or planetary medicine.

On this seeming "conversion" Lovelock writes eloquently: "A frequent misunderstanding of my vision of Gaia is that I champion complacency, that I claim feedback will always protect the environment from any serious harm that humans might do. . . . The truth is almost diametrically opposite. Gaia, as I see her, is no dotting mother tolerant of misdemeanors, nor is she some fragile and delicate damsel in danger from brutal mankind. She is stern and tough, always keeping the world warm and comfortable for those who obey the rules, but ruthless in her destruction of those who transgress. Her unconscious goal is a planet fit for life. If humans stand in the way of this, we shall be eliminated with as little pity as would be shown by the micro-brain of a . . . nuclear missile in full flight to its target." (212)

With statements like these, it seems that Lovelock has independently arrived at a deep ecology position. Sample a few more gems: "Gaia is not purposefully anti-human, but so long as we continue to change the global environment against her preferences, we encourage our replacement with a more environmentally seemly species." (236) Or this: "We have at last a reason for our instinctive anger over the heedless deletion of species; an answer to those who say it is mere sentimentality. No longer do we have to justify the preservation of the rich variety of species in natural ecosystems. . . . on the

feeble humanist grounds that they might, for example, carry plants with drugs that could cure human disease. Gaia theory makes us wonder if they offer much more than this." (63-4)

Lovelock is a solitary scientist, independent of institutional affiliations or the demands of funding cycles. He lives on an isolated farm in Devonshire, and uses a converted mill for his laboratory. Most likely his only contact with environmentalists has been with those of the pin-strip and privilege variety, so he may be forgiven his apparent ignorance of deep ecology and rise of green politics and ecodefense. (If the honchos in Tucson could be persuaded to donate to him a subscription to *EF!* [Someone send us his address, please, and we'll do so. —ed.], he might not write clunkers like this: "Gaia theory forces a planetary perspective. It is the health of the planet that matters, not that of some individual species of organisms. This is where Gaia and the environmental movements, which are concerned first with the health of people, part company." (xvii, emphasis added)

Lovelock devotes a chapter called "God and Gaia" to the "theology" of the Gaia idea. The following quote sums up his view: "In no way do I see Gaia as a sentient being, a surrogate God. To me Gaia is alive and part of the ineffable Universe and I am part of her." (218) Many Earth Firsters can endorse this lyrical sentiment, and Lovelock seems at times to appreciate the numinous aspects of his idea. Yet I am mildly disappointed at this discussion of "theology." To many, the transcendent implications of the Gaia idea are far deeper than Lovelock seems to realize. Some see in his hypothesis the germ of a new metaphysics that may replace the worn-out prophetic faiths of humankind, as nature selects for views more compatible with her own demands. It may be that Earth-derived traditions will one day recapture the stage from the now-dominant sky-god religions, perhaps as an adaptive mechanism in response to the massive population die-offs that are coming.

I mentioned earlier that Lovelock has left us with a whole new set of dangling threads. In this space I cannot catalog the ones that leaped out at me in reading this superb book. Instead I will mention only the one that interests me most. Lovelock makes only a passing reference to the AIDS epidemic. I wish some scientist with respectable credentials would make the obvious connection between AIDS and the Gaia Hypothesis in print, so that the speculation might receive intelligent discussion. It deserves better than the outraged and polemical responses that have characterized the debate so far.

The reviewer, Daniel Conner, wrote the *AIDS/Gaia* article that appeared in our *Yule 87* issue and the *Wilderness Music* review that appeared in *Lughnasadh 88*. He wishes to thank Audubon, *Wilderness*, *Omni*, *The Atlantic Monthly*, and other such well-paying, slick magazines that keep rejecting his pieces. Now he can offer them gratis to *EF!*, where one day hordes of eager Ph.D. candidates researching the development of ecocentric holism will read them.

ONE LIFE AT A TIME, PLEASE, Edward Abbey, 1988, Henry Holt (115 W 18th St, NYC 10011), 225pp, \$9 from *EF!* Books.

"It is my belief that the writer, the freelance author, should be and must be a critic of the society in which he lives. . . . The more freedom the writer possesses the greater the moral obligation to play the role of critic." So starts "A Writers Credo," one of the best essays collected in Edward Abbey's latest volume of musings, recollections, bias, and analysis.

Abbey honors his own credo. The first section of *One Life at a Time, Please* is devoted to heretical politics, from attacks

on the myth of the noble cowboy to distinguishing "sportsmen" from hunters. Here Cactus Ed looks at "Our Lady of Perpetual Growth," industrial society's fetish for progress: "Growth for the sake of growth is the ideology of the cancer cell. Cancer has no purpose but growth; but it does have another result — the death of the host."

Included in this section are two pieces familiar to Earth Firsters — Abbey's "Forward!" to *Ecodefense* and his "Theory of Anarchy," first printed in this august journal. Remember? — "Like a bulldozer, government serves the caprice of any man or group who succeeds in seizing the controls."

Abbey's favorite essay in the volume is "Immigration and Liberal Taboos," rejected, he proudly recounts, by six publications. "The conservatives love their cheap labor; the liberals love their cheap cause," he writes of those who support mass immigration. "Both factions are supported by the cornucopia economists of the ever-expanding economy, who actually continue to believe that our basic resource is not land, air, water, but human bodies." This is a controversial and thought-provoking essay.

Another essay, "Wild Horses" offers a non-ideological solution to the problem of feral horses. Abbey suggests "confining them within a few large desert reserves that are also well-stocked with mountain lions, grizzlies, jaguars, and wolves." This idea balances the needs of native herbivores with the preservation of an exotic critter that for three centuries has been part of our Western ecology.

The second section of *One Life* is a series of travel narratives, ranging in quality from the slightly tedious "A San Francisco Journal" through "River Solitaire: A Daybook," which approaches the quality of *Desert Solitaire*. The third section of the book is called "Books and Art," and includes "A Writer's Credo," which explains why Abbey writes:

Why write? How justify this mad itch for scribbling? Speaking for myself, I write to entertain my friends and to exasperate our enemies. I write to record the truth of our time as best as I can see it. To investigate the comedy and tragedy of human relationships. To oppose, resist, and sabotage the contemporary drift toward a global technocratic police state, whatever its ideological coloration. I write to oppose injustice, to defy power, and to speak for the voiceless.

I write to make a difference. "It is always a writer's duty," said Samuel Johnson, "to make the world better." I write to give pleasure and promote aesthetic bliss. To honor life and to praise the divine beauty of the natural world. I write for the joy and exultation of writing itself. To tell my story.

"The Future of Sex: A Reaction to a Pair of Books," Abbey confesses, "began as a routine book review . . . but escaped its ball and chain." A good thing it did. In it Abbey exposes the emptiness of contemporary feminism cut off from Mother Earth:

Mired in confusion in a confused society, feminism today seems cursed by triviality — the latest form of woman's ancient curse. But I suspect that both the movement's evangelists and its critics may be wrong. There is a revolutionary potency in feminism because the apparent future, the general drift of technological society, is toward that androgynous world I have sketched above, a world where unisexual, interchangeable, replaceable units of desexed semihumanity carry on the subjugation of nature and human nature in a universe dominated by interlocking, embracing, copulating machines.

Like all of Abbey's work, *One Life at a Time, Please* is a fight against the machine. Each chapter is a rock in that free-flowing river that Abbey has made of his life. To read these essays is to cross the river on those rocks. Rivers should be crossed with open eyes, care, and balance, feeling the spray, enjoying the spectacle, but without falling in. After all, Ed gives only "Two cheers for anarchy."

Reviewed by Michael Robinson.

A PLACE FOR THE WINTER: Paul Tiulana's Story; Vivian Senungetuk & Paul Tiulana; The Ciri Foundation, POB 93330, Anchorage 99509; 1987; 42pp. plus numerous plates from 1930s and 40s; \$15.95 hardback.

A Place for the Winter is partly a book about the traditional customs of the Eskimos of King Island, in the Bering

Sea west of Nome, Alaska. In lucid prose, the authors describe the Eskimos' ingenious methods of hunting and utilizing Polar Bear, Walrus, and Bearded Seals. They discuss the intricate familial ties and tension-releasing dances which preserved the peace within the community even during the long and confining winters.

While the particular events in the book indeed comprise Paul Tiulana's story, his could also be said to be the story of many Eskimos struggling both to maintain traditional ways and to face the political and economic realities of 20th century civilization. Eskimos of King Island were drafted during World War II and otherwise enticed to leave their homeland. By the 1950s, most had left the island, and none now remain. Paul Tiulana provides a rare glimpse into the ambivalence of many Eskimos toward modern civilization. He attributes the social difficulties common among Eskimos in the 20th century both to white culture's coercion of Eskimo cultures in directions alien to these native peoples, and to weaknesses on the part of Eskimos in failing to resist assimilation. Yet, far from despairing, Tiulana proposes a rapprochement between traditional and modern ways:

We could integrate both systems if the government sat down with us and made plans to educate our children the modern way and the village way, to satisfy both sides. The teachers must sit down with us, and the lawyers and . . . the government officials. We can teach them the Eskimo ways because they are the best ways for our people. And we can make a contribution to modern American society. (p.42)

Reviewed by John Davis.

LAST STAND OF THE RED SPRUCE, Robert Mello, Island Press (1718 Connecticut Ave, NW, Suite 300, DC 20009) & Natural Resources Defense Council, 1987, 170pp.

This is the alarming account of an attorney who took leave from his job to investigate the demise of the Red Spruce forests of the Green Mountains of Vermont and areas southward. Mello's inquiry reveals that air pollution is killing Red Spruce stands throughout the Appalachian Mountains, particularly in the Northeast. Acid rain and related manifestations of sulfur dioxide and nitrogen oxide emissions are also killing the other trees of the Northern Appalachians: Balsam Fir and White Birch at high elevations, and Mountain Maple, Sugar Maple, American Beech, and most other large trees at mid and low elevations. In telling this grim tale, Mello lucidly explains the division of the scientific community over the acid rain issue, and, more interestingly, the various attributes of evergreen and upper elevation forests which make them particularly susceptible to damage from air pollutants. Mello concludes that air pollution has killed much of the forest in the East, and is now damaging forests in the Midwest and West, and that the damage will continue to increase dramatically unless Congress soon passes legislation to control sulfur and nitrogen emissions and unless the EPA begins to enforce clean air legislation, which the agency has thus far failed to do. Mello's book should be mandatory reading for all US Congresspersons — indeed for all US citizens.

ISLAND PRESS CONSERVATION CLASSICS.

Island Press (1718 Connecticut Ave NW, DC 20009) has released the first three books of its new series, Conservation Classics. All three are well-written and historically influential books with which environmentalists will want to be familiar. (Each is \$19.95 in paper.)

Breaking New Ground, originally published in 1947, is the autobiography of one of the most important and controversial figures in conservation history, Gifford Pinchot. Pinchot, the molder of the US Forest Service, incurred the wrath of many developers as well as preservationists by advocating intense but sustainable timber harvesting on the National Forests.

Tree Crops: A Permanent Agriculture, first published in 1929, is a book by J. Russell Smith that was far ahead of its time in denouncing prevailing agricultural methods. Smith explains how such trees as Honey Locust, Carob, Mesquite, and numerous species of hickory nut trees can provide a means of food production, even on steep land, which would end the eroding of the topsoil. Smith's proposals have not been widely implemented in the US, obviously, but where tree cropping has been practiced in other parts of the world, the

results have indeed been far better for the land than where the world's predominant crops of rice, corn, and wheat are grown.

Similarly, *Plowman's Folly*, first published in 1943, took on a formidable foe - the moldboard plow - the fundamental farming implement throughout the developed world, and one largely responsible for the Dust Bowl of the 1930s. The book created such an uproar that author Edward H. Faulkner wrote a sequel in 1947, *A Second Look*. Island Press has bound these two together for the first time.

Ask your library to order these important books.

Reviewed by John Davis.

TRIBES, Peter Marsh, forward by Desmond Morris, 1988, Peregrine Smith Books (POB 667, Layton, UT 84041), 160pp, 110 photos, \$29.95 cloth.

Tribes is a fascinating account of the basic social unit of *Homo sapiens*. It begins with a masterfully written forward by the world renowned anthropologist Desmond Morris, in which he explains the long history of our tribalism - dating back to semi-nomadic groups of pre-human monkeys millions of years ago - and warns of the danger of ignoring this long history.

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Morris focuses on several key events in the evolution of tribal humans, and Peter Marsh later elaborates on some of these. (The degree to which hunting shaped the evolution of humans is a matter of some debate these days, and thus Morris' forward may raise the ire of some readers; nonetheless, his portrayal of humans as fundamentally tribal is not to be gained.) A million or more years ago, the increasing importance of meat in human diets led to food sharing and organized hunting expeditions of men. These hunters became, in effect, special tribes within tribes. Hunting, as a mode of procuring food, led hominids to become bipedal - the better to espy prey over the tall grass of the African plains, and the better to carry the catch. The ability to carry food, in turn, led the naked apes to establish homes, to become more sedentary. After 50,000 generations of men

hunting and women gathering (the latter of which, unfortunately, neither Morris nor Marsh emphasize), the agricultural revolution began (500 generations, or 10,000 years, ago). Subsequently, large herbivores, as they became wont to graze the early planters' crops, were caught and domesticated. With such herbivores being raised in enclosed areas, the slaughter replaced the hunt. However, hunting had so deeply ingrained itself in men's nature that they invented ritualistic forms of the hunt to replace the real hunt. These ritualistic forms have evolved through three stages. First came sport hunts, such as fox hunts in England. Second came bloodletting sports, such as bull-fights in Spain. Third came non-lethal sports, such as football in the US. Football involves many of the same physical skills as hunting, and indeed football teams are among the more prestigious modern tribes.

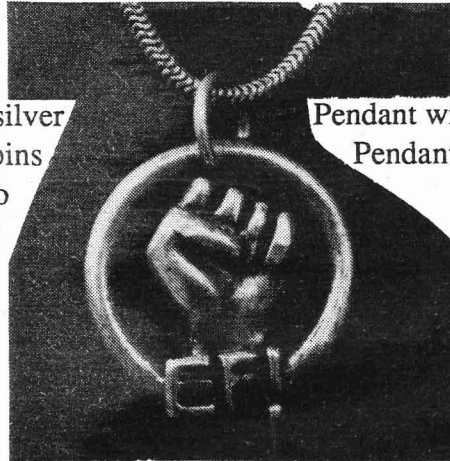
It is mostly the modern tribes which Marsh discusses. His comparison of modern tribes, such as Punks of England, with traditional tribes, such as the Rauepe of Brazil, suggests not only how ritualistic are some modern forms of dress (confirmed by the photos of the Amazonian Indian and the British Punk, the latter, with his Mohawk haircut, a semblance of the former), but more importantly, how inescapably tribal we are.

Given our tribal nature, Marsh's is a valuable book for aspiring young tribes such as Earth First! It provides a lucid introduction to a topic that must be understood by any humans who hope to become future primitives.

Reviewed by John Davis.

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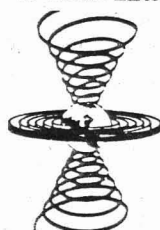
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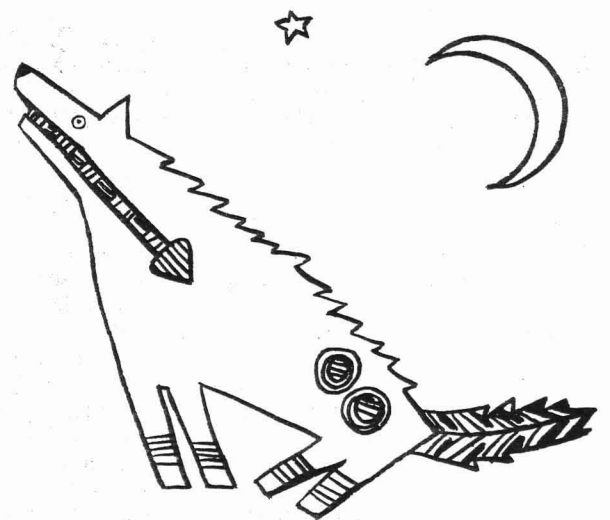
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DEAR NED LUDD

DEAR NED LUDD is a regular feature in *Earth First!* for discussion of creative means of effective defense against the forces of industrial totalitarianism. Neither the *Earth First!* movement nor the staff of *Earth First!* necessarily encourage anyone to do any of the things discussed in DEAR NED LUDD.

Dear Ned

Millions of acres in the Northwest and Southeast are covered by managed tree farms. These even-aged "row-crop" pine (or Doug-fir) plantations are ecologically bland and provide little habitat to other than "weed species" (deer, etc.) which have abundant habitat elsewhere. I wonder if it would be possible to make these tree farms more valuable for other, rarer species of wildlife by creating snags in the monotonous stands. Wildlife biologists know that standing dead trees - "snags" - are important habitat. The insects in them provide food for woodpeckers and other birds, and many birds and small mammals find homes in cavities in such trees.

One could turn a few trees in each acre of such tree farms into productive snags simply by girdling them with a hatchet. Is this a good idea? Would it work? What would be the best technique? Are there any pitfalls to this?

Moreover, would the creation of such snags lessen the value of the entire stand and perhaps save it from being cut at all? Could we save trees by killing some of them?

Somebody had to think of it. Think like a porcupine.

-I.P. Freely

Dear I.P.

An interesting idea. I doubt that creating snags in a tree farm would prevent cutting of the other trees, but you may well be correct about such activity increasing the value of the overall area for wildlife habitat during the years before cutting. Does anyone out there have comments on this? The main concern I would have is one of adverse public relations. If done, it should be done with no publicity.

-Ned

Dear Ned

Ceramic insulators are made out of an extremely hard ceramic and are suitable for non-metallic tree spikes. Although they are being replaced by plastic insulators, they can often be found in old junk piles or in basements or storage sheds - some can still be seen in National Forests where ancient telephone lines led to fire lookouts before radios. They also may still be available at large electrical supply stores. Use the standard placement and security methods in **ECODEFENSE** for non-metallic spikes.

-Grounded

Dear Ned

I noticed a letter in a back issue (Dec. 87) describing a failed attempt to use a crossbow to shoot spikes into trees. If you still have your crossbow, Spike Archer, here are some tips that might help:

1) The "spike dispenser," being made of steel, was probably too heavy and reduced the velocity excessively. Try making one out of standard aluminum bolt (crossbow arrow).

2) The spike used was 1/4 inch diameter. 1/8 inch piano wire is probably as hard on saw teeth as 1/4 inch mild steel and yet has only 1/4 as much cross-section! If 1/8 inch is too small to damage saw teeth, try 3/16 inch piano wire. Stout stuff, but it still has only half as much cross section as 1/4 inch stock.

3) Try coating the tip of the spike with green soap. Green soap will protect the tree from infection and soap is a remarkable lubricant for any wood fasteners such as framing nails or screws. Good Luck!

-Iron Tick

Dear Ned

The increment borer is a tool that almost every forester carries and uses on occasion. It is used to bore into the trunk of a tree in order to extract a core. (The core can tell a forester a variety of things.) The tools, made from Swedish steel, are anywhere from 4" to 20" long and about 5/16" in diameter. The 16 inch length retails for about \$100 in the Ben Meadows Catalogue.

Unlike the spike and a hammer which resounds throughout the woods as it is driven in, the increment borer is quiet, and bores a 1/4" to 5/16" hole which will take 6" of 1/4" round file. The core can be

returned to disguise the entrance. The hole seals itself with pitch within a short time.

The borer and file, unlike a hammer and spikes, are things that would be expected in the forest or on a timber sale area, especially if you are wearing an old Filson cruisers jacket and carrying a cruisers axe.

The use of an increment borer takes a little practice. While it can be rotated, it must never be bent, or it will splinter. Further, it is best to remove it immediately after the core has been extracted. Left in, the tree seems to set up on it after a while, making extraction difficult. If, in boring a tree, you inadvertently run into rot in the butt, it may be necessary to pull back with all your weight, while rotating the instrument in order to re-engage the threads in sound wood.

Of course, in case questioned, it pays to bone up on some forestry terms: mean annual increment, rings per inch, low site, high site, standard deviation.

I realize \$100 is a lot of money for an individual to spend, but the reduction in court costs might make it worthwhile.

-Vecchio Silva

Dear Ned

I recently met a Forest Service employee at a flea market who gave me a suggestion for an alternative to tree spiking. Drive small rocks into the crevices of the bark. Tree-cutters hate hitting rocks imbedded in trees even more than nails, as they do more damage to saws. They also cannot be detected by metal detectors.

-Winno Bago

Dear Ned

I've heard from two separate, reliable sources that bullets in trees are hell for mills. Lead will dull a blade, steel jackets (surplus armor piercing - APs - .30 caliber) break them. This problem is common in timber sales adjacent to roads, as slob hunters take target practice on trees. I heard about part of one such tree, cut from a bend in a well-traveled road, that a mill took so many unsuccessful runs at that they keep the still-round log as a keepsake. The advantages of this untested method are: fast, easy, can cover a lot of trees at all heights of the trunks, works on chainsaws and millblades. Hunters and targetshooters are so common in the woods (especially in hunting season) that the noise shouldn't be a problem.

-Quick Draw

Dear Quick Draw

Sounds good. If anyone tries this during hunting season, be sure to have a hunting license so you don't get popped by a game warden. If any of you NRA members have corroboration or more info on this, please write. Would the lead in the slugs be toxic to the tree?

-Ned

Dear Ned

As a comparison to the one injury sustained at a logging mill that was processing spiked logs (and knew it!), I've been wondering how many injuries are sustained in logging operations and mills in general. This figure might help put this issue in proper perspective.

-Ant

If anyone has statistics on death and injury rates in logging (both field and mill), please send them in.

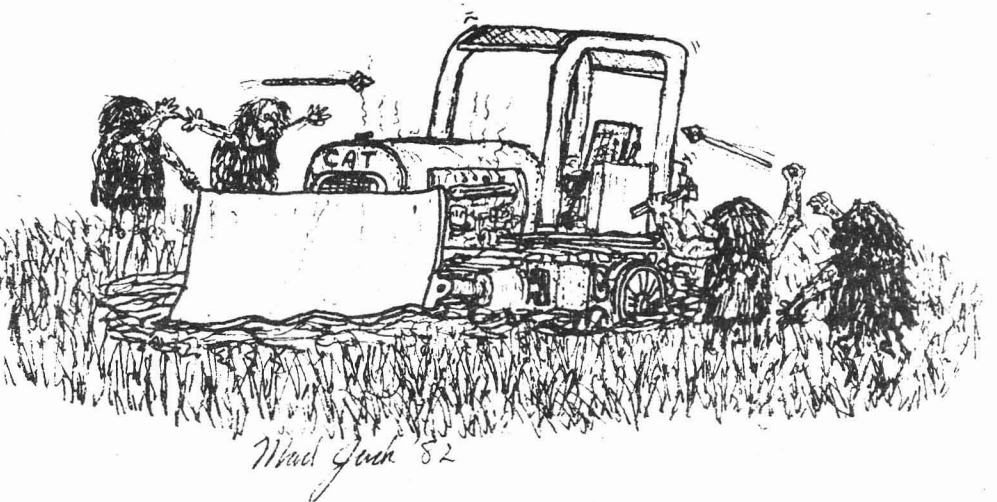
-Ned

Dear Ned

If you are an enemy of the throw-away society, here's how to bring your message to an appropriate audience:

Dumpsters make fine "billboards" for our message, requiring only paint and perhaps a stencil. Large disposal companies like Waste Management Inc. (WMI) and BFI have dumpsters all over. (WMI has maroon ones and BFI has blue ones.) Good slogans to put on these companies' dumpsters would advocate curbside recycling - "Your garbage is polluting my neighborhood! Demand recycling now!" and "It's time to try recycling!"

This dumpstering will help fight the



mindless creation of more landfills and trash incinerators. 90% of our waste is recyclable, and the rest (styrofoam, etc.) shouldn't be produced in the first place. If you use this technique to fight a new landfill or incinerator, you may want to alert trustworthy local media to a dumpster painting party - wear Reagan masks to protect your identity!

Organizations like Greenpeace (202-462-1177) and Citizens Clearinghouse for Hazardous Waste (703-276-7070) have published excellent reports documenting the crimes of the waste hauling giants. For example, WMI has been fined more money for environmental violations than any other company.

We'll send photos of our work in the near future. We hope others will, too.

-The Anti-Nowhere League

Dear Ned

Why risk jail cutting down or burning billboards when it is safer and more effective to just use the various paint bomb tricks in **ECODEFENSE**? Try making your mark on the billboard in the most embarrassing way - say, a yellow smear of paint on the Marlboro Man's crotch.

-Tonto (and Old Paint)

Dear Ned

Here's a way to do a big paint job in a hurry. Obtain an empty disposable freon tank from your friendly refrigerator serviceman. Have him pull a vacuum on it (remove all the air). Get a few feet of pressure hose to fit the tank valve, two hose clamps and a schrader valve (tire valve).

Clamp the hose to the tank. Mix a gallon or two of your favorite paint color to a spraying consistency. Dip the end of the hose into the paint, open the valve and the paint will be drawn into the tank. Clamp the schrader valve in the hose and go to a gas station for compressed air (sometimes tire stores and truck stops have better pressure).

When you get to the job site, remove the core from the schrader valve with a core remover tool. The schrader valve will act as a restriction and nozzle to give you reach and to break up the stream. Turn the jug upside down, open the valve and spray at will. Have fun.

-Florida

Dear Ned

Glass etching cream is a wonderful tool for monkeywrenchers. My favorite thing to do with it is to paint slogans and messages on windows and windshields. Unlike paint, etching stays until the glass is replaced. But there are times when something quicker is called for.

ECODEFENSE talks about using xmas tree ornaments as paint bombs. Unfortunately they won't work for etching cream because it's difficult to get the cream down that little hole and the cream would etch away the ornament before you could throw it anyway.

For an etching cream bomb, try an egg. Put a new blade in your exacto knife. Score a circle about 1" - 1 1/2" diameter around the pointed end of the egg. After scoring deeply, make little holes around the scored circle. The end of the egg should then lift off easily. Dump out the egg (use it later) and rinse out the shell. Dry. Carefully spoon in the etching cream. Then lay a small piece of tissue paper on top. Melt some wax and paint it over the tissue and seal the edges down to the egg. Add another coat of wax after that one dries.

This can all be done without leaving fingerprints by wearing thin cotton jewelers gloves - available cheap by the dozen from jewelry supply companies like Rio Grande (1-800-545-6566).

Put the finished egg back in the carton for transport. When thrown with conviction, these little dudes leave a large and explosive looking splat design on the win-

dow of a fur dealer or other land and critter raper.

-Bob Wire

Dear Ned

I heard a disturbing rumor that the technology now exists to take fingerprints off tree bark and other rough surfaces. Supposedly the Region 6 Freddie chief law enforcement man is trying to get it - it's supposedly expensive though. Of course, its effectiveness is questionable - how do they find months-old prints in a big forest? Nonetheless, it underscores the need for gloves in tree spiking and similar activities. Does anyone know about the reality of such fingerprinting techniques?

-Whorl & Ridge

If any of you readers know about such sophisticated fingerprinting techniques, please drop me a note. Thanks.

-Ned

Dear Ned

To harass your least-favorite mall or other retail ecorape, make your own coupons. Use their logos or ad cliches (look in the newspapers) and stack the finished, flashy coupons near the entrance where they're visible, offering patrons of such stores free or reduced-price merchandise.

-Born to Shop

Dear Ned

I read the following news item in *Earth Island Journal*: "Silver-coated mylar balloons caused more than 120 power outages in California last year, according to Pacific Gas and Electric officials. These semi-metallic balloons cause short-circuits which can black out entire communities at a cost of \$40,000 to \$100,000 per incident, PG&E reports."

This might be a good tactic to oppose construction of additional powerlines or generating facilities (dams, power plants, nukes, etc.).

-Power Tripper

Dear Trip

Unfortunately, such balloons have been implicated in killing wildlife. For example, if such balloons set down in the ocean, sea turtles, sea birds and marine mammals may eat them and get them caught in their throats, or have their intestines plugged by them.

-Ned

Dear Ned

I've looked high and low for info concerning the destruction of water wells. I can't find anything anywhere and need help from other concerned open space sentries. How can I get the caps off, and what's inside? What substance can I put down there to screw up the works without damaging the groundwater? I haven't seen this addressed anywhere, and it's positively ripe with possibilities. Info and instruction from anyone would be appreciated.

-Monkeyshines

If any of you technically-proficient readers have tips on this, send them in and we'll run them in this column and in the **ECODEFENSE SUPPLEMENT**.

-Ned

Dear Ned

Last year, BC biologist John Elliott met with the president of a prestigious wildlife conservation society over a proposal to set up a "scenic wildlife viewing area" adjacent to the Muskwa Valley in northeast British Columbia, thereby "preserving" wolves for tourists' pleasure, while providing the Environment Ministry wolf-killers public credibility to counter the growing public opinion that the Ministry does not like wolves. Of course, "problem" wolves will be removed on a scientifically selec-

tive basis as usual, meaning full steam ahead for the BC aerial killing efforts.

It costs the wildlife society about 57 cents postage plus materials per membership mailout and they need your support, so please write for membership and info to the following: Northwest Wildlife Preservation Society, PO Box 34129, Stn D, Vancouver, BC V6J 4N3, CANADA.

Remember, do not waste their valuable mailouts, which are useful in lighting the winter campfire.

-Wolf

Dear Ned

Lizard wrote in "Dear Ned Ludd" in the Mabon 88 issue that he needed information on skeleton keys. Enclosed is a beautiful piece of writing entitled the "MIT Guide to Lock Picking." It can help anyone pick locks.

One could buy several different locks for heavy equipment from a dealership. Because there may be only a few patterns, the keys for these locks might work in many locks on big yellow machines which you might encounter. Use full security for such purchases - and be prepared to spend a lot of money for such locks. Parts for heavy equipment aren't cheap. As for alarm systems, enquire about them while buying the locks.

-Flying Rock

The "MIT Guide to Lock Picking" is very thorough and technical. If anyone wants a copy, we will send it to them for a self-addressed stamped envelope (a large manila envelope with \$1.45 postage) and \$1.50 for copying.

-Ned

Monkeywrenching News From Around The World

HAYDUKE AT MONO LAKE - Hayduke is alive and well and living near Mono Lake.

This is the first time I have attended a meeting of activists during which a sheriff arrived to interview several of the participants.

This occurred several weeks ago when I joined Friends of the Inyo to discuss our impending appeal of the Inyo National Forest Plan. It seems that on a previous evening, person or persons unknown

made a prescribed burn of some condominiums under construction near the proposed (and controversial) Sherwin Bowl Ski Area.

"Where were you on the night of..."

The local Earth First!er attending the meeting was atop 14,042-foot Mt. Langley with witnesses and even a wilderness permit (EF! members get permits?). Others were at home spending a quiet evening with their respective families. The constable also asked if anyone knew where Dave Foreman was on the night of the conflagration (Tucson, last I heard).

It seems this was the latest in a series of monkeywrenching events in the Mammoth-Mono area. Buildings at a motocross site on Forest Service land near Sherwin Bowl previously lit up the night sky. Signs in the world's largest pure stand of Jeffrey Pine near Glass Mountain proclaimed the forest had been "vaccinated" to prevent it from being logged. And a half-dozen large powerlines north of Mono Lake bit the dust.

"I suppose the sheriff took down the license plates of everyone here at the meeting." Great. My planned itinerary was camping out in the Jeffrey Pine forest near Glass Mountain, going to Sherwin Bowl to take photos for the *Record*, and driving north of Mono Lake to visit the site of a huge open pit gold mine planned next to Bodie State Historic Park. The dossier on my travels must be getting thick. I wonder if the powers that be will accept testimony from Inyo the Wonder Dog for my alibi.

So if you are out and about this fall, especially on the east side of the Sierra, you might plan in advance your defense should you be interrogated by the authorities. That can of gasoline for your Coleman stove and the matches to light it may be examined with a jaundiced eye.

So who is that guy, anyway?

-Jim Eaton

California Wilderness Record October 1988

SPIKES ARE DRUGS? - Sen. Jim McClure (R-Idaho) successfully attached his anti-tree spiking bill to the massive anti-drug bill which passed Congress late in the 1988 session. Under provisions of the bill, tree-spiking would become a federal felony, with penalties of up to a

\$30,000 fine and/or five years in prison. Possession of tree spiking "paraphernalia" would be grounds for a misdemeanor charge. Full details of the law will appear in "Dear Ned Ludd" soon and in the forthcoming **ECODEFENSE SUPPLEMENT**.

OREGON JURY OUTLAWES NON-VIOLENT CIVIL DISOBEDIENCE - A Roseburg, Oregon, jury ordered the Sapphire Six to pay Huffman & Wright Logging Company \$5,000 in real damages and \$25,000 in punitive damages for their July 1987 peaceful occupation of a yarder on a controversial timber sale in the North Kalmiopsis roadless area. The six Earth First! protesters willingly served two weeks in a county jail for the protest last year.

One Oregon old growth defender, who is not affiliated with the Sapphire Six or other non-violent protesters, said that the jury's decision would backfire because by making civil disobedience untenable, the only option left to wilderness defenders was monkeywrenching. "The Roseburg jury, by their totalitarian decision, has just tripled the level of ecotage in Oregon," he said.

OREGON LOGGING PESTS TARGETED - The Associated Oregon Loggers, representing 750 logging companies in Oregon, has launched a new program - PEST (Prevent Environmental Sabotage Today). Despite initial hopes that they were serious about preventing environmental sabotage (clearcutting, roadbuilding, destruction of watersheds, extermination of old growth-dependent species, etc.), the front group for wealthy timber barons made it clear that they were directing their efforts against those trying to stop the environmental sabotage for which the loggers have long been responsible. PEST plans to offer rewards for ecodefenders and increase surveillance to protect logging equipment and standing board feet. PEST will work closely with law enforcement people (or is it that law enforcement people will simply take their orders more directly from the big loggers who control Oregon?).

An anonymous Oregon monkeywrencher said, "This action by the Oregon Forest Destruction Association only

makes clear what we've known for several years: the most effective way to protect old growth forests is by monkeywrenching - trashing big yellow machines, spiking trees, and closing roads. PEST won't stop us - it will only make us stronger."

TONGASS TREES SPIKED - A communique recently received claims that prior to 1987 numerous trees across Kachemak Bay were randomly spiked. This was done before the Seldovia Native Association sold the China Poot Bay area trees to Koncor for clearcutting. The communique reads, "What fun we have had over the past few months. Excursions to China Poot Bay and vicinity have been exhilarating. With a watchful eye out for timber cruisers, we have been doing our own type of cruising. With cordless drill, bit and brace, ceramic rods have been inserted into hundreds of trees in the area. The insertion of these rods into the trees is intended to prevent them from being cut, not to injure anyone or destroy any machinery. We hope that this activity has increased the value of this area as parkland and hope that all parties involved benefit from our efforts." It was signed by the "Society for the Prevention of Cruelty to Plants and Animals."

Editor's note: Please send any news clippings discussing monkeywrenching or related topics to Ned Ludd, POB 5871, Tucson, AZ 85703.

ECODEFENSE SUPPLEMENT DELAYED

Because of the demands of other work at Ned Ludd Books, production of the **ECODEFENSE SUPPLEMENT** has been delayed until Spring, 1989. This gives ecodefenders more time to send in their field-tested techniques and untested wild ideas alike for inclusion in this important book. Please send your revisions, improvements, corrections, additions, etc. to the techniques and security tips contained in **ECODEFENSE** to Ned Ludd Books, POB 5871, Tucson, AZ 85703. Material received by February 15, 1989, will be in time for inclusion in the SUPPLEMENT.

Wilderness books from American Geographic Publishing

American Geographic Publishing puts out some of the finest wilderness photo books available, many by frequent *EF! Journal* contributor George Wuerthner. Now their Publisher, Rick Graetz, has made a special offer to benefit *Earth First!* Order (through us) any of the books listed below and 40% of the price will go to further the work of the *Journal*.

Adirondacks, Forever Wild by George Wuerthner

Both a guidebook for visitors and a book to savor at home, this is an enthusiastic introduction to the Adirondack Park, the nation's largest state park. With a map, historical photos, 122 full-color photos, and nontechnical prose, Wuerthner describes all aspects of this "land of superlatives." 104 pages. \$15.95

Alaska Mountain Ranges by George Wuerthner

The definitive photo book on Alaska's mountains. It captures the landscape of the unique ranges across the biggest state, along with the plants, animals and people that inhabit them. 104 pages, with over 100 color photos. \$15.95

Beartooth Country by Bob Anderson

An exploration of the "Roof of Montana" - the Absaroka and Beartooth Mountains, where 24 peaks tower above 12,000 feet. Read of early-day explorations and climbs, grasshoppers frozen in glaciers, pink snow and the renowned outlaw hideouts. 112 pages, 160 photos. \$13.95

Greater Yellowstone by Rick Reese

The first comprehensive look at Yellowstone National Park as the center of an enormous ecosystem stretching across 10,000 square miles and encompassing Yellowstone and Grand Teton National Parks. 104 pages, 160 photos. \$13.95

Idaho Mountain Ranges by George Wuerthner

A comprehensive overview of Idaho's mountain ranges, from the most renowned to the hard-to-reach. Geological formation, flora and wildlife are put into the perspective of Indian and white use of the land, past and present. The text divides the state into eight regions and details the ranges in each. 150 color photos, 104 pages. \$14.95

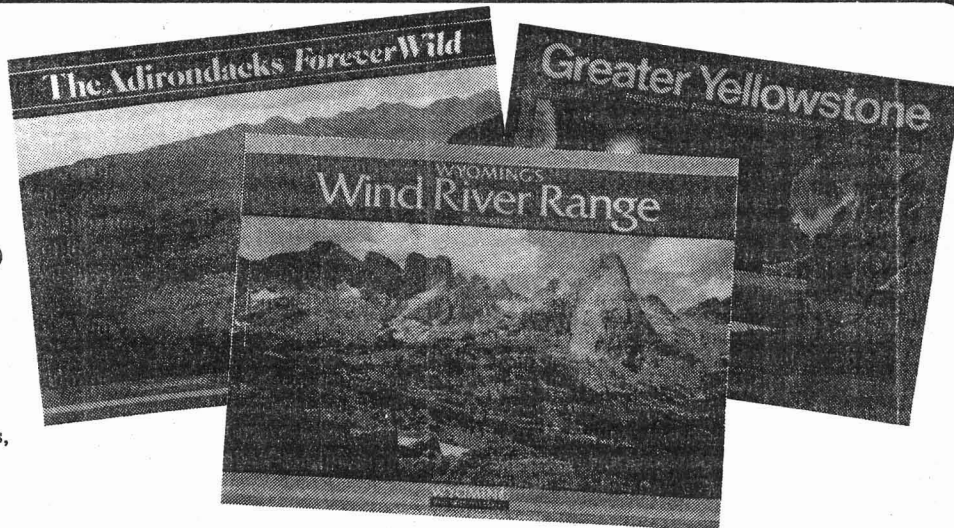
Montana's Continental Divide



Alaska's Mountain Ranges



Order direct from *Earth First!*



Montana's Bob Marshall Country by Rick Graetz

More than 125 color photos and many black and white prints help illustrate the story of the most magnificent expanse of wildlands in America. 208 pages provide a detailed guide to this inspiring country. \$10.95

Montana's Continental Divide by Bill Cunningham

This beautiful volume takes you on a spectacular 600-mile journey along Montana's Great Divide. It starts with the ridges of Glacier National Park, moving into the Bob Marshall area, through mining country around Butte and winding through most of southwestern Montana. Maps are included. 170 color photos, 112 pages. \$13.95

Montana Mountain Ranges by Rick Reese

A beautiful guide to where the major ranges are, how they influence the state's geography, mountain wildlife, geology and vegetation, and a range-by-range description. More than 150 color photos. 104 pages. \$13.95

Oregon Mountain Ranges by George Wuerthner

With 140 color photos and individual chapters on Oregon's five major ranges, this book shows the diversity of the state. Other chapters cover the mountains' geology, weather, vegetation and wildlife. 104 pages. \$14.95

Washington Mountain Ranges by Robert Steelquist

The natural and human history of Washington's mountains, with 120 color photos to show their spectacular beauty. It offers a clear, non-technical description of the ranges' geology, natural resources and human history. 104 pages. \$14.95

Wyoming Mountain Ranges by Lorraine Bonney

Light, easy-to-read text and incredible photography reveal the geology, vegetation, and wildlife of Wyoming. 160 striking color photos cover the state's vast open spaces. 104 pages. \$14.95

Wyoming's Wind River Range by Joe Kelsey

The best of the best mountain country in the Rockies. The Wind River Range includes 23 peaks rising above 13,000 feet, most within nine miles of each other. Over 100 color photos, along with the natural and human history of the region. 104 pages. \$14.95

Vietnam: Opening Doors To The World by Rick Graetz

Different from the other books presented here, but still a collection of amazing natural beauty. This is the first book to pictorially explore the enduring land that is Vietnam. More than 270 stunning color photos create a guided tour of a tropical country that has been all but closed to travelers from the West. 160 pages. \$17.95



Annotated and Introduced by Dave Foreman

I've often argued that real understanding is out there — in the big outside, in the great loneliness; that wisdom is more likely encountered listening to goose music, a river's flow, or the wind in the trees, than in books or libraries. Nonetheless, there have been and are a number of insightful and sagacious individuals who have been able to interpret that wisdom from the wild, or who have been able to profoundly articulate lessons from human history which are in harmony with that wisdom. The books they have produced are a priceless resource for defenders of things natural. Because most of these writers and their books do not reach the general public or are not readily available, the Earth First! Bookstore tries to bring them to you. Although some of my favorites (like McNeill's "Plagues and Peoples" or Berman's "Reenchantment of the World") are out of print, the books from a deeply ecological perspective which I am able to locate are presented here for sale.

I personally endorse every book listed herein, and I think each of them should be read by all Earth First!ers. I will, however, continually highlight those I think are the most important and particularly recommend them to you. Please send me additional suggestions for books to be offered here, so I can regularly update the listing.

I will also offer a short commentary on books each issue, generally discussing the new offerings.

As an historian, I have been pleased to see the development of a new approach to interpreting the history of civilization — that of ecological history. No, this is not simply the history of the conservation movement, but rather a look at human history as it is impacted by the natural world and natural forces. This recent school of history has caused profound revisions in our view of the "rise" of Western Civilization and, indeed, of the development of civilization. This approach is long overdue. How peculiarly arrogant we are to have written our history and left out all of the non-human players, the land and all it means, except as a stage on which the drama of humankind occurs! Why do irrigation-based societies from the Mesopotamians to the Hohokam collapse? How were the brute Cortez and his small gang of thugs able to overthrow one of the most powerful empires on Earth in a few weeks? How have Europeans managed to dominate the world? What happened to the great "Mound Builder" civilizations of the eastern United States?

The past inability of history to adequately answer these questions is due to history not asking the right questions, to ignoring human ecology, to downplaying such simple actors as smallpox and salt.

While floating through the Green River Wilderness for 11 days recently, I had the opportunity to read three of the best and most important books of the genre. (I also spent a considerable amount of time listening to goose music, rapids and the wind in the willows.) I cannot tender any higher recommendation than for these three books. They ("Overshoot," "The Arrogance of Humanism," and "Ecological Imperialism") are among the most important books we have ever offered for sale. Described below, I commend them to your library.

The book listing will continue its past tripartite format: New Books, Ned Ludd Books, and repeat titles. Repeat titles are listed alphabetically by author except when a book is about an author who is otherwise listed (e.g., "A Companion to Sand County Almanac" is not listed alphabetically by its editor's name, Callicott, but by "Aldo Leopold," who it is about.) Once or twice a year, such as in this issue, we will describe all the books offered. Otherwise, most repeat books will be listed only by their title, author and price. Keep this issue's complete listing for future reference and ordering.

All prices are postpaid. Order directly from Earth First!, POB 5871, Tucson, AZ 85703. Good reading!

NEW BOOKS

OVERSHOOT

The Ecological Basis of Revolutionary Change

By William R. Catton, Jr. I was unaware of this seminal book until the folks at *Fifth Estate* brought it to my attention. I agree with Vine Deloria, Jr. who writes about it: "One of the most important books I have read in my lifetime." Catton lucidly applies ecological concepts to the human condition, and coins piercing new terms to describe our situation ("Cargoism: delusion that technology will always save us from Overshoot: growth beyond an area's carrying capacity, leading to Crash: die-off.") This is admittedly not a happy book, but Catton expertly demolishes the fantasies of the Cargoists, Cosmeticists, Cynics, and Ostriches to demonstrate that we have indeed surpassed our carrying capacity. After Aldo Leopold's *A Sand County Almanac*, this is the book I most strongly recommend. (If you believe the humanist bunk that Malthus is wrong, you definitely need to read it!) Index, glossary, references, 298 pages, paperback. \$12.

THE ARROGANCE OF HUMANISM

By David Ehrenfeld. Ehrenfeld is a Professor of Biology and one of the founders of the Society for Conservation Biology. In this powerful book, he explodes the myths of humanism (the dominant world-view) such as "all problems are soluble by people using either technology or social sciences; resources are either infinite or have infinite substitutes; human civilization will survive." He demonstrates the problems of rationality, argues convincingly for emotion, and then moves to analyze arguments for the preservation of natural diversity and concludes that only those based on intrinsic value, and not economics or human benefit, are valid and even politically practical. As with Catton's book, the christians, marxists and capitalists will howl, but he's right on all counts. This is an absolutely fundamental book for Earth First!ers. Index, references, 286 pages, paperback. \$12.50

ECOLOGICAL IMPERIALISM

"The Biological Expansion of Europe, 900 - 1900" by Alfred W. Crosby. Why has Europe been so successful during the last thousand years? Crosby, a prominent University of Texas history prof, synthesizes old and new information, to at last answer this key question of recent history. He argues that the Azores/Canaries, North America, Argentina, Australia and New Zealand have become "Neo-Europes" through a combination of European people, disease, domesticated plants and animals, pests and weeds. Indeed, he convincingly argues that it was not military or economic might (or ideology) so much as biology that Europeanized these lands. This book is a first step toward a history of the world environment and shows how the environment is a continual and active participant in human affairs. Fascinating! Index, references, maps, illustrations, 368 pages. \$13.

NED LUDD BOOKS RELEASES

(Published by Ned Ludd Books and available from Earth First! at a 40% discount plus shipping for wholesale orders of 5 or more.)

ECODEFENSE

"A Field Guide to Monkeywrenching - 2nd Edition" edited by Dave Foreman and Bill Haywood with a Forward! by Edward Abbey. Greatly expanded and revised to 308 pages of detailed, field-tested hints from experts on Tree-spiking, Stopping ORVs, Destroying Roads, Decommissioning Heavy Equipment, Pulling Survey Stakes, Stopping Trapping, Trashing Billboards, Hassling Overgrazers, Leaving No Evidence, Security . . . and much more. Heavily illustrated with photographs, diagrams and cartoons. \$13.50 postpaid (\$7.20 plus shipping for wholesale orders of 5 or more).

DESERT SOLITAIRE

By Edward Abbey. A superb 20th anniversary edition of Abbey's masterpiece with stunning illustrations from the University of Arizona Press. This fine hardcover edition is a collector's item and no fan of Abbey should be without one. Signed for Earth First! by Cactus Ed, himself. 255 pages, hardcover, \$28.

THINKING LIKE A MOUNTAIN Towards a Council of All Beings

by John Seed, Joanna Macy, Pat Fleming and Arne Naess. Illustrated by Dailan Pugh. This book of readings, meditations, poems, rituals and workshop notes prepared on three continents helps us remember that environmental defense is nothing less than "Self" defense. Including magnificent illustrations of flora and fauna from the Tasmanian rainforest, this book provides a context for ritual identification with the natural environment and so invites us to begin a process of "community therapy" in defense of Earth. Facilitating a process for allowing us "to hear the sound of the earth crying" as our own cry, it is an important deep ecology educational tool for use in schools, community groups and elsewhere for personal reflection. 128 pages, references, paperback. \$9.50.

FOREST RESOURCE CRISIS IN THE THIRD WORLD

From Sahabat Alam Malaysia (Friends of the Earth Malaysia). The proceedings from the Conference on Forest Resources Crisis in the Third World provide a comprehensive and powerful overview of tropical timber cutting. All Tropical Rainforest activists should get a copy of this report. Illustrated, 510 pages, paperback. Proceeds to SAM, the leading conservation group in the Third World. \$20.

THE FOOLS PROGRESS "An Honest Novel" by Edward Abbey. Yes, it's finally out! Cactus Ed's first novel since "Good News." "The Fools Progress" is a major work of American fiction. Moreover, Ed has donated 50 copies to us and has signed them as a fundraiser for the *EF!* Journal. Hardcover, 485 pages, \$22.

DESERT SOLITAIRE by Edward Abbey. A superb 20th anniversary edition of Abbey's masterpiece with stunning illustrations from the University of Arizona Press. This fine hardcover edition is a collector's item and no fan of Abbey should be without one. Signed for Earth First! by Cactus Ed, himself. 255 pages, hardcover, \$28.

THE MONKEY WRENCH GANG by Edward Abbey. No description necessary. Since the hardcover Dream Garden Press edition is out of print, we are offering the super cheap pocket book version of Abbey's rollicking good novel. Ride that slickrock trail once again with Hayduke, Bonnie, Doc and Seldom Seen. Give it to your friends. 387 pages, paperback. \$6.

FREEDOM AND WILDERNESS "Edward Abbey Reads From His Work" 2 cassettes (2hrs. 52 minutes) of Edward Abbey reading selections from his books. Includes Come On In (The Journey Home), Fire Lookout (Abbey's Road), The Dead Man At Grandview Point (Desert Solitaire), Down There In The Rocks (Abbey's Road), Cowboys (Desert Solitaire), Watching The Birds: The Windhover (Down The River), In Defense Of The Redneck (Abbey's Road), Merry Christmas Pigs (Abbey's Road), Freedom And Wilderness, Wilderness And Freedom (The Journey Home), Planting A Tree (Down The River). Hear it from Cactus Ed himself. \$18.50 postpaid first class.

BEYOND THE WALL "Essays From The Outside" by Edward Abbey. Vintage Abbey recounting trips into the wilderness of Arizona, Sonora, Utah, Texas, and Alaska. Paperback, 203 pages. \$9

THE JOURNEY HOME "Some Words in Defense of the American West" by Edward Abbey. Illustrated by Jim Stiles. An anthology of Abbey's best essays in defense of wildness. Includes the classic "Freedom and Wilderness, Wilderness and Freedom." 242 pages, paperback. \$10

ONE LIFE AT A TIME, PLEASE by Edward Abbey. A new book of essays featuring Cactus Ed at his controversial best with topics including immigration, anarchy, ecodefense, sex, "sportsmen," cowboys, San Francisco and several "travel" pieces. In his "Preliminary Remarks" to this book, Abbey writes, "If there's anyone still present whom I've failed to insult, I apologize." Signed by the author. Paperback, 225 pages. \$9

RESIST MUCH, OBEY LITTLE "Some Notes on Edward Abbey" edited by James Hepworth and Gregory McNamee. Fifteen distinguished writers comment on Edward Abbey as a major American author. Contributors include Wendell Berry, Gary Snyder, William Eastlake, and Barry Lopez. Also includes four interviews with Abbey. 127 pages, hardcover. \$13.

LAND OF LITTLE RAIN by Mary Austin with an introduction by Edward Abbey. This clear-eyed, lyrical tribute to the desert and foothill lands between Death Valley and the High Sierras was first published in 1903 and has since become an American nature classic. In the nature-writing world where men predominate (what else is new?) Mary Austin stands with Thoreau, Leopold, Lopez, Abbey, and . . . yes . . . Rachel Carson. A book all desert rats should read and savor. 107 pages. Paperback, \$8

BLUE DESERT by Charles Bowden. Published by the University of Arizona Press in 1986, this is an eloquent and penetrating study of the darker side of the Sunbelt. One chapter, entitled "Foreman," is about - guess who? Belongs on the shelf next to Abbey's "Desert Solitaire." Hardcover, 178 pages, \$19.50

FROG MOUNTAIN BLUES by Charles Bowden with photographs by Pulitzer Prize winning photographer Jack Dykinga. A stunning discussion in prose and photography of the Catalina Mountains outside of Tucson, and of the interaction between wilderness and the city. Although published by the University of Arizona Press,

Bowden's proposals are as radical as Earth First!. . . a case history of how America destroys itself." - Gary Snyder. 16 full page color photos, many b&w. Hardcover, 165 pages. \$22.50

KILLING THE HIDDEN WATERS "The Slow Destruction Of Water Resources In The American Southwest" by Charles Bowden. Ed Abbey calls Bowden the "best social critic and environmental journalist now working in the American southwest." This important study examines groundwater depletion in southern Arizona and the Ogallala aquifer by European cultures and the earlier efforts by the Pima/Papago and Comanche to live in harmony with their dry lands. Reviewed in *Samhain 86 EF!*. Paperback, 206 pages, 36 photos, 6 maps, \$9

THE GRIZZLY IN THE SOUTHWEST "Documentary of an Extinction" by David E. Brown, with a foreword by Frank C. Craighead, Jr. Brown, retired from the Arizona Game & Fish Department and founder of the Arizona Bear Society, traces in accurate detail the extirpation of the Grizzly from Arizona, New Mexico, southern Colorado and northern Mexico. If you want to see the Grizzly in the Southwest again, read this book to understand why we destroyed it once. But get it quick, as it is almost out of print! Reviewed in *Lughnasadh 86*. 274 pages, references, appendices (including an evaluation of the Gila Wilderness for Grizzly reintroduction), maps, many photos, hardcover. \$22.

THE WOLF IN THE SOUTHWEST "The Making of an Endangered Species" David E. Brown, editor. Defenders of Wildlife says, "This well-researched and readable book tells the story of the building of a federal bureaucracy devoted to the killing not only of wolves but also of mountain lions, bears and other predators . . . also valuable for its information on the life history of the wolf and for the colorful accounts of several famous wolves that long evaded traps and poisons." Crucial reading for those interested in returning the wolf to the Southwest. 195 pages with a bibliography and index, photos, maps, charts. University of Arizona Press. Paperback. \$11

STATE OF THE WORLD 1988 "A Worldwatch Institute Report on Progress Toward a Sustainable Society" by Lester R. Brown et al. The annual "State of the World" is a progress report on our destruction of the biosphere and a fine companion to the above two classics. John Davis says, "For a good time, lock yourself in a dingy room with a candle, a bottle of Ripple and this book." Chapters include fossil fuel impact on climate, reforestation prospects, mass extinctions, toxics from agriculture and industry, family planning, and Star Wars. You'll hope Reagan . . . naw, no one can hope that . . . you'll hope Gorbachev, Dukakis, Bush, etc. read this book. It is a small breath of sanity in this mad world. 237 pages, index, references, paperback. \$12.

TOPSOIL AND CIVILIZATION Revised edition, by Vernon Gill Carter and Tom Dale. This broad human history makes a convincing case that civilizations rise and fall according to their use or abuse of topsoil. The condition of the land is traced from Egypt, Mesopotamia, Crete & Lebanon, Syria & Palestine, Greece, North Africa, Rome, and Western Europe to the United States. With all our understanding of history and ecology, the modern world is making the same mistakes the first agricultural societies made thousands of years ago. And we name ourselves "sapiens" - wise. Read this book; laugh or weep. 292 pages, index, many maps and b & w photos, paperback. \$13.

OVERSHOOT "The Ecological Basis of Revolutionary Change" by William R. Catton, Jr. I was unaware of this seminal book until the folks at *Fifth Estate* brought it to my attention. I agree with Vine Deloria, Jr. who writes about it: "One of the most important books I have read in my lifetime." Catton lucidly applies ecological concepts to the human condition, and coins piercing new terms to describe our situation ("Cargoism: delusion that technology will always save us from Overshoot: growth beyond an area's carrying capacity, leading to Crash: die-off.") This is admittedly not a happy book, but Catton expertly demolishes the fantasies of the Cargoists, Cosmeticists, Cynics, and Ostriches to

demonstrate that we have indeed surpassed our carrying capacity. After Aldo Leopold's *A Sand County Almanac*, this is the book I most strongly recommend. (If you believe the humanist bunk that Malthus is wrong, you definitely need to read it!) Index, glossary, references, 298 pages, paperback, \$12

THE PATHLESS WAY Michael Cohen's tender yet critical, academic yet passionate, intellectual biography of John Muir. Unlike all other works on Muir, this exceptional book focuses on his ideas and their evolution, and ties Muir to Deep Ecology. With a Ph.D. in Literature, an impressive mountaineering record in the High Sierra, and stature as one of the leading exponents of Deep Ecology, Cohen is uniquely qualified to have written this most important book. Heavily footnoted. Paperback, \$14.50

ECOLOGICAL IMPERIALISM "The Biological Expansion of Europe, 900 - 1900" by Alfred W. Crosby. Why has Europe been so successful during the last thousand years? Crosby, a prominent University of Texas history prof, synthesizes old and new information, to at last answer this key question of recent history. He argues that the Azores/Canaries, North America, Argentina, Australia and New Zealand have become "Neo-Europes" through a combination of European people, disease, domesticated plants and animals, pests and weeds. Indeed, he convincingly argues that it was not military or economic might (or ideology) so much as biology that Europeanized these lands. This book is a first step toward a history of the world environment and shows how the environment is a continual and active participant in human affairs. Fascinating! Index, references, maps, illustrations, paperback, 368 pages, \$13

SIMPLE IN MEANS, RICH IN ENDS "Practicing Deep Ecology" by Bill Devall. Devall's new book follows up on "Deep Ecology" (which is one of the most popular books we offer) with this broad-based study of how to cultivate a Deep Ecology life style. Reviewed in Mabon 88. Paperback, 224 pages, bibliography, \$12.50

DEEP ECOLOGY "Living As If Nature Mattered" by Bill Devall and George Sessions. This groundbreaking book presents the philosophical fundamentals for the defense of Earth, discussing biocentrism, intrinsic value, and ecological resisting. Appendices by Dolores LaChapelle, Gary Snyder, John Seed, Carolyn Merchant, Robert Aitken, and Arne Naess. 263 pages, paperback, \$11.50

THE ARROGANCE OF HUMANISM by David Ehrenfeld. Ehrenfeld is a Professor of Biology and one of the founders of the Society for Conservation Biology. In this powerful book, he explodes the myths of humanism (the dominant world-view) such as "all problems are soluble by people using either technology or social sciences; resources are either infinite or have infinite substitutes; human civilization will survive." He demonstrates the problems of rationality, argues convincingly for emotion, and then moves to analyze arguments for the preservation of natural diversity and concludes that only those based on intrinsic value, and not economics or human benefit, are valid and even politically practical. As with Catton's book, the Christians, Marxists and capitalists will howl, but he's right on all counts. This is an absolutely fundamental book for Earth First'ers. Index, references, 286 pages, paperback, \$12.50

THE NATURAL ALIEN "Humankind and Environment" by Neil Evernden. This is one of the seminal books of deep ecology, and has been called "a brilliant, difficult, passionate assault on the dominance of economic - in fact of western - thinking." Reviewed in Mabon 85 and Eostar 88. 160 pages, index, paperback, \$14

TROPICAL NATURE "Life and Death in the Rain Forests of Central and South America" by Adrian Forsyth and Ken Miyata. This is a modern classic of natural history which brings the incredible diversity and beauty of the tropical rainforest alive on every page. Although it is not directly about preservation of the rainforest, it provides some of the best ammunition for preservation simply in its descriptions - all from a deep ecological perspective. If you are fighting for the rainforest, read this book so you will better understand the wild diversity for which you do battle. If you plan to visit the rainforest, read this first. 248 pages, index, bibliography, paperback, \$9

THE AMERICAN CONSERVATION MOVEMENT "John Muir and His Legacy" by Stephen Fox. Both a history of the conservation movement and an insightful new biography of John Muir, this book is crucial to understanding the environmental movement. Fox's thesis is that the history of conservation can be told as the ongoing struggle between passionate amateurs (John Muir) and conservative resource professionals (Gifford Pinchot). Well-written, heavily footnoted, with photographs, paperback, 436 pages, \$16.50

STERILE FOREST "The Case Against Clearcutting" by Edward C. Fritz. Ned Fritz, "The Father of Texas Wilderness" and founder of the Texas Committee on Natural Resources, details his campaign in and out of the courts to halt the Forest Service's arrogant schemes to turn the diverse deciduous forests of east Texas into sterile pine plantations. A key book for understanding the insouciant and corrupt United States Forest Service of today. Reviewed in Litha 84. Paperback, 271 pages. B & W photos. Special discounted price of \$6.50

TAME WILDERNESS by Dennis Fritzynger. An excellent little volume of poetry inspired by the wilderness and penned by a long active Bay Area Earth First'er. Paperback, \$6

PROMISED LAND "Adventures and Encounters in Wild America" by Michael Frome. An inspiring chronicle of forty years of meeting important conservationists in America's wildest places by the foremost environmental journalist in the United States. Mark Dubois, Sig Olsen, William O. Douglas, Martin Litton and others, in the Grand Canyon, Yellowstone, Boundary Waters, Smokies, Maine Woods, and elsewhere. Reviewed in Litha 86. Hardcover, 312 pages, originally priced at \$18.95. Signed by Mike Frome. \$12 as a special for EF'ers.

WHOSE WOODS THESE ARE "The Story of the National Forests" by Michael Frome. This history of the National Forests and a profile of representative Forests was originally published in 1962. This is a reprint by Westview Press and is signed for Earth First! by Frome. Includes a

current preface. An important work for understanding the Forest Service of today by the leading conservation journalist of our time. Through a special arrangement with the author, we are able to offer this book for substantially less than the cover price. 360 pages, index, paperback, \$10

BATTLE FOR THE WILDERNESS by Michael Frome. This extremely important book by America's leading environmental journalist is quite simply the history of the political struggle to preserve the American Wilderness. We can learn much from the struggles of the past and apply such lessons to good advantage in our struggles today. Frome's book was originally written for The Wilderness Society in the mid-1970s. We are offering a reprint from Westview Press at a considerable discount from their regular price, thanks to Mike's generosity and our desire to get this into the hands of more EF'ers. A new preface updates it. Paperback, 240 pages, references, index, \$20

A WILDERNESS ORIGINAL "The Life of Bob Marshall" by James M. Glover. Bob Marshall is responsible for preserving more Wilderness than any other single person; his hikes of 50 or even 70 miles in a day are legend; he was perhaps the last great explorer of unknown Alaska; yet he remains the least known of the wilderness titans of American history and an enigma to those who know of him. This book, published by the Seattle Mountaineers, is the first biography of Bob and well worth reading to acquaint oneself with one of the greatest Americans of our century, who also happened to be one of the most charming and personable members of the New Deal. 323 pages, index, many b & w photos, hardback, \$20.50

CRY WOLF! by Robert Hunter and Paul Watson. A stirring report from two of the founders of Greenpeace about the courageous efforts of Project Wolf in British Columbia to stop the demented wolf extermination campaign of the BC government. Reviewed in Samhain 85 *Earth First!*. 130 pages, paperback, \$9

THE GIFTING BIRDS "Toward An Art Of Having Place And Being Animal" by Charles Jones. This excellent volume of essays from Dream Garden Press deals with that most important need of our modern world - a sense of place. Reviewed in Eostar 86 *Earth First!*. Hardcover, 158 pages, \$18.50

FEAR AT WORK "Job Blackmail, Labor and the Environment" by Richard Kazis and Richard L. Grossman. Are jobs and environmental protection incompatible? Blowing apart the economic myths that have put labor and environmentalists at odds with telling anecdotes, careful history and social analysis, the authors make a powerful argument for greater cooperation between the labor and environmental movements. Both authors were founders of Environmentalists for Full Employment. Grossman has also been Executive Director of Greenpeace and is a constant and constructive critic of cooption and compromise by the big national environmental organizations. See Edward Abbey's review in Beltane 88. Paperback, 306 pages, index. Special discounted price of \$9.50

AMERICAN FALLS by Greg Keeler. Greg is well known to Earth First'ers through his music tapes (see EF! Music) and his performances at the Round River Rendezvous and other events. This fine volume of poetry has the same bite and sparkle that his songs do. 100 pages, paperback, \$9.50

EARTH FIRST "The Struggle to Save Australia's Rainforest" by Jeni Kendall and Eddie Suivids. Based on the fine television documentary of the same name by Jeni Kendall and John Seed, this beautiful book documents the campaign to preserve the rainforests of Australia through non-violent direct action - Terania Creek, the Nightcap, the Franklin River, Cape Tribulation and the Daintree. Many carefully-reproduced color photographs of rainforest as well as maps and photos of the actions. This book is a major historical document of the radical conservation movement, and a source of inspiration to tree-huggers everywhere. 167 pages, hardcover, \$25

SACRED LAND SACRED SEX: "Rapture of the Deep" by Dolores LaChapelle. I would argue that Dolores LaChapelle is the most creative and insightful deep ecologist writing today. Many of us have long awaited her new book, and it fulfills our expectations. Reviewed in this issue. Oversized, soft cover, \$24.50

EARTH WISDOM Dolores LaChapelle's provocative and inspiring masterwork. We will free ourselves and the land by learning how nature intended us to live. This book provides both the necessary background and the practical steps to begin learning how to "reinhabit" your place on Earth. Fully illustrated. Large format paperback. Reviewed in Samhain 85. \$15.50

BEAR MAGIC A chapbook by the National Grizzly Growers featuring poems by Gary Lawless, Leslie Marmon Silko, James Koller, and Kate Barnes; art by Stephen Petroff; and interviews with Doug Peacock, Dave Foreman, and Lance Olsen. All proceeds to the Bear. \$3.50

ALWAYS COMING HOME by Ursula K. LeGuin. This is perhaps the finest ecotopian novel yet written. In it, LeGuin describes two cultures surviving in Northern California after a catastrophe has destroyed Western Civilization. In portraying one as a peaceful and technologically simple culture, and the other as a technologically-oriented and war-like society, LeGuin makes subtle yet profound statements about humanity and its relation with technology and with nature. Paperback, 562 pages, \$6

A SAND COUNTY ALMANAC by Aldo Leopold. This environmental classic was selected by more reviewers in *Sierra* magazine's recent overview of significant environmental books than any other. In that article, I called it not only the most important conservation book ever written, but the most important book ever written. I stand by that today. Paperback, 226 pages, \$9.00

COMPANION TO A SAND COUNTY ALMANAC "Interpretive & Critical Essays" edited by J. Baird Callicott. Aldo Leopold perhaps thought harder than anyone else in 20th century America about wilderness and our relationship to it. His posthumously published book *A Sand County Almanac* ranks as the finest discussion of conservation ever written. In this collection of essays by leading historians and conservation thinkers, Professor Callicott has produced a sustained study of Leopold from perspectives of art, philosophy, history and social commentary.

Although parts of the book are weak (the professional philosophers in it sorta wimp out) it is, nonetheless, an excellent book for better understanding Leopold. Paperback, 308 pages, \$14.50

ARCTIC DREAMS by Barry Lopez. Another masterwork from the author of "Of Wolves and Men." America's finest naturalist explores the Arctic with a poet's sensitivity. Reviewed in Samhain 87. Paperback, 417 pages, index, maps, \$6

OF WOLVES AND MEN by Barry Holstun Lopez. An unprecedented blending of natural and social history, Lopez explores the world of the wolf and where it touches the world of humans, with a poet's eloquence and understanding. One of the finest natural history books ever written. Reviewed in Eostar 88. Illustrated. 309 pages, paperback, \$16.50

THE SNOW LEOPARD Peter Matthiessen's extraordinary journal of his fall journey in the Himalayas with zoologist George Schaller in search of the elusive and endangered Snow Leopard, and in search of himself after the death of his wife from cancer. Paperback, \$5

NEVER CRY WOLF by Farley Mowat. One of the all-time nature and conservation classics. The adventures of a young Canadian biologist investigating Gray Wolves and Caribou in the Arctic. Adapted for the Disney movie a couple of years ago. Paperback, 164 pages, \$4.50

SEA OF SLAUGHTER by Farley Mowat. A landmark study of the historic and on-going destruction of wildlife (seabirds, other birds, bears, wolves, fish, whales, seals) along the northern Atlantic seaboard of North America. *USA Today* says that "Sea of Slaughter deserves to stand with Rachel Carson's *Silent Spring* as an outstanding indictment of man's stupidity in alienating himself from nature." Paperback, 437 pages, \$11.50

A WHALE FOR THE KILLING by Farley Mowat. A real-life story about the struggle to save a Fin Whale trapped in a Newfoundland lagoon and tortured by local villagers for "recreation." Paperback, 213 pages, \$5.00

THE DESERT SMELLS LIKE RAIN "A Naturalist in Papago Indian Country" by Gary Paul Nabhan. Gary is one of the leading desert ethnobotanists in the world, as well as one of the finest writers of natural history today. In this North Point Press reprint of his classic first book, Gary journeys with the Papago through the Sonoran Desert in Arizona and Mexico, exploring their close relationship with the land. Reviewed in Samhain 87. B & W photos, 148 pages, heavy duty paperback, \$10

GATHERING THE DESERT by Gary Paul Nabhan with illustrations by Paul Mirocha. If you love the Sonoran desert, you have to have this superbly written and illustrated book describing the natural history and human uses of the key plants of the Sonoran Desert. Destined to be an American nature classic. Nabhan is a careful observer of the desert, an exquisite writer with a fine sense of humor and place, a dedicated conservationist, and one of the world's leading ethnobotanists. Reviewed in May 1986 *Earth First!* 209 pages. Now in paperback, \$16.50

WILDERNESS AND THE AMERICAN MIND Roderick Nash's peerless history of American attitudes toward the wilderness. Perhaps the most important book available for understanding the dynamic interplay between humans and nature in the New World. Now in an expanded, revised 3rd edition with greater emphasis on Deep Ecology. A must for every conservation bookshelf. Reviewed in Eostar 88. Paperback, index, 425 pages. \$13.50

REFORMING THE FOREST SERVICE by Randal O'Toole. As Director of CHEC (Cascade Holistic Economic Consultants), O'Toole has been a continual thorn in the side of the Forest Service. The reason is simple: he's smarter than they are and has relentlessly exposed and dissected inefficiency, incompetence, and stupidity in their planning and operating. In this ground-breaking book, he proposes sweeping reforms in the structure of the agency and new budgetary incentives as the best way to improve management. This book is a must for serious EF! National Forest activists, even though they may not agree with all of it. 250 pages, graphs, tables, notes. Paperback, \$18.50

DOLPHIN LEAPING IN THE MILKY WAY by Jeff Poniewaz. There are many poets in the Earth First! tribe and Jeff Poniewaz is one of the best. This is a collection of Jeff's finest eco-poems. See the review of "Dolphin" by Lone Wolf Circles in Mabon 87. Paperback, 145 pages, \$8

JAGUAR "One Man's Struggle to Establish the World's First Jaguar Preserve" by Alan Rabinowitz. An outstanding book of conservation and adventure about the author's attempts to save the Jaguars in Central America's tiny country of Belize. 32 pages of color and b&w photographs. Hardcover, index, 368 pages. \$22.50

CADILLAC DESERT "The American West and Its Disappearing Water" by Marc Reisner. Meticulously researched and remarkably readable, this is the epic story of America's water "development" and a fine history of the Bureau of Reclamation and the Army Corps of Engineers. It features engineering "triumphs" and dam failures, irrigated deserts and poisoned water tables, along with a cast of thousands, ranging from thugs like William Mulholland who brought Los Angeles water from the Owens Valley, to evil bureaucrats like Floyd Dominy who literally screwed himself out of his job as Commissioner of Reclamation, to phony environmental politicians like Mo Udall, Cecil Andrus and Dick Lamm, to heroes like David Brower. An essential primer for anyone interested in Western water issues (reviewed in *EF!*, Litha 1987). Paperback, 582 pages, \$11

FOREST RESOURCE CRISIS IN THE THIRD WORLD From Sahabat Alam Malaysia (Friends of the Earth Malaysia). The proceedings from the Conference on Forest Resources Crisis in the Third World provide a comprehensive and powerful overview of tropical timber cutting. All Tropical Rainforest activists should get a copy of this report. Illustrated, 510 pages, paperback. Proceeds to SAM, the leading conservation group in the Third World. \$20

MOUNTAINS WITHOUT HANDRAILS "Reflections on the National Parks" by Joseph L. Sax. A modern conservation classic by a law professor from the University of

California. Roderick Nash says, "Sax has drilled to the core the most important question facing the national parks of today." This is one of the most far-reaching defenses of the preservationist position on National Parks. Required reading for National Park activists. 152 pages, paperback, index, \$9.50

OUT OF WEAKNESS "Healing the Wounds That Drive Us to War" by Andrew Bard Schmookler. Schmookler's previous book, "Parable of the Tribes," was a study of the origins of conflict between groups of people. In this follow-up study, he considers the human psyche and its relation to war and violence. Excerpted in this issue. Andy is a frequent contributor to this journal, and always controversial. 320 pages, paperback, \$13

PARABLE OF THE TRIBES by Andrew Bard Schmookler. A provocative and original thesis on the origin of war and aggression in human society, with special application to environmental problems. Reviewed in Mabon 85 and followed with replies from Schmookler and various replies to Schmookler on the question of anarchy. Read the book that started the debate. Paperback, index, 400 pages, \$11.50

DESERTS ON THE MARCH Fourth edition by Paul B. Sears. Prof. Sears was one of America's best known botanists. In this American conservation classic, he asks the question, "Is the human race digging its own grave in North America?" He discusses the destruction of virgin prairie, the despoiling of natural waterways, the hewing down of great forests, the indiscriminate killing of wildlife. "Man has become the sponsor of a biological experiment without known parallel in the history of the earth. . . . He no longer accepts . . . the pattern in which he finds himself, but has destroyed that pattern and from the wreck is attempting to create a new one. That, of course, is cataclysmic revolution." 264 pages, index, hardcover, \$20

THINKING LIKE A MOUNTAIN "Towards a Council of All Beings" by John Seed, Joanna Macy, Pat Fleming and Arne Naess. Illustrated by Dailan Pugh. This book of readings, meditations, poems, rituals and workshop notes prepared on three continents helps us remember that environmental defense is nothing less than "Self" defense. Including magnificent illustrations of flora and fauna from the Tasmanian rainforest, this book provides a context for ritual identification with the natural environment and so invites us to begin a process of "community therapy" in defense of Earth. Facilitating a process for allowing us "to hear the sound of the earth crying" as our own cry, it is an important deep ecology educational tool for use in schools, community groups and elsewhere for personal reflection. 128 pages, references, paperback, \$9.50

CONSERVATION BIOLOGY "An Evolutionary-Ecological Perspective" edited by Michael E. Soule and Bruce A. Wilcox. An anthology of important papers by leading researchers in four parts: Ecological Principles of Conservation, Consequences of Insularization, Captive Propagation and Conservation, and Exploitation and Preservation. Raymond Dasmann writes, "I believe *Conservation Biology* is one of the most important books on conservation that is now available. Iad my way it would be required reading for everyone actively concerned with conservation." If you want the best scientific ammunition for a preservationist point of view, here it is - fully loaded. 395 pages, index, bibliography, paperback, \$26.50

CONSERVATION BIOLOGY "The Science of Scarcity and Diversity" edited by Michael E. Soule. This is a follow-up to the previous "Conservation Biology" (see above) and is just as important with 25 chapters by leading experts covering Fitness & Viability of Populations, Patterns of Diversity and Rarity: Their Implications for Conservation, The Effects of Fragmentation, Community Processes, Threats and Management of Sensitive Habitats and Systems, and Dealing With the Real World. A must for serious defenders of natural diversity. 584 pages, index, bibliography, paperback, \$30.50

THE OLD WAYS Gary Snyder's remarkable volume on reinhabitation. "The wisdom and skill of those who studied the universe first hand, by direct knowledge and experience, for millennia, both inside and outside themselves, is what we might call the Old Ways." Six approaches to the old ways via poetry, myth, and sense of place. Paperback, 96 pages, \$5.50

THE SPIRAL DANCE by Starhawk. Arguably the best book on neo-paganism. Includes a lucid, sensible discussion of Goddess worship as well as visualization exercises, spells, rituals, etc. This isn't some weird eco-la-la tract, it's the best religious book since the burning times. Paperback, 218 pages, \$12

THIS IS DINOSAUR "Echo Park Country and Its Magic Rivers" edited by Wallace Stegner. The modern environmental movement was born in the fight in the early 1950s to stop a giant dam on the Yampa and Green Rivers in Dinosaur National Monument. This book, originally published by Alfred A. Knopf in 1955, was one of the most effective tools of that battle. It has been reprinted in a fine new edition by Boulder publisher Roberts Rinehart with a new Foreword by Wallace Stegner and an excellent selection of b & w photographs. Writers include Stegner, Olaus Murie, Joseph Penfold, and Otis "Dock" Marston. 93 pages, medium format, paperback, \$10

THE WHISPER BEHIND THE WIND by Walkin' Jim Stoltz. A collection of poetry by a longtime EF! musician. These are words inspired by open skies, wild creatures, and cross-country hikes longer than most of us will ever attempt. Songs from the heart and the land. Paperback, 44 pages, \$7.50

WALDEN by Henry David Thoreau with a major introductory essay by Edward Abbey - "Down The River With Henry Thoreau." Paperback, 303 pages, \$7.50

WILDERNESS VISIONARIES by Jim dale Vickery. John Davis reviewed this fine book in the *Brigid 87* issue, calling it "one of the more enjoyable explorations of the lives of great ecologists ever to appear in print." Vickery, canoe guide and writer from the Boundary Waters, explores man's hunger for wild country by examining the lives of six wilderness legends: Henry David Thoreau, John Muir, Robert Service, Robert Marshall, Calvin Rustrum and Sigurd Olson. 263 pages, index, bibliography, paperback, illustrated, \$12

EARTH FIRST!

WINDOW STICKERS

EARTH FIRST! FIST Green EF! fist with the words "EARTH FIRST! No compromise in Defense of Mother Earth" in green on a 3 inch diameter white vinyl circle. 4 for \$1 postpaid.

NO COWS Cow and barbed wire in black with "universal no" red slash and circle. Words: Free Our Public Lands! Stop Destructive Welfare Ranching End Public Lands Livestock Grazing. 3 inch diameter white vinyl circle. 6 for \$1 postpaid.

AMERICAN WILDERNESS



AMERICAN WILDERNESS - LOVE IT OR LEAVE IT ALONE

DEFEND



THE WILDERNESS

T-SHIRTS

MOTHER GRIZZLY AND CUB

A pretty EF! shirt! A lovely full-color mother grizzly and cub against the rising sun on a light blue shirt. 100% cotton available in short (\$12 postpaid) or long sleeve (\$15 postpaid) or 50-50 french cut (\$12 postpaid). "American Wilderness - Love It Or Leave It Alone" slogan. Art by Susan Van Rooy.

AMERICAN CANYON FROG

Roger Candee's popular American Canyon Frog (*Croakus abyssus pistoffus*) with the message "AMERICAN WILDERNESS LOVE IT OR LEAVE IT ALONE." A very colorful 4-color design on a grey 100% cotton Beefy-T. \$12 postpaid.

THE CRACKING OF GLEN CANYON DAMN

Jim Stiles' infamous masterpiece. Keep on praying for that one little precision earthquake! Black design on blue heather 75/25 blend. \$10 postpaid.

DEFEND THE WILDERNESS

The monkeywrencher's shirt. Art by Bill Turk. Silver design on black 100% cotton Beefy-T for night work. \$10 postpaid. Also available in black long sleeved Beefy-T (\$12 postpaid) or black french-cut 50/50 blend (\$10 postpaid).

EARTH FIRST!

Fist logo with words "EARTH FIRST! No Compromise in Defense of Mother Earth!" in black on green or red 100% cotton Beefy-T or french cut 50/50 blend. \$10 postpaid. In kid's sizes, too! Only color is green, 50/50 blend, sizes XS - L. \$7 postpaid. Be sure to specify kid's when you order.

TOOLS

John Zaelit's powerful impression of wilderness defense both old and new - the monkeywrench and stone club crossed. Black design on tan or blue 100% cotton Beefy-T (blue only in S & M sizes). \$10 postpaid.

NED LUDD BOOKS

The Ned Ludd Books logo of the Neanderthal with a Monkeywrench (by Brush Wolf) and the words "Back to the Pleistocene" and "Ned Ludd Books." Black ink on a tan shirt. \$10 postpaid.

FREE THE EARTH

A woman of power in an image by Gila Trout. Purple and silver ink on teal or fuschia Beefy-Ts. \$12 postpaid.

DON'T TREAD ON ME

Monkeywrenching rattler on front with the words "Earth First!". Back side has off-road tire track and "Don't Tread On Me." Amazing full color snake seems ready to lunge off of watermelon (pinkish) shirt. \$12.50 postpaid.



MAPS

We are offering several fine US Geological Survey maps - all suitable for wall mounting, as well as being necessary reference tools for wilderness activists. Prices listed are postpaid. Maps are mailed folded (although they can be sent rolled for an extra \$2 per order, except for the Wilderness System map).

NATIONAL WILDERNESS PRESERVATION SYSTEM This full color, large map (40" x 25") shows all designated Wilderness Areas by agency in the US (including Alaska and Hawaii), plus a list of all the Wilderness Areas by state with their acreages. Scale is 1:5,000,000. Information is current to January 1987. Rivers, state boundaries, and major cities are also shown. \$3.25.

US POTENTIAL NATURAL VEGETATION A beautiful multi-color map showing 106 different vegetative types in the US. This is the Kuchler Ecosystem Map the Forest Service used in RARE II. The reverse side shows Alaska and Hawaii and offers a fairly detailed essay about the map and potential natural vegetation. A National Atlas Separate; scale is 1:7,500,000 (28" x 19"). \$3.25.

MAJOR FOREST TYPES A multi-color map showing the 25 major forest types in the United States including Alaska and Hawaii. A National Atlas Separate. 1:7,500,000 (28" x 19"). \$3.25.

FEDERAL LANDS A National Atlas Separate, 1:7,500,000 (28" x 19"), showing National Forests, Grasslands, Parks, Monuments, Wildlife Refuges, BLM lands, military, Indian Reservations, Bureau of Reclamation, etc. in different colors for all 50 states. \$3.25.

ALASKA NATIONAL INTEREST LANDS A splendid color map of Alaska with shaded relief, rivers, lakes, elevation points, communities and roads. The National Parks, Preserves, Monuments, Wildlife Refuges, Wild & Scenic Rivers and Wilderness Areas designated by the December 2, 1980, Alaska National Interest Lands Conservation Act are shown, as are the Tongass and Chugach National Forests. 24" x 18". \$3.25.

EARTH FIRST! TRINKETS ORDER FORM

Make checks out to "Earth First!" or send cash. Mail to Earth First!, POB 2358, Lewiston, ME 04241. Please allow three to five weeks for delivery (contact us if it has not been received in that time). If possible, please use a street address so we can ship by UPS. First Class delivery can be arranged. Enter size, color, style, etc. We are sometimes temporarily out of certain items while waiting for stock to arrive. We'll send you the rest of your order immediately and the missing item as soon as we receive it. If you are in a hurry, give us a second choice of colors and when you need it by. Orders from outside of the United States must be in U.S. currency and include extra for shipping.

how many	Trinket Description	Color	Size	Amount

Name _____ Sub-total _____
 Address _____ Add 7% sales tax _____
 City, State _____ Zip _____ OKAY, HERE'S _____

CRACKING OF GLEN CANYON DAMN MOVIE

The excellent 10 minute, color-sound 16mm movie of *Earth First!* cracking Glen Canyon Dam in 1981 starring Ed Abbey and Johnny Sagebrush. An inspiring and humorous introduction to the *Earth First!* movement. Rental fee of \$30 for showing to groups (includes shipping fee); \$5 (shipping only) for *EF!* groups. Note: rental only; not for sale. Orders must include street address for UPS delivery.

BUMPERSTICKERS

Unless otherwise indicated, our bumperstickers are green lettering on long lasting white vinyl and are \$1 postpaid. *Starred bumperstickers are multi-colored with designs and are \$1.25 postpaid.

AMERICAN WILDERNESS *
LOVE IT OR LEAVE IT ALONE
(with red, white & blue US flag)

ANOTHER MORMON ON DRUGS

BACK TO THE PLEISTOCENE
(With "Ned Ludd" logo)

BOYCOTT COORS "BEER"

DAMN THE CORPS NOT RIVERS

DARWIN
(letters in evolving fish with legs)

DESERT RAPER
(bright red lettering - a sticker with many uses)

DEVELOPERS GO BUILD IN HELL!
(black and red lettering, 12 for \$5)

DREAM BACK THE BISON
SING BACK THE SWAN

EARTH FIRST!

ESCHEW SURPLUSAGE

HAYDUKE LIVES

HUNT COWS - NOT BEARS

HUNTERS:

Did a cow get your elk?

I'D RATHER BE MONKEYWRENCHING
(with Monkeywrench/War Club logo)

IF YOUR PECKER WAS AS SMALL AS MINE,
YOU'D NEED A MUSCLE WAGON, TOO!

(Important note: This bumpersticker is - hopefully! - not for your own vehicle, but to surreptitiously paste on a jacked-up muscle wagon you find in the local shopping center parking lot. Don't get caught! These stickers are constructed out of cheap paper with permanent adhesive to maximize the difficulty of removing them. Special price: 12 for \$5!)

MALTHUS WAS RIGHT

MUIR POWER TO YOU*
(white and black on brown with face of Muir)

NATIVE*
(blue words with blue, green & white globe)

NATURE BATS LAST

NEANDERTHAL AND PROUD
(With "Ned Ludd" logo)

NO SCOPES!
SAVE MT. GRAHAM
(with no scopes logo)

OIL AND BEARS DON'T MIX
(with bear logo)

PAY YOUR RENT
WORK FOR THE EARTH

PROTECT OUR ENVIRONMENT
STOP PUBLIC LANDS LIVESTOCK GRAZING

REDNECKS FOR WILDERNESS

RESCUE THE RAINFOREST

RESIST MUCH, OBEY LITTLE

SAVE THE YELLOWSTONE GRIZZLY
(red & brown with bear & no ski area design)

SAVE THE WILD

STOP THE FOREST SERVICE
SAVE OUR WILD COUNTRY

STOP CLEARCUTTING

SUBVERT THE DOMINANT PARADIGM

THINK GLOBALLY - ACT LOCALLY

VOTE GREEN

WOLVES! - NOT COWS

Almost FREE BUMPERSTICKERS!

The following bumperstickers are printed on cheap paper (very difficult to remove) and look great on certain signs throughout the West. We have a large quantity available, and will happily send you some if you'll cover the postage. Send a 25 cent SASE for two stickers, 45 cent SASE for six, or write to inquire about larger volumes.

GET LIVESTOCK OFF
OUR PUBLIC LANDS

PUBLIC LANDS GRAZING =
WELFARE RANCHING

LIVESTOCK GRAZING INDUSTRY
= PUBLIC LANDS RIPOFF

STOP WELFARE RANCHING



CAMO CAPS

We've got a variety of camouflage baseball caps. They come in either woodland or desert camo, 100% cotton or mesh backs. They all have adjustable tabs so one size fits all. The *EF!* fist logo and the words "EARTH FIRST!" are printed in black. Be sure to specify what style you want or we'll send you what we have most of. \$8 postpaid.

For you non-militaristic types out there, we now have a non-camouflage cap - the fist and "Earth First!" in black ink on a tan cotton cap with either cloth or mesh back. One size fits all. \$8 postpaid

EARTH FIRST! EMBROIDERED PATCHES

This embroidered patch features the green fist and the words "EARTH FIRST!" and "No Compromise." Green and black on a white 3" diameter round patch. \$3.50 postpaid.

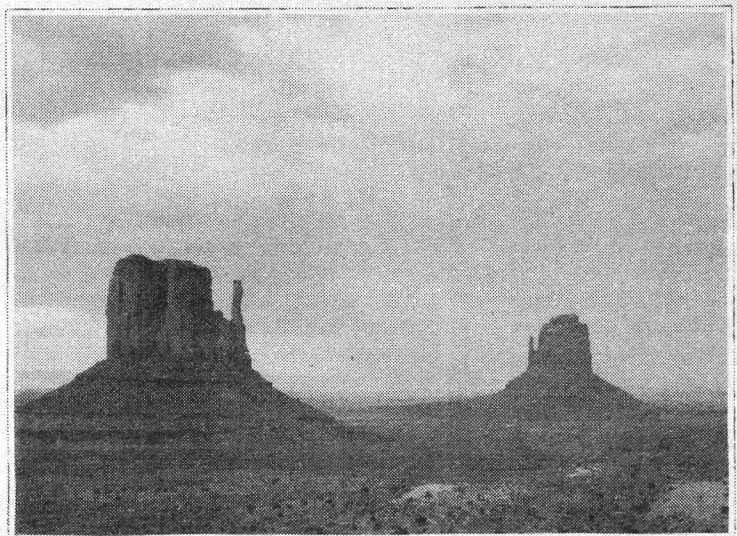
HAYDUKE LIVES EMBROIDERED PATCHES

These are black 3 inch diameter round embroidered patches with a red monkeywrench and the words HAYDUKE LIVES in red. \$3.50 postpaid.

OVERGRAZING SLIDE SHOW

A new slide show, "The Eating of the West", graphically displays the devastation of Western public lands at the hands (and hooves) of the livestock industry. The show consists of over 100 high-quality slides from National Forests, National Wildlife Refuges, and BLM lands which portray the shocking magnitude of the problems caused by grazing. The slide show comes with a written script and is rented at cost, \$10. Free copies of a 48-page tabloid on grazing are also available. Please include with your order the name and phone number of a contact person, and the date you need the show along with alternate dates. Orders must include street address for UPS delivery. "The Eating of the West" was funded by donations to Lynn Jacobs and the *Earth First!* Foundation.

1989 CALENDARS FROM DREAM GARDEN PRESS



THE 1989 WESTERN WILDERNESS CALENDAR

The wilderness calendars from Dream Garden Press are rightfully considered to be the finest nature calendars produced in the world today; moreover, Dream Garden is owned and operated by Spurs Jackson, a long-time supporter of *Earth First!*. Buy your 1989 calendars (for yourself and for gifts) from *Earth First!* so the beauty portrayed on your wall can be defended with the money from your purchase.

Big Bend National Park
California Wilderness
Grand Canyon National Park
Great Smoky Mtns. National Park
Shenandoah National Park
Utah Wilderness
Western Wilderness
Yellowstone
Yosemite

When ordering calendars please specify a second choice.

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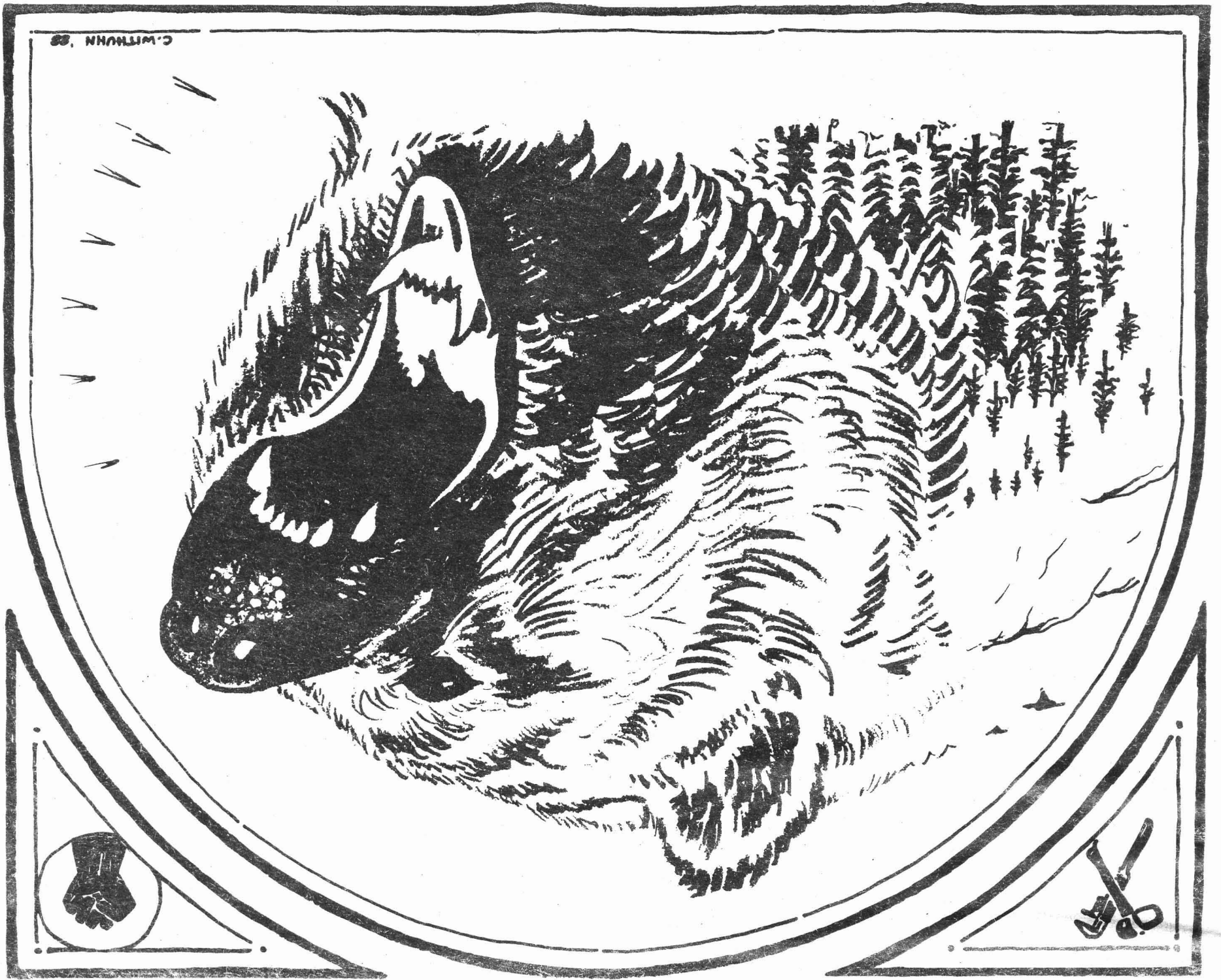
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