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EARTH FIRST!

YULE EDITION

December 21, 1989

Vol. X, No. II

THE RADICAL ENVIRONMENTAL JOURNAL

THREE DOLLARS

MANAGEMENT FOR EXTINCTION

FOREST DESTRUCTION AND THE WOODLAND CARIBOU

by Jasper Carlton

*Treat each bear as the last bear.
Each wolf the last, each caribou.
Each track the last track,
gone spoor, gone scat.
There are no more deertrails,
no more flyways.
Treat each animal as sacred,
each minute our last.
Ghost hooves. Ghost skulls.
Death rattles and
dry bones.
Each bear walking alone
in warm night air.*

—Gary Lawless (from "Two For Bear")

Mention Caribou, Grizzly Bears, Gray Wolves, and Northern Bog Lemmings and most people think only of Alaska or Canada. Yet all of these dwindling species still exist together in the wild in northern Idaho, extreme northeastern Washington, and occasionally northwestern Montana.

As western spurs of the Rockies, the rugged Selkirk, Purcell, Cabinet and Whitefish Mountains along the US/Canadian border form ecosystems marked by snow spangled peaks, deep conifer forests, crystal clear streams and high country lakes. These complex geographical landscapes are among the last bastions for large mammals in the lower United States. An incredible array of mammals — including Mule Deer, Mountain Goat, Lynx, Bobcat, Mountain Lion, Black Bear, Marten, Fisher, and Wolverine — move unconstrained among the graceful contours of Bear Grass in bloom, high meadow wildflowers and ancient stands of Engelmann Spruce and Subalpine Fir. While many of these species are rapidly disappearing due to habitat destruction, none is rarer or less understood in the contiguous US than the Woodland Caribou, *Rangifer tarandus caribou*, perhaps one of the last remnants of a glacial age going back 20,000 years.

Historic Range

Woodland Caribou historically inhabited almost the entire forested region from southeastern Alaska and British Columbia to Newfoundland and Nova Scotia, extending to the southern limit of the boreal forest. Records substantiate that Caribou roamed the forests of Washington, Idaho, Montana, North Dakota, Minnesota, Wisconsin, Michigan, Vermont, New Hampshire, and Maine. Many times they have been declared extinct in these states then later reappeared from the mists of history. Habitat loss due to logging, and over-hunting and other human-related mortality factors have severely reduced Caribou or eliminated them from most of these states. The present known range of Woodland Caribou is northern Idaho, northeast Washington, and parts of British Columbia, with few rare occurrences in northwest Montana and extreme northeast Minnesota in this decade. A Woodland Caribou reintroduction program is under way in Maine. With much of the North American northern boreal forest gone, the Woodland Caribou is probably the rarest and most endangered indigenous mammal surviving in the wild in the lower 48 states.

North American Caribou (*Rangifer tarandus*), a cousin of European Reindeer [same species], crossed the frozen Bering Land Bridge from Asia to Alaska during the mid-Pleistocene period. Woodland Caribou is the largest of four existing Caribou subspecies native to this continent. The Barren-ground subspecies still exists in fairly healthy numbers in Alaska and throughout Canada. The subspecies of Woodland Caribou referred to as Mountain Caribou (*Rangifer tarandus montanus*) occur almost exclusively in British Columbia with the exception of those found in the Selkirk Mountains of northern Idaho, extreme northeast Washington, and northwest Montana. Both Mountain and Woodland Caribou are sensitive, specialized animals

dependent upon old-growth or climax forest environments. In this article, the Caribou in all areas of the contiguous US will be referred to as Woodland Caribou.

Woodland Caribou Ecology

Woodland Caribou are considerably larger than deer but smaller than Elk, with mature animals standing about 4 feet high at the shoulder. They are forest animals, in contrast to the smaller and better-known Barren-ground Caribou which frequent rugged Arctic tundra regions. Unlike other members of the deer family, both bulls and cows carry antlers, but the bulls' antlers are much larger and distinctively branched.

Woodland Caribou in the Northern Rockies spend summers and winters in high moist glacial basins and on alpine ridges above 4400 feet in elevation — some of the last remaining pristine places on the continent. They are well adapted to the harsh environment. Heat loss is minimized by hollow guard hairs, fine underfur, and a compact body. They have a blunt and broad muzzle surrounded by white hairs, and their short tail and unusually small ears are well-furred. Their habitat is characterized by majestic stands of old-growth spruce and fir, alpine lakes, glacial bogs and wet meadows. During summer they feed on a wide selection of succulent grasses, sedges, and the soft leafy tips of shrubs.

Caribou have an acute sense of smell, but rather dim eyesight and poor hearing. They are unwary at times and inquisitive about objects they cannot smell. Consequently, they are easy to shoot. This contributed to the demise of the animals in the early 1900s and continues to threaten them today.

Caribou may appear awkward (particularly calves) due to their long stilt-like legs and large, almost pie-sized hooves. Yet these features enable them to move freely in deep winter snow and in wet, boggy terrain. Caribou hooves splay in soft snow, enabling them to walk on top, thus bringing them closer to their vital winter food supplies — lichen hanging on the branches of spruce, fir, cedar, and hemlock trees. Deep compact snow benefits Caribou since it allows them to reach lichens in the higher branches.

One winter in the Selkirks as I was tracking a small band of Caribou being pursued by Coyotes, I saw a trail of blood in the tracks leading up a steep snow-covered slope. A short way up the mountain, the trails of Caribou and Coyotes parted with the blood

trail following that of the predators. Undoubtedly, the Coyotes had experienced the awesome clout of those large hooves!

The Woodland Caribou's body color is generally chocolate brown with grayish-white on the belly, buttocks, underside of tail, and lower legs; and large white areas on the neck of the bull. They take on a lighter, bleached color by late winter after being exposed to the sun on high, open snow-covered mountain ridges.

Caribou are restless animals, even when feeding. The deep powder snows of early winter may force them into dense old-growth cedar/hemlock stands at lower eleva-

tions, where snow is scant and ground forage is still available; but as soon as the snow compacts enough to support their weight, they return to the high basins and ridges to eat lichens. Lichens are low in protein but high in carbohydrates, which help warm the animals. They seek the highest levels of their range near or above timberline in late summer and late winter.

The peak of mating season for the Selkirk Caribou population is in early October. During this period, the bulls are especially handsome. Their large, glossy antlers sweep gracefully backward and then curve forward

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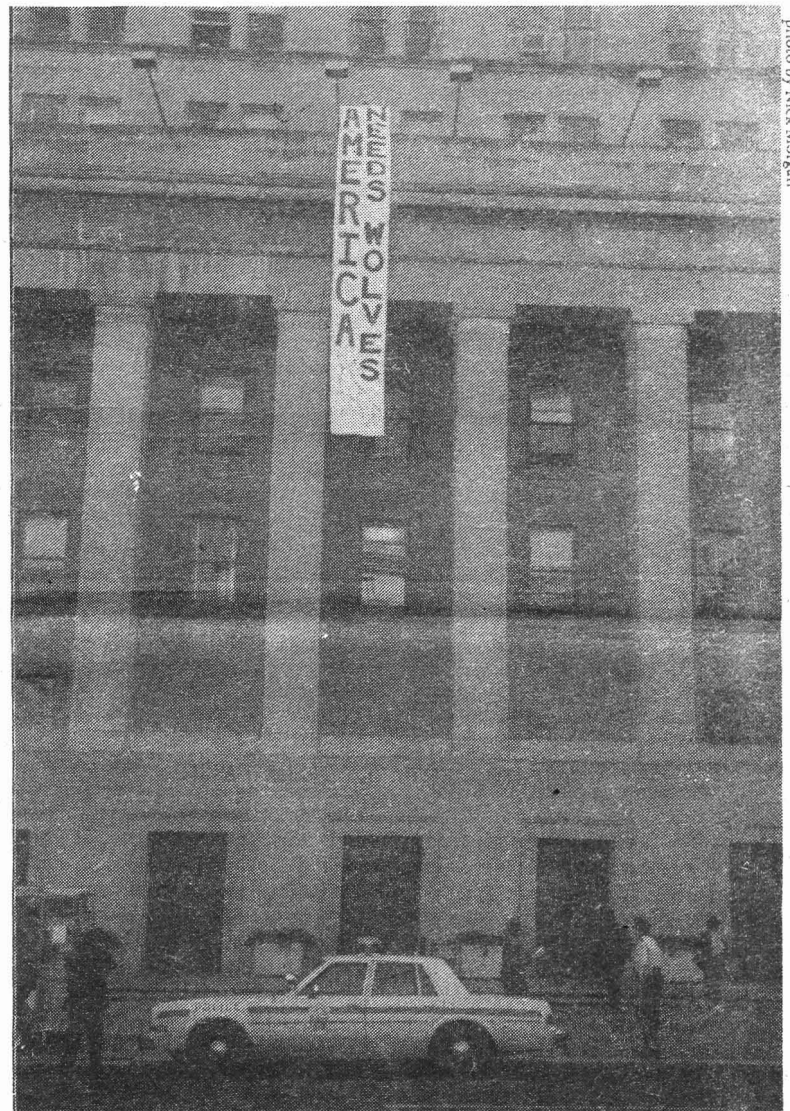


photo by Nick Morgan

This banner hanging from the Interior Department building in Washington, D.C., sent a clear message to federal biocrats about their foot-dragging approach to wolf issues. The banner, and an associated demonstration, was part of a nationwide day of EF! wolf actions on November 20. See page 8 for more details.

OUR LIFE WITH THE FBI

By Dale Turner

Federal agents in Montana and Arizona have gone back into their respective holes, leaving harassment of EF!ers to the government's attorneys.

ARIZONA

Despite procedural roadblocks put up by the FBI and US Attorney's office, defense attorneys have begun reviewing the government's taped evidence against the Arizona 4. While hesitant to discuss specifics, Dan Conner of the Legal Defense Fund said the tapes provide evidence that should exonerate Dave Foreman, at the least.

Mark Davis, Peg Millett, and Foreman have maintained a high profile in presenting their side of the case, speaking in public and meeting with a steady stream of reporters. Recent visitors include folk from *Rolling Stone*, *The Philadelphia Inquirer*, and *60 Minutes*. Marc Baker has been avoiding the spotlights.

A trial date for the four is currently set at Feb. 6, though further postponement is possible.

MONTANA

The grand jury investigating allegations of tree spiking has met once since the seven subpoenaed Missoula residents provided the physical evidence (fingerprints, hair and

handwriting samples) required of them. They have not handed down any indictments, and defense attorneys say it could take up to a half year for the FBI's forensic lab to analyze the samples.

In the meantime, the government has refused to release the warrants showing their "probable cause" for searches and seizures of personal property of the seven. That means defense attorneys can only speculate on why the government moved against the seven. According to defense attorney Bill Boggs, the searches last April may have violated the Fourth Amendment rights — protection against unreasonable search and seizure — of the targeted individuals.

Boggs is representing Jennifer Johnson, one of the seven. Johnson's home was searched and her personal papers taken, including diaries dating back to her high school years, an address book, and a calendar. She filed suit to recover her property, but it was denied, as was a request to learn why she had been subjected to the search.

"Sealing an affidavit in support of a search warrant is a direct violation of the people to be secure in their persons, houses, papers and effects," Boggs told a local reporter. "You're not secure against an unreasonable search if you can't question whether it was reasonable or not."

Another of the targeted activists, Timothy Bechtold, said he could see very little connection between the subpoenas and the events supposedly under investigation. "The people they subpoenaed were the people in the news," he said, since the seven included some of the most visible activists in Missoula. "They thought they'd give us something else to think about for a while." Bechtold admitted the government had succeeded, "for about a day and a half."

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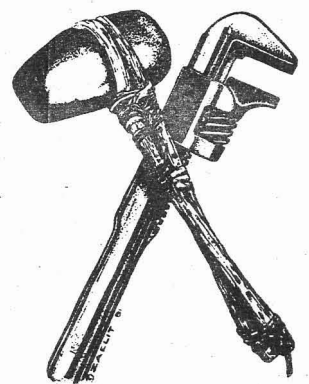
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RAMBLINGS

Tom Skeele and Carla Neasel drifted through Canton last month, and talked with us about the *Earth First! Journal*. Tom and Carla expressed overall satisfaction with the EF! movement's heftiest periodical but noted some concerns they and other EF! activists have with the *Journal*. Tom said that a straightforward explanation of the *Journal's* needs and limitations is due. He challenged the editor to present such an explanation lucidly, so that it's not a chore to read — in words not exceeding 8 letters in length! Needless to say, this constitutes a burdensome assignment — or rather, this is a hard job — but I shall endeavor to fulfill the mandate — or rather, I'll try to do it. Since writing an essay in all short words is too tough, this answer will be given in the form of a partly real talk between Tom (T) and me (E).

T: EF! has been dry lately. Why is there less humor in it these days?

E: Activists ain't sending us funny stories no more. This seems to be for a few reasons: 1) Some of our early writers who had a real flair for mixing humor and news seldom write for us now — e.g., Head of Joaquin, Marcy Willow, Mike Roselle — having taken real jobs. 2) Our newer writers tend not to use wit so much. 3) It's hard to write with humor on a dying planet.

T: EF! is too academic at times.

E: More and more EF!ers now see biology as useful for saving wild lands. Conservation biologists are making a splash. We would err if we failed to help spread their words. Also, we've more trained people writing for us now than ever before.

T: Why are news pieces I send in cut so much?

E: Since I can't say here 'prolixity' and 'discursiveness', I'll just say that we *must* edit most stories we get. We can only print about 25% of the stuff we get; 35 pages hold only so much text. People won't read more text than we're now using each issue. People in the US are spoiled by TV, and don't like to read much. They also don't like to read big words, it seems.

T: EF! has too many dark fuzzy photos and not enough drawings.

E: I agree. Too few artists send us drawings. We hope our artists will send more, but we don't have money to pay many artists or writers. Photos on news print usually look poor, but they seem popular, so we run some anyway.

T: What's the deadline for articles and graphics?

E: We must have them at least 3 weeks before the date on the cover of the issue in which they are to run. Most of our writers send their stuff at or after the dead line. This stinks. Editing an article well is hard if it comes at the line; we likely won't run it until the next issue if it's late.

T: You don't focus on actions as much as you used to.

E: We run almost all action articles we get. Most EF! groups have their own news



letters now, so they run many reports there instead. We urge EF!ers who want more action stories to subscribe to these news letters. We also urge EF!ers to keep sending us their action reports, if only the bare essentials for our Actions Listing. We'll run what we get; though we may shorten articles to fit our pages. Also, if an action is just another banner hanging or common protest, a short report is all that's needed. It may be time for EF!ers to think of new types of actions.

T: The trinket pages and Directory take too much space.

E: We're thinking of running full listings of trinkets only once or twice a year, and other times running only a short version. With the Directory, though, many EF!ers insist they need the whole listing each issue.

T: Some of the book reviews you run are too long. Why not just give a good plug for worthy books and let readers judge them for themselves?

E: To some extent, we intend to do that. You'll notice in this issue our reviews consist largely of excerpts. Likewise, in the future, we'll tend to give brief reviews of books, and short excerpts from them (much as *Whole Earth Review* does) to give a taste of the content and writing style.

T: Do you have guidelines on SFB letters?

E: No strict ones, but we like shorter letters better. Also, we do ask that letter writers include their name and address if they level serious charges against specific persons or groups. We recently received a letter accusing certain people of certain wrongs. We won't publish the letter because the writer gave no name or address, nor any sources by which we could verify the charges.

T: Do you expect the *Journal* to change in the future?

E: It will likely remain much as it has always been, but we do expect to begin to narrow our focus back to what it was in early years: wilderness and biodiversity. Without such focus, we would risk covering too much too thinly. So we will in the future tend to decline articles that don't relate closely to these two main linked themes. Other jour-

nals may need to fill some of the gaps we leave by focusing on these key topics. *Live Wild Or Die* may fill some of the gaps. Perhaps a new journal is needed for the people in EF! who are most into spirit and right brain thought (it could be called *Ether First!*). As for the future of the EF! movement, Howie Wolke says what needs to be said in his column for this issue.

One addition to the *Journal* we hope to see is a section like Ned Ludd but dealing with public actions. We hope to run more articles in the future on tactics and creative ideas for actions. We receive very few such articles now, so we're urging EF!ers to send them.

Now, unfettered from the constraints of minimalist language, I'll disclose several elements from this issue. This issue gives special attention to the Southern Appalachians and to old-growth, with an inspiring discussion of old-growth potential in that bioregion by Bob Zahner. The old-growth theme is carried westward by Jasper Carlton in his Caribou discourse, and by Peter Galvin in his discussion of the sky islands of the Southwest. The Northern Appalachians are also well represented, thanks largely to the tireless efforts of PAW and Vermont EF!

EF!ers have also been active in Maine of late; and our very own Gary Lawless is on the steering committee for the North American Bioregional Congress, to be held next summer in Maine, ensuring that the Congress will pay special heed to the forests for which New England EF!ers have been fighting so hard. Incidentally, 'twas Gary who penned the splendid *Spel Against Developers* that we ran last issue; we apologize for not crediting the poem. The computer ate the credit line; perhaps it was envious.

Those wondering about the great meeting of Murray Bookchin and Dave Foreman will have to wait. We hope to run an article next issue, after the Learning Alliance has processed the tapes from the talks. For now, suffice it to say that there were no fatalities. Murray and Dave both realized and stated that they share goals, though differing in their areas of focus. Murray called for concerned persons everywhere to support EF!'s wilderness preservation efforts.

Having raised the topic of detente, it seems logical to close this column with a word about Czechoslovakia: The dramatic changes occurring there and in most Eastern European nations may bode well for the planet. Some of the industrial old guard leaders are being tossed out, and the rapid pace of change reminds us (even though the reforms under way are anthropocentric and probably superficial) that society can change course abruptly in times of crisis. As Joe Bernhard says in this issue, maybe there is hope after all.

—John Davis

MOVING?

The Post Office does not forward Third Class Mail but they do charge us 30 cents apiece to send us your change of address. Please send us your change of address promptly so you do not miss an issue of *Earth First!* and we do not have to pay the Post Office to receive it.

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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 (send to "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.

Earth First! is indexed in the Alternative Press Index.

For subscriptions, merchandise orders, donations, inquiries, general correspondence, Letters to the Editor, articles, photos, etc., send to: Earth First!, POB 7, Canton, NY 13617. Phone: (315) 379-9940.

All poetry should go to: Art Goodtimes, Box 1008, Telluride, CO 81435. Please include SASE with submissions.

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Contributing Photographers: Joe Cempa, David Cross, Roger Featherstone, Orin Langelle, 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, artwork and ads are three weeks before the cover date. The newspaper is mailed Third Class on the cover date. Subscriptions cost \$20 a year. First Class delivery is available for \$15 extra a year. Surface delivery outside the USA is available for \$30; airmail delivery overseas is available for \$45 a year.

Subscriptions or questions should be sent to: Earth First!, POB 7, Canton, NY 13617.



An all-woman tree-sit protesting clearcutting of redwoods by Georgia-Pacific was held in mid-August near Ft. Bragg, CA, as part of the nationwide tree-sitting action.

Dear sfb,

I'm renewing even though I stay generally legal (which is tough now—adays even for people who are trying!) Your articles on biology are excellent, referenced, and helpful; I've given up on the mainstream enviro-mags because they act like I can't handle college-level ideas. I guess those don't sell. Anyways, I also use the activist news, and can respond to the situations with more knowledge and on time, something else the enviro-mags are increasingly moving away from. And I can recycle what I don't put in my files.

I'd like to add a couple thoughts for you monkeywrenchers. I'm a Freddie biologist, and one of the things that pisses me off is the necessity of wildlife funds having to fence cows out of riparian areas. This is under the doctrine of "the benefitting species pays." A couple of issues ago, one writer suggested cutting fences whenever you come across them. Well, we paid for those things to protect riparian areas, endangered species, etc., and that's who will suffer. Please make sure your fury is vented at an appropriate target.

I'd also like to suggest that some EFlers ought to consider seasonal wildlife work with the Freddies. Before you puke, consider: 1) We need people who are dedicated, don't get lost in the woods going cross-country or calling owls at night, and love finding species that need protected territories. 2) You can finance EF! actions with your salary. 3) If you don't plan a career with the Freddies, you can be more outspoken. (The agency needs both long-term monitors and agitators.) 4) You can gather information that would require FOIA requests from the outside, if it is even obtainable that way (some wildlife info is exempt). You also will get to know the powerful people and procedures. You can find out fuck-ups that the Freddies would never admit to an outsider. When you get out, you can challenge timber sales a lot more effectively. (What the hell—do it between seasons.)

As an alternative, consider fire crew— and feed info to the biologists. Or be a volunteer if you are too proud to take money from rapists. Or clench your teeth and work for the timber beasts—and question what is going on . . . you can do some good!

Sometimes I think EFlers might be the only people alive who, when the going gets really rough, will put principles ahead of monetary gain. We need you. Our wildlife needs you. The FBI has the right idea, folks. Infiltrate! For all of you already in the works, hang in there! And keep those observation cards and input letters coming!

— Sign me, Just Another Bureaucrat

Dear Shit fer Brains -

This is in response to the letter from "Dawn Walker" (Samhain 89) regarding the pulling of permits for RRRs.

The Rainbozos fight one battle every year: The right to peaceably assemble (i.e., hold the Rainbozo gathering). Earth First! on the other hand is constantly fighting a multitude of battles. While I believe in our first amendment right to do so, it is not worth the time and energy to fight the freddies to be able to hold the RRR sans permit. We have too much to do fighting them where it really matters: environmental issues.

Although we do jump through some bureaucratic hoops during the permit process, it's not like the freddies have complete say as to what goes down. For instance, in 1989 the RRR committee picked a spot for the event to which the freddies objected. When told that they could grant us a permit for Butterfly Springs or contend with 400 irate EFlers roaming the Santa Fe NF for a week, doing whatever it is that EFlers like to do in the woods, they quickly saw the light.

Also, if we demand that other public land users (loggers, miners, grazers, etc.) adhere to NEPA, NFMA, ESA, etc., we cannot then operate as a public land user without adhering to public land management laws and not open ourselves up to a legitimate charge of elitism.

— Gary Schiffmiller, 1989 RRR Committee

Dear SFB,

As you may remember, in October 1986 I was arrested in an action in Sam Houston National Forest of Texas in an area once considered for Wilderness designation (called Four Notch). The USFS was using a 50-ton tree crusher to crush and kill all living things in the wilderness area so they could plant pine. I climbed an elm tree near the tree crusher, hung a banner, and began reading to the crowd below from the book *Deep Ecology*. To my surprise, the head of security for the USFS in Texas, Billy Bob Ball, and USFS employees Otis Burden and Doug Hobbs, began chopping my tree with a machete and then an axe. As that tree fell against the tree crusher, I jumped to another tree which was also cut down. I fell with the tree and suffered injuries to my legs. The judge ultimately dismissed all charges



Letters to the editor are welcomed. Lengthy letters may be edited for space requirement. Letters should be typed or carefully printed and double-spaced, using only one side of a sheet of paper. Be sure to indicate if you want your name and location to appear or if you wish to remain anonymous. Send letters to POB 5871, Tucson, AZ 85703.

against me. I filed a claim and am suing the U.S. and all parties involved for damages. Although my attorney is working on a contingency, this has been costly to me in terms of travel to a doctor in Dallas and elsewhere and other expenses.

The point is, if you think we should not let the U.S. Forest Service chop EFlers out of trees, then help me cover some of the expenses. Please send your donation to JAMES R. JACKSON LEGAL DEFENSE FUND, ROUTE 3, BOX 113, CLEVELAND, TEXAS 77327. Thanks!

Also, anyone with knowledge of any negative actions or comments against active environmentalists made by the U.S. Forest Service in recent years in Texas, please write and notarize a short affidavit and send it to me. A handwritten letter is fine. It should include your address, phone number, and the date.

— James Redwolf Jackson

Dear Comrades,

In this here S.F.B. column, one J.S. from Point Baker, Alaska, fleetingly addressed native rights.

As one who chiefly deals with little green things (i.e., plants) in yonder winter wasteland (i.e., the Arctic), I spend virtually all my summer in wee Inuit communities and their outskirts in the far north. For those who don't know the story, these people were ushered into "convenient" settlements to serve the Hudson Bay Company and attend Canadian schools and abide by Canadian laws. They did so, largely, in good faith. And have since seen the wage economy into which they were indoctrinated become a political football kicked about by such heavies as the EEC, Int'l. Fund for Animal Welfare, Greenpeace, and the federal government. In short, they have a right to harvest ring seals and other game which comprise their traditional diet, but usually have no means to do so because of economic limitations imposed by powers much greater than they—or the game is scared away by equally powerful military entities.

Granted, this is out of the realm of the bulk of the EF! activists, but the domain of the devout tree-hugger often overlaps with that of the devout bunny-hugger and both of these sometimes overlap with the domain of the original settlers of this vast patchwork of "civilization" and silviculture we call North America. Thus, when you send your hard-earned colored paper to Stephen Best and his bunny-hugging ilk, remember the "eaters of raw flesh" (or Esquimaux) and know that their diet is one that is largely in tune with their surroundings and does not run (completely) on grapes from So. California and oranges from Florida. These items are on sale in the typical "Bay" store, but do not provide the nutritive or caloric value a slab of raw seal does. And remember, this is not a cute, white fuzzy seal (even as a baby), but a species which has seldom graced the pages of mainstream media and is not now, nor was ever endangered (as was not the harp seal).

In short, step hard on the toes of Maxxam and other big businesses (till they fall and rot) but tread ever so lightly, or avoid altogether, those of the true founding fathers and mothers of this continent. They deserve that much and more.

— B.C. Forbes, McGill University, Montreal, Canada

P.S. Next year look for a book detailing the real story of native harvesting and the animal rights movement in the Arctic. The author will be G. Wenzel.

Dear SFB,

Just a few thoughts in response to the Dear SFB column in the November 1 edition.

The letter by the Vigilant Angora Sleuthmaster ("Biodiversity will not be preserved by any of the following: VW buses, crystal worship. . ." etc.) was well put. It's about time somebody came out and said it. I have a few additions to his list. Biodiversity will not be preserved, nor will the cause of biocentrism be helped, by any of the following: burning American flags, paganism,

shamanism, using New Age buzzwords like "paradigm" or "networking," publishing EF! Journal on "old Pagan European nature holidays," anarchism, free love, knocking the NRA, making jokes about Republican politicians (though I admit the majority of them deserve it!), sporting "Another Mormon On Drugs" bumperstickers, printing such absurd letters as "Abort all fetuses—conception is murder," or for that matter, most of the Mirth First! insert in the Sept. 22 edition. (Yeah, I know, it was a joke, right? Even the statement to the effect that people with "Jesus Is Lord" bumperstickers are inherently land rapists and better off dead. . .) Also, feminism, insisting that feminism and environmentalism are inseparable, knocking the Sierra Club and Audubon Society, and "Darwin" bumperstickers with the Christian fish symbol sprouting legs are not going to preserve any wilderness.

What will preserve wilderness and help the biocentric cause is: political lobbying, writing government officials and corporate land-rapists, guerilla theater, nonviolent civil disobedience, and monkey-wrenching when all else fails. EF! should stick to these basics, and by doing so, we will not alienate so many Christians, Mormons, Republicans, patriotic Americans and "mainstream" environmentalists who would otherwise support us.

As for Negative Population Growth, I was not aware of their views (tho' I recall seeing an ad of theirs in Sierra magazine once) but judging by West Fungi's letter, NPG should be rabidly avoided by anyone, anarchist, leftist, rightist, or whatever. The "truly effective national system of identification" they advocate will almost certainly involve a permanent, computer-readable tattoo in the wrist or forehead (remember the "Mark of the Beast"?). I do agree with NPG, however, that immigration into the U.S. should be restricted, at least until the U.S. has wilderness area protection for all uninhabited areas and Mexico gets its overpopulation problem under control.

Coors is anti-labor? That's all the more reason to drink Coors, but since they are also anti-earth, I will continue to boycott them. (Preserving the earth is more important than ending labor-union violence and inflation-causing pay raise demands.)

Oh, yeah, something you guys might have overlooked. . . EF! is just asking for FBI harassment when you print such statements as "we do not accept the authority of the hierarchical state."

— J. Edgar Whoever, Glen Canyon City, UT

P.S. I have a "Hunt Cows - Not Bears" bumpersticker next to my "Jesus Is Lord" bumpersticker on my late model Oldsmobile with double baby buckets (empty!). In short, I am one of the millions living who would be better off monkeywrenching! As Dave Foreman once wrote, "Even Republicans monkeywrench."

Dear 'Brains:

Lynn Jacobs' interpretation of my article ("Love Your Mother—Don't Become One", Lughnasadh '89) attributes ideas to me that have never entered my head. I did not, for instance, proclaim that the solution to overpopulation is for no one to have children. Although that would work, I have enough sense to know that most people will become parents. I thought it was clear that the purpose of my article was to assure individuals who forego parenthood that they are not the selfish reprobates society makes them out to be.

Lynn also contends that I made the "tenuous assumption that humans won't survive more than a few decades" to justify "self-imposed genocide." My article made no mention of the virtues of saving potential offspring from an early death. Although the next generation's chances of survival are relevant to a discussion about parenthood, I centered my arguments on childlessness for Earth's sake.

I also did not advocate that all environmentalists stop having children. I only

deplored the idea that childless people are shirking a duty to contribute to a new army of nature lovers. Such notions put us on a level with rival religious groups who engage in fertility contests. Despite my claim that we're not necessarily what our parents raised us to be, I have the highest hopes for Lynn's efforts to raise children who will protect nature. I also hope that environmentalists will avoid the conceit that our children are better or more valuable than other people's kids. It's all very fine and well to educate our own children, but it's equally important that we make an effort to enlighten the overwhelming majority who get no nature training at home.

Lynn's objection to intellectual (hence "unnatural") decisions about parenthood would play quite well at a right-to-life convention. Abortion, birth control, and sterilization may not be natural, but they've saved Earth from having to support untold millions of unwanted children. Let's face it, we do use our brains in a way most animals don't. If I hadn't made an intellectual decision 20 years ago to use birth control, I might have produced 20 young'uns by now. Someday, I hope, contraception and the need for it will be a thing of the past, but for now we humans must avoid blundering into parenthood.

As hard as I tried not to offend parents or belittle the joys of parenthood, Lynn's letter suggests I did just that. Everyone is familiar with the reasons he cites for having kids, and most of us, including me, respect them. The problem is that so few parents are comfortable with reasons for NOT having kids. How sad it is that most of the parents I know regard my non-parenthood as a silent reproach. Rather than letting this question degenerate into "us versus them," we should simply recognize that non-parenthood is every bit as noble and valuable as parenthood.

— Leslie Lyon

Dear EF!

I am writing in response to Ms. Jacob's letter (November issue) about population control. The "extra bodies propagating EFlers leave on the planet" may seem like a drop in the bucket, but so is the energy an individual saves by riding a bike instead of driving a car or the tree an individual saves by using both sides of a sheet of paper. Please don't belittle those drops. They do add up. There are five billion people on this planet. I could easily justify every harmful activity I might choose to be involved in by saying it's just a drop.

I don't wish to sound judgmental to those who have already had children. I would like to have children, too. One EFler down here rationalized having kids by saying that we need "little Earth Firsters, too." We do need little EFlers, but don't forget that we can adopt them. That is what I plan to do.

— Renee Lyn Perry, Gainesville, FL

Dear Shit for Brains,

In response to Mark M. Giese's letter, I just want to say, comment on that issue after you've had an abortion, and I hope you have had a vasectomy, because if you haven't, me and a few of my eco-feminist friends will gladly perform one for you!

Love your mother. Don't decide her fate.

— Delylha Dogwoman, Four Corners, MT

Dear EFlers,

Joe Fournier's letter in the Litha issue of EF! on vasectomy, and Leslie Lyon's excellent article "Love Your Mother—Don't Become One" in the following issue prompted me to send in my two cents. I'm a never-married 32-year-old man with no children who had a vasectomy at age 28. Where I was working at the time, I was covered by my union's health plan (since gutted by "take-back" contracts) and determined to obtain a vasectomy.

I went to the first urologist on the union's "medical panel," who had me beat off into a bottle and put the results under a microscope—sure enough, the slide was full of little spermies, all dressed up with no place to go. Then he tried to dissuade me by repeatedly suggesting that the woman I was living with at the time instead get a tubal ligation (a much more involved and uncomfortable operation for a woman than vasectomy is for a man). I replied that: 1) It's me I want to prevent from being a parent—what she does is her business; 2) I don't think monogamy is natural for most humans, and not at all for me (it's historically a rather recent invention); and 3) there's no guarantee I'll even be living with the same woman five years hence (true, it turned out). He said he couldn't argue with me, but couldn't bring himself to do it because I was young, unmarried and without children, i.e., I'd probably change my mind and regret it.

But . . . he referred me to another "panel" urologist. Sans the fertility test, same story.

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Letters...

continued from page 3

But...he referred me to another "panel" urologist, saying this third guy would probably do it because he could perform the operation so it would be reversible in the future. Fine, I said, I just want to get it done. This third urologist was extremely puzzled at this, since he claimed no such expertise, and only did vasectomies intended as permanent (by this time I was getting somewhat pissed off). Even though he still didn't think it was a good idea for a young man without kids to get sterilized, and was the last urologist on the "panel," I insisted on my desire for a vasectomy, even if I had to pay for it myself (about \$600—my weekly take-home pay at the time was roughly \$150). He referred me to a fourth urologist, whom he said would probably do it if I could convince him(!).

No. 4 asked me all the usual questions after I related my "saga," and then asked me what I would think at 40 if I didn't get a vasectomy. Without blinking an eye, I replied I'd be kicking myself for not having it done 12 years earlier. At that point—three months after starting my quest—he said, "Well, you've got yourself a vasectomy"—and actually got supportive, relating an anecdote about his very happy, loving, childless aunt and uncle. A couple of weeks later it was done, snip, snip, in 20 minutes, and I walked home, missing only one day of work.

I relate all the above mainly to let brother Joe, and other men who are interested, know that it is possible to obtain a vasectomy without being an older father, but it takes determination to slog through all the literally patriarchal prejudices, expectations and garbage from urologists (and friends and family if you let them know). DT's suggestion you call Planned Parenthood is good—if you can't get it done locally, consider going to New York, Providence or Boston. See the jerks—that's the only way you'll convince one. I didn't force the issue in so many words, but I'm certain that, if I were of darker complexion, any of the first three urologists would've done the job in a minute. I left their offices angry because they "independently" of each other all tried to make me feel like I was some sort of "traitor" to my race (white, in their minds, but human in mine, with a Pagan loyalty to Mother Earth!). They tried to deny me the single reproductive rights decision a man can make himself. Maybe it's simply the city I lived in (New York), maybe it would be different elsewhere. But your letter brought back memories of those three racist, patriarchal jerks.

The story ended happily, though, both for myself and for my woman-friends who have reason to know (except with a couple of them I still always use condoms for health/safety reasons, but it's still a "load" off everyone's mind!). The last urologist even accepted my union's health insurance! I've never regretted it—parenthood is not "everyone's path," whether your decision is personal, political, ecological, or all of these (as with me). All it takes is resolve, persistence, hip boots and a clear knowledge of your desires, and you'll be firing blanks in no time.

— Gae Sidhe, Santa Clara, CA

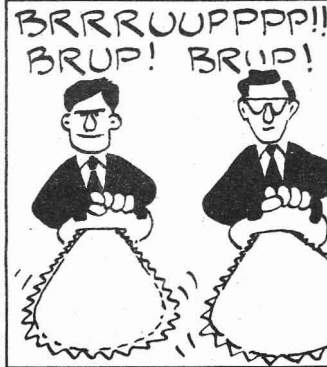
Hi, EF! (Shit fer Brains and the rest of the tribe),

First of all, thanks to everyone in the EF! movement for putting EARTH FIRST!

Second of all, since everyone in the EF! movement are vital, thinking people, the time has come to think about the power the dollar bills in our pockets truly wield (unfortunately). Since money is the name of the game in our present society, it seems only logical to keep as many dollars flowing into the right hands as opposed to the wrong ones. An example being: to buy recycled paper as opposed to giving our dollars to paper companies that cut forests, pollute watersheds, plant mono tree groves, etc. This concept may seem redundant and obvious to many people, but it is one that must be constantly raised. Every day a new strategy for supporting environmental groups is concocted. Examples being: 1) U.S. Sprint long distance telephone service has a program called "Working Assets"; they donate 1% of their members' bills to environmental groups; 2) socially responsible investing; 3) credit cards (Wilderness Society, Sierra Club, Defenders of Wildlife); the bank gives a royalty to the individual club every time the card is used; 4) Greenpeace checks: Greenpeace is given \$1 every time someone orders their bank checks from the company listed on the last page of Greenpeace magazine; 5) Council on Economic Priorities (CEP): they rate corporations on environment, military contracts, So. Africa, women's advancement, animal testing. Their # is 1-800-822-6435. They publish a book [Shopping For A Better World, \$5.95 from CEP, 30 Irving Place, New York, NY 10003] that rates 1300 companies whose products are found in supermarkets

MODERNE MAN

TREASURE STATE COMICS:
SUMMER, 1989:
MONTANA'S SENATORS,
BAUCUS & BURNS,
ATTACH A RIDER TO
AN APPROPRIATIONS
BILL, WHICH EXEMPTS
CLEARCUT LOGGING
IN "THE YAAK" (N.W.
MONTANA) FROM
ENVIRONMENTAL
LAWS...



BUT TO GIVE THEM SOME CREDIT, THEY DID HELP PLANT A MONTANA CENTENNIAL TREE (REMOVED FROM THE HELENA NATIONAL FOREST) IN WASHINGTON, D.C.
© G. von Alten 1989

and health food stores; 6) Just buying organic produce helps our planet in many ways (does not support agribusiness, does not pollute aquifers, does not support chemical/oil industries by not using pesticides, herbicide, etc.). All these economic options open to us might not be exactly what we would like them to be, but they are certainly better than their alternatives (environmental polluters, military contractors, animal testers, and pro-nuclear companies).

The beauty of making pro-environment economic choices is that once all the changes are in place, it takes no extra time or effort to make these positive, sustainable impacts.

— Rich Conte, Sparrowbush, NY

Dear Spruce Duff for Brain Stuff:

It had to happen sometime. We blindly drove them to the edge and the oil spilled over. It came from a deep chasm between our Selves and the Beast. Simply, the Beast bit back.

The pain of loss still grinds within us. We know that the oil will not go away and that the power brokers' hunger for it continues to grow. Even at this moment, the unceasing roar of the Beast demands the Arctic National Wildlife Refuge in return for 200 days of driving; driving a little closer to the edge. Our hands are firmly on that big wheel.

It had to happen sometime. We embrace the paradox of consumption as we should embrace the Earth, the Mother of our family. Ironic it is that Alaskans are paid off by the state's Permanent Fund Dividend, a method used to assuage the sting of oil in our eyes. No more—we can use the same salve as a sword against the Beast.

Sign me up for a lifetime subscription—it was oil money that created the Fund, and it is the same money that will help us vanquish the Beast.

Exxon sucks.

— Pluck E. Duck, Haines, Alaska

Dear Paskaa älyssä,

I love reading about the animal attired actions, but do tell: where do the duds come from? Not exactly a pattern you'd buy at your local fabric store, and I get the cold shakes when I'm 10 feet from a sewing machine. Are there really so many talented tailors out there in our ranks? I'd like to do an anti-fur demo in Helsinki (a big fur coat animal murdering country) and a mink costume would be the ticket. Any advice?

— All Thumbs, Helsinki, Finland

Dear Editor:

One of the reasons our "friends" in Washington, DC are so generous in giving away our national forests is that they are somehow left unaccountable for their crimes against the environment. Here's a way to balance the score, and maybe make them think twice next time. We encourage the environmental community to start erecting a series of large signs/placards/monuments at the sites of all the clear cuts across the country: "This clearcut was carried out during the tenure of F. Dale Robertson, Chief, U.S. Forest Service, August 10, 1989." Or how about this: "This Mark O. Hatfield Memorial Clearcut was the direct result of that Senator's tireless efforts that resulted in PL-100-446. May 18, 1989," etc.

— Keep up the fight!

Folks,

American Express, through their American Express Travel Related Services Company, offers (along with copious quantities of other useless catalogs and trinkets) a large selection of fur coats for women. Their 24-page fur catalog includes a toll-free number for "orders." Give them a call at 1-800-528-8000 and demand that they discontinue this "service."

— Rocky Raccoon

Dear EF!

I received the Sheplers Western Wear Holiday 1989 catalog (6501 West Kellogg, Wichita, KS 67209-2211) and was outraged to see the variety of exotic skins they sell for cowboy boots and belts. The elephant skin boots particularly caught my attention, espe-

cially since the elephants are disappearing at an alarming rate in Africa. Even if there were such a thing as legitimate selection of so-called excess elephants in South Africa, it is impossible to be sure the source of the skin was not from a poacher. Purchase of any product made from the elephant is irresponsible, and selling the products is unconscionable. The letter I received from Sheplers is questionable and smug. It did nothing to alleviate my indignation. Beyond never buying anything from Sheplers, what can be done to stop this practice of selling exotic skins, particularly elephants, in this or any other country?

— Sincerely, Marnie Gaede, La Canada, CA

Hello,

Here's something I saw on national TV. I was at a friend's worrying about some eminent domain problems we were having. They had a TV on (I don't own one) and it was a show called Life Goes On (we glanced at it occasionally) and it had a wolf, a developer, and a retarded kid who befriended the wolf. The wolf was BEAUTIFUL! It had Indians in it quoting from Chief Seattle—but the neatest thing was this string of visuals: trees falling (chainsaws), bulldozers, mining blasts, LA freeways, smokestack industry, and the last picture, with a voice-over of Chief Seattle's world view... WAS A BULLDOZER, BURNING! On national TV! I couldn't believe my eyes!

— B. Greer, Cornwallville, NY

Dear SFB,

The article by Gary Suttle in the August '89 issue expressed many of my thoughts about television and its relation to the environment. I would like to address a few points that Gary did not cover.

Television and Advertising

The connection between TV and its promotion of over-consumptive lifestyles cannot be stressed enough. By the end of WW II our industrial capacity had reached an all-time high. Our factories were providing close to full employment to a populace that had just survived a major depression and world war. With the onset of peace, the factories were no longer needed. If only there were some way to use all that production capacity in a peacetime economy. But what will the factories make? Consumer goods, of course. The same assembly lines that turned out bombers and tanks could switch to airliners and cars. But there is still too much unused capacity. No problem. Don't build manufactured goods to last long. After all, those new cars won't have to withstand a landing on a Japanese-held island or be expected to breach the Siegfried Line. Still, there just wasn't enough demand. New things had to be invented and pushed on a country of neophyte consumers. The problem was how to convince the public to buy all these things. The answer was ready to hand—television. Born in the 1920s, the technology of television lay languid for almost 20 years until it was realized that a visual medium beamed into the very homes of potential customers had tremendous advertising power. Television sets first began to appear in American homes in 1948 and by 1952 some 15,000,000 homes had them. Now, there are few homes without TV sets. It was the marriage of television and advertising that enabled television to blossom. The barrage of advertising that our television-saturated culture has endured for forty years is responsible, to a greater or lesser extent, for the lifestyles of consumption that we regard as the norm. What is it about television that gives its inducements to consume such power over our lives?

Television as Hypnotism

Hypnotism is a state of mind induced by another person or object in which a person's ordinary state of mind is destabilized and transformed to an altered state. In this condition the person will follow a particular input or stimulus much more strongly than they normally would and with much less critical reflection. Inducing hypnosis is very easy; all that is required is keeping a person very still and quiet, the elimination of all diversions, and removal of all outside fo-

cuses. The hypnotist then creates a new focus on a particular object. Hypnosis can easily be induced in a darkened room by looking at a flickering light.

The television experience is almost identical to hypnosis. In both cases the person sits in a comfortable body position without moving, all external stimuli are reduced to a minimum, and a flickering light is looked at. Under hypnosis, suggestions and directions come directly from the hypnotist. With television, the suggestions and directions come directly from the advertisers.

As the article by Gary Suttle suggests, the prime message of television advertising is consume, consume, consume. They try to convince you to buy products that the earth cannot possibly supply in quantities sufficient for the whole race.

Two things need to be emphasized about the points discussed in this piece. First, these effects are not immediately obvious, and this subtlety is one of the reasons why TV is so dangerous. An obviously blatant attempt to affect our decisions would be more consciously resisted by a larger percentage of the population. Second, these effects are completely independent of the content of what is being watched. They stem directly from the technology itself. It makes no difference whether you are watching a PBS nature series, the evening news, cartoons, or a football game. You are being manipulated.

I suggest 2 books that greatly expand the comments of myself and Gary Suttle:

Mander, Jerry, 1978, Four Arguments for the Elimination of Television, Morrow Quill Paperbacks, New York.

Winn, Marie, 1976, The Plug-In Drug, Viking Press, New York.

Finally, I must confess that I do own a television set but I have found a use for it that solved a problem I had a few years ago. You see, I acquired a very beautiful Ansel Adams seascape. Try as I would, I couldn't find a spot on the wall that would do it justice until I noticed that its diagonal measurement was an almost perfect 19 inches. Guess where I put the picture!

— John Potter, Petrolia, CA

Dear EF! Movement via EF!:

April 22nd is Earth Day 1990. Campuses nationwide will celebrate the biosphere with concerts, rallies, protests, pickets, marches, speakers, and lots of media noise. I ask three things: 1) Add to the event in your locality — this should be a nationwide uprising against exploitation. 2) Contact me and take part in the enormous UVA EF! Bash to be held on April 22 and surrounding days. 3) Plan monkeywrenching, sit-ins, etc. to coincide with Earth Day. If we're causing trouble all over the place, the message is sure to be heard, and the pigs won't be able to suppress it.

— Ellis Bodard, UVA EF!, Charlottesville, VA

Dear SFB,

"Professionals" can participate in defense of our planet. My friend and I are government employees — both with advanced degrees and "responsible" jobs. I ordered some Ocean-Dolphin Task Force Day-glo stickers. I split them with my friend. We both enjoy participating in corrective labeling at the grocery (while shopping for our middle-class families) and at restaurants (right over the Heinz logo).

We rarely discuss our activities, but we agree we are our own Earth First! group and will do whatever we can to forward its goals. Makes us feel good!

— The Twins, Somewhere in the Midwest

Dear Friends,

Are you horrified over the desecration of Jefferson County, and part of Saint Lawrence, due to the Fort Drum expansion? Would you like to see some wilderness preserved? We're forming a new organization.

If interested, please contact me at POB 428, Watertown, New York 13601-0428, or phone 316-782-1858.

— Winifred J. Dushhind

Forest Destruction and Woodland Caribou...

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and are up to 4 feet across. They have a mane of white hair flowing from throat to chest. The breeding and battling of the bulls during the rut may cause them to lose up to 25% of their body weight.

The calving season in late May and early June has yet to be closely observed by wildlife biologists in the Selkirk Mountains. Woodland Caribou have a relatively low reproductive potential. Cows usually do not produce calves until they are three years old, and they give birth to at most one calf per year. During calving season in the Selkirks, cows separate from the rest of the herd and give birth on high windblown ridges, where little or no green vegetation exists to sustain a large mammal and consequently where predators are also usually absent. Calves weigh 10-12 pounds at birth; they are dark brown and lack the spots characteristic of White-tailed Deer fawns. Only about 50% of Caribou calves in the Selkirks live to one year of age.

Threats to Caribou

Currently, major threats to Caribou in the border ecosystems include logging, road-building, mining, and hunting. The decline in the Woodland Caribou population during the first half of this century was primarily the result of hunting for market, subsistence, and sport, coupled with habitat destruction by fire. Woodland Caribou are particularly vulnerable to fire because of their dependence on old-growth spruce and fir. Fires, however, do not completely destroy their habitat; the most critical Caribou habitat components, bogs and wet meadows, resist fires. Woodland Caribou can thrive in areas with wild fires, but not in areas with both fires and logging.

In the last two decades, human activity has become the dominant influence on the status of the Selkirk herd. Quality Caribou habitat still exists on both sides of the border, but various intrusions into their established range have disrupted traditional movement corridors, and made them vulnerable to other human threats.

Construction of Trans-Canada Highway 3 through the Kootenai Pass area four miles north of the border, logging and accompanying access roads, and clearing for gas and power transmission lines have eliminated critical winter habitat and may be restricting the declining population to smaller and more isolated areas. Although motor vehicles on Highway 3 have stricken and killed many Caribou in the past decade, the British Columbia Highway Department has failed to reduce and enforce speed limits at Caribou crossing points or to remove the salt at Kootenai Pass that attracts the Caribou onto the highway.

The US Forest Service plans increasing energy and mineral development — oil, gas, and hard rock mining — in the border ecosystems. The mines and accompanying roads would further fragment and degrade areas occupied by Caribou and Grizzly Bears.

Logging roads cut through almost every drainage in the Colville and Idaho Panhandle National Forests. Forest Service roads make Caribou, Grizzlies and Gray Wolves vulnerable to poaching and inadvertent shooting — the lead causes of mortality among these Threatened and Endangered species.

Although the Forest Service has "seasonally" or "administratively" closed some roads, it has not closed enough nor has it vigorously enforced road closures. Road closures are urgently needed in the Colville, Idaho Panhandle, and Kootenai National Forests to provide large mammals with greater security. Road closures are particularly needed in feeding areas and movement corridors. Snowmobile use must also be curtailed in Caribou habitat, as it displaces animals from preferred habitat and causes stress. Some snowmobilers deliberately harass ungulates.

Illegal hunting, whether inadvertent or not, will continue to be a serious problem. With the death of each cow, generations of reproduction are lost.

Canada has wisely closed the Selkirk herd's range to all hunting in the British Columbia section of the ecosystem. US agencies, fearing a negative reaction by hunters, have not closed any areas to hunting. Significantly, there has been no major adverse reaction to the Canadian actions.

Along with available habitat, what Caribou, Grizzlies, and Gray Wolves need most is to *not be shot*. None of these species occur in sufficient numbers in the lower US to allow for any human-induced mortalities, whether through a hunting season (such as Montana's Grizzly hunting season), inadvertent shooting, or poaching. Yet, in the case of Woodland Caribou, which are easily mistaken for Elk or deer (and Caribou cows carry antlers and thus can resemble bull Elk) none of the species' critical habitat from northeast Washington to the Whitefish Range in Montana is off-limits to hunters.

Of course, the reason for reestablishing Woodland Caribou in its historic range is not so that it can eventually be hunted as a game animal. The Caribou plays an essential role in its ecosystem, and ultimately, as with so many other species in decline, is necessary for the proper functioning of the biosphere.

Insects: Part of Caribou Ecology

The Forest Service continues to use the excuse of insect infestations to justify cutting in Caribou habitat, but Caribou biologists say a slight opening of the forest canopy by beetle-caused mortality may stimulate growth of the tree lichens and shrubs eaten by Caribou. Beetle-killed snags can support lichens for up to 15 years. Some of the highest lichen concentrations occur on dead and dying trees, due to their increased exposure to sunlight. Thus, endemic infestations of Spruce Bark Beetles may play an important role in lichen and Caribou ecology. Spruce Bark Beetle populations may, however, reach epidemic proportions in slash created by logging in spruce stands.

Lichens are a slow-growing union of algae and fungi dependent on a mixture of humidity and sunlight. If destroyed by clearcutting or fire, replacing them may take a hundred years.

Selkirk Transplant Program

Currently the only known permanent Woodland Caribou herd in the US resides in the Selkirks, a mountain range shared by Washington, Idaho and British Columbia. Historically, they roamed as far south in Idaho as the St Joe River.

Teddy Roosevelt hunted this member of the deer family in 1888 in the Selkirks. He shot a bull, and later recorded his comments on the inquisitive nature of this mountain monarch in his book, *The Wilderness Hunter*.

The Selkirk Caribou have barely survived logging, hunting, poaching road-building and other human encroachments on their habitat. By 1983, when the Selkirk Caribou were finally federally emergency



listed as Endangered under the Endangered Species Act (ESA), the herd numbered only 20-25 animals.

The Forest Service manages about 250,000 acres of designated Caribou habitat in the Selkirk Ecosystem. Although Caribou are no danger to people or livestock, local opposition to the protection of mature to old-growth spruce/fir and cedar/hemlock Caribou habitat has been intense. Logging interests in Idaho's Panhandle worried that protection of an enhanced Caribou herd would slow the flow of big logs to their mills. The Bonners Ferry Chamber of Commerce lobbied Idaho's congressional delegation and pressured the FS to delay a Caribou transplant program proposed by biologists. The US Fish and Wildlife Service, in abrogation of its responsibilities under the ESA and in response to local pressure, failed to designate Critical habitat for Woodland Caribou at the time the Selkirk population was listed. The FWS also failed in that it limited the Caribou's Endangered status to Idaho and Washington.

Biologists suspected that the species' gene pool in the geographically isolated Selkirk Ecosystem was so reduced that the herd could be doomed to death by inbreeding. Following the federal listing of the Selkirk Caribou as Endangered, biologists, in an effort to increase the population and provide genetic enrichment, implemented a Caribou augmentation program using animals from similar habitat in BC. To date, two Caribou transplants have been completed. In each, 24 Caribou were transplanted from BC into the Selkirks. A third and probably final transplant of 24 is planned for this winter.

Mortalities have been high among the transplants due to predation by bears and Mountain Lions, natural deaths, and poaching; but overall the program has been moderately successful. If human-induced mortalities can be controlled and reproduction and calf survival rates increased, the Selkirk Caribou restoration program may set an example for other areas to follow.

At last report, the estimated population of the Selkirk herd was 50-60, far too few to carry the species past problems of eventual inbreeding and natural catastrophe. Although some Caribou biologists consider 100 to be a minimum viable population for any area, the Earth First! Biodiversity Project believes that no specific number can be used to define a recovered Selkirk Caribou population and that not enough information is available to determine the present carrying capacity of the Selkirks for Caribou.

The Project maintains that we must seek to restore as many Woodland Caribou as the Selkirks and other ecosystems can support — not simply a minimum viable population. This will require the preservation of all old growth spruce/fir Caribou habitat left in northeast Washington, northern Idaho and northwest Montana as a source of winter food and cover.

ID F&G: A Caribou Support Group

The political climate in Idaho makes it difficult to aggressively support any Endangered species program there that may have economic repercussions. Nonetheless, the Idaho Fish and Game Department has taken a leadership role in Woodland Caribou restoration efforts. Proposals by a state agency for

protection of a species under the ESA have, unfortunately, been rare; yet Idaho Fish and Game submitted the formal petition to list Woodland Caribou in Idaho as Endangered. Idaho F&G lobbied for state and federal funding for the restoration program, and has since challenged Forest Service logging and road-building plans in Caribou habitat. Its research biologists have demonstrated a high level of professionalism. Without its support, the Caribou might have disappeared by now from Idaho.

A small number of Forest Service biologists have also bucked the system in support of Caribou. Their willingness to tell the biological truth despite intense pressure from within the FS also contributed to the survival of the Selkirk Caribou.

Compromising Away Caribou Habitat

In 1985, Idaho Senator Jim McClure, one of the most anti-wildlife senators in Congress, held up the funds for the Selkirk augmentation program, only releasing the money after the Panhandle National Forest increased the proposed annual timber harvest on its Bonners Ferry District from 28 to 32 million board feet. Apparently, Idaho Fish & Game had little choice but to accept this trade-off if the transplant was to proceed.

Due to this compromise, habitat destruction is continuing in the Idaho Panhandle NF's portion of the Selkirks, where the Caribou and its habitat are ostensibly protected. Clearcutting of old-growth spruce/fir forests continues and roads continue to be built in Caribou range, allowing greater access for hunters and setting up possible collisions between vehicles and Caribou.

Woodland Caribou in the Selkirks are being forced to adapt to increasing range discontinuity and disruption of movement corridors. These conditions could further isolate individual bands and cause a breakdown in social structure and learned behaviors relative to habitat use. Moreover, Caribou habitats — typically composed of steep slopes with shallow soils, and high elevation wet meadows — are not places where logging should occur even if Caribou were not present.

Mountain Caribou in BC

Caribou habitat is also being lost to logging, and road, dam, and utility corridor construction in British Columbia. Mountain Caribou only number about 2000 in the southern half of the province, yet they are not formally considered as endangered. Limited hunting is allowed, though opposition to this is mounting. With declining Caribou numbers and habitat, it is unlikely that BC can continue to supply animals for US transplant programs much longer.

Caribou in Montana

There have been 158 reports of Woodland Caribou in or adjacent to Montana from 1900 to 1989, some of them from Glacier National Park. Recent reports of Caribou have primarily come from the Yaak drainage, and Galton and Whitefish ranges — all in the northwestern part of the state. Currently there is no evidence of a resident Caribou population in Montana. Caribou were re-

continued on page 6



WOODLAND CARIBOU...

continued from page 5

ported in the upper Yaak area of the Kootenai National Forest in 1981 and 82, and FS biologists reported Caribou tracks in the 10 Lakes area of the Wigwam drainage (an area proposed for Wilderness designation) in 1984.

In October 1987, a Caribou bull from the Selkirk herd crossed the Idaho line into Montana's Yaak area. It was tracked and photographed by a biologist engaged in Black Bear research. The bull is now believed to be part of the Moyie River herd, 25-30 miles north of the border. This distance is easy for Caribou, as normal home ranges can extend beyond 30 miles.

Caribou from the Moyie River herd in BC are believed to be those that have historically rotated their range down into the Cabinet/Yaak Ecosystem of Montana. Caribou

populations in these areas would be through reintroduction.

Despite these scientific findings and the critical need for a second recovery area outside the Selkirks, on 15 July 1986 the US Fish and Wildlife Service ruled that the federal listing of Caribou in Montana was not warranted and recommended including the species in Category 2 of the candidate species list. Essentially, this classification means there is almost no chance for federal listing under the present priority listing system. Meanwhile, the Forest Service continues to destroy some of the last old-growth Caribou habitat on the Kootenai and Flathead National Forests.

Frank Dunkle, FWS Director at the time, was from Montana, and is believed to be largely responsible for his agency succumb-



to delist the Grizzly Bear under the ESA in the Northern Continental Divide Ecosystem.

The 1988 Amendments to the ESA mandate that species listings be conducted only in a biological forum, and not be curtailed simply because an agency or industrial interest is opposed. My attorney and I are in the process of challenging the FWS decision not to extend federal ESA listing and protection to Montana Caribou.

Importance of Border Ecosystems

Typically, the Canadian side of the US/Canadian border supports larger populations of Caribou, Gray Wolves, and Grizzly Bears. The wild areas along the border in British Columbia and Alberta are important wildlife reservoirs that could enable these species to return to parts of their former range in Washington, Idaho and Montana. From west to east, the border ecosystems include the North Cascades Ecosystem (WA), the Selkirk Ecosystem (WA & ID), Cabinet/Yaak Ecosystem (ID & MT), and the Northern Continental Divide Ecosystem (MT).

Woodland Caribou, Grizzly Bear and Gray Wolf recovery areas should be redrawn to include contiguous Canadian/US habitat, such as has been accomplished in programs developed for the Selkirk Mountain Caribou. In most cases, Canadian resource management agencies are willing to match the "demonstrated" level of concern by US agencies. However, they justifiably point to the hypocritical economic exploitation of critical wildlife habitat on the US side of the border, as the US Forest Service continues to promote timber harvest and energy development in these areas. It is a national disgrace that no US Forest Service Ranger District along the US/Canadian border has wildlife as its principal management emphasis.

Caribou in Minnesota

Woodland Caribou were once common in northern Minnesota, but their numbers declined precipitously early this century and they were declared extirpated from the state in 1946. Confirmed sightings in northeastern Minnesota have verified the occasional presence of Caribou in the state since 1946. The most recent confirmed sightings occurred near Hovland in 1980 and 81. Reports were also received in 1982, but not confirmed.

An attempt was made to introduce Caribou from Canada in the mid-1930s when the band in the Red Lake area had been reduced to only three cows. The program did not succeed, however, and a few years later, no sign of Caribou could be found.

Biologists now recognize that Woodland Caribou range widely according to seasonal forage abundance or breeding conditions. Caribou could be expected to roam periodically across the border between Min-

nesota and Canada; but it appears that logging and hunting pressure, and their susceptibility to infection by brainworm (*Parelapostromyces tenuis*), which is carried by White-tailed Deer, have prevented Caribou from returning to the state.

Woodland Caribou in Minnesota have typically been associated with climax stands of northern boreal forest. Historically, they utilized spruce and cedar swamps during the summer and open muskeg, fens, and barrens during the winter. While conducting Caribou habitat assessments in northeast Minnesota in 1985, I observed the paucity of old-growth stands and drying-out of some swampy areas due to logging. The greater dependency of Minnesota Caribou on terrestrial lichens and forage in winter contrasted sharply with the dependency of the Selkirk Caribou on arboreal (tree) lichens during winter.

Caribou are considered a species of "special concern" in Minnesota, but are not listed under the federal ESA. The reason for this omission is the opposition of the Minnesota Department of Natural Resources to the federal listing and the failure of any citizen or conservation group to file and support a petition for listing. That omission, which has deprived Caribou and its habitat from protection, is now being legally corrected by the EF! Biodiversity Project.

In the past few years, the Duluth Safari Club has promoted Caribou reintroduction in Minnesota. The Club has raised seed money for the program and organized an "interagency committee for the reintroduction of Caribou in Minnesota." The Minnesota Zoo may also be participating in this effort. The motive for the effort may be the eventual "sport" hunting of the species.

Last year, the EF! Biodiversity Project formally requested that the Superior National Forest conduct a Caribou habitat suitability study. The Forest Supervisor responded that the Forest would complete an evaluation of Caribou reintroduction potential, but it has not done so.

While support for the reintroduction of Caribou in Minnesota grows, it is crucial that the best potential movement corridor along the US/Canadian border in the Arrowhead Region be protected in its natural condition. It is also crucial that Caribou gain federal Endangered species protection in Minnesota.

Maine: Reintroduction Attempted Again

Although Caribou had inhabited the northern Maine woods since the last ice age, they had all but disappeared from the state by the late 1800s due to habitat destruction, overhunting and the brainworm parasite transmitted by White-tailed Deer. The last band of Caribou was observed on Baxter Peak in 1908.

crossing south into Montana, however, have no protection under the Endangered Species Act, and Kootenai NF officials appear hell-bent on destroying ("harvesting") the last mature to old-growth spruce/fir and cedar/hemlock basins and historic Caribou movement corridors.

A formal petition to amend the Endangered species listing of Woodland Caribou, listed only for Washington and Idaho (Selkirk Ecosystem), to include Montana was filed in 1984 by nature writer Douglas Chadwick. FWS made a 90-day finding on 16 October 1984 that the petitioned action might be warranted, initiating a status review for this population. FWS made a 12-month finding 2 July 1985, and reported it in the *Federal Register* for 1 January 1986, that the petitioned action was warranted but precluded by other listing actions of higher priority.

The formal listing process for Caribou in Montana was thus halted. This "warranted but precluded" option was used by the Reagan administration, and is now being used by the Bush administration, to delay or stop new federal listings. In this case, the FWS, under pressure from industry and the State of Montana, deprived the rarest indigenous mammal in the US of federal protection under the Endangered Species Act.

This was not the end of political maneuvers against Caribou restoration in Montana. The status review of Woodland Caribou in Montana was completed 23 May 1986, and it showed convincing evidence of the occasional presence of Caribou. It also showed that Glacier National Park, the Galton and Whitefish ranges, and the west Cabinet Mountains (an ecosystem along the Idaho/Montana line adjacent to the Selkirks) probably have the highest capability of supporting Caribou populations in the future, based on habitat and future management of the areas. It said the most likely way to have Caribou

ing to the wishes of the Montana Department of Fish, Wildlife and Parks, Montana timber interests, and the Forest Service. With such a powerful political coalition against it, the fate of Montana Caribou was sealed.

The reason why the Forest Service and timber interests in the Northern Rockies opposed federal Endangered species listing for the Selkirk herd in the early 1980s, and, along with the Montana Department of Fish, Wildlife and Parks (MDFWP), is presently working to prevent the federal listing of Woodland Caribou in Montana, is that federal listing of Woodland Caribou would place restrictions on the Forest Service's cutting of mature to old-growth spruce/fir and cedar/hemlocks stands. MDFWP's position on the federal listing of Woodland Caribou was made clear in a 15 May 1989 letter to me by K.L. Cool, Director "... such designation would serve no useful purpose and would most likely eliminate the possibility of a successful Caribou program in Montana."

The State of Montana has failed to initiate habitat suitability studies for either the Cabinet Mountains or the Whitefish Range/Glacier National Park — both of which still contain substantial spruce/fir Caribou habitat. Nor has the state mounted any legal challenges to the Forest Service's continued roading and logging of these potential reintroduction areas. The FS and MDFWP seem to agree that they don't want the Fish and Wildlife Service telling them what to do. In contrast, the Idaho and Washington state agencies have taken the lead role in Caribou recovery efforts in the Selkirk Ecosystem, with the FWS in a supportive role.

MDFWP's opposition to ESA listing is also preventing positive involvement by other agencies. Without a cooperative effort, little can be accomplished and the necessary financing will not be available. MDFWP's opposition to Caribou restoration in north-west Montana parallels their present efforts

The first reintroduction effort took place in 1963 when 23 adult Caribou from Newfoundland were transplanted on Mt. Katahdin by the Maine Department of Inland Fisheries and Wildlife. They survived the winter, but within a few months all had disappeared. The reasons for this failed attempt are uncertain, but the Caribou may have been the victims of poaching or disease or they may have dispersed back to the north.

A second, privately funded, experimental reintroduction program began in 1986, and in December of that year, 27 Caribou were captured on Newfoundland's Avalon Peninsula and transported to Maine. Since this was to be a captive breeding program, the animals were held in a 15 acre enclosure at the University of Maine in Orono. The original plan was to first release only young animals raised in captivity, assuming that these Caribou would remain more sedentary following release. The adult animals would be released back into the wild with the last release of captive-bred animals in 1992.

The program has run into problems. Initially, several Caribou were inadvertently killed during capture and transport from Newfoundland. All 17 female Caribou in the Orono nursery produced calves this past spring, but 5 calves died within the critical first 2 weeks of life. By late June, a suspected bacterial disease swept through the captive herd, killing 11 more calves.

Meanwhile, 14 of the captive Caribou were released in a remote area of Maine's Baxter State Park in May 1989. All the animals were radio-tagged. At this writing, only 6 of the 14 remain alive, though additional animals may be released this fall. Some were killed by Black Bears, one in a rock slide, one died of injuries "suspected" of being inflicted by a Coyote, and perhaps a few had previously contracted brainworm parasite at the Orono compound. The program is now seeking to import additional Caribou from Canada to replenish the experimental herd.

Despite all these set backs, the Maine Caribou Project will continue its efforts to reestablish Caribou in northern Maine. However, consideration is now being given to scrapping the strategy of raising Caribou in captive breeding pens at the University of Maine, and instead, releasing newly captured Canadian animals directly into Baxter Park.

Whether this new strategy will work may depend on whether a core group of previously released Caribou has established itself in the area. Six animals, some of which have already dispersed, may be too small to establish social bonding or central point breeding areas in new habitat.

In Idaho, the dispersal of newly captured and released Caribou diminished after a core group of Caribou was established in the southern Selkirk Caribou range. Also, there was an established resident herd in the Idaho/BC border area, just north of the release area. Consequently, only a small percentage of released animals have wandered out of the Selkirk Ecosystem recovery area.

Some Caribou biologists believe that the Maine Caribou reintroduction program is doomed to fail because the animals cannot survive in the same forests with White-tailed Deer. Arthur T. Bergerud, of the University of Victoria, BC, believes White-tailed Deer in eastern North America are infested with a parasite that carries a disease fatal to Caribou. The deer are immune to *P. tenuis*, a disease caused by the meningeal worm, more commonly known as the brainworm. Bergerud points out that "every caribou introduction has failed where there has been a high brainworm infection rate."

This past summer I visited the Maine Caribou Project, reviewed the program with its staff, and was shown the captive animals. The Project Director, Dr. Mark McCollough, was candid about past mistakes, yet was optimistic that the reintroduction effort could succeed in the long run. My reaction to the breeding compounds in Orono, however, was not favorable. The pens were much too small and had been located in clearcuts, rather than in cool forest canopy-covered areas. The animals were naturally attracted to the few wet, poorly drained areas of the pens. There they gathered, defecated, and drank the water. It should not have been a surprise that the weak new calves contracted a harmful strain of bacteria. I told the staff that all healthy animals would be better off being released into the wild at Baxter State Park.

Raising Caribou in captivity, though successful in parts of Canada, is not essential to transplant success. Newfoundland has successfully released animals in habitat without an established herd. However, the quality of Caribou habitat in Newfoundland may have been the key to this success.

What is the present quality of Maine's potential Caribou habitat? What is the extent of brainworm infestation in White-tailed Deer populations? Does Maine have too many large clearcuts? Have movement corridors and secure breeding areas been disrupted? What is the winter forage availability? Have too many critical wet sites dried up due to logging? Are Caribou now subject to poaching and inadvertent shooting due to the vast network of logging roads? These questions all should have been addressed in a habitat suitability study prior to implementation of the program.

Caribou reintroduction in Maine is being financed by a private organization, the Caribou Transplant Corporation. State of Maine wildlife biologists have merely approved the experiment. The US Fish and Wildlife Service has played no part in the program, as Caribou in Maine are not federally listed. Protection for Maine Caribou under the ESA would provide better funding, ensure biological program soundness, and provide greater deterrence against illegal shooting. It should be pursued expeditiously.

The northern Maine boreal ecosystems have lost much of their natural diversity. The time has come to set these lands aside as biological preserves — to allow the forests to naturally restore themselves, and become again a home for the magical Caribou.

Captive Breeding Programs: A Poor, Last-Ditch Alternative

Although programs in Canada and Alaska have demonstrated that Caribou can be successfully bred in captivity, biologists have also learned that once the species is lost in an area, reintroduction is a formidable task. An ominous trend is developing across North America — captive breeding programs are being used to excuse the development that caused the demise of various species in the wild. Huge amounts of money are being pumped into these programs while remaining wild habitat is destroyed. Many, if not most, endangered species captive breeding programs do not allow species to co-evolve with newly emerging threats such as competitors, predators, parasites and diseases.

With Woodland Caribou and many other species, we still do not understand how to preserve the complex cultural heritage that animals in their natural habitat pass along from one generation to the next — the learned behaviors that allow for continued survival in the wild. This is usually conven-

iently ignored by zoo sponsored captive breeding programs and bodes ill for the California Condor, Mexican Wolf, Black-footed Ferret and many other species.

The time to save species is in advance while population levels are still sufficiently healthy to allow for restoration in the wild — without captive breeding programs. If we have learned anything it is that we must preserve all remaining habitat — not simply enough to support "minimum viable populations."

Conclusion

The Woodland Caribou — this darkly majestic link with the ice age — is in danger of extinction throughout its historic range in the United States. It needs federal protection under the Endangered Species Act in Montana, Minnesota and Maine, as it is presently protected in the Idaho and Washington Selkirk Mountains.

Along with Gray Wolves, Grizzly Bears, Wolverines, Lynx, Northern Bog Lemmings, Goshawks, and Snowy Owls, Woodland Caribou are vanishing symbols of the biological richness of the last wild lands in North America. The restoration and protection of their habitats would foster the continued survival and well-being of innumerable other life forms.

The domino theory applies in nature with a vengeance! The continued loss of remaining old-growth forests threatens species diversity, the loss of which endangers the richly intertwined ecosystems of this continent.

CARIBOU NEED YOUR HELP NOW!

Write to John Turner, Director, US Fish and Wildlife Service, 18th & C Streets, NW, Washington, DC 20240. Urge FWS to list Woodland Caribou as Endangered in Montana, Minnesota, and Maine.

Activists in the Northern Rockies should write to K.L. Cool, Director, Montana Dept of Fish, Wildlife & Parks, 1420 E Sixth Ave, Helena, MT 59620. Ask the State of Montana to support Woodland Caribou restoration efforts in the state and the federal listing of Caribou under the ESA.

Write to the Park Superintendent, Glacier National Park, West Glacier, MT 59936. Request that the Park conduct a reintroduction feasibility and habitat suitability study for the possible reintroduction of Woodland Caribou.

Write F. Dale Robertson, Chief, US Forest Service, POB 96090, Washington, DC 20090-6090. Insist that the FS stop the cutting of all potential old-growth spruce/fir and cedar/hemlock Caribou habitat on the Kootenai and Flathead National Forests and initiate Caribou habitat and reintroduction studies for the west Cabinet, Galton, and Whitefish ranges in north-west Montana.

To find out how to work for road closures in our National Forests, contact Keith Hammer, Road Closure Coordinator, EF! Biodiversity Project, POB 2072, Kalispell, MT 59903.

Support the establishment of a large Northwoods Preserve in northern New England. In Maine, the Preserve should include all lands contained in the Maine Woods Preserve proposed by The Wilderness Society. In addition, all lands north of the Appalachian Trail and west and north of TWS preserve, including all roadless areas in Maine's St. John and Allagash River areas, should be included. Encourage federal government purchase of these lands.

Work for the end of US Forest Service jurisdiction over all of the biologically sensitive border ecosystems from Washington to Montana. These critical wildlife habitats should be removed from the National Forest multiple-abuse system and converted to a system of National Biological Preserves under a new Native Ecosystem Act.

Support the EF! Biodiversity Project with your financial contributions. Please send to POB 4207, Parkersburg, WV 26104-4207. Thank you.

Jasper Carlton is a self-taught naturalist who conducted four years of Caribou field research in the Selkirk, Purcell, and Whitefish Mountains, directed the private Montana Caribou Ecology Project, and brought the successful legal action against Secretary of Interior James Watt that resulted in the emergency listing of Caribou in the Selkirk Ecosystem. He now coordinates EF!'s Biodiversity Project.

Caribou Man

*He went there in a dream
to the place where the caribou go
to the mountain where the caribou go
mountain not of snow, but of caribou hair.
He became the Caribou Man,
came to live among them,
eating moss, fathering young,
riding on the backs of the bulls.
He gives meat to the hunters.
He takes care of the caribou,
in a dream she came, called me,
she stepped from the herd, whispered my name,
come live as husband among the caribou
We talked with him, wishing meat for our families.
He warned that our troubles came from killing too freely.
We must kill only for food, to renew tools, tents, clothing.
We must not waste life, their blood is his blood
their blood is our blood
their dreams are our dreams, and he is one of us.
—Gary Lawless*

Help Save the Desert Tortoise

ed. note: The following is condensed from a Defenders of Wildlife (1244 19th St, NW, Washington, DC 20036) Action Alert of 2 November 1989. For background information, see Jasper Carlton's Desert Tortoise article in our September issue.

On October 13, a long overdue proposal was submitted by the Fish and Wildlife Service (FWS) to list as Endangered the Mojave population of the Desert Tortoise in portions of Utah, Nevada, California and Arizona. The proposal has generated enormous opposition from development interests, ranchers and off-road vehicle groups. It is critical that the FWS have your comments on this proposal by 11 January 1990.

FWS also proposed to "determine the Sonoran population of the desert tortoise found outside its natural range in Arizona (south and east of the Colorado River) and Mexico as a threatened species, due to similarity of appearance to the Mojave population." The reason for this confused situation is that a few Sonoran tortoises have been released into the Mojave Desert. However, Sonoran tortoises in their native habitat south and east of the Colorado are not proposed for listing.

Both the Sonoran and the Mojave tortoise populations are suffering from loss of habitat to urban development, off-road vehicle recreation, mining, and livestock grazing; and from illegal collecting and vandalism. A new threat is a contagious fatal disease called the Desert Tortoise Respiratory Disease Syndrome. The disease has been spread from captive tortoises released in the wild.

Environmentalists support the FWS's proposal to protect the Desert Tortoise under the ESA. However, they consider the proposed rule inadequate in several ways:

It does not add the Sonoran population of the Desert Tortoise to the list of Endangered species. We disagree with FWS's assertion that the Sonoran population is less subject to habitat disturbance because it inhabits steep-sided canyons. In reality, this population is susceptible to habitat loss because of the attractiveness of foothills habitat to new development.

It fails to designate any Critical habitat for the Mojave tortoises. Under the Endangered Species Act, agencies are required to designate Critical habitat for listed species.

It does not indicate if or when a species recovery plan will be adopted. The ESA requires that recovery plans be drawn up for each listed species. However, the FWS often experiences lengthy delays in the writing of these recovery plans. An excellent example of such a delay is the Beaver Dam Slope population of the Desert Tortoise — listed as Threatened since 1980, and still without a recovery plan.

WHAT YOU CAN DO: Please write in support of a stronger rule to protect the tortoise. In your letter 1) support Mojave tortoise listing and protection; 2) request Sonoran tortoise listing and protection; 3) request designation of Critical habitat; 4) and request recovery plan adoption within one year. Send comments to Regional Director (Attn: Listing Coordinator), US Fish and Wildlife Service, 1002 NE Holladay St, Portland, OR 97232-4181.

Send a copy of your letter to Interior Secretary Manuel Lujan with a note requesting that Secretary Lujan direct FWS Regional Director Michael Spear to support listing and protection for the Sonoran population. Address to Manuel Lujan, Secretary, Interior Dept, 18th & C Sts, NW, Washington, DC 20240.

LATE NEWS FLASH

BARSTOW TO VEGAS RACE CANCELLED FOREVER!

Just before this issue went to press, news came that the BLM has permanently banned running of the Barstow to Las Vegas motorcycle race, along with two others in the California desert.

Citing threats to the Desert Tortoise and the past failure of race sponsors to follow (laughable) rules meant to limit damage from the races, BLM officials said they will never again allow running of the Barstow to Vegas, the Johnson Valley to Parker, AZ, or the Parker 400 races.

We will have a full report on this long-overdue event in the Journal's next issue.

NATIONAL WOLF RECOVERY ACTION

The banner, reading "America Needs Wolves" with a howling wolf at the bottom, hung 30 feet from the balcony outside the Interior Department building in Washington, DC, and it made our message clear. So did the 30 plus activists who howled, leafleted, and held signs stating "DOI, Do Your Job," "Ecology, Not Economy" and a banner saying "NPS Muzzles Wolf Education." Add to this action the demonstrations, articles, and slideshows in locations from the Adirondacks to Montana, and it is fair to judge the National Wolf Recovery and Protection ACTION on November 20 a success, in several ways:

First, we showed the federal and state agencies responsible for the recovery and protection of wolves, particularly the US Fish and Wildlife Service, that we are outraged at their efforts to date. Indeed, in Albuquerque the group filed an intent to sue the FWS for violation of the Endangered Species Act concerning the Mexican Wolf. In DC, an activist risked arrest to make his statement (hanging the banner), but was released uncharged.

Second, we presented our version of what a real, uncompromising wolf recovery and protection plan would entail. We presented both a proposal and a drafted piece of legislation. People inside and outside the EF! movement are already discussing their merits.

Third, and perhaps most important, we educated more people about the plight of wolves and the ecosystems they require. This we did through skits, distributing fact sheets, and talking to the media.

The statement that America needs wolves for healthy, intact ecosystems and thus America needs an uncompromising national wolf recovery and protection plan, in which biology and ecology take precedence over politics and economics, must be made *loud and clear and often*, as recent decisions by both the Fish and Wildlife Service and the National Park Service have set wolf recovery and protection back even further. In the last issue of the *Journal*, I reported about the death of three wolves in northwest Montana. These deaths occurred as a result of irresponsible handling by the FWS of a livestock depredation complaint.

More recently, NPS Director Ridenour called for the removal of a cut-out coupon in Yellowstone National Park's Visitor Newsletter, which advertised an educational packet called "Wolf Pac"; and Superintendent Barbee told a Park biologist to stop presenting his wolf slide show to public audiences across the country (as he has been doing for a few years now). Wolf Pac was created by the Denver Museum of Natural History, and was available to teachers through the newsletter. It will no longer be advertised in, or available through, the newsletter.

As usual, public land agency bureaucrats bowed to pro-livestock lackeys — this time two senators — moaning about efforts to help wolves return to the wilds of North America. Senators Malcolm Wallop (R-WY) and Conrad Burns (R-MT) presented complaints to Interior Secretary Lujan in May stating that Wolf Pac was biased in favor of wolf reintroduction in Yellowstone (because the packet mentioned it) and that it never addressed the "taking" of wolves if livestock depredation occurred.

In October, Ridenour discussed the senators' concerns with Superintendent Barbee. Barbee later said he was asked to ensure that the Park's wolf presentations were not biased. That would be easy! Simply add to these programs a section about the livestock issue — explaining that money exists to compensate depredations, and that in Minnesota, where a viable wolf population survives, only 1-2% of the livestock are preyed upon by wolves each year — and allow the public to make an informed decision. Instead of such a practical approach, two of the Park's most widely used public forums about wolves are no longer available through the Park Service.

In a conversation with Yellowstone's spokeswoman, I learned the following:

- 1) The Museum paid for mailing costs of the packet. All the Park was doing was allowing the announcement to run in their newsletter and offering packets to Park visitors. The Museum is still distributing the Wolf Pac.
- 2) Biologist Norm Bishop will not present his show until the congressionally-mandated biological study on the impact of wolf reintroduction on the Park's ecosystem and surrounding regions is finished (probably by the first of the year) and the NPS takes a formal stand on wolf reintroduction in YNP (the second step in this bureaucratic process). Should the NPS come out in favor of reintroduction and recommend that Congress pursue it, these educational programs could

then be reinstated. For now, the NPS is limiting the public's access to information about an issue mandated to be addressed at a federal level because the agency wants to be "prudent" and not act in a "premature" manner.

What we in the Lower 48 are experiencing in regard to wolf recovery is similar to what Alaska residents just witnessed in their state. As reported in the last *Journal*, Alaska recently held public hearings concerning "land and shoot" wolf hunting (among other forms). A report from Michael Lewis in Valdez confirmed that wolf bigotry runs deep in the state's Board of Game, a so-called citizen's panel appointed by the governor:

Despite 2 to 1 testimony against wolf hunting, the Board passed new aerial hunting areas, effectively doubling the territory open to land and shoot hunting. The chairman of the committee admitted that they aren't influenced by public testimony. They look to local residents' desires instead. They view Greenpeace, Defenders of Wildlife, Sierra Club, etc. as "outside interests" which do not need to be taken into account in the decision process. So the hearing was a sham ... Perhaps we can still save the wolf in Alaska through federal intervention. Perhaps....

WHAT YOU CAN DO: National demonstrations are a good idea, but let's not wait for someone else to organize a big action every 6 months. Let's get out and demand recovery and protection of wolves and the ecosystems they require more often. It was exciting with this past Wolf Action to see people organize in places not previously thought of as having active wolf advocates, particularly in the East. Let's make this the

national that it is. Lastly, let's remember this is not a single species issue. *America needs wolves for healthy ecosystems*, thus the scope of this issue extends far beyond one species.

If you want information (particularly the updated fact sheet or proposal) or advice on what to do, contact the Wolf Action Network [address in Directory]. If you have information, articles, or suggestions, please send them to the Network. Also, both the Network and New Mexico EF! (which is filing suit against the FWS) desperately need money! [See NMEF! bulletin in this issue.]

Meanwhile, write the following people:

*President Bush, The White House, Washington, DC

*NPS Director James Ridenour, Interior Dept, 18th & C Sts, DC 20240

Insist that the educational programs in Yellowstone be reinstated, or you'll defect to the Eastern Bloc, where freedom of information is growing. Ask Bush why, if he is running such an environmental administration, this sort of suppression is occurring. Tell them that if they won't educate the public, we will — and they won't like our story!

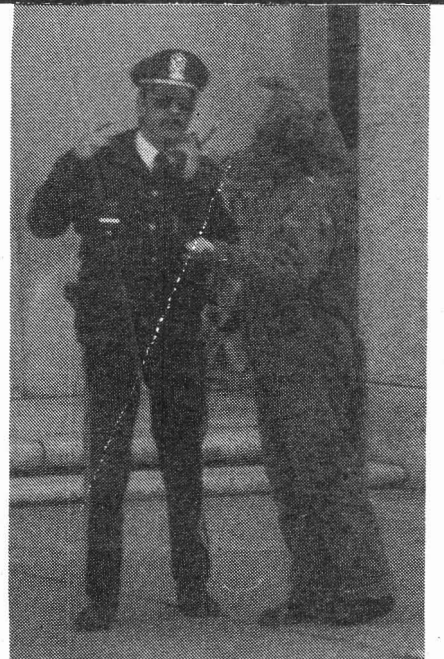
*Alaska Board of Game, Box 3200, Juneau, AK 99802

*Governor Steve Cowper, State Capitol, Juneau, AK

Tell the governor that his Board of Game is a sham, and that he'd better fix it or we'll start our own land and shoot program....

Tell the Board of Game to ban wolf hunts.

*Fish & Wildlife Service Director John Turner, Interior Dept, 18th & C Sts, DC 20240



A wolf at the Interior's door faces questions by a D.C. policeman during the Nov. 20 action there.

Tell the FWS to begin REAL wolf recovery and protection. Tell them to adopt the Earth First! Wolf Action Network proposal.

*US senators, Senate, DC 20510

*US representatives, House of Representatives, DC 20515

Tell your congresspersons to support Representative Owens's Yellowstone Wolf Reintroduction Bill (HR 2786), but to look at EF!'s proposed National Wolf Recovery and Protection Act for an idea of what legislation with teeth would be like.

—Tom Skeele, EF! Wolf Action Network coordinator

VICTORY!!!—EARTH FIRST! SAVES COLORADO OLD GROWTH

by Canyon Wolf

After two costly tree-spikings and \$10,000 worth of damage to a skidder, Louisiana-Pacific (L-P) has decided to discontinue cutting in Bowen Gulch for the season. Several years ago, one spiking incident cost the freddie \$16,000 to despike. The second incident involved non-metallic materials (possibly ceramics), which they have been unable to detect. More recently, sand and grit were found in the crank case of the skidder that belonged to L-P's contractor. In addition, about 75 activists have been mobilized along the Front Range in efforts to rescue Bowen Gulch and other high-altitude old growth forests; and the Colorado public at large has been made aware of the crisis.

I. Bowen Gulch Ecology

Some of the oldest and largest spruce and fir trees in Colorado are in Bowen Gulch. The 640 acre "planning area" slated for a three-step shelterwood cut (30-year clearcut) is in Arapaho National Forest adjacent to Rocky Mountain National Park on its west side, the wildest part of the Park. Just to its north lies the Never Summer Wilderness. Bowen Gulch is an area of simple, rugged, high-altitude beauty, between 10,000 and 11,500 feet in elevation. Much of the forest in this area remains, but is being cut rapidly.

The threatened area is dotted with lush meadows, and is home to deer and Elk, an occasional Moose, Black Bear, and Wolverine. The forest is rich with wet soil, mosses, a complex array of undergrowth and forest grasses, dead and decaying trees, and mixed age stands of spruce and fir trees, some of which are many centuries old. Our Grandfather Tree is estimated to be at least 600 years old. Two of us could not quite touch hands around its trunk at breast height. Trees grow

extremely slowly at this altitude.

The area has a somewhat wet, subalpine climate with frequent lightning and rain in the summer and heavy snow in the winter. It lies on the western slope of the northern Colorado Continental Divide, where the clouds release their moisture before moving out to the eastern high plains of the state.

II. Environmental History and EF! Presence

Colorado mainstream environmentalists had tried for years to stop or modify timber sale plans for Bowen Gulch, but were unsuccessful. The National Park Scurvy approved of the plans, saying the cut would help increase the "harvesting" of Elk by drawing them out of Rocky Mountain Park and into the "treated" areas. The high Elk population is due to the elimination of large predators in the area, especially Gray Wolves. The sale was contracted to Louisiana-Pathetic (LP) and they were authorized to begin logging in August 1989. However, unknown warriors had spiked the area in 1986-87. This activity remained largely unknown until two years later.

At the 1989 Jemez, New Mexico RRR, plans were made to put sitters up in trees all over the country. Colorado EF! chose Bowen Gulch as their site. Written off by some as too late to save, Bowen Gulch suddenly became the center of attention for environmentalists on the Front Range. For three days, three people sat in the trees with seven people for ground support. The media covered the action well, and we promised further defense actions.

In September, a new group of about 25 activists gathered at Bowen Gulch to escalate our defense. We camped four miles from the site targeted for action. L-P began logging operations before dawn, but soon the gate had been locked closed with Kryptonite locks. Also, two people had locked themselves by the neck to the gate. The rest of us sat in front of the gate, emphasizing our uncompromising position. Loaded monoliths sat behind the barricaded gate, waiting to go to the mill in Walden, Colorado. Soon after daylight, Huck Henderson, Grand County Sheriff, arrived with his band of peabrained cronies. Huck, being a polite guy, told us he couldn't arrest us because he didn't know who had jurisdiction over the gate and the stretch of road we were blocking. He ambled off with his buddies and tried to decide what to do.

Meanwhile, a band of loggers showed up for work. Instead of using the blocked road to access the "timber," they climbed the hill just to our west, whipped out their chainsaws and began cutting the marked trees. A hauler on a previously cut skid road began cleaning up the felled trees. This created an

unfortunate juxtaposition for the media, but we believed we had done what we had come to do for that day: shut down part of their operations, get in their faces, keep up the publicity for Bowen Gulch, and buy a little time. We unlocked and walked away with no arrests and all our Kryptonites. On the way out, we noticed one of the logging vehicles we had stopped was stalled at an intersection with engine trouble, further delaying taking the logs to the mill.

III. The Medicine Wheel and November Activities

On Saturday, October 21, a wake was held for the Bowen Gulch trees that had been cut. A stump was pulled from the rubble, taken three hours away to the capitol steps in Denver, and adorned with flowers, candles and other ritual gear. Several activists had slept beside the stump on Friday night. That night, an Oglala Sioux noticed the group and became interested. On Saturday, he performed a traditional ceremony for the stump, followed by a Unitarian minister, who performed his version of last rites for the trees.

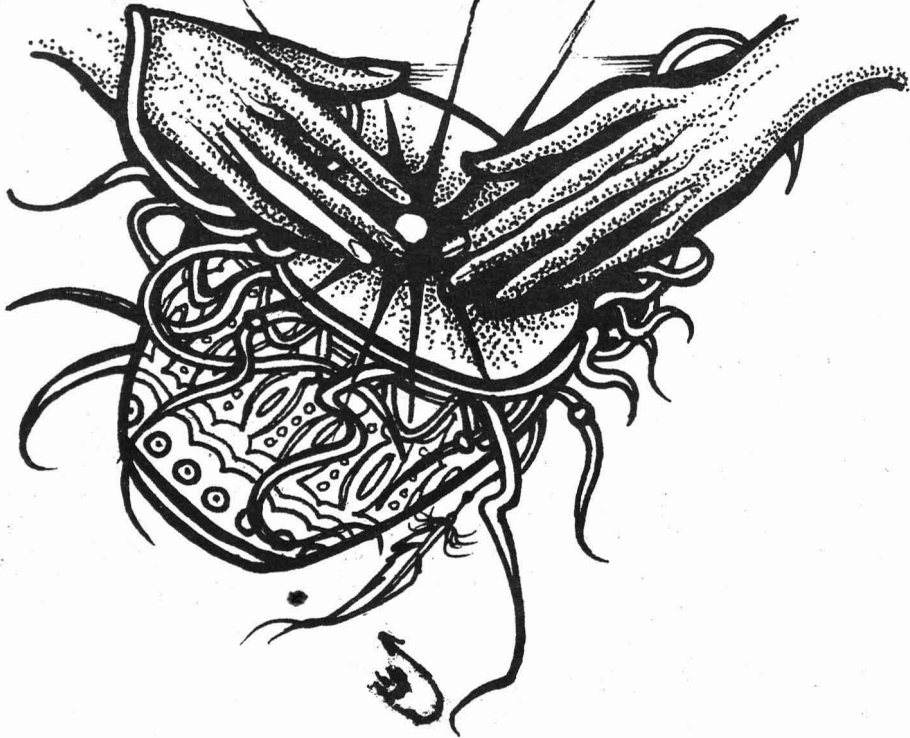
Our Oglala brother offered to help us build a medicine wheel at Bowen Gulch. We built the medicine wheel in a secluded, snowy meadow in the path of one of the timber cutting units. Made of large stones from the surrounding hillsides, the medicine wheel measures about 25 feet in diameter. We then performed a traditional medicine wheel ceremony and blessed the site as sacred. We all agreed to return to the site in one month—November 22—to finish building two sweat lodges on the medicine wheel site.

In early November, after a reconnaissance trip to Bowen Gulch, we learned that a skidder had been ruined. One of the skidders of Jim Winter—the local redneck contractor for Pathetic—had abrasives poured into its crank case, costing him \$10,000 in damages. Another contractor said he was pulling out of Bowen Gulch because he didn't want to be involved in the controversy. Finally, a meeting between a few of us, the head terrorist for L-P in Colorado, and some state politicians' aides on November 14 concluded the controversy over Bowen Gulch for the season. L-P plans to return next July, but they're pulling out entirely for now. Maybe they think we'll forget about Bowen Gulch by next summer...

Canyon Wolf has been active with Colorado Earth First! for three years, especially its old growth preservation and wolf reintroduction campaigns. She is also a renegade graduate student in the Philosophy Department at Colorado State University.



TRIBAL LORE



olulu, HI 96802
 *Bernard Akana, mayor, 25 Apuni St, Hilo, HI 95813
 *Senator D. Inouye, Hilo Lagoon Center, 101 Apuni St #205, Hilo, HI 96720
 *President Bush, The White House, Washington, DC
 Send donations to Rainforest Action Group, POB AB, Kutistown, HI 96760
 —W.S. Merwin

There Just Might Be Hope

Attending a gathering of environmentalists in central California is generally about as much fun as squatting in the outhouse when you know a couple dozen scorpions are down there. Everyone at these get-togethers is so exquisitely coiffed and accoutered, so goddamn antiseptic, that as soon as you sit down you wish you had a fifth of hundred proof Wild Turkey and a stinking cigar and could cut loose a loud onion fart.

So my enthusiasm about attending the California Wilderness Conference in Visalia is near the level it would be if I were swilling Coors while my car was being filled with Exxon on my way to a date with Nancy Reagan. I've excuses not to go: there's pine to split before the next rain, I'll fall behind on my condor-1080 book, etc.

Yet it's only 80 miles downhill and Dave Foreman will be there and he and I rarely get together these days to knock off a few beers and let our thoughts careen around, crash and collide. So, along with three other no compromisers, I put on a gas mask and ride through the middle San Joaquin Valley, trying not to notice the thoroughness with which it's been trashed by gargoyles of greed gobbling up government subsidies.

When I enter the Visalia convention center a Bob Dylan line ricochets through my mind: "When your gravity fails and negativity won't pull you through." For, no matter how much electricity they save, fluorescent lights are harsh and unnatural and can lead to headaches and that's mostly what the place has. Also, the joint is filled with khaki uniforms: BLMers, State Parkers, Forest Circusers, Fish and Gamers. This time a Tom Waits line conquers my cranium; "I'm tired of all these soldiers here." And in the auditorium the forest killers have erected a giant display with a recorded tape that drools and drips deception and is augmented by photos of piles of tree cadavers in North Fork, CA. North Fork's my turf and I don't have to drive 80 miles through a murdered desert to be reminded of the carnage taking place there.

Where in hell's the Wild Turkey?
 But as tempo slowly fugits coffee suffices. I realize there's more of us — real ecoraiders like tree sitters Greg King and Darryl Cherney — than kind and gentle mitigators who refuse to recognize that nature can be both beautiful and cruel, serene and unmanageable.

A former Forest Circuser ends his workshop by advising folks not to believe anything the Circus says: even its maps lie. The shops that last too long are so numerous and so interesting it's tough to decide which to attend. The speeches and slide shows, also too long plus too frequent, come out with the message we were shouting eight years ago: "Fuck mitigation! If you don't get the whole loaf the crumbs you're left with aren't worth picking up."

"Inspirational" ain't my kind of word but I honestly feel inspired listening to the oldtimers who were fighting almost alone before most of us knew a war was going on.

It's hard to say it's an EF! gathering but it's harder to say it isn't. Firsters run a lot of workshops, Ecotage and Bill Oliver and Glen Waldeck supply the music and Dave is the dominant figure throughout the whole four days. And the attitude among the vast majority of the 800 plus persons present, representing over 80 organizations, is: "NO COMPROMISE!"

And yes, Dave and I do get together over a few beers and joke and laugh and damn near cry and exchange stories of being rudely aroused and looking into the barrels of cocked and loaded guns. But it's not in the usual cantina; it's on the auditorium stage where we're participating in a skit that's supposed to reinforce the music. When Bill and Glen and Ecotage are taking breaks, Dave tells the famous story of his encounter with Jim Watt while rafting down the Grand Canyon and I recite a poem describing the effects on life of outlaw dead bodies like Ed Abbey.

Meanwhile being hopeful doesn't stop me from keeping a proper perspective and being prepared. Three times a day I eat onions, smoke cigars and drink Wild Turkey.
 —J.P. Bernhard, Clovis, CA

Virginia EF! Protects a River

An ongoing threat to Virginia's rivers is gravel mining — some of it illegal. This was the case last July and again in October when the gravel hogs struck Brattons Run, a trout stream near our fall rendezvous site. However, the hogs hadn't reckoned with Earth

Firsters Cricket and Larry Hammond, who monitor streams as well as forest in these mountains. Despite threats to their personal safety, the Hammonds confronted the river rapers and goaded reluctant federal and state bureaucrats to take action to protect the river. Unfortunately these river rapers were friends of the local US congressman, who earlier had advised the Hammonds "to not squeal on their neighbors" when he was asked for help. In this case having friends in high places paid off. When US Army Corps of Engineers and state Game and Inland Fisheries agents launched a sting operation early the morning of November 1, the culprits had been warned and had pulled out their equipment during the night. However, the entire operation, which involved large profits, has been halted — for now. Thanks Cricket and Larry! We continue to monitor this and other streams in the area.
 —Bob Mueller, VA EF! contact

Big Bend EF! Protests FS Mismanagement

On November 2, 20 EF! warriors joined Smokey the Bear, Long Leaf Pine and Red Cockaded Woodpecker in front of US Forest Service headquarters in Tallahassee, to protest the mismanagement of the Apalachicola National Forest. Smokey the Bear distributed copies of his resignation and declared "Only You Can Prevent Clearcutting!"

Florida's National Forests are home to many rare, Threatened, and Endangered species, including Black Bear, Red-cockaded Woodpecker, Gopher Tortoise, Indigo and Pine Snakes and Sherman's Fox Squirrel. Yet 60% of Florida's NF land is used for timber production, primarily by clearcutting, while less than 7% is designated Wilderness.

Connie Dickard, public affairs officer of the FS, stated to the press and participants that clearcutting the forest and replanting benefits some wildlife. Owls and woodpeckers hooted and flapped their wings in disagreement while a lumberjack chainsawed a screaming long leaf pine. The EF! street theatre demonstrated the plight of Florida's vanishing ecosystems and gained cheers from pedestrians and passing smog-mobiles during lunch hour traffic.

Later that afternoon, the woodland creatures and their compatriots moved their protest to Highway 319 along a proposed clearcut in the Apalachicola NF. There they rallied passing motorists with "Burma-Shave style" signs spread over a mile that urged motorists to call the FS to protest this clearcut.

Local news media sympathetically carried the EF! message to the public. These demonstrations fired our enthusiasm for further actions.

—Big Bend EF!, POB 20582, Tallahassee, FL 32316

FLEF! Protests for Ocala NF

On November 4, three Florida black bears, a red-cockaded woodpecker, a giant gopher tortoise and a caravan of Florida Earth Firsters visited the Ocala National Forest's Lake George District Ranger station, nestled between a new convenience store and a shopping center. There the animals and EF!ers performed street theatre before an audience of county and Forest Service law enforcement agents and tourists.

Because of our protest, more of Florida's public is now aware of the abuse of their National Forests. Correspondence has begun with media contacts. We hope to pressure the Freddie's to consider RNA (Research Natural Area) designation for Riverside Island (Longleaf Pine/wiregrass community) and the Halfmoon Scrub area (ancient Sand Pine scrub).
 —Florida EF!

S. Appalachian EF! Group Forms

On October 27, the Green Fire Road Show brought together 150 people at the Stone Soup restaurant in Asheville, North Carolina, for an evening of entertainment and a call to help save the Earth's dwindling wilderness. After the show, 50 folks answered that call by forming a Southern Appalachian chapter of Earth First! Presently, the group calls itself Earth Liberation Front or ELF!

ELF! staged its first action a week later, risking arrest by trespassing into the Asheville Watershed to protest a widely opposed clearcut there. Two grassroots groups have effectively brought this unusual cut to the public's eye: Western North Carolina Alliance and CACAW (Citizens Against Clearcutting in the Asheville Watershed) have mounted letter writing campaigns, petition drives and peaceful protests against the destruction.

In June of 1987, Powell Lumber Company leased 51 acres from the Asheville Water Authority for \$57,000. By fall of that

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Geothermal Project Threatens Big Island

ed. note: John Seed reported in our last issue on the imminent destruction of the only tropical lowland rainforest in the United States. Rainforest activists and EF!ers have been protesting with the native Hawaiians for the forest. Activists interested in joining this campaign should write Mike Roselle of the EF! Direct Action Fund.

The last lowland tropical rainforest in the United States, growing on the flanks of the highly active Kilauea volcano on the Big Island of Hawaii, is about to be destroyed. A road was recently constructed and an area cleared to begin test drilling. Unless the project is stopped, several hundred shafts will be sunk more than a mile underground to generate steam for electricity.

The Wao Kele O Puna forest begins a few miles above the town of Pahoa. Even before the bulldozers invaded the forest this fall, it had been reduced to about 27,000 acres. Yet it is the largest intact bit of lowland rainforest remaining in the Hawaiian islands. A few imported species have established themselves around the edges, but for the most part the flora consists of native species evolved in the Hawaiian islands. The Wao Kele O Puna is the only place in the islands where native birds, wiped out everywhere else in the lowlands, have managed to survive and to develop immunity to the avian malaria that arrived with Europeans and the mosquito.

The Wao Kele O Puna is part of the "ceded lands," legally dedicated to the use of the Hawaiian people. It was recently "swapped" for an adjoining area of disturbed and non-native forest, by the State of Hawaii, without the consent of the native Hawaiians. This was done to allow the invasion of the forest. The Wao Kele O Puna has supplied traditional practitioners of the Hawaiian healing arts with medicinal plants since long before European contact. If the land-swap — now disputed in the courts — is finally declared legal, the Hawaiians will no longer have access to it. But that will not matter, for the forest itself will soon cease to exist.

Opposition from native Hawaiians and other residents has been ignored and the developers have proceeded with the encouragement of Senator Inouye, Governor Waihee and other officials. Few people anywhere know of the destruction. Local papers in Hawaii have done little more than refer to it.

The adverse environmental effects of the proposed geothermal project are many. The geothermal wells would release hydrogen sulfide, which is poisonous and would

destroy the biota. Brine from the wells would be released on the surface and, after killing the surface vegetation, would percolate down to contaminate the island's lense of fresh water. The area where the wells are proposed is the most geologically active in the world. They plan to drill into an ACTIVE volcano.

The effects will extend far beyond the rainforest. The energy from the wells would be transported on 100 foot towers to the sea, and in oil-filled conduits, at depths of up to 6000', under the sea to Maui; then on towers again, across Maui to the sea, and undersea to Waimanalo on Oahu. The oil-filled conduits have never been tested at such depths. The sea bottom shifts. An oil leak would become an oil spill from below.

In October, bulldozers razed a swath three miles into the forest. They had a permit to begin a road, but they destroyed more than twice the area designated to them. When notified of the trespass, the authorities gave them a token fine. The great 'ohia trees were cut up and buried in crushed lava. The 'ie'ie vines, which grow only in this forest, withered in the sun.

On October 7, several hundred protesters from all the main islands, led by native Hawaiians, walked to the new iron gate, where they met police and hired guards: the Hawaii Protective Association. A lawyer from a company named True Venture, operating out of Casper, Wyoming, told the Hawaiians they would not be allowed to pass. The Hawaiians said the land was theirs. They were then told that they would not be prevented from proceeding but would do so at their own risk. The procession continued to an ancient 'ohia tree that had somehow been spared. The natives laid offerings to the fire-goddess at the foot of this remnant of their place and then walked back out again.

Much more damage is planned. The developers are counting — as innumerable destructive schemes in Hawaii have counted — on people not knowing what is happening until it is too late to stop.

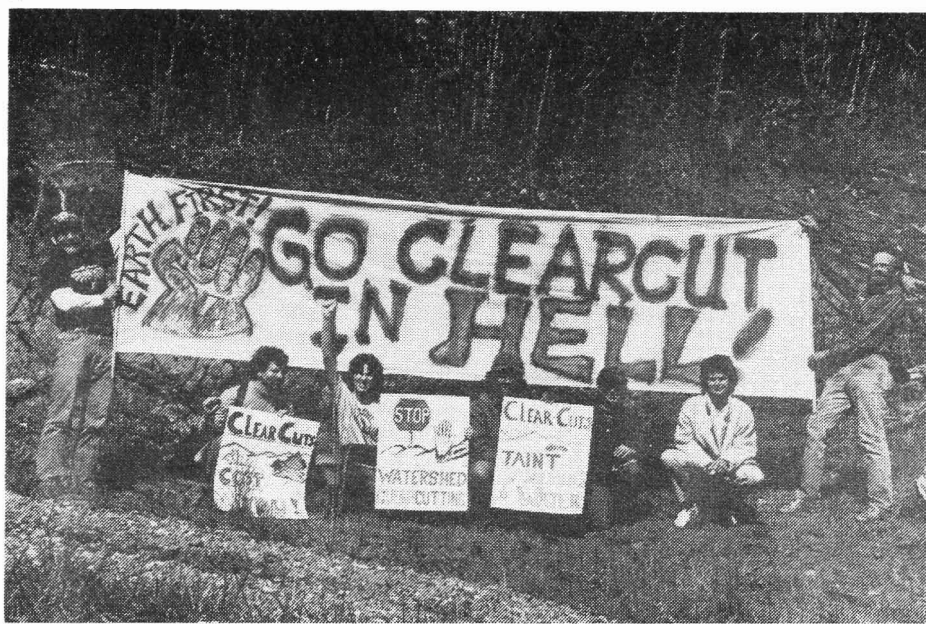
WHAT YOU CAN DO: Write the Hawaiian newspapers, Hawaii County mayor and your congresspersons and President protesting the destruction of the US's last tropical lowland rainforest:

*Star Bulletin, POB 3080, Honolulu, HI 96802
 *Hawaii Tribune Herald, POB 767, Hilo, HI 96721
 *Honolulu Advertiser, POB 3110, Hon-

photo by G. Brad Lewis



A road blockade to stop geothermal development in Hawaii's Wao Kele O Puna forest drew police to the site, a few miles above the town of Pahoa.



Asheville, North Carolina's Earth Liberation Front stages its first action by trespassing into the Asheville Watershed to protest a widely opposed clearcut there.

Tribal Lore...

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year, Powell had cut about 20 acres. This cut can be seen from the Blue Ridge Parkway. The public outcry was so great that the water authority sought to buy back the contract on the remaining acreage. Bruce Powell, president of Powell Lumber, agreed verbally in May of 1989 to sell back his contract. Evidently, the strong timber interest in western North Carolina convinced Powell that if he did so, it would be a great victory for conservationists. As it stands now, he plans to continue with the clearcut.

For a designated watershed, a receptacle of clean water for the population of Asheville, this area is far from pristine. There are roads, a lodge, a huge working quarry near the reservoir, and of course a clearcut. Powell Lumber is cutting beautiful hardwoods not for timber, but to use as pulp at Champion's mill in Canton. Thus Powell destroys forest in Buncombe County, so Champion can further pollute the Pigeon River and foul the air of Haywood County.

Earth Liberation Front! believes further action may be necessary to halt the clearcut. Hopefully, however, public outcry will convince Bruce Powell and the Asheville Water Authority of the foolishness of their endeavors, and they will cease destroying this beautiful area.

—Mad Dog, ELF!

Southern Appalachians Host Habitat Conferences

Between 1830 and 1930 the forests of the Southern Appalachian Mountains were ravaged by logging and burning. In the upper elevations of the Smokies, more than 100,000 acres were spared; but, as trees fell almost everywhere else, an unknown number of plant and animal species disappeared. Subsequently conservation policies for several million acres of recently established National Forests allowed mountain habitats to begin to recover. Today trees in these forests are sixty to eighty or even a hundred years old. In another hundred-years they could be old-growth, sheltering a diversity of species resembling that of the primeval forest. Could, but

Robert Zahner, professor emeritus of forestry at Clemson University, turned his history of the Southern Appalachian forests into a call for action at the conference Restoring Biodiversity in the Southern Appalachians: A Strategy for Survival, held at the University of North Carolina Asheville, October 27. He was not alone in his sense of urgency. During the conference and during a workshop, For All Things Wild, at Warren Wilson College the following day, person after person spoke of regional, national, and international crises.

Hall Salwasser, deputy director for Wildlife and Fisheries in the US Forest Service, referred, for instance, to the "new Four Horsemen of Environmental Apocalypse," the first of which is "human population growth." William McLarney, a consulting aquatic biologist from North Carolina, discussed the plight of aquatic wildlife, so overlooked in the region that a forest management plan established "fish" as an indicator species; and Charles Roe, director of the North Carolina Natural Heritage Program, pointed out that more than 400 species of plants and animals in North Carolina are in danger of extinction.

Suggested remedies were as varied as the threats. Analyzing the destructiveness of habitat fragmentation, Reed Noss of the EPA National Laboratories, Corvallis, Oregon, spoke, for example, of the need for a Native Ecosystems Act that would preserve both endangered ecosystems and a representative of every type of ecosystem regardless of its

level of rarity. Laura Jackson, author of The Wilderness Society's regional study, *Mountain Treasures at Risk*, urged that individuals take responsibility for an area of manageable size and challenge specific timber sales. Jeff Elliott spoke for ecotage, and Jamie Sayen, presenting the Preserve Appalachian Wilderness (PAW) proposal, noted the role that conservation of wood products could play. Only 13% of the wood fiber used by industry in this country comes from timber cut on public land. Decreasing use of products made from wood pulp would make lumbering on public land unnecessary.

During lively discussion toward the close of the workshop, Peter Kirby, Southeast Regional Director of The Wilderness Society, suggested that people from the conference gather to design a map of the Southern Appalachian region as a tool for strategizing. On the map, protected areas might be colored green; essential unprotected areas, red; connecting corridors and buffer zones, yellow. A meeting was agreed upon but the date has not yet been set.

Meanwhile, David Wheeler, a member of the conference organizing committee and an editor of *Katuah Journal*, has drawn together into a program the diverse ideas expressed at the conference. He is proposing the program to the newly formed Western North Carolina Earth First! group [ELF!] and to other organizations in the region. To him as to other conference participants, the weekend will prove to have been a success, if the "focus" in the future is "action."

—Mary Davis

Alabama: the Heart of Dixie

Alabamians often wince at their place in history. Never mind THE war; it is modern things that cast a shadow over Dixie. Looking at various charts, one often finds Alabama near the bottom in education, personal income, even pollution. Emelle, AL, is the site of one of the world's largest commercial toxic waste dumps. Football is the number two event, right behind breathing. And, though George Corley Wallace is not still the governor of Alabama, a Baptist preacher now is.

A report in the *Birmingham News* recently decried that Alabama's number one cash crop is no longer cotton, nor peanuts, nor peaches. It is marijuana! That's right, green chop. Dorris Teague, of the Alabama State Troopers, said that marijuana can be found growing in virtually every county in Alabama. Police discovered more of the weed in Jefferson County, the state's most urban area, than anywhere else.

What makes Alabama's biggest cash crop a concern for environmentalists is that it is being grown within the National Forests of the state. According to the *News*, National Forests are becoming "popular spots for illegal horticulture." Evidently, marijuana is hard to see via air reconnaissance when it is interspersed among third growth pulp pines.

—Ned Mudd, Jr., Alabama Rustics

New England EFlers Stage Hostile Take-over

In mid-November, New England EFlers staged a hostile take-over of Great Northern Nekoosa at Great Northern's offices in Portland, Maine, to highlight Georgia Pacific's attempt to take over Great Northern, and to protest Great Northern's clearcutting of the Maine Woods. EFlers anticipate that GP will accelerate development and clearcutting of these forest lands if it succeeds in its bid to acquire Great Northern. If it succeeds, GP will be the world's largest forest products industry. GP is presently offering over \$3 billion for Great Northern.

—Tom Butler, Vermont EFL

VT EFL! Holds Street Theatre for James Bay

At 10 AM, November 13, in Burlington, the winter chill stung fingers as the reaper, followed by electric toothbrush, razor, TV, microwave, hair dryer and two businessmen, strolled up to Vermont's second largest utility: Green Mountain Power (GMP). Caribou, Atlantic salmon, owls, snow goose, cougar and wolf came out of the woods as the reaper's entourage arrived. The businessmen cried "Ugh! Animals! Get rid of them!" and ran after caribou and friends beating them with briefcases. The battle between unnecessary electrical appliances and the creatures of James Bay had begun.

Salmon and caribou fell; wolf and cougar ran off. Executives from GMP walked somewhat annoyed past the clash. TV cameras arrived. The bulldozer came alive and led the reaper et. al. to the charge "Phase One, Phase One!"

The northern Quebec-Labrador Peninsula is one of the wildest areas in eastern North America. A look at Phase 1 of Hydro Quebec's James Bay Project gives us a picture of the negative impact Phase 2 will have on this fragile ecosystem. In 1971 Robert Bourassa, Quebec's once and current premier, rammed Phase 1 through over the objections of European environmentalists and the native Cree and Inuit. It destroyed La Grande River. Eight of the world's largest dams backed up 4600 square miles of mud and water. Mercury released from flooded lands reached toxic levels in the fish, a mainstay of the local diet. Phase 2 of the James Bay Project will destroy the Great Whale, East Main, Rupert, Broad Back and Nottaway Rivers, along with 3000 kilometers of east coast James Bay salt marsh estuary.

Reorganized, the business team again charged at the James Bay ecosystem. "Phase Two, Phase Two!" This time the caribou, wolf and cougar were prepared. They unplugged those nasty appliances and wrenched the dozer. The businessmen offered to make a deal. The animals replied with a ferocious sound that drove those guys away. All of James Bay ecosystem rejoiced.

While the creatures, death and appliances paraded through the office complex, our neighborhood purveyor of double-newspeak, Chris Dutton, GMP's attorney and spokesperson, tried justify the desecration of the James Bay Ecosystem. The conversation was lively as the PR guys talked of their concern for adequate energy supplies with a pink-faced businessman, dollar bill over his mouth and the reaper by his side.

In the fall of 1984, the US media widely reported the "accidental" drowning of 10,000 Caribou in the Caniapiscaw River near the Inuit town of Kuujuaq (a.k.a. Fort Chimo). Hydro-Quebec released a large volume of water into the river during the annual migration of the George River Caribou herd. Hydro-Quebec claimed the "incident" was "mainly an act of god" and the result of "torrential rain." The Inuit knew that rainfall had been below average. The salmon had been very late coming upstream due to the very low water.

While we can't undo the extensive damage done to the James Bay area, we can protect what remains by insisting our elected officials say "no" to the purchase of additional "cheap" Canadian power.

WHAT YOU CAN DO: Write to the officials below. Tell them you want the northern Quebec-Labrador Peninsula to remain wilderness. Say you want Hydro-Quebec to stop the Great Whale and Nottaway, Broadback, Rupert complexes. Tell them James Bay belongs to the Caribou, Polar Bear, James Bay Cree, Mocrebec and Inuit.

*Governor Madeliene Kunin, Montpelier, VT 05602

*Governor Mario Cuomo, State Capitol, Albany, NY

*Premier Robert Bourassa, Provincial Offices, Quebec City, Quebec, CANADA

*Hon. Tom McMillan, Minister of Environment, Ottawa K1A 0A6

—Deadmeat Verde, Vermont EFL

What Do You Say to a Cowboy?

How many of you have had the opportunity to talk with a real cowboy? Colorado Earth First! will provide the chance again this year at the National Western Livestock Show and Rodeo in Denver, January 8-22. Among the fun and games planned, we hope to have a booth in the Exhibitors' Hall, right between Larry's Leather Accessories and a display of the latest thing in cattle prods.

Monday January 8 is the date of the Livestock Show Parade, which last year saw two EFlers and a banner hanging high above it. Similar fun is planned for this year. Mid-week we'll have a grilling party, with well-known EFL entertainers, banner making and beer drinking. January 13 we'll attend the Livestock Show, picketing, performing guerrilla theatre and holding a few unannounced events.

Colorado EFL! invites all activists to attend; we want to make this a multi-state

event. There will probably be funding to reimburse for transportation (carpool!). We also welcome donations: CO EFL, POB 1166, Boulder, CO 80306.

Whether or not you're able to attend this annual event, some day you may get the opportunity to talk to Cowboys or Cowsymp (Cow Sympathizers). Here are some facts to keep in mind:

Less than 5% of ranchers use public lands. Less than 2% of cattle graze on public lands. Yet 40% of all land in the West is open to grazing. (That's 80% of Western public lands, which comprise 50% of the West.)

Virtually all waterways on Colorado's Western Slope (more than half the state) are in violation of the Clean Water Act due to public lands grazing. The situation is similar for all other Western states.

The General Accounting Office (GAO) has issued reports highly critical of the Bureau of Land Management's and Forest Service's management of the grazing program. James Duffus III of the GAO reports, "BLM has often placed the needs of livestock permittees ahead of the long-term health of resources." The GAO concludes that "BLM is not managing ranchers. Rather, ranchers are managing BLM."

The GAO published a separate report on public rangelands and riparian zones in June 1988. One of its many damaging conclusions was that "Many of the field staff responsible for riparian improvement work ... do not believe their work will be supported by agency management if it is opposed by ranchers using the public rangelands." A recent example of this was when a BLM employee stopped a certain rancher from cutting down trees on an environmentally sensitive piece of BLM property. The rancher complained, and the employee was ordered by his boss not only to apologize to the rancher, but also to personally deliver the illegally cut wood to the rancher's house!

Representative George Darden (D-GA) reports that BLM and FS collected a total of \$26 million from grazing in 1984, while the programs cost \$73 million to run. Taxes made up the difference.

A study sponsored jointly by the FS and BLM in 1985 found that of 47,000 individual grazing leases throughout the West, more than 1000 were illegal sublets.

Even the President's own Council on Environmental Quality has called overgrazing a leading cause of the growing amount of Western rangeland turning to desert!

Grim facts like these are enumerated at length in Lynn Jacobs's *Free Our Public Lands* tabloid (available from the Grazing Task Force; see Directory). Remember, though, that you don't need snappy answers and hard statistics. Simply speaking your heart can work wonders. For more information on the Stock Show demonstrations, contact Norbret Arensdorf at 303-786-9460 or Rob Taylor at 303-443-2496. The Earth needs your help counteracting the ranching cancer.

—Mike Stabler, CO EFL

The Occupation of Nitassinan

"Militarism is a form of colonization which takes away from our lives.... But, we will fight for our rights. I believe in non-violence and civil disobedience. I am ready to go to jail, to take blows or die for our cause, because I believe in the struggle for the freedom of my people. I don't want your sympathy. I want your strong and collective support against the oppression of your government. What we need is your resistance." Penote Ben Michel made this plea at a January 1987 conference in Montreal on militarism in Labrador/Nitassinan.

Northwest River, Labrador, a place called Nitassinan or "our land" by the Innu people who have lived there for 9000 years or so, and a place known as Goose Bay by the Canadian armed forces and more recently NATO, is the site of one of the most enduring struggles against militarism on the continent. The Innu people are fighting the expansion of the military base and an increase from the present 8000 to over 40,000 low level flights a year. The Innu people, and recently a Newfoundland court decision, maintain that this is their land. The Canadian government, in a bid for a billion dollar international NATO facility, sees Goose Bay as a money making military venture.

A desire for peace in the land is what brings Rose Gregoire, Innu mother of four, her sister Elizabeth Penashue, and friend Francesca Snow to speak throughout the country and defend their rights. These women and their families have led the resistance at the Goose Bay military base. A string of occupations and demonstrations and the peaceful taking by storm of the base's runways represent the most significant challenge yet to war exercises in the Innu homeland. In the spring of 1989, these women spent 19 days in a provincial jail for occupying the military runway. They were acquit-

ted of the charges, when the Newfoundland court determined that they sincerely believed they were occupying their own land and hence could not be trespassing. These women, eight other Innu women, and seven Innu men did their time anyway, as they refused to sign the conditions that would have led to their release. By this summer, over 250 arrests had taken place.

The Military Buildup

The Goose Bay military base was built during World War II as an outlying station linking North America and Europe. In 1952, the US Air Force signed a 20 year lease to use the base, and soon began lending their installations to the British Royal Air Force. By the mid 70s, with resistance in European countries to low flying military flights over densely populated areas, several countries began looking greedily at the Canadian north for new testing zones. By the 1980s, over 4000 training flights a year were occurring over the 100,000 square kilometer area. By 1989 there were 8000 low level flights a year; from April to November, 30-50 a day.

The worst is yet to come. In 1980 NATO sponsored a feasibility study for the construction of a fighter plane training center in Goose Bay. In 1985, the Canadian Minister of Defense announced that the government would spend \$93 million to modernize the base; and encouraged new countries to join the war games. Six countries — Belgium, Great Britain, West Germany, Holland, the US and Canada are now using the Nitassinan skies. The NATO training center for which the Canadian government is bidding would entail 100,000 low level flights a year, 2-6 bombing ranges, and replicas of landing strips, hangars, refineries, industrial plants, and other "enemy" targets.

The Innu learned this summer that a decision to proceed with the full-scale NATO tactical weapons training center will be announced in December. "That means we have 7 months to save our homeland," said Rose Gregoire. "If the NATO base is established, Nitassinan will be turned into a war zone and our nation will be utterly destroyed."

Buzzing the North

Currently, jet bombers use 38,000 square miles of northern Quebec and Labrador to fly at altitudes lower than are allowed almost anywhere else in the world. In West Germany, no flights are permitted under 250 feet: lower levels are considered too dangerous over populated areas. The Canadian Department of National Defence (DND) and NATO apparently think that Nitassinan is uninhabited; the 15,000 Innu who live there think otherwise.

The low level flights create terrifying booms without warning in the otherwise unbroken peace of the northwoods. Studies have shown that "buzzing" adversely affects the sense of hearing, the nervous system, and the metabolism of most species in the northern ecosystem.

The impact on the Caribou herds, the Beaver, fish, geese, and all the animals upon which the Innu rely is what the Innu are fighting. The Innu depend totally upon the fragile northern ecosystem. The George River Caribou herd is the largest migratory mammal herd in North America, estimated at over 500,000 animals. The buzzing is creating stress in the herd. Caribou weakened by stress are easy prey for bears and wolves. Mortality rates are increasing and the birth rate is declining.

"The militarization, that's what you have to fight," said Francesca Snow. "When the animals are destroyed, the people are forced off the land, into wage work, into welfare, and the very soul of the community is destroyed...."

"This year," Rose Gregoire says, "five families will be just outside the restricted zone near the range. They are going to walk up to the range and put up a tent to keep lightly inhabited during the day. They'll be out in the woods hunting, and if the military helicopters come they're going to hide in the woods. If people are living in the bombing range, they are going to come and take them to jail. They don't want that to happen.... The people are not going to stop now.... They are going to resist."

The Innu are asking people to lobby to stop the base, in any way they can, and to directly support the struggle. For more information, please write Greg Penashue, NMIA, Box 119, Sheshatshiu, Nitassinan, Labrador AOP IMO Canada; or Mennonite Central Committee, General Delivery, Northwest River, Labrador AOP IMO.

—Winona LaDuke; translations by Mark Drouin

The Second Spill

That magical date, September 15, when every mile of the once oiled Alaskan coastline would be clean, came and went. Exxon left, the oil stayed, and a new terminology was born in Alaska — "spills" refers to the garbage the Texxons left behind after their "clean-up." The state regards the problem as so serious they are dubbing it the "second spill."

Two friends and I decided to document a Prince William Sound Exxon dump site for the state. We chose to circle Knight Island, one of the worst hit places in the Sound, and video the remaining crude and garbage. One of us, Bob, had been an Exxon whore, i.e., clean-up worker, on this island, so he knew where to go. Our captain, Ted, a fisherman put out of business by the spill, had joined the volunteer clean-up effort.

On our way down the east side of Knight, Bob told us about the Dan Quayle visit. He was on the crew that was washing the Quayle beach. They were made to blast this area, on Smith Island, with water for 16 hours, pushing the oil into the water, to be contained by a boom, ready for the skimmers to pick up. Exxon's air force in the area was told to "buzz around and look busy" for the media cameras. Quayle came, inspected the beach, and was gone within 15 minutes. As soon as Quayle was in the air in his chopper, the order was given, "demobilize the beach as soon as possible," and within 20 minutes the beach was deserted and the containment boom had been removed without any of the oil being recovered. It was all loose in the ocean, ready to wash back up on the beach again.

We saw no wildlife on the east side of the island — no birds, no sea otters, no sea lions, no whales ... nothing. It felt eerie. The west side was a little more lively, but not much. At each beach we checked, oil was still present and Exxon's trash everywhere. It became apparent that a clean-up of the "clean-up" would be needed. The worst problem was the plastic pom-poms used to absorb oil. Being plastic, they will take forever to break down. They were piled in huge mounds, jammed between boulders and hanging off trees. We found a dead sea-otter wrapped in a string of them. Absorbent pads and huge plastic bags (used to haul the oily beach away to Oregon) were the next largest problem. Amid this trash was evidence of bioremediation — bricks and pellets of the toxic chemical Exxon used to break the toxic oil off the beaches. Signs warned us to stay off beaches so treated, as workers using this chemical had suffered burns and state officials had said that touching "treated" beaches may cause kidney damage. We wondered if Exxon expected the animals to read the signs too.

One night, in Snug Harbor, Bob and I were stranded on a beach by a vicious winter storm with a pounding 10 foot surf that wouldn't allow Ted to rescue us. We witnessed then how an "environmentally stable" (Texxon's words) beach reacted to the waves smashing down on it. Disturbed oil poured from this "clean" beach in a brown slurry into the sound. The waves were brown with oil. Sea birds and a seal swam around in the huge oil slick, oblivious to their peril.

Herring Bay was the worst hit place on the island. I had seen the bay in July, when an Exxon navy was anchored there. Now oil, diesel, gas and hydrolic fluid spills, and assorted trash marred the beach. An absorbent boom had been anchored and left; a floating metal walkway had been abandoned.

Exxon left many untreated test sites so that Nature's effects on an uncleaned beach can be documented, and next year Exxon

can tell us the beaches cleaned themselves over the winter and that in the event of another oil spill we can leave it all to Nature to mop up. One official was quoted in an Anchorage newspaper as saying that Exxon had cleaned too many beaches and there weren't enough oiled ones left to test, so some should be re-oiled.

We gave our film to the state, which is now using it to produce a video news release to inform the lower 48 of the second spill. We also proposed a clean-up the "clean-up" project. The state is receptive to the idea, since it had plans to put \$21 million into its own clean-up this winter — as the Texxons are smugly counting their money back in Houston.

Chugging back into Whittier harbor, we saw an old boat with 2 blue pom-poms sailing proudly from its mast. Bob said that each pom-pom indicates \$100,000 made on the spill. Ten pom-poms and you become a "spillionaire." That prompted me to ask Ted if we could hang dead animals from his boat — one dead animal indicating 10,000 killed in the spill — but we decided the mast wasn't tall enough to accommodate this.

—Verena

Refuge Reform Bill Introduced

Ask the average American, "What is a National Wildlife Refuge?" and most will describe images of happy animals in a natural haven, safe from human disruptions. Indeed, these were the images that guided Theodore Roosevelt to create the National Wildlife Refuge System in 1903. The System was created to provide "involute sanctuaries" for animals. Today, the American public still holds these images of benevolent Refuges. Unfortunately, that's all they are ... images. Since 1949, when the price of Duck Stamps increased and hunters demanded privileges, certain Refuges have been open to hunting.

A bill to restore the original intent of the Refuge System has been introduced. HR 1693 would prohibit hunting and trapping on National Wildlife Refuges.

The National Wildlife Refuge System is the only system of federal lands set aside specifically for wildlife. The NWR System shelters many Endangered, Threatened and declining species. Recently, a Whooping Crane, one of America's most endangered species, was shot and killed by a hunter adjacent to Aransas NWR, the Whooper's winter home in Texas.

The NWR System is needed as a sanctuary for America's rapidly-declining wild duck populations, yet thousands of ducks are killed each year in Refuge hunting programs. With all due respect for Ducks Unlimited and other effective conservation/hunting organizations, sanctuaries where animals breed and live in safety can only benefit wild populations. Very little huntable land would be removed by this bill. HR 1693 would withdraw only 90 million acres (77 of this in Alaska), or about 5%, of the more than 1.5 billion currently open to hunting.

Ninety-five percent of visitors to NWRs are hikers, birdwatchers, photographers, and wildlife lovers. Yet these visitors find large areas of Refuges closed to them during hunting season to accommodate a few hunters. Worse, when the non-hunting visitors return, animals are shy and skittish.

HR 1693 would not stop legitimate wildlife management. It would simply insure that any necessary killing of wildlife is done humanely and as a last resort.

Write your representative (House of Representatives, DC 20515), asking for co-sponsorship of HR 1693. Tell Congress that there are plenty of places to hunt, but not many places where nature can just be nature, without "help" from humans. Talk to people about this, because most people don't know what is happening. For more information, contact the Wildlife Refuge Reform Coalition, POB 18414, Washington, DC 20036-8414; 202-778-6145.

—Jane Scheidler, Wildlife Refuge Reform Coalition

Badger & Hall Creek Wells Pending

The draft EIS for proposed exploratory drilling in the Badger-Two Medicine area of western Montana will be released soon. Send a comment opposing this drilling within a critical link of the Northern Continental Divide Ecosystem to: Supervisor Dale Gorman, Lewis & Clark National Forest, POB 871, Great Falls, MT 59403. Support preservation as Wilderness. Note that impacts on Elk migration to and from this area and Glacier Park have not been adequately considered, and that the required mitigation analysis for future road management (closures) does not resolve anticipated problems. For more information, write Coalition for Canyon Preservation, Box 422, Hungry Horse, MT 59919.

Eugene Conservationists Appeal FS Cougar/Bear Decision

Eugene-based conservation group, Citizens Concerned for Wildlife, has appealed a decision made by the Willamette National Forest Supervisor allowing Cougar and Black Bear to be commercially hunted with hounds and horses on three National Forests in western Oregon. This special-use permit was issued for two consecutive years, and will allow commercial guides to hunt up to 70 Cougars in Willamette NF alone, over that period.

The appeal was filed simultaneously in Eugene and the Portland Regional Office of the Forest Service. It alleges that Willamette National Forest Supervisor Michael Kerrick is violating the public trust, the National Environmental Policy Act and the National Forest Management Act in submitting an inadequate Environmental Assessment (4 pp.).

Specific charges include concerns over the continued viability of bear and Cougar populations on National Forest lands, because of increased sport hunting and poaching of both species. Citizens Concerned for Wildlife worries that current population numbers are not sufficient to sustain the present kill levels; "especially in conjunction with the ever-increasing depletions from federal, state and county Animal Damage Control patrols, which are annually paid for killing both listed species."

—Citizens Concerned for Wildlife, POB 1783, Eugene, OR 97440

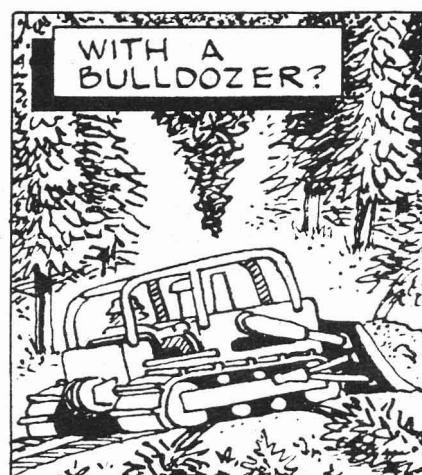
Court Condemns Wolf on Halloween

Loose Lips Circles (aka Lone Wolf Circles) was found guilty of Criminal Mischief II, a Class C Misdemeanor, at his trial in Josephine County, Oregon, on 31 October 1989. This was the first of the trials of the Lazy Bluff 24, a group of Earth First! protesters that blockaded a logging road near Grants Pass, Oregon, on July 11. (See August issue.) He was fined \$200 plus court costs.

EF!ers seated at the rear of the courtroom had been optimistic as Loose Lips took the stand. The previous testimony had cast doubts on the officers' (untrue) testimony that Loose Lips had been locked to the gate. Two reporters and three EF!ers testified that they had not seen Loose Lips attached to the gate. The DA and Sheriff's Deputy were squirming in their seats, irritated at their inability to prove the charge.

When Loose Lips testified, he spoke eloquently about the role of civil disobedience, and how people from coast to coast support the addition of the North Kalmiopsis roadless area to the Kalmiopsis Wilderness. Then the DA asked the fatal question: "What was your role at this media event?" Few realized the danger as the DA lead Loose Lips down the path to his conviction. As Loose Lips explained his role as a support person for the lockdowns, he used the C word: Comfort! He spoke of attending to the well-being of the protesters locked to the gate and cemented in the gravel road. As question after question was posed to him about his role, Loose Lips finally asked, "Was it against

continued on page 12





Citizens of Bielsko, Poland, took to the streets in October to protest against a big coke plant in the nearby Beskidy Mountains. This photo of the demonstration is copied from the front page of the local

communist newspaper. Thanks to John Seed and his European tours, biocentric Poles have formed an ongoing Workshop for All Beings and have begun a regular environmental newsletter.

Tribal Lore...

continued from page 11
the law to provide for the safety and comfort of my friends?" The DA smiled.

After a short recess the judge announced his decision. Loose Lips Circles had aided and abetted those committing Criminal Mischief and therefore was guilty himself. It was as if he had been locked to the gate himself.

The judge was impressed that three protesters with trials pending (Coyote Jack, Wildfire, Little Bear) had testified, risking self-incrimination. This, along with the reporters' testimonies, persuaded the judge that the sheriff's testimonies were false. The judge said he would have had no choice but to find Loose Lips innocent, had Loose Lips not testified in his own defense.

We learned a valuable lesson from this. If you are a support person and do not wish to be charged along with the arrestees, do not be seen assisting or comforting them in any way, nor admit doing these things. Otherwise, you too can be fined and jailed.

A moral of this story is expect the worst when you do civil disobedience in a county where sheriffs wear their log trucks on their sleeves!

—Wildfire and Little Bear

Forest Voice Speaks

In 1949 the cut from the entire National Forest System, coast to coast, was just 2.6 billion board feet. Last year, 16 billion board feet of public and private timber were hauled out of Washington and Oregon alone. This cut represents a line of log trucks more than 20,000 miles long. And twice as much public and private raw material was exported as was cut on our federal Northwest forestlands. Less than 5% of the nation's original native forests remain. In Oregon and Washington, less than 10% of this ancient old-growth forest remains. Yet, 10 square miles are logged every month in Oregon alone. And, the Forest Service and Bureau of Land Management intend to cut most of the remaining unprotected old-growth forests according to their 1989 ten-year Forest Plans.

Thus begins the first edition of *Forest Voice*, a publication of the Native Forest Council and an urgent appeal to citizens and Congress to stop the destruction of the last remnants of the public's native forests. This compelling 12 page tabloid is available free from Native Forest Council, POB 2171, Eugene, OR 97402 (503-688-2600). Membership in the Council costs \$15 or more and includes a subscription to *Forest Voice*. The Council is devoting all its efforts to saving this country's remnant virgin forests. To that end, it has sent copies of the tabloid to

all congresspersons, and it aims to distribute 1 million of them. Your help in distributing the tabloids is needed.

Wreck-the-Nation Bureau to Study Its Killing of Grand Canyon

Not satisfied with having built the environmental nightmare called Glen Canyon Dam, the US Bureau of Reclamation has been systematically destroying the riparian ecosystem of the Grand Canyon with radical fluctuations in the amount of water released from the dam. Beaches are eroding, backwater nursery areas for endangered fish are disappearing, and bird habitat is being lost to water levels that rise and fall as much as 13 feet in a few hours. Raft trips through the canyon are becoming more difficult, since low water levels make some rapids nearly impossible to run safely, and many camping beaches have vanished. The sand and silt that once replenished beaches is now stopped by the dam.

The wildly fluctuating flows are the result of manipulations to maximize output of grossly underpriced electricity for the Southwest.

The environmental damage caused by BuRec's operation of Glen Canyon Dam has been well documented by the Bureau itself. Last year, the Bureau completed a five-year study on the subject, concluding (in fine bureaucratese) that "flood releases and fluctuating releases were found to have substantial adverse effects on downstream resources." The study also showed that a change in the pattern of releases could, for a minor loss in power sales revenue, reduce "resource loss" and even improve the riverside environment downstream. (It did not address the resurrection of riparian life upstream from the dam.)

Instead of moving to limit the damage identified in its own report, BuRec has initiated more studies. They have begun preparing a Draft Environmental Impact Statement on "Operating Criteria and Alternatives of Glen Canyon Dam." The DEIS will be completed by the end of 1991, and there's no telling when the final EIS will be done and implemented.

Meanwhile, the Canyon is getting flushed down the tubes.

What to do: The solution, of course, is to remove the dam. (That might take out a few downstream cities, but heck, let's not be greedy.)

As a short-term approach, Friends of the River has mounted a campaign to have Congress intervene. So, write your Reps. and Senators. For more details on the issue, write Friends of the River, Building C, Fort Mason Center, San Francisco, CA 94123.

—Dale Turner

Freddies Seed Weed

Forest Service personnel accidentally seeded 6000 acres of the Hells Canyon National Recreation Area last fall with a weed that can kill livestock and wildlife. According to FS spokesfolk, Yellow Star Thistle seeds were part of a grass mixture applied by helicopter to control erosion after the Tepee Butte fire.

FS workers returned to the area this fall to hand pick seed heads from mature thistle plants, in an attempt to keep the infestation from spreading.

SKYGUARD Launches Quarterly Newspaper

For everyone who's been buzzed by a military jet or who cares about the militarization of our skies, there's a new paper on the horizon. *SKYGUARD*, a quarterly tabloid, is produced by the same folk who put out *Citizen Alert*, and contains news from around the country about the frequency and effects of military overflights, and about citizen groups fighting plans that would increase flights over their areas.

To receive *SKYGUARD*, write them at POB 5391, Reno, NV 89513. They will send a copy for free, but welcome contributions.

Spotted Owl Killed

In mid-October, a mutilated Northern Spotted Owl was found hanging from a noose just east of Oakridge, OR. The rope was attached to a Forest Service information kiosk.

According to FS spokesmen, the young adult owl appeared to have been shot, one wing had been broken, and the talons had been pulled out.

This was only the second reported case of a human-killed Spotted Owl (the first having occurred in August in the Siskiyou National Forest), but Northwest loggers have been sporting "Save a logger, eat an owl" t-shirts for some time.

Mt. Graham Sleeps, Activists Fight On

As the bears of Arizona's Mt. Graham bed down for the winter, work proceeds on the campaign to protect the mountaintop from astrophysical development.

The Univ. of Arizona's Steward Observatory succeeded in cutting, digging, and blasting a new road to the mountain's top before the snows set in, but they were constrained from doing further destruction by past judicial and administrative rulings.

In the last week of November, a federal judge heard the lawsuit brought by the Sierra

Club Legal Defense Fund, a suit which could ultimately stop the project. The judge delayed his decision, pending review of some affidavits, and placed a gag order on all present in the courtroom. That order is being challenged, but meanwhile, details on the hearing are slim.

In another new development, the San Carlos Apache elders have come out strongly against the project, describing Mt. Graham as their most sacred mountain.

Activists Spill Oil on Exxon

Exxon got back some of its own when it tried to recruit new workers from U of California at Berkeley in early October. Shouting slogans, about 30 protesters disrupted a recruitment presentation on campus and poured motor oil from coffee cups over the table, floor, a pizza, job brochures, and the Exxon representatives.

Alyeska Befouls The Air, Too

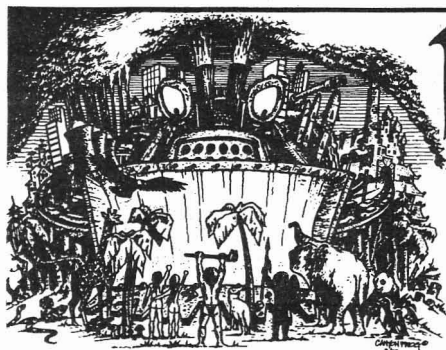
New testing procedures at the Alyeska Marine Terminal Facility in Valdez, Alaska have revealed that the terminal has been releasing benzene and other toxic gases at a level 100 times greater than previously thought. Alyeska was already known as the most toxic industrial site in the state; this announcement makes it rank as one of the worst in the nation.

Alyeska was in national headlines following the Exxon Valdez oil spill in Prince William Sound when it was revealed that Alyeska officials had consistently resisted attempts to prepare for just such a disaster. Alyeska was altogether unable to respond to the 11 million gallons of crude oil released from the Exxon Valdez.

Alyeska has continually fought attempts by the Alaska Department of Environmental Conservation to control air and water pollutants from the facility, to the point of suing ADEC and the EPA to keep them from imposing more stringent environmental guidelines. Alyeska has no waste gas recovery system in operation at the facility. Toxic benzene gases are being released directly into the atmosphere.

The Alyeska facility was designed to handle one-third the amount of crude oil now flowing through the pipeline. Alyeska promised Congress that they would have the best available technology to handle the oil. Obviously, that never happened. The Alyeska facility should be closed, IMMEDIATELY!

—Michael Lewis, Valdez, AK



International News

Pooyamkutty Forest Faces Inundation

Big dams and power projects like the ones planned for Narmada, Tehri and Pooyamkutty are threatening the remaining primary forests in India. The lives of tribals in these forests are being disrupted and millions of people depending on forest based (reed, bamboo) industries are being adversely affected.

One of the big dam networks threatening India, the Pooyamkutty project, is planned in the southern portion of the Western Ghats (Sahyadri) ranges. These mountains stretch 2000 kilometres on India's west coast and pass through the states of Kerala, Tamilnadu, Karnataka, Goa, Maharashtra and Gujerat. Next only to the mighty Himalayas, the Western Ghats

ranges are crucial ecologically because of their rainforests (sholas) and shola-grasslands. Deforestation of the Western Ghats for agriculture, timber, and development projects has already changed climatic patterns in the region, with increasing droughts followed by floods, and desertification under way.

The Pooyamkutty project would be built on the tributaries of the Periyar River in Kerala. Its 11 dams would produce 750 megawatts of electricity. The dire consequences are already being foretold in the mountainous district of Idukki in Kerala, where landslides and seismic tremors have become common in the past few years. With the completion of the new dams, the district

would have 20 large dams, including the gigantic Idukki dam. Geologists say this district, which is on the sensitive "Madurai-Cochin arch," is highly susceptible to seismicity, and they predict a catastrophe if more dams are built here.

The project would submerge 5000 hectares of primary forest, including both rainforest and reed forests. Since the dams would be spread over a large area, with dams and townships fragmenting the forest, 400 square km (40,000 ha) of forest would be destroyed.

Nearly 2000 Adivasis (early tribal inhabitants) would have to be relocated from lands submerged by the dams. Many of them were already resettled once, when an earlier dam was built in the same district. In total, hundreds of thousands of people would be damned by the dams; for the Pooyamkutty reed belt, the last remaining large reed forests in the Western Ghats, sustains 200-300,000 native people dependent upon the traditional reed baskets and mat weaving industry.

Environmental activists from the Western Ghats have formed a campaign to save the Pooyamkutty. The Western Ghats are already riddled like a sieve. The destruction of such a huge area of forest as Pooyamkutty would trigger the collapse of the Western Ghats ecosystem.

Letters of protest against the

Pooyamkutty project can be addressed to Rajiv Gandhi, Prime Minister of India, New Delhi 110 011, INDIA; and to E.K. Nayanar, Chief Minister of Kerala, Trivandrum 695001, Kerala, India. For further details, write to Anand Skaria, Save Pooyamkutty Campaign, c/o SEED, Post Box 14, Cochin 682 001, Kerala, INDIA.

SEED is a group/centre studying and publicizing the ecological problems of the Western Ghats region. We use the media, courts, and public education measures and link grassroots workers with scientists and lawyers. In addition to trying to save the Pooyamkutty forests, we are campaigning for the following:

*To get all rainforest areas in the Western Ghats declared natural heritage areas and protected as sanctuaries.

*To protect the wildlife sanctuaries in the Western Ghats. These include the Nilgiri Biosphere Reserve comprising Nagarhole National Park, Bandipur Tiger Reserve, Silent Valley NP, and Periyar and Agasthyarmalai Conservation Units.

*To stop the nuclear power plants coming at Kaiga (Karnataka) and Koodangulam (Tamilnadu), and the mining activities in Goa.

To help, or for more details, please write Anand Skaria, Secretary, SEED, Post Box 14, Cochin 682 001, Kerala, INDIA. Financial contributions are urgently needed.

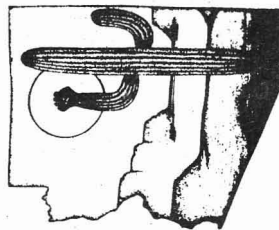
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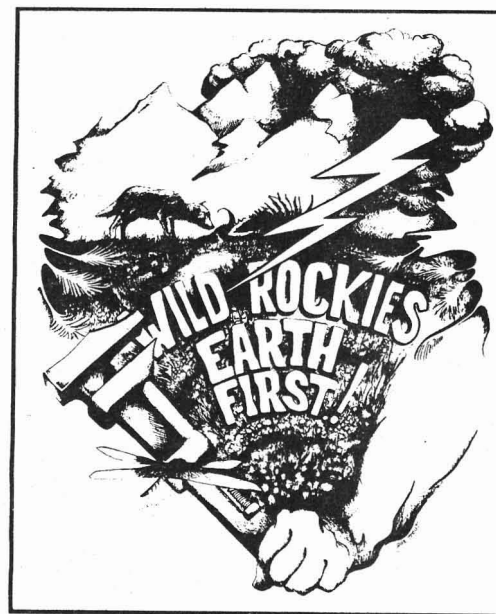
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Earth First! Directory

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.

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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 POB 1683, Corvallis, OR 97339 (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.)
 - *EF! Ocean-Dolphin Task Force POB 77062 San Francisco, CA 94107-7062
 - *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
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 - *Texas Earth First!, POB 7292, University Station, Austin, TX 78713
 - *Virginians for Wilderness, Route 1, Box 250, Staunton, VA 24401
 - *Washington Earth First!, POB 2962, Bellingham, WA 98227
 - *Wild Rockies Earth First!, c/o 834 Sherwood, Missoula, MT 59802
 - *Wolf Action Network, POB 6733, Bozeman, MT 59771
 - *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!



EF! BULLETINS

NEW MEXICO EARTH FIRST! NEEDS YOUR HELP! We are currently involved in 3 major campaigns: suing USFWS over wolf reintroduction, saving the Jemez Mountains from being stripmined for pumice to make stone/acid washed jeans, and defending the Mexican Spotted Owl and Southwestern old-growth. However, we need money to continue the work. Please send a donation to NMEFI, POB 40445, Albuquerque, NM 87196.

COMPARATIVELY BENIGN TOILET PAPER AVAILABLE. Seventh Generation, a socially responsible, Vermont-based company, offers a catalog of environmentally safe products. Seventh Generation products include organic baby food, dioxin-free biodegradable disposable diapers and sanitary napkins, energy-efficient lightbulbs, low-flow showerheads, non-toxic soaps and toothpaste, and recycled toilet paper. This year, purchases by Seventh Generation customers will save more than 14 million gallons of water and keep over 400 million pounds of carbon dioxide from the atmosphere. For a catalog, call 1-800-441-2538.

ECO-POETRY TOUR 1990. Two poets are organizing a performance tour for 1990 to celebrate the 20th anniversary year of the first Earth Day. Jeff Poniewaz (Poe-nYEAH-vAHsh) and Antler, widely acclaimed for their powerful eco-poems and dynamic performance of them, are devoting themselves to helping reverse the global ecological disaster. Jeff and Antler are available between Milwaukee and New York City March 26-April 7 and available anytime August through December. Any kindred eco-spirits interested in having Antler and Jeff perform, please write: Jeff Poniewaz & Antler, c/o Inland Ocean Books, 4540 S. 1st St., Milwaukee, WI 53207. Antler's *Last Words* and Jeff Poniewaz's *Dolphin Leaping in the Milky Way* can be ordered from Inland Ocean Books for \$5 and \$6.95 plus \$2 postage.

THE WOLF PROGRAM. A wolf educational program featuring Pamela Brown of the Clem & Jethro Lecture Service, Kent Weber of Mission: Wolf, and wolf ambassador Shaman is available to your school or group. The program teaches about wolves, respect for all life, and encourages environmental involvement. The Clem & Jethro Lecture Service, a national educational effort named for its first two wolf ambassadors, has visited thousands of schools, made TV appearances, been featured in three National Geographic books, and toured with musician Paul Winter. Mission: Wolf, a sanctuary for captive wolves and an educational facility, is home to our latest wolf ambassador, Shaman. With the natural return of wolves to Glacier Park and Washington state, and possible reintroductions to Yellowstone Park and the Rockies, wolves' survival depends on an enlightened public. The hour-long presentation includes a film about wolves, a visit with Shaman, and questions from the audience. It is geared to every age level. We ask a negotiable fee to cover expenses. Call or write to arrange a booking: Pamela Brown, C&JLS, Box 5817, Santa Fe, NM 87502; 505-983-8602.

NACE PLANS CONCERT. Native Americans for a Clean Environment, a non-profit organization whose purpose is to raise public consciousness about environmental issues, with emphasis on the nuclear industry, is planning a benefit concert for 1990. Earth's Concert: Earth Awareness will be a birthday celebration in honor of our planet. We plan to incorporate a powwow and orchestrate our efforts with other organizations such as the Global Walk Project for world peace. Our event needs a poster, so we are conducting a contest to find the best entry. For information, contact Earth's Concert coordinator, Dale DuShane, NACE, POB 1671, Tahlequah, OK 74465 (918-458-4322).

SANCTUARY TRAVEL HELPS AK WILDLIFE. If you plan to visit Alaska, call Sanctuary Travel Service, toll free, 800-247-

3149. Designate the Alaska Wildlife Alliance (POB 190953, Anchorage 99519) as recipient of a donation, approximately 2% of your ticket price, at no additional cost to you. Have your friends do likewise, and thereby support Alaska wildlife.

60 MINUTES EF! STORY. Early next year, perhaps in January, the TV show 60 Minutes will air a story on EF!, part of the FBI's ongoing publicity campaign for us.

FIRST EVER ANNUAL AUSSIE RAG ROUND RIVER RENDEZVOUS. Australian Rainforest Action Groups and EF!ers from all over Oz will converge on Walwa (on the Murray River upstream from Aubury on the NSW VICT border) from Dec. 28, 1989 to Jan. 2, 1990, to discuss tactics, share experiences, information, inspiration, music and plan strategies for the coming year. In case any of you Yanks feel like another summer this year and can make it on over, workshops will include Timber Ship Blockades, Good Wood Advice, Union Liason, and No Wimps! The RRR will take place within the confest (alternative lifestyles annual festival). Tickets (\$50) are needed to attend the confest. Contact: Down to Earth Coop Soc LTD, 247 Flinders Lane, Melb, 3000. Enquiries Phone: 03 6544833.

Public Interest Law Conference Environmental activists from around the world will meet at the U of Oregon on 1-4 March 1990 for the 8th annual Public Interest Law Conference. The conference will cover such issues as global warming, old growth legislation, pesticide exportation, and international conservation. Speakers will include David Brower, Petra Kelly, Jay Hair, and Vandana Shiva. Also featured will be the "That Ain't a Wetland, That's a Swamp" photo contest. For more information, write to: Public Interest Law Conference, c/o Land Air Water, Univ. of Oregon School of Law, Eugene, OR 97403.

Population Conference "Restoring the Balance", a conference about population and the environment, will be held on 9-10 Feb. 1990, at the U of Colorado, Boulder. Activists, academics, and politicians will address the causes, effects, and solutions to this plague of humanity. Registration is \$15 at the door. For more information, contact: CU Environmental Center, UMC 331-A, Campus Box 207, Univ. of Colorado, Boulder, CO 80309.

Green Fire Sweeps Country. Roger Featherstone and Dakota Sid Clifford have been at it again. Another Earth First! road-show has just swept the country. The Green Fire tour traveled through 30 states and covered 12,000 miles in 44 days, completing 33 shows.

The tour was a spring-board for actions and local group formation. The day after a show in Carbondale, Illinois, three people were arrested blocking the road leading to a clearcut in the Trail of Tears State Forest (see story last issue). Action also followed the Green Fire tour in Tallahassee (see story this issue). Following a show in Asheville, North Carolina — destined to be a new hot-bed of EF! activity — 60 people stayed to form a new EF! group and did their first demonstration a few days later (story this issue).

The tour focused primarily in the East, with the most dynamic part of the tour in the Southeast. The two largest crowds were in this region, Knoxville, 300 people and Asheville, 150 people. The enthusiasm in Nashville — that bastion of commercial country — was amazing. For most tour stops in the South it was folks' first exposure to the Earth First! movement. The response was overwhelmingly positive and people there are ready for action. The South will rise again!

The format of this tour was new to the EF! road-show concept and was very popular. Sid and Roger are already planning two Green Fire tours for next year, one in the spring and one in the fall. Write us soon; these tours will book fast!

For more information on the Green Fire tours, contact Roger Featherstone at Box DB, Bisbee, AZ 85603.

—Roger Featherstone

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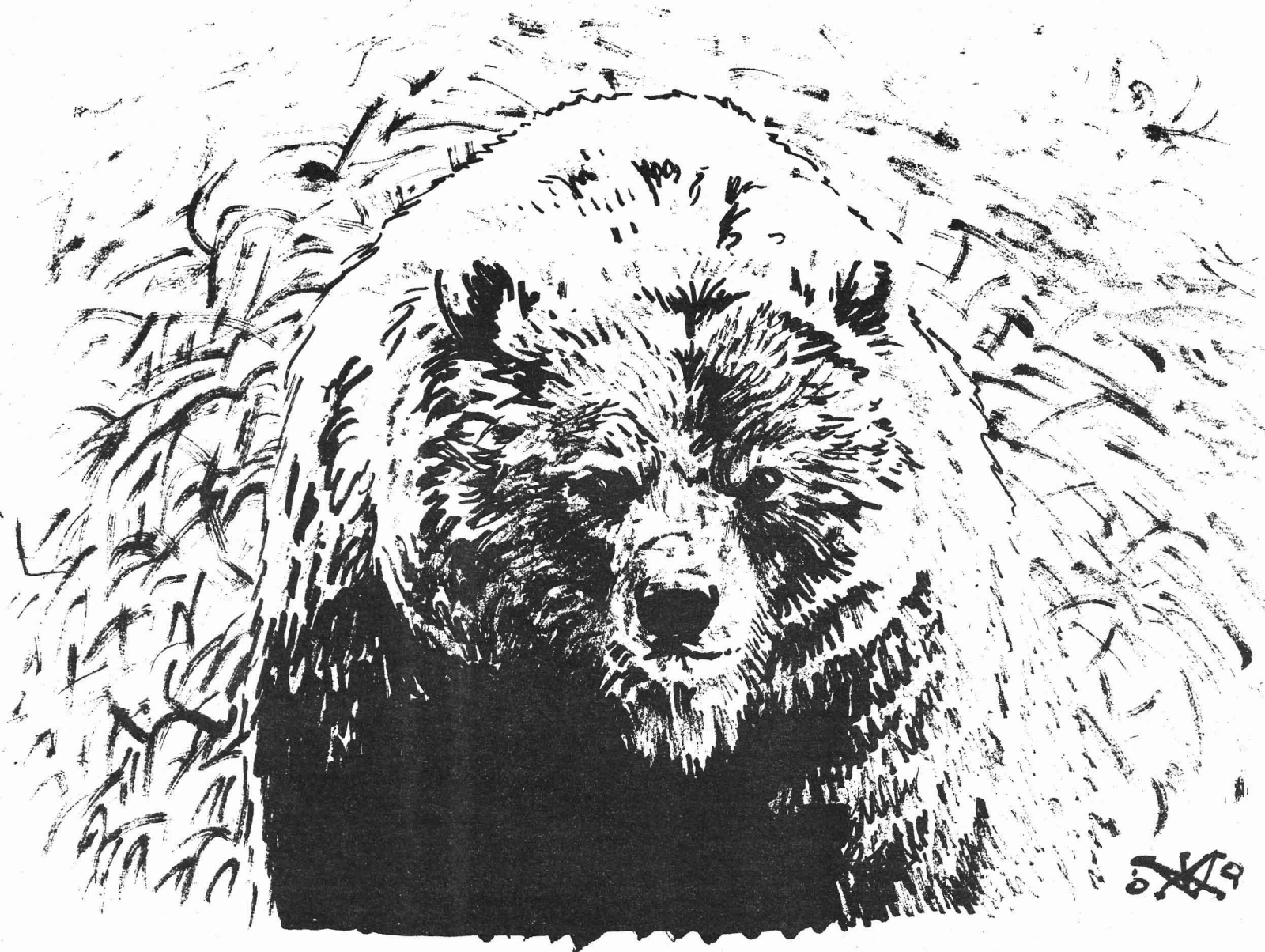
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GRIZZLY BEARS, POLITICS, AND DEATH

A Montana Department of Fish, Wildlife and Parks [MDFWP] biologist has again supplanted biological fact with political fiction in his reporting of the death of a Grizzly Bear. The death was initially listed on the Department's tally of 1989 Grizzly Bear Mortalities in the Lower 48 States as "Natural mortality — killed by another bear while in snare set for research purposes."

The three year old female Grizzly was found dead in a snare set by Department researchers, apparently killed by an older, larger Grizzly Bear while unable to flee. The death occurred in the Grizzly Creek-Burnt Creek area of the Cabinet-Yaak Ecosystem of northwest Montana and northern Idaho.

Endangered Species Biologist Arnold Dood's listing of the mortality as "natural" drew criticism from within the Department, as well as from representatives of conservation groups such as Swan View Coalition and The Alliance for the Wild Rockies. Critics argued that, regardless of how prudent researchers were in their trapping efforts, the death was man-caused in that the Grizzly would not have died had it been able to flee from other bears.

Dood reasoned that the decision between "natural" and "man-caused" was a toss up, but revealed that he used political considerations in making his final decision. He told Swan View Coalition that, given the already negative to hostile view of bears and bear researchers by Libby, MT, area loggers and miners, Dood did not want the death attributed to research activities. Swan View responded that the Department was again twisting the facts in favor of political expediency.

In a November 9 letter to Swan View, Dood wrote:

Based on comments from you and other interested individuals as well as further discussion with the research personnel involved, I have changed the classification of the 1989 Cabinet Yaak mortality from a natural mortality to a trap casualty. This category identifies the man-caused factors which contributed to the mortality.

Arnold Dood was also the supervising author of the Department's 1986 Final Programmatic EIS entitled "The Grizzly Bear in Northwestern Montana." This EIS has become the basis for the Department's effort to "delist" or remove the Grizzly from the protected "threatened" status afforded under the Endangered Species Act in the Northern Continental Divide Ecosystem (NCDE) of northwest Montana.

The delisting effort gained considerable momentum and the support of the US Fish and Wildlife Service under the reign of past Director Frank Dunkel. Dunkel was appointed as FWS director by then President Reagan based on his past performance as a mining lobbyist and former head of MDFWP. Dunkel resigned in 1989 following the release of a General Accounting Office

report stating that top FWS officials "substantially changed the body of scientific evidence" in a 1987 study on threats to the Northern Spotted Owl in the Pacific Northwest. The GAO report found that the 1987 study's conclusion that Forest Service logging plans endangered the owl's survival was cut out and an opposite conclusion inserted.

MDFWP's EIS was prepared in part as a result of a Defenders of Wildlife challenge to the Department's allowing of a limited sport hunt of Grizzly Bear even though it is listed as Threatened. The Endangered Species Act allows such hunts to occur only "in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved." The EIS concludes:

It does not appear that Grizzly Bear population pressure (or lack of pressure) can be biologically demonstrated at present or in the immediate future ... Excessive population pressure is not clearly defined but appears to be basically a social consideration, not solely a biological one (some people feel 1 bear is excessive while others feel 100 bears are not). Therefore, the problem is really a social one in that we must balance bear numbers with what society (especially those living with the bears) will accept, at the same time attaining recovery levels to meet the requirements of the ESA.

In one short paragraph, the Department abandons the strict ESA requirements that scientific information, not social and political concerns, be used in making management decisions. The EIS extrapolates freely from numerous local bear population studies, many of which explicitly stated they should not be used for extrapolation purposes, concluding that the Grizzly population is already at a recovered level.

Unable to demonstrate that the "extraordinary case" of extreme population pressure exists, the Department nonetheless recommends the delisting of the Grizzly in the NCDE. Meanwhile, the hunt continues under a somewhat reduced quota system and the local Defenders office remains virtually silent in the delisting debate.

Another Department author of the EIS, Rick Mace, is now completing the second year of a \$200,000 per year nine year study of Grizzly Bear populations and movements in the Northern Swan Range of the NCDE. Part of the purpose of the study is to confirm that the bear population is indeed as high as the EIS says it is, yet the Department and the FWS are considering delisting the bear well before the study is completed. Ironically, because the study is being funded mostly by federal money granted under Section 6 of the ESA, it would most likely have to be terminated if the bear is delisted, as this funding would no longer be available.

The study has produced interesting information in its first 2 years, especially regarding bear mortalities. Of the 22 Grizzly Bears fitted with radio tracking collars, 6 are already dead. Four of those deaths occurred

this past September, 3 confirmed at the hands of men with guns. For the fourth bear, only the radio collar was found, having been cut off and tossed into a swamp.

A two-year average annual mortality rate of 14% is much higher than the annual mortality rate of about 5% documented in the EIS. If the mortality rate of the sample population in the Swan (South Fork) Study is indicative of the rest of the population, the bear is indeed in big trouble!

It is evident from the Department's bear obituary list and the preliminary results of the Swan Study that adequate land management programs are not in place for the Grizzly Bear. For example, the US Forest Service, National Park Service, and the Montana Department failed to force Burlington Northern to promptly clean up tons of corn spilled in the winter of 1988-89 in three separate train derailments along a two mile stretch of track in essential Grizzly Bear habitat along the Flathead National Forest/Glacier National Park border. Despite lessons learned following a corn spill in 1985, which afforded Highway 2 tourists ready access to drunken Grizzly Bears, and efforts to clean up and close the area to humans in the summer of 1989, a deadly combination of corn, fermenting corn "miso" paste, bears, and trains resulted.

Up to 12 Grizzlies were attracted to, and remained to feed on, the fermenting corn this past spring, summer, and fall. Several wore radio tracking collars fitted during the Swan Grizzly Study and had crossed two major river drainages and one or two major mountain ranges to feed at the Corn-Spill Cafeteria. Two Grizzlies and one Black Bear have been confirmed as killed when hit by trains in the corn spill area. How many have crawled off and died and not been discovered?

The Swan Study has also confirmed that Grizzly Bears from the east side of the Swan Range cross over the divide to feed in the lower elevations of the Noisy Face portion of the Swan Range on the Flathead National Forest. Years ago, Hungry Horse Reservoir on the South Fork of the Flathead River east of the Swan Range inundated 22,000 acres of once prime low elevation spring Grizzly habitat. Swan View Coalition and others have long contended that bears need the low elevation habitats of the Flathead and Swan Valleys on the west side to compensate for this loss.

Using appeals, the courts, and Grizzly documentation gathered by citizens, Swan View Coalition won the closure of a critical portion of these low elevation west-side habitats to off-road vehicles and annual cross-country motorcycle races, and won the closure of scores of Flathead NF roads to passenger vehicles as well. The forest to the south of the National Forest closure area, however, is managed by the Montana Department of State Lands, which has not fol-

lowed the lead of Swan View and the Flathead.

The Swan Study has documented use of the state-owned Birch Flats/Mud Lake area at the foot of the Noisy Face by 5 of its collared Grizzlies this past year. One of those bears, a 2 1/2 year old male, is now dead. As mentioned above, authorities found its radio collar thrown into a swamp. They have not found the dead bear or the culprit.

The fate of this bear is most likely the result of a simple formula: Roads plus vehicles carrying humans and guns (especially during Black Bear hunting season, when Grizzlies are mistaken as Black Bears) equals dead Grizzly Bears. Your help is needed to see that the roads in Birch Flat/Mud Lake area are closed to motor vehicles so the Grizzlies that depend on the area's rich habitat are neither disturbed nor shot.

The Montana Department of Fish, Wildlife, and Parks has manipulated population and mortality data to support its plan to delist the Grizzly Bear, and will apparently continue to do so until challenged. Needless to say, the FS is pleased with the Department's efforts and the thought of not having to comply with the ESA's protective measures. While politically motivated bureaucrats argue over how many Grizzlies there are, the bear's existence becomes more tenuous by the day.

WHAT YOU CAN DO:

Oppose premature delisting of the Grizzly Bear! For information or to comment on the Department's listing of Grizzly mortalities, Grizzly Bear EIS, or effort to delist the Grizzly Bear, contact Arnold Dood, FWP Bldg, MSU Campus, Bozeman, MT 59717-0001.

For information on the Swan (refer to it as the "South Fork") Grizzly Bear Study, contact Rick Mace, MDFWP, POB 67, Kalispell, MT 59901.

Work for road closures! Urge biologist Shawn Riley of the MDFWP (same address) to work with his sister agency, the Montana Dept of State Lands, to secure the closure of all roads in the Birch Flat/Mud Lake area, where Bear #98 was killed, to help prevent further poaching of Grizzly Bear in the area. Also write (or send a copy) to Dept of State Lands in this regard at POB 940, Kalispell, MT 59901.

Don't allow the Forest Service to feed the bears! Tell the FS to make BN clean up its spilled corn. Compliment the ranger for previous efforts, but insist that, until the bears quit congregating along the tracks and highway to feed on what corn remains, they are not enough. Write Ranger Al Christophersen, POB 340, Hungry Horse, MT 59919.

—Keith J. Hammer, Habitat Security Officer, E! Biodiversity Project

ECOSYSTEM ON THE EDGE

Old Growth Forests of the Southwest

by Peter Galvin

Imagine a series of islands surrounded not by water, but by desert, grasslands, and juniper woodlands. Standing amongst the Saguaros in the sizzling Arizona desert, it's hard to believe that just a few air miles away is a lush spruce-fir forest: one of the Southwest's "Sky Islands." In the early 1900s ecologist Charles Lowe noted that for every 1000 feet of elevation gain, the land mimicked a northerly movement of about one degree latitude. Lowe also concluded that for every 1000 feet of elevation gain an additional 5 inches of precipitation fell annually, so that at 11,000 feet on the San Francisco Peaks, conditions mimic those of alpine meadows. Lowe used the Southwest, Arizona in particular, to prove his theories of how elevation and aspect affect climate and hence vegetation. Lowe noted that almost every land ecosystem known in North America is represented in the Southwest. Until recently, the Sky Islands of the Southwest supported millions of acres of forests dominated by ancient Ponderosa Pine, Douglas-fir and Engelmann Spruce. This forest began to disappear with the arrival of the white man and his use of wood for mine supports, building, smelting, and milling. What once seemed like an endless resource is today an ecosystem on the edge of survival.

Differing Old-growth Definitions

Old-growth forests have only recently entered the American consciousness. The debate over the vanishing forests of the Pacific Northwest has become a national issue. Scientific terminology helps us expand on the common perception of old-growth as big old trees.

Forests that have developed over long periods without catastrophic disturbance of either natural or human origin are known as old-growth forests. They are what most people mean by the phrase "virgin forest," a term that reflects these forests' untouched primeval quality. Old-growth forests differ from young ones in species composition and structure as well as in cycling of energy, nutrients, and water. These differences result mainly from the presence in old-growth forests of large live trees, large snags (standing dead trees) and large downed logs.

Most current research on the nature of old-growth forests has been carried out in the Pacific Northwest, where conditions for conifer growth are ideal, require at least 175 years to develop, and most trees are from 350 to 750 years in age. In other regions, old-growth forests may take longer to develop fully and may not achieve such longevity, but they serve many of the same ecological functions.

Old-growth forests are composed of trees that vary in size and species; the dominant trees are truly impressive. Their multilayered canopies produce heavily filtered light. As a result, the understory layers of shrubs, herbs, and tree seedlings are moderate in density and patchy in distribution, tending to be best developed where terrain or disturbance has created openings. Snags and rotted stubs are common, and numerous large logs in various stages of decay lie strewn over the forest floor and across streams. (Audubon Society)

In the Pacific Northwest, 'old-growth' is now a household term; but few people realize that the Southwest has old-growth forests too. The Forest Service definition of old-growth varies from region to region and in the Southwest from National Forest to National Forest. The Apache-Sitgreaves definition is, "The final successional stage of a forest, characterized by a high degree of decadence, because of declining health ..."

To some foresters, an old-growth forest may appear decadent, but countless studies have shown that the diversity of species is

greater in an old-growth forest than at any other stage in the forest's development. Many species are partially or completely old-growth dependent; without enough old-growth habitat, they will ultimately go extinct. In the Southwest these species include the Mexican Spotted Owl, Pileated Woodpecker, Pine Marten, Arizona Montane Vole, Flammulated Owl, and Mt. Graham Red Squirrel.

Hundreds of miles of desert lowlands separate the mountain chains of the Southwest. Within these mountains human disturbances are rapidly isolating old-growth stands. Old-growth dependent species are trapped in these islands within islands, and diversity of gene types within the species is reduced. Inbreeding dooms any population or species.

Historically, timber harvests in the Southwest have been limited to areas with slopes of 40% or less. Almost all such land has now been logged. Most remaining old-growth forest in the Southwest is in steep canyons and on rugged mountainsides.

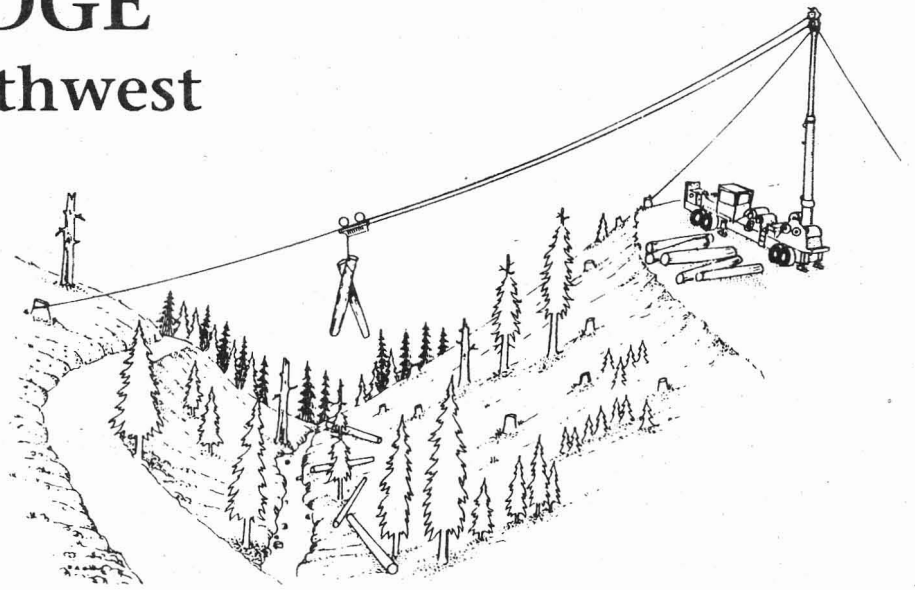
Today relatively little old-growth remains in the Kaibab, Coconino, and Sitgreaves National Forests. Largely because of their remoteness, some areas of the Apache and North Kaibab forests were spared, and still support considerable old-growth expanses. Now, though, intense pressures are being exerted to accelerate the harvest of this old-growth. (AZ Game & Fish)

Areas of old-growth in the Southwest include high elevation Wilderness Areas in northern New Mexico; areas within the Gila Wilderness, Aldo Leopold Wilderness, and Blue Range Primitive Area; Bearwallow, Eagle Peak, The Ward, and Water areas of Gila NF; Elk Mountain in Santa Fe NF; Scott Able area of Lincoln NF; Bonito area of the Jemez Mountains; Borrego Mesa of Santa Fe NF; Angostura area of Carson NF; Sacramento Mountains of Lincoln NF; Zuni Mountains of Cibola NF; Mt. Graham in Arizona's Coronado NF; and areas along the Mogollon Rim in Apache-Sitgreaves NF. Most of these areas are threatened. Almost the entire old-growth inventory of the Alpine Ranger District on the Apache-Sitgreaves NF is slated for liquidation in the next ten years.

Unreliable FS Figures

The Forest Service Region 3 headquarters, which covers Arizona and New Mexico, has released "rough estimates" on old-growth in the Southwest. The FS says there are approximately 15 million forested acres on Region 3 NF land; of this, 2.37 million acres are designated Wilderness including about 570,000 acres (24%) of old-growth. The FS considers suitable for timber harvest 3.53 million acres with about 530,000 acres (15%) of that being old-growth. The FS considers unsuitable for timber harvest 9.26 million acres with about 1 million acres of that (11.6%) old-growth.

The FS spokesman I spoke with did not say what criteria were used to determine what old-growth is or whether the same definition was used in different areas. The FS prepared the old-growth figures at the request of Senator Jeff Bingaman (D-NM). They are based on an outdated sawtimber inventory and take into account only tree size, not old-growth structural characteristics. The spokesman indicated that harvest would continue even while scientifically accurate definitions and data bases for old-growth are being developed. The FS figures show that at least 85% of the original forests of the Southwest have been logged. They indicate that there are about 2.1 million acres of old-growth remaining in the Southwest Region National Forests and that 1.5 million of those acres are off-limits to timber



Cable logging operations allow logging of steep-sided canyons that were previously inaccessible. Art by US Forest Service.

harvest. FS officials, other than those on the Carson and Kaibab, are showing little if any progress on the aerial and on-the-ground old-growth mapping that they have been claiming to be doing for several years.

In the Pacific Northwest it is believed that over 90% of the old-growth forests have been logged. The FS has been widely accused of distorting old-growth figures in the Northwest to make it seem as though the old-growth crisis were not so grave. The FS changed the definition of old-growth one month before congressional hearings on ancient forests two years ago, then stated before an incredulous House panel that there were 6 million acres of old-growth instead of the 3 million claimed the year before. The scientists and environmentalists rejected the FS reasoning. In fact, the only areas with reliable figures on old-growth were those covered by The Wilderness Society's aerial photo, old-growth mapping project and the Audubon Society's Adopt-a-Forest volunteer project.

Cable Logging

The remaining old-growth in the Southwest is now seriously threatened by the advent of steep slope cable logging. This practice, which allows foresters to harvest timber on slopes of over 40% gradient and has been used for many years in the Northwest, is rearing its ugly head in New Mexico this year, and has been used increasingly on the Apache-Sitgreaves and the Coconino NFs in Arizona for the last few years. (One FS official on the ASNf told me that a firm in the White Mountain area had just bought steep slope logging equipment and the FS felt obliged to keep him operating.) Steep slope cable logging is the biggest threat to the remaining old-growth in the Southwest.

Mexican Spotted Owl

As the old-growth goes, so do the many species dependent on this ecosystem, including the Mexican Spotted Owl (*Strix occidentalis lucida*). This subspecies of Spotted Owl is known to utilize over 2000 acres per pair on average, about 1000 of this being old-growth forest. In their entire range, 500 plus or minus 200 pairs of Mexican Spotted Owls survive. (Fletcher, FS) Spotted Owls disappear from areas where extensive timber harvest has occurred. (Forsman 1984)

The Forest Service Southwest Region has long known about the Mexican Spotted Owl, but only when environmental groups like Earth First! succeeded in making the Northern Spotted Owl a national issue did the FS begin a research program in the Southwest. The FS issued interim management guidelines to protect the Mexican Spotted Owl on June 30 of this year. The guidelines call for the establishment of a 2000 acre territory for each pair or individual found. The catch is that logging is allowed in 25%, 500 acres, of the territory. This figure can increase to over 700 acres "if necessary." Within the territory is designated a 450 acre Core Area. No logging is allowed in the Core Area, but road-building is allowed as a "last resort." Moreover, these restrictions only apply if owls are found before a timber sale has begun or before a timber sale contract has been signed. According to Keith Fletcher, head of the Spotted Owl ID Team in the Southwest, this is because the FS "cannot afford to pay whatever claims may be made against them by contractors if a timber sale has to be stopped." Public comment on these guidelines was accepted until September 1, and the FS intends to publish a final version soon.

The Northern Spotted Owl is currently being listed as Threatened under the Endangered Species Act (ESA). The Mexican Spotted Owl is thought to be even rarer than the Northern Spotted Owl. When I asked Keith Fletcher if, since the Mexican subspecies is at least twice as rare as the Northern, it should

be listed too, he said, "Not necessarily ... with our guidelines in place we may be able to keep the Mexican Spotted Owl from ever being listed as Threatened." The FS doesn't want the owl listed, as then they would have to gain US Fish and Wildlife Service approval for any project that would impact a Spotted Owl territory. Presently the FS manages the Mexican Spotted Owl as a "Sensitive" species. A FS timber planner told me this is "essentially the same as a threatened listing." In fact, however, this is not so, as under the Sensitive category the FS is free to "mitigate"; or, as has been done in the Northwest, to arbitrarily move on paper a Spotted Owl habitat from a timber sale area to an already protected area sometimes miles away! Many environmental groups, including the National Audubon Society, have charged that the FS "Sensitive" species designation has been used many times to prevent protection under the ESA for a species in jeopardy.

All bureaucracies protect their own turf, and the FS is no different. By keeping the Spotted Owl a "Sensitive" species, the FS avoids interference from the Fish and Wildlife Service, the agency primarily responsible for upholding the ESA. The Sensitive species designation often is essentially a smoke screen allowing the FS to continue their destructive, extraction oriented management policies.

Forest Service officials are doing things more professionally here with the Spotted Owl than FS officials in the Northwest did. (It is hard to imagine a more vile example of deliberate mismanagement than Region 6 did with the Northern Spotted Owl.) The current guidelines are a small step in the right direction, but they will not protect long-term viability of the species as mandated by federal laws.

During the Reagan-Bush years, there has been a great increase in the "commodification" of public lands. Since 1980, pressure has fallen on local FS officials to produce more and more timber regardless of the environmental consequences. Steep slope cable logging is the latest onslaught.

Timber Liquidation

The high forests of the Southwest receive barely enough rainfall to exist. Many ecologists argue that commercial timber production is unsustainable in this environment. The forest may survive two or three cycles (with greatly reduced diversity and health each time), but it will not recover for centuries, if ever. The Forest Service claims it can regrow an old-growth forest. Old-growth experts like Chris Maser doubt this. The FS is misleading the public by stating that it is retaining a certain percentage of old-growth. The Apache-Sitgreaves NF is, according to the forest plan, preserving 6% of the original old-growth on the Forest. In some management units, however, old growth does not exist, has not been surveyed, is currently being logged or soon will be.

The timber industry in the Southwest contributes less than 1% of the nation's wood supply. The timber industry supplies 0.05% of jobs in New Mexico and Arizona. (The Wilderness Society) The FS loses millions of dollars yearly in the Southwest subsidizing deficit timber sales.

The past 10 years have taken a heavy toll on the Southwest's old-growth. The Forest plans for Region 3 call for a massive increase in logging over the next few decades. Timber companies in the Southwest, such as Southwest Forest Industries, Stone Container, Kaibab Industries, Duke City, and Bates Lumber, clamor for more lumber while automation produces more wood products with less workers. Corporate executives and some Forest Service officials convince timber industry workers that environmentalists are their enemies. Things are getting ugly in

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This cow is stepping out of a Forest Service Research Natural Area, an area supposedly off-limits to grazing.

Photo by Peter Galvin

BRINGING OLD-GROWTH BACK TO

by Robert Zahner

This paper discusses the potential for restoring some of the indigenous landscape we have lost here in the southern mountains. It addresses the requirements, limitations, and challenges for our society to commit large areas of the Southern Appalachian second-growth forests to continue recovery toward old-growth ecosystems. We have the resource already established on the landscape: millions of acres of second-growth forests under the long-term stewardship of our National Forests. We also have the vision. But we do not yet have the plan. Nature has a strategy for rehabilitation of old-growth forests, but the forest managers do not.

BACKGROUND

The case has been established for large contiguous areas of old-growth. Isolated fragments do not meet the imperative for biological diversity. We must no longer think in terms of old-growth forest stands, but in terms of old-growth forest landscapes, and the requirements of forest interior species, both plants and animals, who depend on uninterrupted mature forest, that is, high quality old-growth forest landscapes.

Restoration to primeval or pre-disturbance condition of forest habitats in the Southern Appalachian Mountains is, of course, impossible. Many plant and animal species have been extirpated. Soils on some sites have been degraded by erosion or depletion of minerals and organic matter, so that productivity of natural biotic communities has been permanently altered. Introduced insect and disease pests continue to take their toll on native forest trees. Perhaps most importantly, acid rain, ground level ozone poisoning, and climate change due to carbon dioxide enrichment of the atmosphere will continue to disrupt life support systems at every ecosystem level.

Reservoirs of genetic diversity for forest interior species will become more essential for the survival and migration of species as man-caused stresses become more severe. The potential exists at the species level for many forest interior communities to be restored to at least a semblance of their pre-disturbance biota. The potential also exists at the habitat level for virtually all major natural forest types to be represented in a large-scale landscape restoration effort. Thus it is still possible to integrate large contiguous areas of diverse habitats that can be restored to biological maturity, and in time to old-growth forests.

Southern Appalachian land use history determines the potential for restoration of old-growth, and this in turn is defined by the magnitude of past damage to a given ecosystem, the time lapsed since man has altered the system, and the degree of recovery to date. Current forest ages, current rehabilitation status, landscape ownership patterns, and future management plans all impose challenges to old-growth restoration. Future old-growth forests will have a unique composition and a structure as yet unknown.

OLD-GROWTH CHARACTERISTICS

Before we can assess the potential for old-growth, we must define what we hope to restore. There are few scientific records of the nature of the Southern Appalachian primeval forest. Ecologists have documented relics such as Joyce Kilmer Memorial Forest, Linville Gorge Wilderness Area, and the boreal forests of the Great Smoky Mountains. We have descriptions of plants and animals, especially birds, by early naturalists. The turn-of-the-century logging companies published descriptions of large standing timber for sale. But most of the forest history of our mountains records only the massive destruction of the old-growth forests. Today we must piece together the scraps of information gleaned from these sources and from modern ecological interpretations of second-growth forest dynamics to estimate the kinds of plant and animal communities that existed in pre-settlement forests.

Because of the immense diversity of potential habitats in the Southern Appalachians, it is easier to define what old-growth is *not* than what it is. It is not a forest that has grown beyond economic or commercial timber maturity. It is not decadent. It is not limited to virgin or ancient forest. It is not just a forest that contains very big trees. It is not synonymous with "wilderness."

Let's try a simple definition: *Old-growth forests are forests having a long, uninterrupted period of development, or scientifically speaking, they are the end point of an ecosystem's development without disturbance by modern man.*

A regime of recurring natural disturbances gives old-growth forests their essential character, that of "canopy gap patchiness," or to use the technical term, that of a "shifting mosaic steady state." As old trees are lost from the canopy, by such natural causes as lightning strikes, ice breakage, and blowdowns, younger replacement trees maintain an uneven-aged canopy structure. Looking at the forest as a whole, these small patches of shifting canopy ages comprise a heterogeneous steady state, or mosaic.

An old-growth forest always contains trees in all stages of aging, including senescence, as well as dying, standing dead, and fallen dead trees. With a few exceptions, most tree species that comprise the Southern Appalachian forests today reach senescence between 150 and 300 years. Because old-growth forests contain many species, ages of individual dominant trees in such a stand may vary between mature 100-year old trees just growing into canopy gaps and dying 400-year olds. Both the size of old trees and the average life expectancy for dominant trees vary considerably with site, however, thus leading to a descriptive criterion for age rather than a quantitative one.

"Age" of an old-growth stand must also include the length of time fallen dead trees have been decaying. The micro-habitats provided by old wind-thrown trees, standing dead snags, and rotting logs are essential to the integrity of old-growth. Down trees and large debris are even more important in streams than on the ground, indispensable

to restoration of aquatic habitats in old-growth forests. Thus natural processes that eventually achieve such restoration may require centuries to reach true indigenous condition. Most ecologists agree that a semblance of old-growth structure and composition is developed in many hardwood forest types of eastern North America at age 150-200 years, with another 50-100 years to achieve the down-timber habitats.

Many primeval forests were not ancient forests when Europeans first encountered them, but were in varying stages of successional development toward a stable, end-point condition. In the pre-settlement Southern Appalachian Mountains, periodic wildfires prevented the long-term stabilization of forest composition on some sites, in particular south-facing slopes and ridges. Such fire-maintained sub-stable communities are a natural part of the mosaic of old-growth landscapes. The "age" of these sub-stable forests in a primeval landscape, however, must include that of the previous forest, because the residual standing charred snags and decaying remnants of burned down timber are integral parts of the evolving biotic community.

A restored old-growth forest cannot be delineated as a forest "stand," in modern inventory terminology. There can be no clear boundaries drawn where old-growth stops. There must be a gradual transition to other communities or land uses, because requisite for the protection of interior species from "edge effects" is freedom from man-caused disturbances in the surrounding area. There are no sharp "edges" in an old-growth landscape, because the entire area is a mosaic of canopy gaps. Even natural wildfires, ice storms, and wind blowdowns do not leave abrupt edges. Thus forest management activities outside old-growth preserves must be carefully assessed for their impacts on the rehabilitation processes of the interior communities under restoration.

BIOLOGICAL POTENTIAL

There are three classes of "potentials" for the restoration of old-growth landscapes in the Southern Appalachians: 1) the biological potential, 2) the land ownership potential, or potential for long-term commitment, and 3) the ethical potential, or potential for acceptance by society.

A forest that has been disturbed by timber harvesting can be a candidate for restoration to an old-growth forest. Although the indigenous condition has been altered by logging, some old-growth characteristics may be retained and many more may be restored over time. Most present-day timber management activities in second-growth forests do not irreversibly alter the potential for old-growth restoration. These transient management disturbances, probably more properly termed "interferences," include the suppression of natural disturbances such as wildfire, and the removal, termed "salvage," of dead and dying trees. So-called "timber stand improvement" and "vegetation management" alter only temporarily the species composition in many forest stands by discriminating against those tree and shrub species that have little or no commercial value.

Ecologists agree that restoration to near pre-disturbance conditions, with the exceptions of extirpated species and the presence of introduced exotic species, can in time be accomplished on previously cut-over forestlands that have regenerated a second-growth forest of native species. Exceptions to this in the Southern Appalachians are plantation forests and some second-growth naturally seeded forests established on lands that were previously converted to agriculture. Soil degradation on such land in many cases has so modified habitats that recovery to pre-disturbance condition will require thousands of years.

In most present-day second-growth forest stands that have recovered through protection from logging abuse early this century, significant restoration has already occurred. After 60-100 years of natural rehabilitation, such stands are approaching biological maturity. Because of their origin, that is regrowth from massive disturbance, many of these stands are even-aged. Canopy gap patchiness has not yet become established, and in fact will be slow in emerging because all dominant trees are the same age. As genetically different dominant trees succumb to environmental stresses, and as lightning and ice take their toll, younger trees, usually of shade tolerant species, will begin to fill canopy gaps. Tree species diversity thus will increase along with age diversity.

During the four or five decades between the massive logging early this century and

the beginning of clearcutting in the 1960s, selection harvesting and high-grading of mature timber removed some commercially important trees from many stands, thus establishing canopy gaps without the accompanying fallen dead boles. Over hundreds of thousands of acres of National Forest, however, second-growth has developed relatively free of further man-caused disturbance. In some remote sites without access for salvage operations, a component of dying, dead, and down trees is beginning to develop. Natural disturbances continue to create canopy gaps for more varied tree species to assume dominance.

Most importantly, many plant and animal species are gradually migrating from adjacent refuges, that is, from fragments of ecosystems that escaped devastation, into surrounding habitats that are becoming habitable. As more of these mature forest interior species become established, there is an acceleration of essential recovery processes, such as a build-up of soil organic matter, the creation of more varied micro-habitats and niches, and a proliferation of lowest trophic level organisms.

LAND OWNERSHIP POTENTIAL

Where are second-growth forests located in the Southern Appalachians that are suitable for restoration to old-growth? Because of the long-term commitment required, only two possibilities exist: 1) preserves created by such private organizations as the Nature Conservancy, and 2) public federal lands, especially the National Forests and National Parks. The private preserves are exemplary, and serve an urgent need to protect rare and uncommon habitats; but such preserves are fragmentary, almost always small isolated tracts surrounded by the abrupt edges of a modified landscape. They are not an integral part of an old-growth or mature forest landscape.

Great Smoky Mountains National Park encompasses the largest remaining area in the Southern Appalachians of old-growth forest landscape, 165,000 acres of contiguous forest habitats that retain most characteristics of old-growth, free of significant physical disturbance by European man. Much of this old-growth lies in the unique high elevation spruce-fir forest, currently being degraded biologically by the man-introduced balsam woolly adelgid. The remaining two-thirds of the Park, about 335,000 acres previously cut-over, farmed, grazed and otherwise disturbed prior to the establishment of the Park, meet all requirements for the restoration of old-growth landscapes. The protected status of the Park allows these forests to eventually be restored to near pre-disturbance conditions.

The six National Forests of the Southern Appalachians in North Carolina (Pisgah, Nantahala), Tennessee (Cherokee), Georgia (Chattahoochee), South Carolina (Sumter), and Virginia (Jefferson) presently contain 30 separate tracts of congressionally designated Wilderness, totaling 275,000 acres. It must be remembered that Congress sets aside these areas for *people*, as recreational commodities. The needs of biota are only of secondary consideration, as evidenced by the hundreds of thousands of people visiting these areas annually, creating severe impacts on biota, especially stresses on birds and large mammals. However, the long-term legal commitment for preservation does in effect secure Wilderness Areas for the restoration of old-growth.

The five largest of these National Forest Wilderness Areas average about 22,000 acres, or 35 square miles each, areas sufficiently large for restoration of complete old-growth landscapes. The remaining 25 areas average only 5200 acres each, with the ten smallest averaging less than 3500 acres. The small sizes of these Wilderness Areas come into perspective when we realize that the home range of a single male Black Bear is well over 25 square miles of contiguous forest. Unless protected by large additional acreages of surrounding mature forest with a long-term old-growth commitment, all but the five largest National Forest Wildernesses in the Southern Appalachians serve little purpose in restoring the integrity of the old-growth forest landscape.

Aside from the small and fragmentary sizes of this potential old-growth in designated Wilderness, such areas were selected largely for their scenic beauty and their unsuitability or inaccessibility for timber harvest. Many of these Wilderness habitats are high ridges and deep gorges, excellent examples of uncommon forest communities and critical to regional diversity. Only the Cohutta Wilderness in Georgia, the Citico Wilderness in Tennessee, and parts of the Joyce Kilmer/Slick Rock Wilderness in North

Southwest Old Growth...

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logging towns of the Southwest, such as Springerville, Alpine, and Reserve, as the citizens realize that the end of resource supplies is near. Inevitably companies like Stone Container will pull out.

It's tragic that people in these colonial outposts never realize that they are being used by industrial capitalism, and that when they've served their purpose, when there is no more timber to cut, the companies will move, leaving the workers with crying hungry children, ignorantly blaming the wrong people. With so little old-growth remaining in the Southwest, it is clear the timber industry is on its way out. Even a federal pay-off of \$25,000 for every logger family, in addition to job retraining, might well be less expensive than the massive subsidy of this ecologically disastrous industry.

Strategies for Action

All remaining old-growth should be protected in a roadless state. One idea is the formation of Desert Island National Park, National Monument or National Biological Preserve. The largest stands could be included as separate units; the smaller stands could be included as Research Natural Areas (RNAs). Habitat corridors should be established. Wild and Scenic status should be granted to the high elevation rivers of the Southwest, which are the lifelines of the

forest, essential habitat corridors.

The big national environmental groups should make Southwest old-growth a national issue to achieve these aims. Local groups and grassroots activists should make noise on this issue. A conference on the Southwest Old-Growth Ecosystem, sponsored by a non-government entity, should be held.

WHAT YOU CAN DO: 1) Tell your friends, neighbors, and co-workers about Southwest old-growth. Write letters to local newspapers, and to senators (US Senate, Washington, DC 20510), representatives (House of Representatives, DC 20515), and other power brokers. Urge them to protect all remaining old-growth now. Send letters also to the supervisors of the Southwest National Forests. Especially needed are letters to these NFs:

*Apache-Sitgreaves NF, POB 640, Springerville, AZ 85938

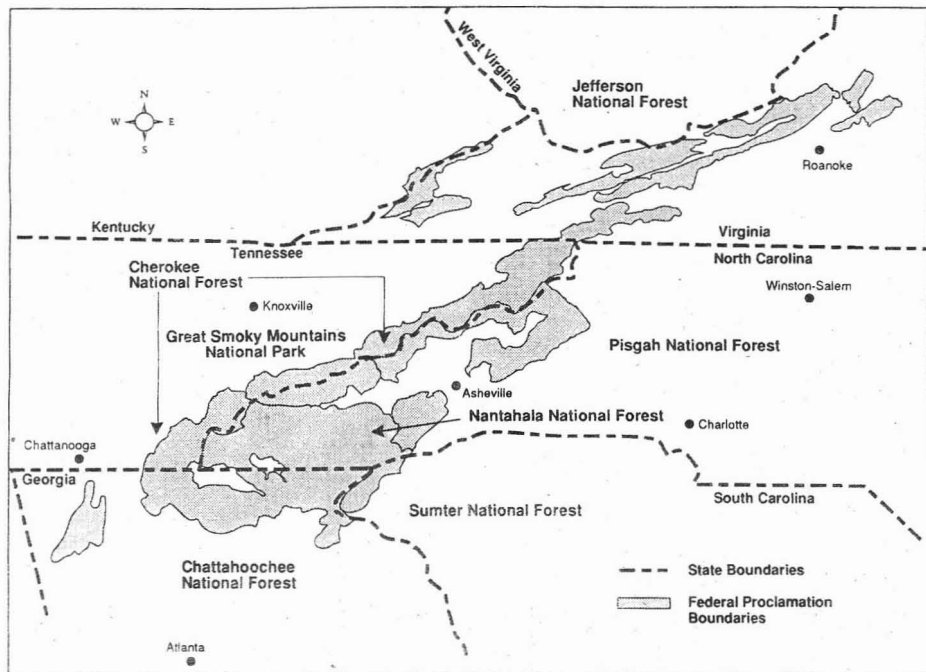
*Gila NF, 2610 N Silver St, Silver City, NM 88061

*Santa Fe NF, POB 1689, Santa Fe, NM 87504

2) Since this approach may not work, consider more immediate tactics....

Peter Galvin, a veteran old-growth activist from the Northwest, now resides in Arizona, where he is writing a book on Southwest old-growth.

THE SOUTHERN APPALACHIANS



Federal lands in the Southern Appalachians (not including the Blue Ridge Parkway, the Appalachian Trail or TVA lands). Reprinted with permission from *The Wilderness Society's study, Mountain Treasures At Risk*.

Carolina contain large contiguous areas of forest with significant second-growth timber potential. Yet it is those very habitats with good timber potential that contain the species mix and site capabilities to provide the old-growth forest communities that are now most lacking and are most needed in a restored old-growth landscape.

The greatest limitation to old-growth restoration lies in current National Forest management plans, which make little or no provision for any rehabilitation of old-growth outside designated Wilderness and Research Natural Areas. Plans call for new road construction into and clearcutting of large acreages, a continuation of policies that are rapidly fragmenting these forests into small blocks of young regeneration, setting back natural forest succession by at least six decades. The potential gained for restoration of old-growth, that is, the rehabilitation that has occurred since the National Forests were established as watershed preserves in the mid-1920s, is rapidly diminishing. Every year the six National Forests of the Southern Appalachians plan to clearcut over 24,000 additional acres of second-growth commercially mature timber.

Timber management for commercial sawlog rotations is designed to maintain oaks, as well as introduce more planted pine, on the south-facing slopes and ridges. Timber management on the north-facing slopes and coves is increasing Yellow Poplar to the point of eliminating many other, less economically important, mesic species. National Forest plans include harvesting 2,000,000 acres of such forest eventually, redesigning it to produce more commercially desirable timber and game species. This immense acreage includes virtually all National Forest lands that would be required to restore the old-growth habitats in a balanced landscape, i.e., to provide contiguous habitat for interior species and to provide corridors of mature forest for migration and genetic exchange among old-growth communities.

What is the potential composition of tree species in biologically mature forests of the Southern Appalachians as they grow undisturbed toward old-growth? Ecological research tells us that the second-growth oak-hickory forests currently occupying many south-facing slopes and ridges will probably perpetuate themselves as climax forest, and in time develop directly into old-growth. Associated tree species will include White and Yellow Pines, Red Maple, Black Gum, Sourwood, and occasional Black Locust and Black Cherry. With the elimination of vegetation management that reduces undesirable timber species, a total of perhaps 20 canopy old-growth species should eventually occupy such south-facing and ridge sites.

On the other hand, second-growth oak-hickory stands currently occupying many north-facing slopes and coves, mixed with varying amounts of Yellow Poplar and other hardwoods, will eventually be replaced by a more mesic species composition. The current predominance of oaks and hickories on these sites is due to the violent disturbances wrought by early logging and burning, and this forest type now represents a late successional stage. As the present oaks, hickories, Black Locust, Black Cherry, Sourwood, and Sassafras mature toward senescence and die, mid-story species, including Red and Sugar Maples, American Basswood, Eastern Hem-

lock, Yellow and Sweet Birches, Beech, Yellow Buckeye, and Silverbell, will gradually work their way up into the canopy to take their places beside large Yellow Poplar and White Pine already there. A stabilized old-growth forest on these sites will probably contain over 30 species of canopy trees, including a few old residuals of the present oak and hickory species.

The Society of American Foresters' task force on old-growth has stated the situation clearly (adapted from the *Journal of Forestry*, 1984): There is a compelling need to preserve and to rehabilitate old-growth forests throughout the United States and the world. Further, it is not possible to hasten the processes by which nature creates old-growth. The best way for management to restore old-growth is to conserve an adequate supply of present second-growth stands and leave them alone. Most forest scientists agree that there is little silvicultural potential for "speeding up" the restoration of old-growth. It is a matter of educating National Forest managers and policy-makers to the responsibility of defining, identifying, and inventorying adequate large areas of present forestland, and then making the long-term commitment to preserve and monitor it as it matures toward old-growth. This must be done despite strong pressures for resource production.

Here on the National Forests of the Southern Appalachians we are well on our way toward the 150-200 year-old stands that begin to stabilize as old-growth. This rehabilitation has occurred in my lifetime, in the 65 years since the Southern Appalachian National Forests were established. We are half way to the youngest old-growth condition. My grandchildren can experience the initial phases of restored old-growth forests across large landscapes. This will take a commitment longer than the life span to date of the agency we are asking to allow these old forests.

How much old-growth is enough? Accepting that old-growth forest landscapes are required for the restoration of biological diversity in the Southern Appalachians, minimum sizes must be sufficiently large to embrace several adjacent entire watersheds. Species migration and genetic exchange require, in addition to large preserves, corridors of old-growth forests linking preserves together. Preserve Appalachian Wilderness (PAW) has a vision of a wildlife corridor linking mature forests along the Appalachian Trail from Maine to Georgia, utilizing much of the mountain National Forests to provide large preserves. The six Southern Appalachian National Forests would play a major role in realizing such a vision. Such a concept offers a framework on which to build policy and reform National Forest land use planning.

ETHICAL POTENTIAL

In addition to the biological and land allocation potentials for the restoration of old-growth forests in the Southern Appalachians, we must address a third factor: What is the ethical potential that such large-scale restoration of forest landscapes can be established on our public lands? What are the social and legal possibilities?

Strong biocentric sentiments have flowered intermittently throughout recorded history, in such thinkers as St. Francis of Assisi, Albert Schweitzer, and Henry David Thoreau, all of whom saw God in every living

animal and plant, and called for an end to the dominance of man over nature. By contrast, the earliest National Forest policies were based on the land stewardship concept of Gifford Pinchot, that of the conservation and management of our natural resources for the use of society. Aldo Leopold added a more biocentric aspect to land management with his call for a "land ethic" that included respect for and preservation of all species, whether or not they were of economic value.

Leopold's land ethic is receiving much attention today among professional land managers. Indeed, in the 1988 and 89 surveys of its membership, the Society of American Foresters found overwhelmingly that Leopold's *A Sand County Almanac* is the most important book relating to their profession. Further, the Society recently released a position statement that there are ethical reasons, among others, for preserving and rehabilitating old-growth forests throughout the world. The Society is currently encountering much pressure from its membership to add a "land ethic" to its official code of human ethics. I conclude, therefore, that many professional foresters are part of an ethical movement to grant rights of existence to all types of natural systems. However, the Leopold ethic has not yet found its way into widespread practice.

What is the potential for such a movement to gain legal status for the "rights of nature?" Legislative history in America suggests the potential is good, at least legal rights for natural habitats. Since the Declaration of Independence established America's desire for the rights of citizens (at least for male citizens) many acts of the US Congress have established an evolving concept for the legal rights of other entities: In 1863 the Emancipation Proclamation extended legal freedom to slaves; in 1903 the National Wildlife Refuge Act protected certain public lands as sanctuaries for specified wildlife; in 1920 the Nineteenth Amendment gave female citizens equal rights with males; in 1924 the Indian Citizenship Act gave native Americans equal rights; in 1938 the Fair Labor Standards Act freed blue collar workers in the workplace; in 1957 the Civil Rights Act put legal teeth into the other acts that had established equal rights for all citizens; in 1964 the Wilderness Act opened the way for the preservation of large wild landscapes on public lands, and permitted legal defense of infringements on these preserves; in 1966 the Animal Welfare Act, in 1972 the Marine Mammal Protection Act, and in 1973 the Endangered Species Act all gave particular legal rights to certain animals, rights that were later extended even to certain plants.

The Endangered Species Act, the Multiple Use Sustained Yield Act of 1960, and the National Forest Management Act of 1976 have mandated that public agencies protect certain biotic habitats. These laws establish legal ways for humans to defend some of the "rights of nature" against man's infringements. A next stage in this legal evolution is the passage of the proposed Biological Diversity Bill and the World Environmental Policy Act now in Congress. Such a clear federal mandate should give natural diversity the same legal status now enjoyed by individual Endangered species. This means that uncommon combinations of species that comprise a biotic community will have legal protection, and further, that federal land managers will have an obligation to not only protect such existing communities but also to restore such communities where the potential exists. Since old-growth forests comprise many habitats in shortest supply in the Southern Appalachians, National Forest management plans will be revised to accommodate this new law.

Congress still operates from the conservative philosophy of Gifford Pinchot which espouses good stewardship in the management of our National Forests for the production of goods and services for people. Many preservationists today, however, are embracing a more biocentric view of nature. Norwegian philosopher and naturalist Arne Naess proposed in 1973 a new environmentalism that he termed "deep ecology." This concept has caught on strongly in America over the past decade, and many recent writings are espousing the intrinsic rights of all species and all habitats, in fact, all nature, to exist unmolested by humans. Such a philosophy is essential to success in the movement for restoration of old-growth forest landscapes.

CONCLUSION

All the potentials are in place for the restoration of large old-growth forest landscapes across the Southern Appalachian Bioregion. Although these old-growth forests will not be the same as those of pre-

disturbance landscapes, within another 75-150 years many habitats can be restored to a semblance of their primeval condition. The land base and partially rehabilitated second-growth forests exist on our mountain National Forests; the long-term commitment to bring it about is possible in federal land management policy. Finally, public and congressional sentiments have evolved to recognize the scientific and moral necessity to provide old-growth habitats where all levels of biological diversity can evolve naturally in response to the expected environmental changes of the next century.

A national crusade is arising for preserving and restoring old-growth forests in every forest region. A recent conference of the Natural Areas Association, for example, hosted 12 papers on the old-growth temperate deciduous forests of the southern United States. Scientific journals, environmental reports, and even national media are giving the subject unprecedented attention. The case for restoring old-growth has been well established. We are beyond the debating stage. As now urged by the Society of American Foresters, it is time to conserve an adequate supply of second-growth forest, and leave it alone. Forever.

Robert Zahner is a retired professor of forestry who lives in Highlands, NC, near a unique temperate mesic forest threatened by Forest Service clearcutting.

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- ed. note: Particularly valuable for activists among the sources above is *The Wilderness Society's Mountain Treasures At Risk, available free from TWS, 1400 Eye St. NW, Washington, DC 20005*.

The Destruction of

by Dave Foreman

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ed. note: The following is a chapter from *The Big Outside*. This book, which no wilderness activist should be without, is available from Ned Ludd Books (see ad in this issue).

To ask the question, "Why do we destroy wilderness?" is to grapple with the fundamental problem of our species. The profound questions with which philosophers have danced since the Athenian Academy, "What is Beauty? What is Truth? Who are we? Where are we going? What is the purpose of life? What is the Nature of Man?" are subsumed by that of human destruction of the wild. It is the keystone to understanding our alienation from Nature, which is the central problem of Civilization.

Analyzing why we destroy wilderness requires us to step back 10,000 years to the nascency of agriculture, that brought with it the city, bureaucracy, patriarchy, war and empire. It was agriculture that severed our kind from the natural world and prompted our devastation of native diversity. (Some, like Paul Martin of the University of Arizona, argue persuasively that this devastation began earlier, as small bands of skilled hunters first entered Australia, Oceania, Siberia, Madagascar, North and South America at the close of the last Ice Age and caused the extinction of dozens of genera of large mammals and birds that were not experienced in evading so skilled a predator.)

Before agriculture was midwifed in the Middle East, humans were in the wilderness. We had no concept of "wilderness" because everything was wilderness and we were a part of it. But with irrigation ditches, crop surpluses and permanent villages, we became apart from the natural world and substituted our fields, habitations, temples and storehouses. Between the wilderness that created us and the civilization created by us, grew an ever widening rift.

Fortunately, we do not need to delve further into this complex question here. Our topic is far simpler: *How* are we destroying wilderness in the United States of America in the late twentieth century? As we discuss this, we will also uncover *who* is destroying wilderness.

The ways in which we are destroying the last American wilderness are interrelated and synergistic in their effects, but can be broken down into the following categories:

- ✓ Road-building
- ✓ Logging
- ✓ Grazing
- ✓ Mining
- ✓ Energy extraction
- ✓ Dams and other water developments
- ✓ Pipeline and powerline corridors
- ✓ Slob hunting
- ✓ Wildlife "management"
- ✓ Eradication of species
- ✓ Introduction of exotics
- ✓ Wildfire suppression
- ✓ Off-road-vehicles (ORVs)
- ✓ Industrial tourism
- ✓ Wilderness recreation
- ✓ Outside impacts

Road-building

The army of wilderness destruction travels by road. With few exceptions, each of the items on the above laundry list requires roads or motorized vehicles to exploit the wild. The road network in the United States is pervasive — twenty-one miles is the farthest point from a road in the lower 48 states; there are few areas ten miles or more from a road.

The National Forest System contains a large share of the Big Outside in the lower 48 states, but it also boasts 375,000 miles of road — the largest road network managed by any single entity in the world. The United States Forest Service employs the second highest number of road engineers of any agency in the world (over 1,000). During the next half century, the FS plans to build an additional 350,000-580,000 miles of road — mostly for logging. At least 100,000 miles of that will be in currently roadless areas. This road construction costs the American taxpayer half a billion dollars a year. Reducing — better yet, eliminating — the bloated FS road-building budget in the Congressional appropriations process is one of the best ways to defend

*Although in fairness, we must recognize that all of us are destroying wilderness because of the alienation of our society from nature; because of human arrogance; and because of the gross overpopulation of our species combined with the wasteful lifestyle of modern humans that converts thirty percent of Earth's photosynthetic production to human purposes.



Forest Service clearcutting in old growth Douglas Fir/Western Hemlock forest adjacent to Olympic National Park, Washington. Photo by US Forest Service, courtesy of Forest Watch magazine.

wilderness. Simply writing one's members of Congress and demanding that the FS road budget be cut or eliminated is one of the more effective single acts any of us can perform.

The Bureau of Land Management is also beefing up its road network — for the benefit of graziers, energy companies and motorized recreationists. Many BLM areas could be classified and protected vast wilderness preserves if one or two dirt roads were closed.

The wilderness of our best-known National Parks has been rent by "scenic motorways." The Going-to-the-Sun road in Glacier, Tioga Pass road in Yosemite, Skyline Drive in Shenandoah, Newfound Gap road in Great Smoky Mountains, Trail Ridge road in Rocky Mountain, and Island in the Sky road in Canyonlands are prime examples. A battle is now raging in Capitol Reef National Park in Utah as local boosters persevere in their effort to pave the Burr Trail.

Roads are used for logging; dam building; oil & gas exploration; overgrazing "management"; powerline construction and maintenance; mineral exploration and extraction; and ski area, recreational and subdivision development. Trappers, poachers, slob hunters, prospectors, seismographic crews, archaeological site vandals and other vanguards of the industrial spoliation of the wild use roads. Roads provide freebooters with access to key areas of wildlife habitat and to the core of wild areas. Roads cause erosion, disrupt wildlife migration and create an "edge effect" that allows common weedy species of plants and animals to invade pristine areas providing refuge to sensitive and rare native species. Many creatures are killed by vehicles on roads.

Without roads, without mechanized access, native species are more secure from harassment and habitat destruction, and fewer people with fewer "tools" are able to abuse the land.

Logging

As the pioneers encountered the frontier in their march from the Atlantic seaboard to the Mississippi River, their first step in civilizing the land was to "open it up": The oppressive forest, harboring savages, wild beasts and godlessness, and shutting out sunlight and progress, had to be cleared. While much of this ancient forest was simply burned, some of it fed the growing timber industry, which quickly became dominated by larger and larger companies as the timber frontier moved from New England to the Upper Midwest to the Pacific Northwest. In the view of the timbermen, the forests were endless and they were perfectly justified in ransacking an area, leaving it raw and bleeding, and moving further west. In the late 1880s and '90s public outcry over this rapaciousness led to the protection of Adirondack State Park in New York and the establishment of forest reserves in the West to protect watersheds.

John Muir hoped the forest reserves would be off-limits to logging, but under the leadership of Gifford Pinchot, they became the National Forests and were dedicated to "wise use." Chief Forester Pinchot established his prescriptions quickly: 1) The first principle of conservation is development; and 2) There are only two things in the world — people and natural resources.

The early-day Forest Service hoped to sell its timber to private companies, but these companies still had plenty of old growth on their millions of acres of private lands and were not interested. Not until after World War II did the marketing of National Forest timber attract interest as the stocks on corporate lands became depleted. In the last 40 years, the annual cut on the National Forests has steadily increased, until today the Forest Service brags that it is logging (i.e., destroying) a million acres of wilderness a year.

It is important to keep in mind that "harvesting" 10-12 billion board feet of timber a year from the National Forests (about a fifth of the nation's total timber production) not only exceeds sustained yield (the amount of timber harvested is more than that grown) but that most timber sales in remaining roadless areas on the National Forests are *below cost sales*. It costs the Forest Service (thus the taxpayer) more to offer and prepare these sales for cutting than timber companies pay for them. The Office of Management and Budget reported that, in 1985, Forest Service below cost sales cost the taxpayer \$600 million. Moreover, this figure does not include the associated costs of destroyed watersheds, devastated wildlife habitat, loss of recreation, herbicide pollution of air and water, decreased native diversity, concentration of wealth in fewer hands, and bureaucratic growth in the Forest Service to administer the program.

The situation is getting even worse. According to a recent study by The Wilderness Society, proposed Forest Plans nationwide call for an increase in logging of 25% over the next decade. Virtually every unprotected large, forested roadless area on the National Forests is threatened with logging and associated road-building. Except for the small amounts of old growth forest in designated Wilderness Areas, the Forest Service plans to convert the remaining old growth to intensively managed tree farms during the next 50 years. (Unfortunately, the FS is not always successful in this: Many clearcuts have not regenerated, even with expensive replanting, fertilizing and herbiciding. Hundreds of Forest Service clearcuts remain butchered, bleeding wastelands decades after clearcutting.)

Grazing

The livestock industry has probably done more basic ecological damage to the Western United States than has any other single agent. The Gray Wolf and Grizzly have been exterminated throughout most of

the West for stockmen (Grizzlies are still being killed around Yellowstone National Park and the Rocky Mountain Front for sheep ranchers; the new Gray Wolf pack in Glacier NP has been largely wiped out to protect cattle; and ranchers are the leading opponents of wolf reintroduction in Yellowstone and the Southwest). The Mountain Lion, Bobcat, Black Bear, Coyote, Golden Eagle and Raven have been relentlessly shot, trapped and poisoned by and for ranchers until lion and Bobcat populations are fractions of their former numbers. Elk, Bighorn, Pronghorn and Bison populations have been tragically reduced through the impacts of livestock grazing. Streams and riparian vegetation have been degraded almost to the point of no return throughout much of the West. The grazing of cattle and sheep has dramatically altered native vegetation communities and has led to the introduction of non-native grasses palatable only to domestic livestock. Sheet and gully erosion from overgrazing have swept away most of the topsoil in the West. In non-timbered areas, most "developments" on public lands — roads, fences, juniper chainings, windmills, pipelines, stock tanks and the like — benefit only a few ranchers.

Expansive areas of the Great Basin and Southwest could be designated as Wilderness were it not for the livestock industry. Throughout the rural West, public lands ranchers are the most vocal and militant lobby against environmental protection or Wilderness designation. Sadly, designation of an area as Wilderness or National Wildlife Refuge does not restrict commercial livestock grazing. Even some National Parks are legally grazed. Of course, nearly all National Forest, BLM and state lands in the West are grazed by domestic livestock.

To make this situation more outrageous, all this is done to produce only two percent of the nation's red meat; ninety-eight percent of US beef production is on private lands, mostly in the Eastern states. The ranchers using the public lands are *welfare ranchers*. In 1988 they paid only \$1.50 per AUM (Animal Unit Month — the average amount of forage a cow and her calf eat during a month), which is less than one-fourth of the cost of grazing leases on private lands. Additionally, BLM and Forest Service range specialists perform many services for their welfare charges, and fences, roads, stock ponds and other improvements for increased grazing are often built at taxpayer expense. All in all, the Forest Service and Bureau of Land Management lose about \$100 million a year with their grazing programs — and this does not count the costs of environmental degradation, which run into the hundreds of millions of dollars annually. The 22,000 ranchers with BLM or FS grazing leases are among the most accomplished welfare chiselers in the nation (perhaps only military contractors are more facile at living on the public dole).

Wilderness

Mining

Although mining has affected a smaller acreage than have logging or grazing, where it has occurred, its impact has been momentous, as a glance at the Santa Rita open pit copper mine in New Mexico or uranium tailings around Moab, Utah, will attest. Besides the scarification of the land and attendant air, water and soil pollution, mining requires a network of roads, powerlines, pipelines and other infrastructure, which drive away wildlife and dispel wilderness. Geological processes are such that minerals tend to be most concentrated in rugged terrain, which is not only more vulnerable to damage but is also more likely to be wild and roadless than is gentler country.

Mining on the National Forests and BLM lands is sanctioned by the 1872 Mining Act, an antique from the days of the early gold rushes in the Wild West. This law allows any individual or corporation to claim minerals on federal lands. Such claims are staked by only a small filing fee and maintained by only \$100 worth of work a year, and can be taken to patent (passed into private ownership) if a reasonable mineral production is made. Like logging and grazing, mining on the public lands is a gigantic rip-off. Most National Parks and Wildlife Refuges are closed to new claims, as were Wilderness Areas after 1984 (previous claims — those filed prior to 1984 for Wilderness Areas; prior to designation for Parks and Refuges — can be mined in all of these areas, however). The FS and BLM are limited in restricting or regulating mining on their lands, although they have more authority than they exercise.

There are essentially two types of miners operating today: the so-called "small miner" and the mining corporation. Small miners are typically ne'er-do-wells with a bulldozer and a fanatical conviction that they're going to make a big strike that they can sell to a large corporation for millions. These pitiful pieces of human flotsam live in backwater towns near their diggings, or commute on weekends from Phoenix, Los Angeles and other cities to the backcountry. Although these little guys have made virtually no large strikes, they seem to be everywhere in the West and can be enormously destructive to wild country as they prospect. They are also likely to poach, trap or pursue other unsavory habits. They are vocal and potentially violent opponents of Wilderness designation and other "lock-ups."

Medium to large corporations do the real mining. They have professional geologists, use sophisticated methods to locate

potential ore bodies, and carry large exploration budgets. Although financially and institutionally better able to practice mining and reclamation in a less environmentally destructive manner than small miners, they are not inclined to do so unless forced. Mining companies have considerable political clout in the Western states, and they and their lobbying association, the American Mining Congress, are powerful opponents of Wilderness and National Park designations, arguing that all the public lands must remain available for more sophisticated prospecting techniques which will be developed in the future so they can patriotically produce the strategic minerals America needs to hold the worldwide godless communist conspiracy at bay (no exaggeration!).

A national effort to replace the 1872 Mining Law with a lease and royalty system, having environmental safeguards, failed in the late 1970s due to pressure from both types of miners. National conservation groups are again considering such a campaign. It is long overdue. Even more overdue is a ban on mining in all remaining wild (roadless) areas.

Energy Extraction

Unlike hard-rock mining, energy extraction (oil & gas, coal, tar sands, geothermal) on the public lands by private companies is governed by leasing. Leasing, in contrast to claiming, returns fees to the federal treasury, and does not transfer ownership of the land from the federal government. It is based on several laws more recent than the 1872 Mining Law. Although the Secretary of the Interior has considerable discretion in leasing, the federal government (especially under the Reaganites) has been enthusiastic to lease as much of its land as possible to the few giant corporations (Exxon, Mobil, Shell, Chevron, Union, Getty, etc.) that dominate all facets of the industry.

Exploration for oil & gas begins with seismicographic crews, who use explosives or "thumper trucks" to produce vibrations in the ground. Subterranean echoes are then read on monitors to determine where potentially favorable geological formations exist. Because each of several competing companies carefully guards its information, sometimes a dozen different seismic crews go over the same terrain. Their blasting disturbs wildlife, and thousands of miles of road have been bladed through Western wildlands for thumper trucks.

After a favorable formation is found and

an exploration lease obtained, exploratory drilling begins. Roads are built into wild areas, drilling pads are cleared, and oversized drilling rigs are set up for several weeks or months. The roughnecks who work on such crews are often ORVers, poachers, pot hunters and other unenlightened users of the wild. Even if a strike is not made (a dry hole), exploration roads frequently become part of the permanent road system of the National Forest or BLM District, and provide access to wild country for the motor-bound public.

If a strike is made, more wells are drilled, roads built, pipelines constructed and pumping stations installed until dozens of square miles of public land become an industrial complex, and Elk, bear and other critters are displaced. Such is the scenario for hundreds of thousands of acres of roadless country in the so-called Overthrust Belt of the Central and Northern Rockies.

Geothermal leasing, exploration and extraction generally follow the same pattern as that for oil & gas. Coal (usually strip mined) is a leasable mineral on the public lands. It is a threat to wilderness primarily in Utah (as are tar sands).

Dams and Other Water Developments

Some of the most remarkable wildlands and rivers in the United States have been flooded by dams and their reservoirs. Glen Canyon, Hetch Hetchy and much of Hells Canyon have been drowned beneath stagnant reservoir water. Only all-out national campaigns by conservationists have prevented dams in the Grand Canyon, Dinosaur National Monument, the Gila Wilderness and the remainder of Hells Canyon. Dams on the Columbia River have decimated salmon runs in the wildernesses of the Northwest and Central Idaho. Upstream dams on the Colorado, Green and Rio Grande have severely affected wildlands downstream.

These dams have been built by the Army Corps of Engineers, Bureau of Reclamation and Bonneville Power Administration for electric power generation, flood control, irrigation and "recreation."

The era of giant dam building in the United States is coming to a close and only a few large roadless areas are threatened by future construction. A new threat, however, is that of "small hydro" — the construction of small dams and powerplants to produce electricity from thousands of small rivers and streams which are often in the wilder corners of the National Forests. As encouraged by the Public Utilities Regulatory Power Act (PURPA), the Federal Energy Regulatory Commission (FERC) can issue permits to private individuals for such projects. Applications threaten dozens of roadless areas — mostly on the West Coast.

The best tool for protecting free-flowing rivers and streams is designation as part of the National Wild & Scenic Rivers System or a state river protection system. The national system was established by the 1968 National Wild & Scenic Rivers Act; many state systems have since been established as well. Although Wild & Scenic River designation has been inadequately utilized during the past twenty years, conservationists are gearing up a major new national campaign. Inclusion in the system generally places only a quarter-mile wide zone on each side of the river under protection, but it does protect a river from dams and other development that would modify its free-flowing character.

Powerline and Pipeline Corridors

Associated with the extraction of energy sources is the construction of pipelines, powerlines, coal-fired power plants and so forth. Powerlines and pipelines slice across the backcountry and divide many units of the Big Outside from one another. Irrigation canals, aqueducts and powerlines from hydropower and water storage dams cut across many remote sections of the country, dividing large roadless areas from one another. More lines are projected, and new transmission corridors will be proposed through large roadless areas.

Slob Hunting

I am a hunter, and offer no apology. Hunters have been among the most effective wilderness and wildlife conservationists. This does not negate, however, the impact of the slob hunter (and of poor public policy catering to slob hunters) on wildlife and wildlands. The popular conception of the hunter as a fat, drunken bumpkin or urban good ol' boy cruising the backwoods in a jeep, armed with little natural history or appreciation of nature but plenty of ammu-

munition, is all too true. Slob hunters fall into several categories:

1) The market hunter. A booming black market exists for body parts of Black Bears (gall bladders, paws), Elk antlers and teeth, Grizzly claws and skins, etc. for practitioners of oriental medicine, collectors and other sexually-deficient oddballs. Big bucks can be made both by individuals and well-organized rings. Over-worked game wardens catch only a handful of these dangerous criminals.

Apologists for hunting claim that no species has become extinct because of hunting. In reality, market hunting and "game hogging" for American Alligator, Bison, Gray Wolf, Elk, Bighorn, Passenger Pigeon, Wild Turkey and numerous species of waterfowl and shorebirds played a major role as did habitat destruction in extirpating or drastically reducing these species.

2) The road hunter. This is the stereotypical hunter. He wants to drive his jeep, trail bike or ATV to where he'll shoot his freezer meat or anything else that moves. He opposes designating Wilderness Areas because he can't drive in them. He doesn't like predators because they're eating his deer, Elk or Moose. The Arizona Wildlife Federation, for example, generally opposes Wilderness designations because it largely represents this type of hunter. On the other hand, the Idaho Wildlife Federation supports more Wilderness than does the Sierra Club because it's made up of *real* hunters — men and women who know that wilderness provides hunting at its best.

3) The "gut hunter." These fellows shoot at any game they see, regardless of the distance. Firing countless rounds at an Elk or deer several hundred yards away, gut hunters miss more often than not. Too often, however, they succeed in gut shooting a critter which then wanders off to die in agony.

4) The poacher. These people also need roads. They shoot without respect, and outside the law.

5) The trophy hunter. Some trophy hunters are conservationists and support protection of the land. Others, such as many in the Foundation for North American Wild Sheep, want to eliminate predators and have road access everywhere. Trophy Bighorn Sheep hunters are usually wealthy, and are leading opponents of Wilderness designation for areas in the California Desert and in Arizona National Wildlife Refuges. Other sleazy trophy hunters concentrate on Mountain Lion, Grizzly and other top level predators.

6) The trapper. Trapping is legal and encouraged by fish & game departments in most states. Not only is it cruel, but it is usually done from road or ATV. Trapping targets Bobcat, Lynx, Marten, Mink, Fisher, River Otter and other predators with low reproductive rates. Trapping upsets the normal predator-prey balance. Trapping caused the near-extirmination of Beaver from much of the United States, and trapping today continues to keep Beaver populations at an unnatural low. (Trapping by Native Americans in Canada and Alaska is arguably another matter.)

7) The "put-and-take" fisherman. While flyfishing for native, naturally reproducing fish is one of life's higher callings, many fishermen just want to catch their limit (or exceed it if no game warden is about). They are a powerful lobby which has created a fish farming orientation among state wildlife agencies. Non-native, hatchery-reared fish which compete with natives have been introduced throughout the United States. Put-and-take fishermen have caused the introduction of trout to many high country lakes and tarns in Wilderness Areas that did not naturally contain fish. This has upset delicate aquatic ecosystems. Lake and riverine fauna has been more transformed than any other in the United States. Put-and-take fishermen have been as much to blame for this as have polluters and dam-builders.

Slob hunters of all flavors oppose Wilderness designations, create roads, kill excessive numbers of wildlife, and help turn the backcountry into a game farm.

Wildlife "Management"

The US Fish & Wildlife Service and state game & fish departments are partially composed of outstanding professionals who love wildlife and wilderness. They are disciples of Aldo Leopold, who founded the science of wildlife management and argued for the "land ethic." Unfortunately, many wildlife agencies are controlled by political appointees who represent slob hunters or welfare ranchers, and are staffed by arrogant bureaucrats who believe in running game farms on the public lands for their constituency —

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A rancher's fence takes its toll on wildlife on the public lands in southern Arizona.

Photo by Charles A. Hedgcock, BHP

Destruction of Wilderness. . .

continued from page 21

road hunters and put-and-take fishermen. This kind of wildlife manager supports clearcutting, vegetative manipulation, predator control and roads because these often favor weed species like deer or provide hunter access. This kind of wildlife manager stocks lakes and rivers with exotic fish or hatchery-reared fish because such stocking sells licenses and brings more money to the department. This kind of manager promotes hunting of top level carnivores such as Mountain Lion and Grizzly because politically powerful ranchers and trophy hunters demand it. This kind of wildlife manager releases non-native birds like pheasant and Chukar because quail and grouse don't provide enough hunting. In bizarre cases, such as occurred with the New Mexico Game & Fish Department in the early 1970s, exotic species such as Oryx, Barbary Sheep and Iranian Ibex have been released on the public lands to create huntable populations for which high license fees are charged.

Of course, we must understand that any bureaucracy promotes programs that create work for itself. Not until wildlife managers realize that their job is not to maximize the production of deer, pheasant, trout or other "desirable" game species, but to maintain wildness and native diversity, will the profession live up to the standards Aldo Leopold established for it.

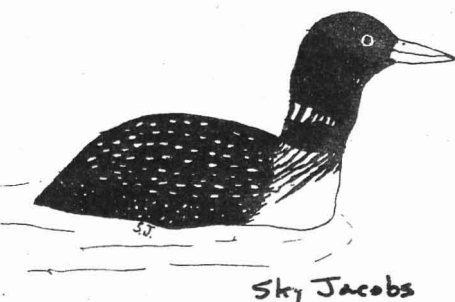
Eradication of Species

With rare exceptions, every ecosystem in temperate North America has lost key species. In the East, Cougar, Grey Wolf and Elk have virtually disappeared. In the heartland, Bison, once 60 million strong, are gone. In the West, Grizzly and Gray Wolf have been largely extirpated. Along the northern border, Wolverine, Woodland Caribou, Lynx and Fisher are ghosts, lingering only in the wildest places. In the Southwest, the tropical cats (Jaguar, Ocelot, Jaguarundi) are shadows seldom seen. Bighorn Sheep, Black Bear and Wild Turkey have been severely reduced in number wherever they once ranged. Riparian systems have had their native fish and invertebrate faunas so altered that exotics now dominate. Without the sensitive, wilderness-dependent species, wilderness is a hollow shell. Without the top carnivores, the dynamic balance no longer exists. What will become of the deer without the wolf to whittle its swift legs? Is the mountain still alive without the bear?

Extirpation of native species is perhaps the most insidious tool of wilderness destruction. For conservationists, it is not enough to merely protect the land from the bulldozer and chainsaw. We must return the rightful inhabitants to their homes. As Lois Crisler wrote, "Wilderness without wildlife is just scenery."

Introduction of Exotics

As native species have disappeared, as the balance has been upset, exotic, weedy species have invaded, thereby changing whole ecosystems. Fragmented ecosystems, with smaller cores and greater area in "edge" conditions, are highly vulnerable to invasion by such species. Many of these exotics were deliberately introduced by unthinking people. Most of the grasses in California are exotics. The salt cedar (tamarisk), from the Middle East, crowds out cottonwood and willow in the Colorado and Rio Grande drainages. House Sparrows, Rock Doves, Starlings and Chukars have taken over the air and fields in many places. Spotted Knapweed chokes out native grasses in the Northern Rockies of Idaho and Montana. Alfred Crosby, in his brilliant and groundbreaking *Ecological Imperialism*, argues that we have created "Neo-Europes" in temperate areas around the world. The deliberate and criminal introduction of Crested Wheatgrass by the BLM in the Great Basin is probably the major current attack on the Big Outside from this angle.



Suppression of Wildfire

Naturally occurring wildfire (generally started by lightning) is an important component of most ecosystems in the lower 48 states. Periodic fire is necessary to cause certain seeds to sprout, recycle nutrients, maintain prairies, thin out vegetation and accomplish other ecosystem services. The suppression of wildfire (the "Smokey the Bear Syndrome") has degraded wildernesses throughout the country. The fires that raged through the Pacific Coast forests in 1987 and across Yellowstone in 1988 were simply inevitable natural events which accomplished much ecological good. The Forest Service and Park Service have begun to acknowledge the valuable role of fire in wilderness ecosystems and have, in some cases, established "let burn" policies for natural fire in Wilderness Areas. Unfortunately, when commercial timberlands or private property outside the Wilderness are threatened, full-scale fire control, including bulldozers and slurry bombers, is unleashed. Fighting a forest or grass fire is nearly always more destructive than letting it burn.

Off-Road-Vehicles (ORVs)

Twenty years ago the problem of ORVs scarcely existed. Jeeps, four-wheel-drive pickups, dirt bikes and snowmobiles were rare. Motorized tricycles and other all-terrain-vehicles (ATVs) were not invented. Today, however, millions of these infernal machines are piloted by boys trying to exorcise the demons of their puberty, or by soft men and women wanting to "get into the backcountry" to hunt, fish, trap, poach, treasure hunt, prospect or camp. ORVs destroy vegetation, disrupt wildlife, erode the land, foul streams and air, and provide access to pristine areas for people who do not respect such places. Barry Goldwater may be correct in calling ORVs "the Japanese revenge."

The disturbing question is, "Why do land managers allow ORVs?" Both the BLM and Forest Service have full power to restrict or prohibit off-road travel. Presidents Nixon and Carter each issued Executive Orders giving federal agencies explicit authority to control ORVs. The vast majority of the over 300 million acres of National Forest and BLM land in the lower 48, however, is open to ORVs — not just on jeep routes or dirt bike trails, but *cross-country*. ORVs carve thousands of miles of new low-standard roads into roadless areas of the public lands every year. At the very least, vehicles should be restricted to designated roads with all cross-country travel absolutely banned.

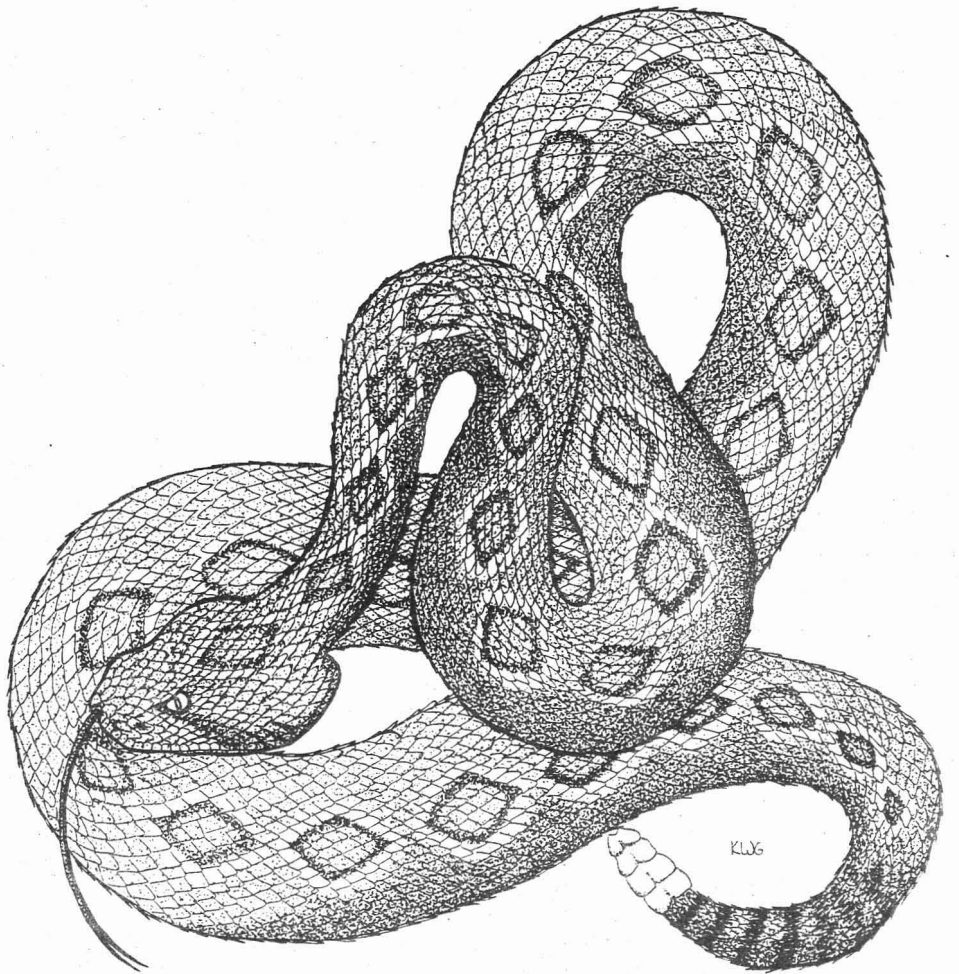
Why is this not done? Two reasons come to mind. First, many FS and BLM employees and managers use ORVs in the backcountry themselves, and therefore identify with other recreational ORV-ers. Second, ORV-ers are well organized and vocal. They scream bloody murder when they are restricted in any way from exercising their "constitutional rights" to drive wherever they wish. Although the public dislikes ORVs and their use on the public lands, this rude minority gets its way.

Four-wheelers, dirt bikers and other motorized recreationists present the strongest opposition to protection of the California Desert. They represent a large anti-Wilderness constituency in other areas as well. Snowmobilers are a similar stumbling block to protection of wildlands in the northern states and Rockies.

Industrial Tourism

Outdoor recreation has become a big business. Large corporations, land developers, and small businessmen operating in National Parks (concessionaires) and "gateway" towns (including local chambers of commerce) have exploitative attitudes toward wildlands that rival those of loggers or miners. National Park administrators rank their "success" by the number of visitors they host (as indicated by Yellowstone NP's declaration that they plan to heavily advertise to get visitation up again after the adverse publicity of the 1988 fires). A large number of outdoor recreationists loathe "roughing it" and demand full hookups (electricity, water, sewage) for their travel trailers or motor homes — Recreation Vehicles (RVs).

RV campgrounds, condominiums, second home subdivisions, resorts, golf courses, ski areas, tennis clubs, recreational reservoirs, marinas, scenic highways, visitor centers, motels and access roads serve these industrial tourists. In doing so, they usurp prime winter habitat for Elk and Bighorn, cause (indirectly) the death of Grizzly (in Yellowstone and Glacier), create air pollution and traffic jams in remote areas, replace native vegetation with exotics, destroy wild rivers and streams, overfish and overhunt (thereby encouraging the game farming mentality), and bring far too many inexperi-



enced people into delicate ecosystems.

Large roadless areas are threatened by ski area development in California and Colorado; ambitious wilderness recovery plans are being torpedoed by condos and recreation subdivisions in New England; the survival of the Grizzly in Yellowstone is jeopardized by RV campgrounds; and water skiers zip over the drowned Glen Canyon. In every section of the country, wilderness and wildlife are trampled underfoot by various manifestations of industrial tourism.

The National Park Service has many fine employees (as do the Forest Service and BLM), people who value the wild and answer a calling to protect it. Unfortunately, some of the top administrators have lost touch with the wild nature their Parks were established to preserve, and have become, in many cases, leading threats to the Parks. Developments such as Fishing Bridge and Grant Village, and arrogant mismanagement of Grizzlies have disrupted the ecological integrity of Yellowstone National Park. The tacky urban center of Yosemite Valley is a national disgrace. Commercial outfitters dictate policies on river running in Grand Canyon and other Parks and lock out private boaters. Corporations offering "scenic overflights" are given free access to skies over Parks by Park Superintendents who enjoy buzzing around in helicopters, too. Concentrating on scenic views and visitor services, Park Superintendents have allowed development in sensitive ecosystems. The primary constituency of the Parks is not the residents — wildlife — but local chambers of commerce, concessionaires and the motorized tourist. Indeed, concessionaires (often subsidiaries of multi-national corporations) have largely usurped management of popular Parks from the Park Service, and run them to maximize their profits.

Unless the National Park Service can get back on track with a philosophy of ecosystem management, and kick out the concessionaires, the National Park ideal which the United States gave the world will become a cruel hoax.

Wilderness Recreation

One would think that those who take the time to hike, float or horsepack into Wilderness Areas would seek to protect the pristine quality of the land. Most do, but a minority, often locals on horseback but sometimes urban backpackers, shows no respect to the Wilderness. Fire rings without number, semi-burned aluminum foil, toilet paper "flowers," hacked green trees, empty Coors beer cans, discarded fishing line, soap in streams and lakes, horse tethering in campsites or hobbling around lakes — all are the calling cards of wilderness slob. In extreme cases, commercial hunting guides

and packers establish semi-permanent Wilderness camps which resemble small towns. Some outfitters have even packed in prostitutes to service hunters in places such as Wyoming's Teton Wilderness Area.

Wilderness recreationists who fail to practice sensitive backcountry ethics should be fined and banned for specific periods from entering Wilderness Areas. Commercial outfitters should be carefully supervised, and have their permits yanked for trashing Wildernesses. The FS, BLM, FWS and NPS need to hire more (and qualified!) Wilderness Rangers to enforce proper backcountry use.

By chopping large ecosystems into smaller pieces, not only do these pieces become extremely vulnerable to disruption, but they can no longer support the full array of native animals and vegetation that they once supported as larger areas. Understanding the factors that cause the destruction of wilderness is the first step to preventing such destruction. None of the remaining roadless areas in the United States is large enough to stand alone. None is large enough to maintain the minimum viable populations of wide-ranging carnivores. Identifying the remnants of the Big Outside in the lower 48 states is the first step toward restoring healthy wilderness ecosystems.

In 1956, conservationists accepted a compromise on the Colorado River Storage Act which cancelled a huge dam on the Green and Yampa Rivers in Dinosaur National Monument in favor of one on the Colorado River at Glen Canyon. Except for a few pioneer river runners like Ken Sleight and Katie Lee, no one objected. The conservationists who made that compromise knew the canyons of Dinosaur but they didn't know Glen Canyon. David Brower has said that that compromise was the greatest mistake he ever made. It was the tragedy of "the place no one knew." The damming of Glen Canyon cut the heart out of the largest roadless area in the United States.

Other great roadless areas have similarly been destroyed because they were unknown. The southern Nevada desert, described by Bob Marshall as the finest desert wilderness he ever visited, also was neglected. It became an atomic bomb testing range. In too many other cases, conservationists have not fought for areas, large and small, because they were known merely as blank spots on maps.

It is the purpose of THE BIG OUTSIDE to prevent that from happening again. With its publication, the largest roadless areas left in the United States have been delineated and described. May we never again lose the place no one knew!

TRUE FOREST SERVICE REFORM

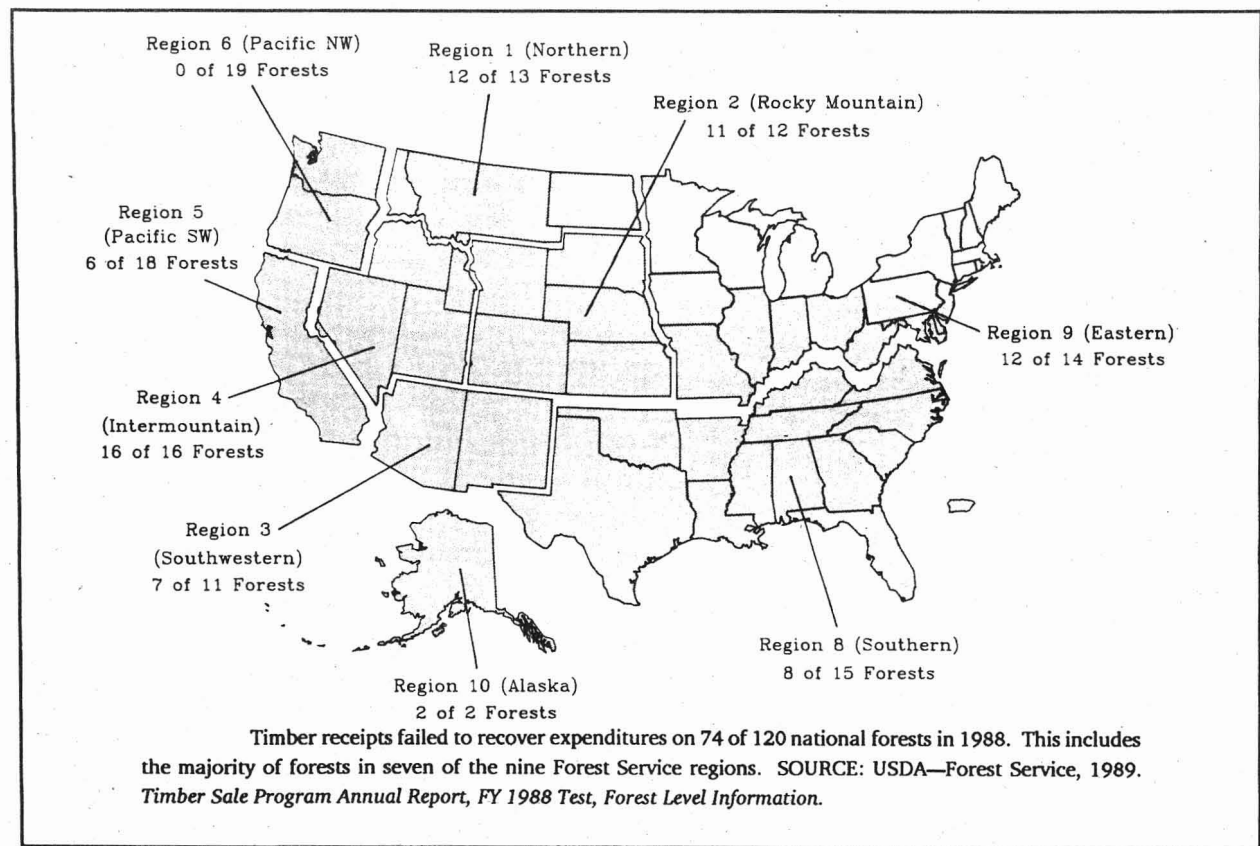
by Jamie Sayen, PAW

The time has come for Earth First! to advance its proposal to "Reform the Forest Service." In the Appalachians, where 10% or less of the region's wood fiber comes from National Forest lands, the solution is obvious: NO MORE COMMERCIAL LOGGING IN NATIONAL FORESTS.

This is the appropriate solution for all National Forests nationwide. In 74 of the 120 National Forests, timber receipts failed to recover expenditures in 1988. According to US Forest Service estimates, only 12-15% of the wood fiber cut in the entire United States comes from National Forests. Elementary conservation measures could reduce waste by at least that amount. EF! should lead the way in calling for an end to all commercial logging on all public lands.

The National Forest lands should become cores for Evolutionary Preserves [see Jeff Elliott's article]. Subsequently, ecologically appropriate restoration practices will be permitted, but human-centered activities — grazing, mining, logging, ORVs, etc. — will be banned.

At a conference in Asheville, North Carolina, in October, several participants concluded that the 3.5 million acres of NF lands in the region must become the core of a regional wilderness [see Robert Zahner's article]. The purchase boundaries of the NFs must be expanded to include: all native



Reprinted with permission from the Wilderness Society's *The Uncounted Costs of Logging*.

ecosystems in the region; riparian corridors to other wilderness areas, including the biggest wilderness of all, the ocean; and corridors that link the Southern Appalachians with Florida and the Central and Northern Appalachians. East-west corridors must also be identified. Ecologically sustainable logging and sustainable, value-added industry will be permitted in the buffer zones surrounding the Preserves. There will be no more unmilled exports. Profits will stay in the local economy.

In the Northern Appalachians, National Forests account for less than 5% of the wood fiber cut in the region. As these forests reach economic maturity (but not biological

maturity), pressure is growing from industry and FS bureaucrats to increase the pace of cutting. PAW is currently designing a "Greenline" for a Northern Appalachian Evolutionary Preserve (NAEP). A critical component is the one million acres of National Forest in the region.

In the West, where greater percentages of the regions' wood fiber come from National Forest, the end of logging in NFs would be more noticeable. Yet even on the westside forestland in the Pacific Forest Province, only 22.5% of softwood sawtimber cut comes from NFs.

This reform will force industry to practice truly sustainable logging on its own lands because it will lose its "insurance policy" — public lands. In the past, industry has trashed its own lands because it knew it could rely on the FS to bail it out by opening the National Forests.

As to the alleged economic disruption, a sustainable economy cannot be based upon ecological abuse. If we keep subsidizing the timber industry, our remaining intact public lands will soon look like the industry lands in northern Maine, Crown Lands in British Columbia, and other clearcut lands all over the globe.

In place of land raping, we propose a radical reduction in the consumption of forest products — no more redwood picnic tables for L.A. yuppies; no junk mail, pampers, biomass boilers, or monoculture plantations. We need to implement non-toxic paper recycling. Above all, we must stop the colossal waste of trees by mechanized harvesting and by slop consumption.

The state eventually removes victims of child abuse from abusing parents. We must demand that the government likewise confiscate public and private lands from forest abusers.

BIODIVERSITY REPORTS

Congress Considers Biodiversity Bill

The National Biological Diversity Conservation and Environmental Research Act (HR 1268) would establish a national policy for the conservation of biodiversity. The Earth First! Biodiversity Project considers this legislation an essential first step in fostering a national awareness of the extensive species endangerment, ecosystem degradation and fragmentation, and corresponding decline of natural diversity in the United States.

Over 6000 species and natural communities are biologically threatened in the United States. This estimate consists of species with global rankings of G-1 (critically imperiled globally because of extreme rarity) through G-3 (very rare), and includes native vertebrate, invertebrate, and plant species.

HR 1268 would support environmental research and training necessary for conservation and sustainable use of biotic natural resources; establish mechanisms for carrying out the national biodiversity policy; and facilitate the collection, synthesis, and dissemination of information needed for these purposes.

It is clear from our experiences with the US Forest Service and Bureau of Land Management that existing conservation laws are not adequate to prevent species or their ecosystems from becoming endangered. Not surprisingly, top bureaucrats from the Forest Service, BLM, and many other federal agencies have testified against this bill. One reason may be that HR 1268 would require that full disclosure of all development impacts on biological diversity be included in environmental impact statements.

Fearing that this act would disclose the biological price this country is paying for allowing resource extraction to dominate federal lands, organizations such as the Wildlife Legislative Fund of America are working hard to defeat the bill. Many "sportsmen" organizations also oppose the bill, since its passage would expose the real impact on natural diversity of trapping and hunting on our National Wildlife Refuge System.

Activists should write their congresspersons in support of HR 1268. Address senators at US Senate, Washington, DC 20510; representatives at House of Representatives, DC 20515.

—Jasper Carlton

FS Ecosystem Management Review Initiated

The Earth First! Biodiversity Project has begun a review of US Forest Service policies and implemented regulations regarding the identification and protection of ecosystems. The analysis will concentrate on 37 representative National Forests across the country, most of which are critical components of large natural diverse ecosystems such as the Greater Yellowstone, Northern Continental Divide, Gila/Aldo Leopold, and Klamath Knot/Siskiyou. The Project will look at the appropriateness and effectiveness of the ecological classification systems employed by each of the 37 Forests and also the degree to which each is applying the latest FS guidelines pertaining to the preservation of biodiversity. Despite the alarming increase in the number of species classified as sensitive, or recognized as being biologically threatened or endangered on the National Forest System in the past five years, the agency has been slow to adopt a multiple-species or ecosystem approach to the preservation of natural diversity.

—Jasper Carlton

WV Continues Paddlefish Harvesting

While West Virginia anglers proudly have their pictures taken with snagged Paddlefish in the bait shops along the Ohio River, the West Virginia Department of Natural Resources refuses to remove the rare and biologically threatened Paddlefish (*Polydon spathula*) from the state's legal-take sport list. This, despite the best scientific information available indicating the species is on the threshold of extirpation from West Virginia waters.

The Paddlefish is now the subject of a formal petition for listing as Threatened under the federal Endangered Species Act, yet the state of West Virginia allows its "sportsmen" to kill the fish. The Earth First! Biodiversity Project has been working to change this policy and has advised the West Virginia governor that the continued failure of the state to protect the Paddlefish could jeopardize federal funds the state receives under cooperative wildlife agreements.

Please write West Virginia Governor Gaston Caperton, State Capitol, Charleston, WV 25305, expressing your outrage over the situation. Tell him you will not visit or purchase products from the state until its Paddlefish are protected.

—Jasper Carlton

EVOLUTIONARY PRESERVES A Greenline Approach

submitted by Preserve Appalachian Wilderness

ed. note: The following essay is a preliminary part of a wilderness proposal being developed by PAW for the forests of northern New England and northern New York. PAW coordinators Jamie Sayen and Jeff Elliott have been advocating this Greenline approach with great success at Northern Forest Land Study (NFLS) hearings throughout New England recently. Indeed, mainstream environmentalists have endorsed a Greenline approach, albeit a less visionary one than PAW's, for the Northern Forests. For information on the NFLS, see Jamie Sayen's articles in past issues of the Journal.

If the northeastern forests are ever to know the roar of the Panther, if the headwaters of our rivers are to receive communications from the ocean carried by the Atlantic Salmon, we must change our ways now. We must adopt a respectful, biocentric land ethic; and designate and protect preserves with evolution as our mandate, for nothing less than the process of evolution is at stake.

To begin, we must ask what are the health needs of this region. The ecological needs of the Northern Appalachians can only be met by the creation of large areas — Evolutionary Preserves — where the wilderness of the biota can dance through evolution. Though the eastern United States is densely populated, some of this country's largest and healthiest biosystems survive here. Unfortunately, these are also some of the most threatened.

Greenlining is the best method to protect the health of regional Evolutionary Preserves. [That is, we should draw a Greenline around the forested region of northern New England and northern New York, such as New York has drawn its famous Blue Line around the Adirondacks, and preserve the lands within.] Greenlining allows for cohesive, region-wide strategies to protect biodiversity and natural processes, and it offers the best method for developing local, sustainable human communities. Greenlining must not be seen as a purely utilitarian trick, such as to make it easier for Congress to pass tax subsidies for the timber industry that benefit industry only in the NFLS region's four states.

Below we list and then discuss goals and methods of establishing Evolutionary Preserves. These goals and methods are designed with the forests of Maine, New Hampshire, Vermont, and New York in mind, but apply equally to other regions.

Goals:

1. A healthy regional environment, as measured by biological and ecological diversity, stability, and dynamic equilibrium.
2. Continuity of healthy biological communities.
3. Reestablishment of extirpated species and the stabilization of populations based on dynamic equilibrium.
4. Sustainable low-impact human interaction with the biotic community, based on a biocentric ethic.

Methods:

- A. Establish large Wilderness cores representing all habitat types, connected by corridors and surrounded by wide buffer zones.
- B. Identify habitat and landscape types.
- C. Develop a biocentric land ethic.
- D. Restore damaged habitats in an ecological manner.
- E. Stop acid rain, global warming, ozone depletion and other anthropogenic environmental stresses on the biosphere.
- F. Reduce human population to a level below the carrying capacity.

Discussion of Goals:

1. A healthy regional environment.

Intact biological diversity is the full complement of indigenous species and varieties living in equilibrium. Ensuring this means all species native to the land will be given equal consideration, and restoration efforts will be directed toward ecosystem health, not manipulation for desired species like White-tailed Deer and Red Pine. Restoration efforts will restore ecological health through succession and evolution. Extirpated species will be reintroduced only when natural immigration is not possible; and only the most appropriate genotype available of the reintroduced species will be used.

Intact ecological diversity is the full complement of habitat types naturally found in a region. These will be identified and restored to approximate the undis-

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Vermont's Last Frontier

Holland, VT: I have finally come to the other side. Since moving to Holland in July, I have watched the ridge just east of my hilltop home, knowing that the far side was a rare kind of place for Vermont, a place where cows and sheep and people do not dominate, where a loon or moose might quench its thirst in the waters of a lost lake. I have come now, on this cloudless autumn day, to find the lake where no road leads, where no houses dwell and no boats are rented.

There is drama in the change from west to east in Holland. It begins with open, sprawling farms, domestic as a dog and smelling of manure, and ends with the last wild land in Vermont, smelling of balsam fir. It is this eastern edge that feeds me like a mother, soothes me in the night when nothing else can.

The lake is known simply as Beaver Pond. It is possibly Vermont's northernmost wild lake, only a stone's throw from the irrelevant national border that cuts through the woods. Access to the lake, if done legally,

means walking. It is part of the Hurricane Brook Wildlife Refuge and no vehicles are allowed, at least according to an abused and ignored sign that hangs before Amy and me in an aspen tree. We walk in the tracks of a three-wheeled ATV, its future uncertain should I find it unattended.

We hear only the sounds of nature in the raw, impromptu and imperfect, thankfully. Perfection implies completion, and nature, however we choose to define it, is never complete. It is as mercurial as a sunset, no goals to achieve, no agenda to complete. It just is, and that is what feeds me. I can come here and die, and all of the knowns and unknowns of nature will absorb me, but it will not care. How else could such a universe endure?

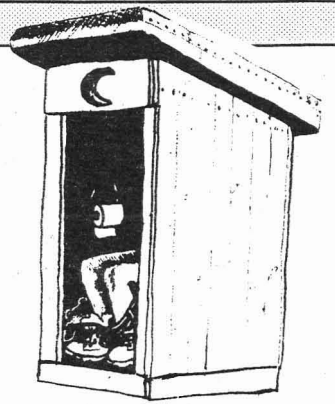
We walk onward, through the classic smell of northwoods for a few serpentine miles. We pass a small pond of 15 acres or so, shallow and wild, and wait for a moose that never shows. Only the muddy tracks assure us that moose are here. We leave behind the tracks of moose and man (and woman), and

wind further through the woods until finally seeing the shimmering waters of the border lake glisten through the trees.

It is a rare and precious form of excitement to come upon a wild lake for the first time, after walking several miles and emerging from the forest to look out across the water. The beautiful basics are here: wind, water, sun, rock, the forest, and a pair of loons. It is as though we were a thousand miles west in the Boundary Waters of Minnesota. But over the distant ridge are the farms of Holland, the ubiquitous stench of manure and the drone of mechanized farming. Wolves are missing, too, and this region could use a predator with a taste for cow.

Vermont's nesting loons have dwindled to about 50 birds, and I watch this pair with a sense of both satisfaction and urgency. How many places can you go, Common Loon, now that we've made you and your habitat uncommon? It is time to change your name in Vermont; how about Long Lost Loon?

There are two young loons with the



adult pair. The young ones look small for so late in the season. Did the adults have to re-nest after having their first clutch of eggs destroyed? Eat quickly and heartily, young loons, for the ice is coming and your parents will soon leave you forever.

We walk the wooded, rocky shoreline and find the remains of a burned cabin. Nice as it may have been to retreat to a lakefront cabin, I am glad it is gone, allowing the lake to be truly undeveloped. Why are New Englanders unwilling to make what we have always been taught is a fair compromise: 50-50? Fifty percent of our lakes must be left completely undeveloped, and the other lakes may be developed. Sounds fair to me, though I would rather see a much higher percentage of undeveloped lakes. Lots of cabins and opulent second homes will need to go. Who will make the first move?

Along the south shore we find three aluminum rowboats cached in the woods. The first has been destroyed with an axe, the second has no oars, and the third is lake-worthy (sort of), complete with oars. We drag it into the water, rowing away from the loons.

As I row I begin to feel the voyageur urge to keep on going, as deep as I can go into Vermont's last frontier, portaging and paddling, portaging and paddling. Only a few minutes pass and I have rowed across the lake, from one end of the frontier to the other. There is nothing we can do but return. The sun drops behind the ridge where the other side of Holland lies waiting. There is water in our boat both here and beyond the ridge, and rather than search for the leaks and repair them, we continue to row with dwindling hopes of safe passage to the other side.

—Robert Streever



Evolutionary Preserves. . .

continued from page 23

turbed, pre-Columbian conditions. Landscape manipulation will be limited to restoration necessary to stabilize anthropogenic instability and/or to assure the survival of biotic components.

Stability of population dynamics is a precondition of regional health. The development of parallel trophic structures that provide ecological stability will be encouraged. Biological diversity will be protected and encouraged through ecological stability that allows a maturation process conducive to the evolution of populations—including speciation and natural extinction. Dynamic equilibrium will not be limited to biotic components but will include geomorphic changes that would take place without human intervention, such as stream bed migration and mass movement.

2. Continuity of biome allowing genetic exchange.

The stability and diversity of the biotic systems require that wilderness preserves be large and interconnected, and that all native ecosystems be incorporated into the network. Genetic diversity and exchange define the long-term health of a system. Genetic degradation occurs through unnatural isolation of populations. Dynamics of landscape ecology, such as global climatic fluctuations, and biotic factors such as Beaver dam-building and insect and blight infestations, will not be disrupted by human activities.

3. Reestablishment of extirpated species.

Extirpated species are species that co-evolved with the biotic community and have been displaced by human intervention, not by community eutrophication. Species of concern will be allowed to return to population health in balance with their biotic and abiotic community. This includes sensitive, rare, Threatened, Endangered, and extirpated species (e.g., Gray Wolf, Cougar, Wolverine, Lynx, Caribou, Atlantic Salmon, Eastern Diamondback Rattlesnake, Karner Blue Butterfly), as well as species that, due to human interaction, have unstable populations exceeding their bioregion's carrying capacity (e.g., Raccoons, White-tailed Deer, humans and Spruce Budworm).

4. Sustainable low-impact human interaction in the buffer zone.

Sustainable activities will provide socio-

economic health. Activities in the buffer zone might include organic farming, selective logging, and hunting. Practices that harm the environment, such as pesticide spraying and clearcutting, will not be allowed. Habitat fragmentation will not be tolerated, e.g., damming rivers, creating extensive pastures, or constructing roads.

Discussion of Methods:

Environmental health in this bioregion, and others, can only be attained by adopting a biocentric land ethic. A geographic boundary for this region must be defined. This boundary will be referred to as a Greenline. Geomorphology, microclimates, community dynamics, natural disturbance regimes, and other ecological factors must be addressed when determining zone designation within the Greenline—Wilderness core, Wilderness corridor, or buffer zone. Within the Greenline, ecological health will be attained by the following:

A. Establish large Wilderness cores.

a) Expand the Northern Forest Land Study region by expanding White and Green Mountain National Forest purchase boundaries and eliminating inholdings and fragmenting developments. Extend the region of concern to include other public lands such as state forests, as well as riparian zones leading beyond the NFLS area, and representatives of all ecosystems naturally found within this region. For instance, add the Gaspé Peninsula and New Brunswick in Canada, the Taconics in eastern New York and western Vermont, Mt. Graylock in western Massachusetts, and the Catskills.

b) Establish core Wilderness Areas large enough to allow biological stability of all indigenous species, restoration of extirpated, and unimpeded evolution, succession, eutrophication, and geophysical dynamics.

c) Establish corridors linking Wilderness Areas, critical habitats, riparian zones, and the ocean. These corridors will extend to Canada, the Tughill Plateau (western NY), the Taconics, the roadless areas in the Catskills, and ultimately the length of the Appalachians and beyond. Rivers and riparian zones to the Atlantic Ocean will be protected as wild habitat regardless of how far they extend from core Wilderness zones. Corridors offer pathways for genetic exchange, species migration, and colonization. They

help preserve biodiversity by safeguarding against extinction caused by habitat fragmentation and isolation. They allow extirpated species passage home. Fence row type corridors are not acceptable because they are too narrow to allow for the dispersal of most plants and animals. Riparian corridors are necessary but not sufficient. They are usually too narrow, and composed of few habitat types. These same limitations apply to ridgelines. What is needed are multiple, wide bands of land that contain a diversity of habitats.

d) Establish buffer zones managed with a "conservation" land ethic as opposed to the preservation land ethic of the cores and corridors. Human activity will be low-impact, and may include organic farming, responsible silviculture, work horse breeding, and some regional, benign industry (e.g., value-added wood products).

B. Identify habitat and landscape types.

Intense and continuous inventories of the ecosystems will be conducted. Rather than have agents who inventory salable resources such as gravel, conservation biologists and biocentric landscape ecologists should inventory the geophysical abiotic and the biotic components and study how they correlate, to help assure that long-term health is protected.

C. Develop a biocentric land ethic.

"We abuse the land because we view it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect."

We must heed Aldo Leopold's words. Intrinsic values must take precedence over economic values. Development of a land ethic could be furthered through the public education system and by promoting low-impact economic activity (e.g., advertising local produce, subsidizing sustainable cottage industries). This would not be revolutionary, but rather would reflect the values of the American public and its desire for a healthy environment. Most Americans do not (ethically as opposed to economically) support environmentally destructive industry.

D. Begin ecologically appropriate habitat restoration.

The restorative powers of natural systems, not intensive management, will always be favored. Restoration efforts will be restricted to activities that stabilize anthropogenic degradations. Activities that suppress regeneration through natural succes-

sion will not be tolerated unless inactivity would be detrimental to critical systems or endangered species.

E. Stop acid rain and global warming.

Although largely the by-product of industrialization and development, these problems affect all regions of the globe, including the polar regions. Restoration will never succeed unless global problems are addressed on both a local and global scale. Global warming and acid deposition produce environmental stresses greater than any in undamaged ecosystems. As a result, evolutionary adaptation cannot keep up with environmental degradation. There are only two options in response to environmental stress: adaptation and extinction. Habitat fragmentation and destruction, and global warming, acid deposition, and depletion of atmospheric ozone, are interacting synergistically to destroy life on Earth. Solving all these problems is key to the survival of life.

F. Reduce human population.

Though human activity will be minimal in the Wilderness cores and corridors, the buffer zones will support human communities. Zoning regulations and natural attrition will reduce the ecological demands of human populations. A biocentric land ethic will redefine human carrying capacity. It will allow a biocentric inclusion of humans within the buffer zones, rather than entailing a misanthropic exclusion of this species. Zero population growth is a goal of many Americans today, but it is no longer enough. Negative population growth must be the goal of each bioregion until it reaches sustainable human population levels.

Conclusion:

The implementation of the Evolutionary Preserve and biocentric ethic should be creative and flexible. Bioregional implementation will include creative use of zoning, such as islands of habitat in rural or suburban areas that would not satisfy the requirements of Wilderness. These areas should be designated as buffer zones and connected by corridors. In urban areas, corridors could be established as Green Ways. Though these would be able to support little in terms of biodiversity, they would help to stabilize and mitigate the environmental degradation of human population centers and would encourage an appreciation of the biocentric land ethic.

The Natural Role of Humans in Wilderness

by George Wuerthner

Many recent wilderness management plans exemplify a tendency to view human presence in wild places as unnatural. This philosophical assumption is based on a mythical and sentimental view of pristine wilderness as it supposedly existed before the arrival of the white man. In this mythical concept, humans never left a mark on the land and lived in "natural harmony and balance."

A reading of early exploration accounts shows how misinformed such a perspective really is. With the exception of some arctic islands and remote tropical jungles, humans lived in all of the world's wild landscapes. These people, without the benefit of modern camping equipment, burned wood for campfires, cut trees for shelter, killed wildlife for food and clothing, and dug up roots and gathered berries for food. They created trails, compacted soils at their campsites, and even set fire to grasslands and forests.

Lewis and Clark did not encounter an untouched wilderness when they crossed the American continent. They frequently met Indians and often found former campsites with teepee rings and campfire ashes. The explorers also noted meadows where the Indians had ripped apart the sod seeking the nutritious bulbs of camas and other wildflowers. (Clark, W. & M. Lewis; 1806; *The Journals of Lewis and Clark*; reprinted 1964, Mentor Books)

During the height of the trapping era, few parties or individuals passed a day without meeting Indians or other trappers. Some of these parties were quite large. Alexander Ross, who led an 1834 Hudson Bay brigade in Idaho, left his winter camp at Flathead House, Montana, with 55 trappers, 25 women, 64 children and 392 horses. Lewis and Clark had a relatively small party of 33 men.

Francis Parkman traveled the Western plains along the Oregon Trail in 1846. On the South Fork of the Platte River, he found "the ashes of some 300 fires among the scattered trees, together with the remains of sweating lodges."

The American West was an inhabited wild place. Humans were as much a natural part of wildlands as the other animals in this region. Even places as remote as Alaska's Gates of the Arctic have been traversed by Eskimos and Indians for several thousand years.

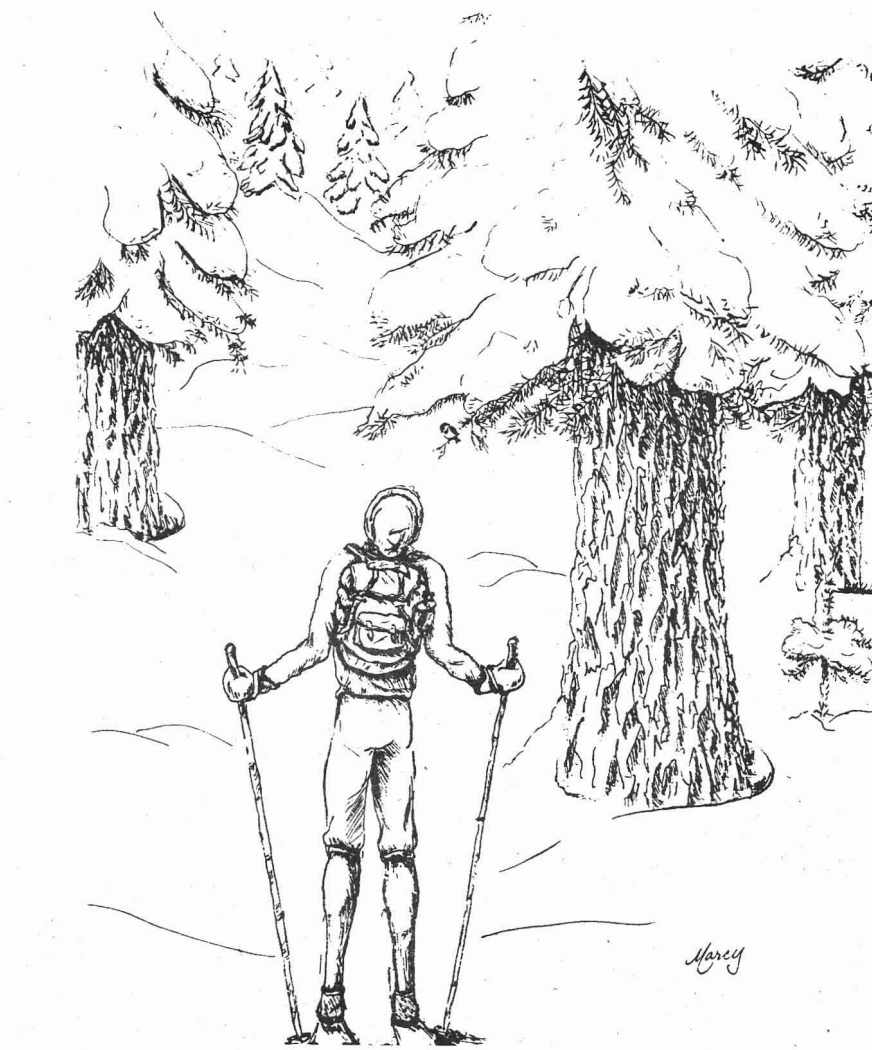
The fur trappers, miners, sheepherders and loggers who followed the early explorers also left their mark on the land, often in ways that make the impacts of today's careful, educated wilderness user look trivial. Mining towns supported up to 20,000 people in parts of what is today Idaho's River of No Return Wilderness. What is now Montana's Bob Marshall Wilderness was dotted with homesteads, logging sites and cattle ranches. Yet these imprints of human use can barely be discerned by present travelers.

Several years ago, I hiked over the famous Chilkoot Pass on the Alaska-Yukon border. In 1898, 30,000 people traveled this route on their way to the Klondike gold fields. Old pictures of the trail show almost complete deforestation, especially in the Lake Bennett area, where wood was used for heating, boat construction and housing. Today, the area looks natural and wild. Even in this "fragile" northern environment, the trees have grown back. The only remaining evidence of past human hordes is garbage. Tons of it. Broken bottles. Rusted machinery. Cans. All, ironically, considered historical artifacts. The National Park Service will fine anyone who tries to clean up the mess. How long will it be before today's beer can is a historical artifact?

Almost every designated Wilderness has a similar history. For the most part, evidence of past human use has disappeared. In light of the historic uses of our wild places, the impact of today's users has to be viewed as insignificant. There is a tendency to look at "micro" impacts and equate them with much larger "macro" environmental damage. The erosion caused by hiking boots is inconsequential when compared to the erosion and sedimentation that result from logging roads, agriculture, mining and even natural processes such as streambank erosion.

Current management concerns in Gates of the Arctic National Park provide a good example of this "micro" approach:

Campfires disrupt delicate nutrient cycles. A two-inch-diameter dead tree in the Arctic may represent 100 years of acquiring nutrients, and be important for decomposition of these nutrients over future centuries... a natural cycle that is altered in only a few minutes when it is used in a campfire. Heat generated by campfires may be



sufficient to sterilize soils, and the nutrients released are concentrated in one small area (National Park Service, Gates of the Arctic General Management Plan, 1985).

All the above statements are more or less true, but the Park Service's interpretation of their significance is exaggerated. It implies that a campfire disrupts natural nutrient cycling. Yet, in the same document, the agency extolls the virtues of "natural" wildfire:

Wildfire has been recognized as a natural phenomenon that must be permitted if natural systems are to be perpetuated.

Park Service managers apparently feel that wildfire will not sterilize soils, concentrate nutrients or alter the natural composition of dead litter as campfires do. Or, if they do believe that these impacts will occur, they seem to consider them acceptable, while the trivial effects of a campfire must be controlled or avoided.

The campfire-versus-wildfire distinction seems to display a poor understanding of ecological relationships or a bias against anything of recent human origin. Neither of these phenomena is outside the normal cycling patterns of natural landscapes. To worry about the environmental consequences of a few square feet of sterilized soil is analogous to fretting about disruption of natural energy cycles every time one kills a mosquito.

The natural ecosystems of the West and far North have adapted or can adapt to campfire effects or the loss of a few mosquitoes without damage to the overall function of the systems. Too many managers equate minor environmental degradation with major ecological disruption; they are too busy looking down and fail to see the larger picture. Certainly, a disturbed campsite with bare soil, a campfire ring and one or two downed trees does not look like a place unaffected by humans. But is it unnatural and inappropriate in a wild place? More important, does it affect the ecological integrity of a wilderness?

Such questions must be answered on a case-by-case basis. A campsite beside a desert watering hole may disrupt the ecological harmony of the place if animals avoid it when humans use the site. On the other hand, though a patch of bare soil on a forested lake shore or a rutted trail across a meadow shows definite human presence, neither destroys the ecological balance of a million-acre wilderness.

Much of the aversion to indications of human use may be a bias we have incorporated in our collective view of what constitutes a wild place. This point was brought home years ago while I was hiking up the Sun River in Montana's Bob Marshall Wilderness. I came upon a series of parallel rutted trails, obviously the result of backpackers and horses. At first, I was appalled. But as I hiked up these human trails, it struck me how similar they are to those made by Caribou in the Alaskan Brooks Range. In fact, the Caribou trails are more extensive. The "fragile" Brooks Range can handle Caribou trails, and the Bob Marshall can handle horse and backpacker trails without a substantial loss of ecological health.

The impact of wildlife, where it is abundant, is often much greater than the impact of the typical wilderness explorer. This might be more apparent if Americans had not destroyed so much of their wildlife heritage. Had not the Grizzly Bear been killed off in California and the Bison driven from the plains, people might find wild places full of trails and trampled meadows. Only in a few areas of the lower 48 states have wildlife populations regained something like their former abundance. Few people have seen Bison or Elk wallows or acres of land cleared by an active Beaver colony. Very few parts of the country are crisscrossed by game trails, and rare is the person who has seen acres of sod and tundra dug up by a foraging Grizzly. These animals and their impacts were widespread in the past.

Examples of this kind of "environmental destruction" can be seen in the northern part of Yellowstone National Park, where wildlife numbers are still large enough to have a visible impact. Likewise, in Alaska, where wildlife is abundant, so are trails, wallows, compacted soils, and trees stripped of bark for food.

Not only do we have a bias against the minor impacts created by members of our own species using primitive living and survival skills, but we are selective about which impacts we notice. Often, I have walked with people up trails, over bridges, past signs, only to arrive at a destination with a campfire ring and a small area of bare dirt. Suddenly their wilderness experience is destroyed by evidence of past human use. It seems inconsistent to view a disturbed campsite as unnatural, while ignoring the artificial conveniences, such as bridges, groomed trails and signs, which allowed the travelers to reach their destination in the first place.

This alienated view of the human place in wilderness is evident in some of the terminology used by management. Wilderness travelers are called *visitors*, implying that people have no real business in such places. Somehow, our collective view of wilderness has created a landscape devoid of humans.

Furthermore, land heals more quickly than many suspect, even in the harsh far North. I worked as a river ranger on the Forty Mile Wild and Scenic River, the site of a major gold rush in the late 1880s. The banks of the river were gouged, and all the timber was cut for heating cabins, melting permafrost and powering dredges. Today, finding evidence of this past mining and associated activity is difficult. It's there, but one must look carefully beneath the lush growth of ferns, birch and aspen.

This is not to imply that recovery will proceed rapidly in all areas. However, current wilderness and park management tends to restrict low impact use, with regulations such as preset schedules, designated campsites and time limits. Such regulation eliminates the most cherished aspect of wildlands travel: the adventure, the intimacy and the spontaneity of wandering in a wild place. Managers frequently point to the language of the 1964 Wilderness Act, which declares wilderness a place of solitude, while overlooking other aspects such as unconfined recreation.

In the Gates of the Arctic, for example, the new management plan calls for a three-day limit at any one campsite (NPS, 1985). Under this plan, Bob Marshall, who championed establishment of this wilderness area, would not be able to explore much of the Park; Marshall often camped for many days at one site. It is difficult to imagine Marshall or John Muir making a reservation with Tickatron, a commercial ticket reservation company, for a wilderness campsite, then stopping at a ranger station for a permit and any warnings about possible hazards.

Associated with the general philosophy that humans are not a natural part of wild landscapes is the idea that regulation is an immediate necessity. Regulations are often implemented without any serious attempt at education: Frequently we see lists of wilderness regulations with no explanation of why they are desirable. Managers should show more respect for people's intelligence by providing informative orientation displays and literature. Unfortunately, this is rarely done, and when their boring and uninformative signs fail, wilderness and park managers embark on very restrictive regulatory systems. Regulations are used as a substitute for creativity.

Management in the Gates of the Arctic has also chosen to regulate the size of groups and even suggested a reservation system for some of the more popular areas. Yet airplanes are still allowed, and, indeed, provide the major form of access to this roadless region. Those who can afford it can be flown into the most remote corners of the park. Instead of restricting airplanes, the Park Service has chosen to limit individual human use. I maintain that such wild places are for people just as they are for deer, Elk, Grizzlies and wolves. They are not places for machines or other forms of high technology.

Restricting airplanes in Alaskan parks would not prevent people from exploring them. Bob Marshall lined a boat up the Alaina River to see the Arrigetch Peaks, an area now used more than any other in Gates of the Arctic. In Marshall's day, it took weeks of lining up the river to reach the area. Today, technology has made such a journey unnecessary.

Attempts by wilderness managers to spread use out over a large area by restricting human numbers at popular destinations may inadvertently increase environmental impacts. For example, recent research has shown that a campsite used 5-10 times has the same impact as one used 100 times or more (Cole D., 1981, *Managing Ecological Impacts at Wilderness Campsites*, *Journal of Forestry* 79). In the Gates of the Arctic, 90% of human use is in five areas. The remainder of this huge park is virtually untouched and thus available to those who desire a genuinely wild unregulated wildlands experience.

The Park Service should continue to concentrate use in the areas where people naturally congregate. This is analogous to concentrating people's impact in towns rather than spreading it out into the surrounding landscape with rural developments.

Wilderness managers seem to believe that all human use is harmful and must be restricted. However, just as a certain amount of wildfire is not detrimental in most ecosystems, a certain amount of human impact does not permanently damage the natural environment. Humans are animals and as such belong in a wilderness environment. It will be a sad day when all wild places are merely museums where people walk through, but are not allowed to touch or interact with the land. Such a scenario can only continue our present trend toward the alienation of humans from all other life.

George Wuerthner is a Montana based freelance writer and biologist who writes frequently for EF! A longer version of this article originally appeared in *Western Wildlands*, a natural resource journal published by the University of Montana School of Forestry. George's views on wilderness regulations and on horsepackers conflict with some other conservationists' views. We have asked Dave Foreman to present his very different opinion of wilderness regulations for a future issue.

ECOCENTRISM AND GLOBAL

by George Sessions

ed. note: The following essay is from a longer essay prepared for The Wilderness Condition conference held in Estes Park, Colorado, August 1989. The longer version will appear in The Wilderness Condition: Essays on Environment and Civilization (Max Oelschlaeger, ed.; forthcoming). Due to lack of space, we have not included the lengthy source list for this essay. For a copy of the footnotes corresponding to the citations in the text, send a SASE to the Journal office in Tucson.

During the 1970s and 80s ecophilosophers have concentrated on issues such as a) whether modern humanistic ethical theory can be "extended" to cover the concerns raised by ecology, or whether a "new" environmental ethic will be needed; b) whether non-human individuals, species, and ecosystems have inherent worth and, if so, how much; and c) whether the existing anthropocentric technological/industrial society can be "reformed" in ecological ways, or whether ecological realities will require a new "post-modern" society based on an ecological metaphysics and world view.

Such issues, in various forms, have a history that can be traced back to St. Francis, Spinoza, and the Romantic movement; and they have received intermittent attention since the 19th century writings of George Perkins Marsh, John Stuart Mill, Henry David Thoreau and John Muir.(38) I submit that an overall consensus has emerged on these issues among ecophilosophers and professional ecologists. That is, modern moral theory cannot be extended to adequately cover ecological situations; non-human individuals, species, and ecosystems have equal inherent value or worth with humans; and a new post-modern non-consumerist society based upon an ecocentric world-view is required. It is now time for ecophilosophers to devote their attention to a new set of more pressing issues: helping to devise, evaluate, and advocate plans for protecting wilderness, wild species, and humans and for easing the transition to an ecocentric world view and society. As we ecophilosophers continue to debate the values of wilderness, the possibilities for a rich diverse world will vanish irretrievably within 20 years unless effective action is taken NOW!

THE LESSONS OF CONSERVATION BIOLOGY

In the 1960s, professional biologists and ecologists, beginning with Rachel Carson, and including Garrett Hardin, Lamont Cole, Raymond Dasmann, Barry Commoner, and Paul Ehrlich, stepped outside their narrow areas of professional expertise and began to warn the public of the impending ecological disaster, and proposed strategies to cope with the problems. The "intellectual activism" begun by these ecologists has now been institutionalized into a new branch of the science of ecology called "conservation biology." Mitch Friedman, co-author of *Forever Wild: Conserving the Greater North Cascades Ecosystem*, says that "Conservation biology considers the application of ecological theory and knowledge to conservation efforts."(39)

Conservation biology has been spearheaded largely by Michael Soule, an ecologist and former student of Paul Ehrlich who has recently worked closely with Arne Naess. Soule refers to conservation biology as a "crisis discipline" which has to apply its findings in the absence of certainty. This new field integrates ethical norms with the latest findings of scientific ecology.(40)

Soule has provided scientific definitions for the terms 'conservation' and 'preservation'. In his usage, 'preservation' means "the maintenance of individuals or groups, but not for their evolutionary change." He proposes that 'conservation' be taken to denote "programs for the long-term retention of natural communities under conditions which provide for the potential for continuing evolution."

Friedman carries this a step further by introducing the concept of "ecosystem conservation." This "involves the preservation of ecosystem wilderness: enough of the land area and functional components — the creatures and their habitat — to insure the continuation of processes which have evolved over immeasurable time."(41) [See past articles in *EF!* on conservation biology by Friedman and by Jared Diamond.]

Skipping over important discussions of island biogeography and ecological concepts such as minimum viable populations (MVPs), we come to the nub of the problem for ecosystem conservation. Friedman explains:

It is not enough to preserve some habitat for each species if we want to conserve ecosystems; the habitat must remain in the conditions under

which the resident species evolved.... To conserve species diversity, the legal boundaries of nature reserves should be congruent with natural criteria. For instance, a reserve may be large (e.g. Everglades National Park) while still not protecting the ecological integrity of the area. Newmark (1985) suggests that reserves contain not only entire watersheds, but at least the minimum area necessary to maintain viable populations of those species which have the largest home ranges.(44)

In the 1970s Soule and fellow researchers examined 20 wildlife reserves in East Africa, including the massive Tsavo and Serengeti National Parks. Friedman outlines their grim projections:

All of the reserves will suffer extinctions in the near future. Their study predicts that a typical reserve, if it becomes a habitat island, will lose almost half of its large mammal species over the next 500 years ... when a habitat island, for instance a national park surrounded by national forest, is reduced in size, the number of species in that island will decrease. The empirical evidence for the relaxation effect is alarming, and reflects the urgency with which we must reevaluate our conservation strategies and remedy the situation.(45)

Edward Grumbine, also a co-author of *Forever Wild*, reinforces this theme:

Newmark (1985) investigated 8 parks and park assemblages and found that even the largest reserve was 6 times too small to support minimum viable populations of species such as grizzly bear, mountain lion, black bear, wolverine, and gray wolf. A recent study by Salwasser et. al. (1987) looked beyond park boundaries and included adjacent public lands as part of conservation networks. The results were the same. Only the largest area (81,000 square km) was sufficient to protect large vertebrate species over the long term ... Virtually every study of this type has reached similar conclusions: No park in the coterminous US is capable of supporting minimum viable populations of large mammals over the long term.(46)

Frankel and Soule claim that "an area on the order of 600,000 square km (approximately equal to all of Washington and Oregon) is necessary for speciation of birds and large mammals."(47)

The inescapable conclusion is this: Along with protecting the ozone layer, minimizing the severity of the greenhouse effect, and stabilizing human population growth, the most crucial ecological task now facing humanity is to devise realistic nature reserve protection strategies, begin their implementation within the next 5 years, and bring about a reorganization of human society consistent with these strategies. Ecophilosophers can play an important role in this process.

Narrowly "rational" scientific approaches must give way to the wider approach that Arne Naess calls "ecosophy" (ecological wisdom). For, as Paul Shepard has claimed, "there is an ecological instinct which probes deeper and more comprehensively than science, and which anticipates every scientific confirmation of the natural history of man." The overwhelming dimensions of the human overpopulation/environmental crisis were seen intuitively by some of the ecologists and radical environmentalists of the 1940s, 50s, and 60s. They tried to sound the alarm at a time when their more conservative "narrowly rational" colleagues, and most of the public, were thoroughly immersed in the narrow human-centered industrial/consumerist vision of reality. These visionaries included Aldo Leopold, William Vogt, Fairfield Osborn, Sir Julian Huxley, Aldous Huxley, Robinson Jeffers, Raymond Dasmann, Paul Ehrlich, Dave Brower, Loren Eiseley, Paul Shepard, Edward Abbey, and Gary Snyder.(48)

GLOBAL ECOSYSTEM PROTECTION ZONING

In 1967 David Brower made perhaps the first world-wide zoning proposal to protect wilderness. Claiming that less than 10% of the Earth had, at that time, escaped the technological exploitation of humans, he proposed protecting the remaining wilderness and "granting other life forms the right to coexist" in what Jerry Mander called an Earth International Park. Brower's increasingly radical ideas were a factor in his forced ouster from the Sierra Club, after which he formed the more ecologically radical Friends of the Earth, in 1969.

In 1971 ecologist Eugene Odum developed another zoning proposal. Ecophilosopher John Phillips expanded upon Odum's proposal. The Odum/Phillips zoning policy makes this recommendation:

The Biosphere as a whole should be zoned, in order to protect it from the human impact. We must strictly confine the Urban-Industrial Zone and the Production Zone (agriculture, grazing, fishing), enlarge the Compromise Zone, and

drastically expand the Protection Zone.

Arne Naess distinguishes between wilderness protection zones or parks (where people do not live and resource extraction is prohibited) and "free nature." Examples of free nature would be areas of relatively sparse human habitation (such as the foothills of the Sierra, parts of Northern Europe, and much of the Third World) where natural processes are essentially intact. These areas should be zoned to protect natural processes and wildlife while encouraging non-exploitative bioregional living.

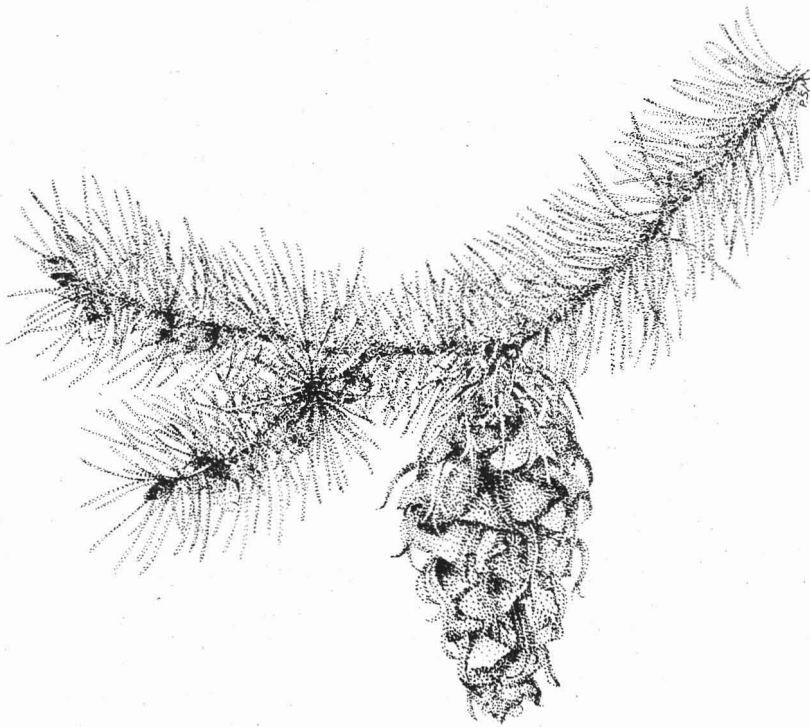
In 1973 Paul Shepard made a daring proposal for global ecosystem protection zoning: Allow the interiors of continents and islands to return to the wild. Based on the assumption that human population would stabilize by the year 2020 at 8 billion, humans would live in cities strung along the edges of the continents. Hunting and gathering forays would be allowed into the wilderness, but no permanent human habitation there.(53)

Shepard, like Brower, foresaw that huge amounts of protected wilderness would be required for the healthy ecological and evolutionary functioning of Gaia. But his proposal has practical problems, which include 1) the tremendous political, legal, and economic issues, not to mention the actual physical task, involved in relocating humans to the edges of the continents and 2) the pressures that would be exerted by these concentrated populations on the coastal ecosystems, including estuaries [which are some of the richest ecosystems on Earth]. At this stage of history, it is probably more realistic to expand wilderness protection zones with the basically existing patterns of human settlement in mind.

Gary Snyder has traced the etymology of 'wild' and 'wilderness' to the concepts of free and autonomous; to the Tao (the "way of Nature," spontaneous and "generating its own rules from within"). He also points out that pre-Columbian American wilderness was "all populated" with humans. In fact, "there has been no wilderness without some kind of human presence for several hundred thousand years."(54) It is important to provide a special kind of wilderness/free nature zoning for remaining tribal peoples, such as the Bushmen of the Kalahari Desert and the tribes at the headwaters of the Amazon, who are still living in essentially traditional ways with minimal impact on wild ecosystems.

Among the features of a "new ecological society" might be decentralization and "bioregional" ways of life, involving re-inhabiting and restoring damaged ecosystems.(55) But Roderick Nash, a major proponent of wilderness protection, worries that a total movement toward bioregional re-inhabitation of the Earth at this point (what he calls the "garden scenario") would be ecologically disastrous: "There are simply too many people on the planet to decentralize into garden environments and still have significant amounts of wilderness."(56) Elsewhere, Nash characterizes bioregionalism as "the contemporary attempt to 're-inhabit' wilderness areas."(57)

Nash is entirely justified in calling attention to the limitations of an overly ambitious bioregional program at this time. It is not clear, however, that the intent of contemporary bioregionalists is to re-inhabit wilderness areas. Leading bioregional theorists such as Peter Berg, Gary Snyder, Raymond Dasmann, Thomas Berry, and Kirkpatrick Sale, are fully aware of the importance of establishing large wilderness protection



Douglas Fir by Peggy Sue McRae

zones. Bioregional ways of life are necessary for areas zoned as free nature and for ecologically restructured cities, such as Peter Berg's proposed Green Cities.(58) Ecological cities should incorporate wild and semi-wild areas interspersed with human inhabited areas, either by protecting and expanding wild areas that now exist, or by restoring such areas. Humans could continue to visit some wilderness zones in limited numbers, provided they followed minimum impact ways and did not disturb the ecosystems and wild species. Nash mentions that "In 1982 Abbey expressed his basic belief that humans had no right to use more than a portion of the planet and that they had already passed that limit."(59)

Ecophilosopher Paul Taylor distinguishes between "basic" and "non-basic" interests of humans. In order to allow for sufficient amounts of species habitat, humans need to curb their population growth and reduce their non-basic wants and consumption habits when these come in conflict with the basic needs of other species for survival and well-being. Here, Taylor's analysis coincides with Naess's distinction between vital and non-vital needs which is incorporated into the Deep Ecology Platform.(61)

Taylor also makes another important contribution with his discussion of the *bioculture*. He defines bioculture as "that aspect of any human culture in which humans create and regulate the environment of living things and systematically exploit them for human benefit."(62) Agriculture, pets, domestic animal and plant breeding, and tree plantations all belong to the human bioculture. Establishing wilderness protection zones would, in effect, separate the world of the wild from the exploitive human activities of the bioculture. Free nature would be a sort of hybrid buffer zone between protection zones and the bioculture, with ecological processes predominating.

Many groups that consider themselves ecological are, in effect, primarily involved with an ecological "reform" of the bioculture. The organic farm movement, inspired by Wendell Berry and Wes Jackson, is an example of this. The concern of the animal rights movement with the "rights" of ALL animals, often fails to distinguish between the conditions of domestic animals in the bioculture and the condition of wild animals in wilderness, with sometimes alarming and anti-ecological results. The goals of the Forest Service, and similar efforts world-wide, to clearcut natural forests and replace them with tree plantations, can now be seen as attempts to continually extend the bioculture at the expense of the wild. As Taylor points out, the ethics of the bioculture differs from the basically "non-interference" ethics of the wilderness. Perhaps some ecologically enlightened version of the stewardship model is appropriate for the bioculture. Other problems arise when wild animals stray from the protection zones into the biocultural zones, and when there are "mixed communities" of wild and domestic as in free nature.(63) It is important for those primarily concerned with biocultural "ecological" reform to expand their outlook to encompass a genuinely ecocentric perspective to insure that their programs are compatible with the overall ecological health of Gaia.

Arne Naess has begun the critical ecophilosophical task of providing analyses of contemporary policies and proposals designed to protect wilderness and to bring

ECOSYSTEM PROTECTION

about a sustainable society. One such proposal is the World Conservation Strategy developed in 1980 and backed by the United Nations Environment Program. Naess agrees with much in this proposal, but says it lacks an ecocentric perspective. He has also examined the Brundtland report and finds that it lacks an adequate emphasis upon human population reduction.(64)

Two other strategies for protecting natural ecosystems are the Biosphere Reserve concept (part of UNESCO's Man and the Biosphere Program) and the World Heritage Site system. Ed Grumbine describes these programs:

A model biosphere reserve consists of four integrated zones: a large protected core; a buffer zone; a restoration zone; and a stable cultural area where "indigenous people live in harmony with the environment" ... the National Park Service has informally adopted the biosphere reserve model as a guide to regional land planning ... after 18 years, 41 biosphere reserves exist in the US, many of which occupy both national park and forest lands.(65)

Grumbine sees possibilities with World Heritage Site designations, but claims there are serious problems with the Biosphere Reserve concept: the zones are not properly interrelated and the "self-sustaining" core is not large enough to allow for speciation. He suggests that the Biosphere Reserve model be replaced by a national system of biological reserves. This needs to be supplemented by a major program of ecological restoration.

Restoration of damaged lands must be married with the goal of native diversity. This follows the wilderness recovery strategy of Noss (1986a) and would include large scale restoration of natural fire cycles, recovery of threatened, endangered, and extirpated species, road closures and reforestation projects, stream rehabilitation to increase native anadromous fisheries, and much more (see Berger 1985). Once an area was restored, nature would take its course with minimal interference from managers. The amount of work to be done would likely offset the loss of jobs in exploitive industries.(66)

The concept of ecological restoration is crucial for all the zones, but some have used it as an excuse for "mitigation" procedures, claiming we can continue to develop (i.e., destroy) natural ecosystems and then compensate these losses by "restoring" equivalent areas elsewhere. The "mitigation" of wildlife habitat loss painfully resembles the similar process of Native American "resettlement." In the latter case, Europeans dispossessed native peoples of their best tribal lands and moved them to the marginal edges (only to find, to their chagrin, that these "useless lands" contained huge deposits of coal, oil, and uranium!). Similar proposals are under consideration to drill for oil and gas under existing wildlife refuges.

As for the question of how much of the Earth should be protected in wilderness zones, the answer has been given by conservation biologists: enough wildlife habitat to protect species diversity and the ecological health of Gaia and to allow for continued speciation and evolutionary change. Along these lines, Arne Naess has provided an ecological vision toward which we can progress: "...imagine a development such that, let us say one-third was preserved as wilderness, one-third as free Nature with mixed communities, which leaves one-third for cities, paved roads, etc...."

Holmes Rolston recently claimed that a shift of focus should be made from individuals and species to ecosystems, and he proposes an Endangered Ecosystems Act to accompany the Endangered Species Act.(68) The need for legal protection of entire ecosystems is felt when environmentalists have to argue for the protection of Spotted Owls in order to protect the old growth forests that comprise their habitat. Yet, given the present global crisis, even the passage of an Endangered Ecosystems Act is not enough. The entire Earth is endangered and needs to be protected through immediate global zoning. To wait until it can be established that some specific component (this or that species or ecosystem) is in danger is to miss the point! This is not to say, however, that determining which species or ecosystems are near extinction should not be used to help determine the priorities and strategies of protection efforts.

The first step in protecting Gaia is to halt any further development and destruction of wild habitat. In their 1987 summary of world environmental problems, the Ehrlichs generalized such a stand to the whole Earth:

The prime step [is] to permit no development of any more virgin lands ... whatever remaining relatively undisturbed land exists that supports a biotic community of any significance should be set aside and fiercely defended against encroachment.(69)

As Thomas Fleischner points out in *Forever Wild*, "Over 95% of the contiguous United States has been altered from its original wilderness state. Only 2% is legally protected from exploitive uses." (70) Even that 2% lacks adequate protection. Forest Service "designated wilderness" allows mining, sport hunting, and domestic animal grazing. Legislative efforts are now being made to revise existing mining laws, such as the 1872 Mining Law, which have caused much public land abuse. Some have claimed, though, that, apart from timber cutting, the greatest cause of ecological destruction on public lands (both Wilderness and non-Wilderness lands) has been cattle and sheep grazing.

Once the ecologically destructive uses of now-existing Forest Service Wilderness have been eliminated, the additional 3% of public lands in the contiguous United States that are *de facto* wilderness (roadless but not designated as Wilderness) should be placed in protection zones. This would bring the total protected habitat to 5% of the contiguous US, which would still leave the contiguous United States about 30% short of a 1/3 wilderness, 1/3 free nature, 1/3 bioculture ratio. Under the provisions of the Wilderness Act of 1964, the biggest battles over the classification of wildlands in the National Parks and Forests have already been fought, and environmentalists have had to compromise severely in both cases, particularly the latter. Now the battle to zone lands as Wilderness is occurring over the 250 million acres administered by the Bureau of Land Management. The BLM is studying only 10% of its lands for possible Wilderness designation, and the likelihood is that, after political wrangling and compromise, only 10-15 million acres will be protected. This decision is to be made in 1991.

The Wilderness Act is essentially a pre-ecological document and, accordingly, its provisions do not reflect the huge tracts of wilderness required for ecosystem protection, large mammal speciation, and planetary health. In order to boost the protection zone percentages toward the 33% figure, it would probably be necessary to place almost all FS and BLM lands in protection zones and restore them to wildlife habitat. The recent proposals by Deborah and Frank Popper of Rutgers University to return the Great Plains to Buffalo habitat would also greatly increase ecosystem protection areas. Earth First! has developed ecologically realistic plans for greatly increasing Wilderness Areas in the US.(72)

This brings us to the issue of global human overpopulation. The pressure of the existing 5-6 billion people on Earth, magnified by the incredible levels of consumption and industrialization in the industrial countries, is already exerting intolerable pressure on the global biosphere. Many professional ecologists and environmentalists hold that a maximum viable global human population living comfortably at a basic needs consumption level, and allowing for the evolutionary and ecological requirements of the planet, would be no more than 1-2 billion, with the US at about 100 million.(74)

While demographers and population biologists not long ago predicted that the human population would level off at about 10 billion by the end of the next century, the latest UN projections are that, at current rates of increase, the population will soar to 14 billion before leveling off. In all likelihood, this would prove to be a total disaster for Gaia. This prospect underscores the need for mounting an all-out world-wide campaign to stop population growth by humane means as quickly as possible. As someone once said, "Trend is not destiny!"

Aside from Third World countries, with their high rates of population increase, there are special areas of environmental concern within the industrial world. Raymond Dasmann once made a distinction between "ecosystem people" and "biosphere people":

Ecosystem people live within a single ecosystem, or at most two or three adjacent and closely related ecosystems. They are dependent upon that ecosystem for their survival ... Biosphere people draw their support, not from the resources of any one ecosystem, but from the biosphere ... Biosphere people can exert incredible pressure upon an ecosystem they wish to exploit, and create great devastation — something that would be impossible or unthinkable for people who were dependent upon that particular ecosystem ... I propose that the future belongs to [ecosystem people].(75)

Japan, with its total dedication to industrialization and international markets, and its high consumption patterns, lack of natural resources, and import policies, has become the most obvious example of a "biosphere people," currently surpassing even the United States and Europe as the world's

leading destroyer of ecosystems. It is exploiting the last of the old-growth forests, from Brazil and Peru, to the United States (especially Alaska), to Southeast Asia, in addition to depleting the oceans.

In a series of public lectures in Japan in 1989, Arne Naess pointed to the current indifference of the Japanese government and people toward the global environment. Japan's direction for the last 30 years has been a "ruthless, increasingly destructive policy of economic growth at any cost." And citing the World Conservation Strategy, the United Nations Charter for Nature, the Brundtland Report, and Worldwatch's *State of the World* reports, Naess challenged Japan to become a leader of world conservation strategy.(76)

Another special area of concern is California. As the 6th largest economic power in the world, and with heady images of "Pacific Rim" international trade dominating current economic talk, California is, in many ways, trying to emulate Japan. Like Japan, California is headed for a disastrous social and environmental future. For example, 600,000 people are moving to California each year. (The main factor preventing California, and the rest of the United States, from stabilizing its population is immigration, both legal and illegal.) Some California cities and counties, especially in the central and



Washington Red Cedar by Peggy Sue MeRae

northern foothill areas, are growing at rates in excess of the fastest growing countries in Africa. The great agricultural operations of the Central Valley have been drenching the soil with pesticides and chemical fertilizer for over 40 years and groundwater supplies are now contaminated. Further, as one of the most diverse biotic areas in the world, California is now experiencing a wildlife crisis as a result of habitat loss from increasing development, commercial poaching, and agricultural waste water and selenium poisoning of waterfowl sanctuaries. Cities cannot meet federal standards for clean air, and this air pollution is contributing to the death of forests near Los Angeles and along the west slope of the Sierra.

A recent poll showed that Californians now realize the quality of life is declining in the state. What is conspicuously absent is an awareness of the need to stop further development and reduce population. California is a land of strange contradictions, where Disneyland economic growth fantasies and New Age religious cults exist side-by-side with the birthplace of world ecocentric environmentalism (John Muir, David Brower, and the Sierra Club), and where the citizens alternate between electing such arch anti-environmental governors as Ronald Reagan and George Deukmejian, and the environmental visionary, Jerry Brown.

In 1965, the year after California surpassed New York as the most populous state in the Union, ecologist Raymond Dasmann proposed that population growth be stopped through a strategy of "not planning for growth." (77) Perhaps the only strategy at this point that would allow California an ecologically viable future would be the passage of a state-wide no-growth initiative together with the implementation of protection zones around all remaining wild and semi-wild areas. Viewed ecologically, immigration only adds to the impact of existing human overpopulation on the affected ecosystems. As Gary Snyder points out, one of the first principles of bioregional living is to "Quit moving — stay where you are!" (78)

After the promising environmental awakening of the 1960s and 70s, we in the US

have experienced a decade-long environmental hiatus during which a conservative Republican President did everything in his power to obstruct environmental protection: from neutralizing the efforts of the EPA and suppressing acid rain studies, to refusing to allow money to be spent for the acquisition of additional parks and protected habitat. Further, the Reagan administration shocked the world community in 1985-6 by halting US funding for UN population control programs on the grounds that these organizations provide abortions. The Reagan administration ignored the environmentally comprehensive 1980 Global 2000 Report to the US President, a report that caused a considerable stir among government heads in other parts of the world.(79)

ECOLOGICALLY STRUCTURED GOVERNMENTS

The 1990s will likely be an era of global environmental reawakening like the 1960s. This is largely because of such global environmental disruptions as the greenhouse effect, ozone layer depletion, and tropical rainforest destruction and rising rates of species extinctions.

One main obstacle in the way of "saving the planet" is a fundamental difference of emphasis and ecological awareness among those in the environmental movement. This

problem emerged in the 1960s, and has been with us ever since. The environmental decade of the 60s began with Rachel Carson's warnings about pesticides which negatively affected both the health of humans in the bioculture and natural ecosystems. She was a trained ecologist and ecocentrist who cared deeply about both people and the natural world. Her source of inspiration was Albert Schweitzer and his "reverence for life" principle.

But soon a new breed of environmentalist arose, exemplified, according to environmental historian Stephen Fox, by Barry Commoner, Ralph Nader and the Environmental Defense Fund. These "newer man-centered leaders" focused on industrial pollution as the essence of the environmental problem. Commoner, who was not trained as an ecologist, took a stand against the warnings of Paul Ehrlich and other ecologists on human overpopulation. (As of 1988, Commoner still denied there is a global human overpopulation problem.)

David Brower worried that, in the public rush to embrace the new anthropocentric survival environmentalism of the late 1960s, ecocentric concerns such as wilderness and wild species protection would be lost in the shuffle. He was right.

The environmental legislation passed in the late 1960s and early 70s in the United States reflected the narrowly focused biocultural "pollution" orientation of this new version of conservation. By contrast, Paul Ehrlich, in 1968, had proposed an ecologically oriented governmental Department of Population and Environment. He also called for an "international policy research program [to] set optimum population-environmental goals of the world and to devise methods for reaching these goals." (81) While various population control and ecologically-oriented environmental programs were established in the United Nations, the United States settled for the Environmental Protection Agency (EPA) and the Clean Air and Water Acts.

The EPA essentially reflects the pollution approach to the environment; it is

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SATELLITES TRACK WILDLIFE FOR TROPHY HUNTERS

Rabbit's Foot Found in Computer System

At a tension-filled news conference last week, Brigadier General Miles Bullock admitted that the space shuttles have for the past 2 years been releasing into orbit top-secret surveillance satellites to monitor the position of game animals. The information these satellites obtain is helping commercial outfitters to more efficiently find trophy animals for corporate clients. "Why do you think the Fish and Wildlife Service has been putting those radio collars on the damn things?" said Bullock, an avid hunter himself.

The plan, which the Hexagon calls ToFA (Total Faunal Accounting), will use three satellites to track the exact coordinates of over 400,000 game animals in the contiguous United States and Alaska. Hawaii and Puerto Rico will be added to the "game grid" in the early 1990s. Over half the funds for the project has come from commercial hunting outfitters, such as Helicopter Hunts, Inc. "Yeah, we're happy about it," said Mort D'Uberal, the branch CEO of Helicopter Hunts, who started the business with a surplus Huey Helicopter Gunship he bought after the Vietnam War with a loan from his sister. "Those of us in the business of aerial hunting see this as a real opportunity to give our clients the kind of quick exciting kill they desire."

White House chief of staff John Sununu expressed his belief that the report will finally lay to rest any speculation that President Bush cannot balance environmental and economic goals. "It's another example of how the Bush administration is encouraging cooperation between government and the private sector in an environmentally sound way. Our Fish and Wildlife people have collared every mammal over 20 pounds in weight."

"16 pounds!" said Secretary of the Inferior Lulu with pride in a telephone interview yesterday afternoon. Lulu also said there are plans under ToFA to collar every mammal in

North America, all game birds and several species of gastropods. Busch himself was heard to say, "That thing up there, that ToFA thing, it's flying around, keeping watch over the animals, American hunters getting their quotas, confidence factor way up."

NASA spokesman Clifford Amheer was quick to confirm the report after Hexagon clearance. "Along with man's yearning for knowledge and adventure, this project is one more great reason why the taxpayer should support the space program." Amheer calculates that every tax dollar spent on NASA will lead to the killing of one large mammal.

The issue came to light recently when a rabbit's foot was found in one of the satellites' computer systems prior to lift-off. A radical environmental group calling itself "Eat, Rebel and Die" (ERD) took credit for the felonious rabbit's foot, which unluckily caused \$3 billion in damage to the sophisticated satellite, Hexagon sources confirmed.

"These ERD people should all be shot like dogs," said D'Uberal, in his usual frank fashion. "We've been hunting animals in a balanced way since Christ walked God's green earth, and we can damn well keep doing so. I hope the satellites focus in on lots of arctic rabbits this year, because that rabbit's foot cost us jobs."

Several environmental organizations have expressed concern over ToFA, but were eager to repudiate the radical environmentalists' tactics. "We've worked hard to give the environmental movement credibility with the kind of corporate managers who use the big game hunting services," said Jay Beard of the World Wildlife Investment Management Project (WWIMP). "We're not about to let a few terrorists and deadbeats ruin that for us." Beard added that WWIMP will ask Fish and Wildlife to scale back ToFA by not collaring snails and other gastropods smaller than 2 inches. "We see no reason to use firearms against these creatures, when they can easily be crushed with a boot or heavy object," Beard concluded.

—Christoph Manes



Humans and Honeyguides: Cooperation Between Species

by Mark Sunlin

Native Africans never developed the art of beekeeping themselves, but many tribes became and remain avid honey hunters. The Boran people of Kenya in East Africa have a unique method of locating bee hives: a little bird tells them.

Appropriately, the little bird is called the Honeyguide, or *Indicator indicator* by zoologists. H.A. Isack, of the National Museum of Kenya, and H.U. Reyer, of the Max Planck Institute in West Germany, recently reported their observations on how the Boran people interact with this wily bird.(1)

Either the Honeyguide or human may initiate the honey hunt: The tribesmen whistle to summon the bird, or the bird summons the tribesmen by giving a "tirr-tirr-tirr" call and fluttering about in the tree branches to attract attention. This done, the Honeyguide flies away for several minutes, presumably to double-check the location of the target hive. Returning to the tribesmen, the bird flutters noisily and encouragingly from tree to tree, clearly urging the human partners to follow. As they come closer to the hive, the bird's flights from tree to tree become increasingly short and low to the ground. When they reach the hive, the Honeyguide gives a different call — translating, no doubt, to something like "Eureka!"

On the average, Reyer and Isack found, tribesmen hunting without the the Honeyguide took 8.9 hours to locate a beehive. With the help of the Honeyguide, their average hunting time dropped to only 3.2 hours.

In the 1930s, George Adamson, of "Born Free" fame, also noticed this cooperative, symbiotic relationship between bird and Boran.(2) Adamson noted that "African tradition insists that some of the honey must be left for the bird, for if not, the next person who comes along will be led to a snake or some other dangerous beast." To this day the Boran — who mistakenly believe the birds are interested in the honey — dutifully place some of the comb aside on a tree for their helpful partners, though, as Adamson notes, "it is the grubs contained within the comb which the honey guide is really interested in."

Ornithologist William Shields has pointed out that in the partnership between Honeyguide and humans, the *birds* originated the idea, for Honeyguides had been guiding badgers to honey before they began guiding humans.(3) This likely came about by the birds presenting themselves as an alluring target for the omnivorous badgers to chase until reaching the more desirable honey. Badgers — like humans after the honey — are sloppy eaters, tearing open the hives and inadvertently leaving plenty of high-protein grubs lying about for the birds.

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ECOCENTRISM . . .

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charged with enforcing the provisions of the Clean Air and Water Acts, and monitoring pesticides and toxic wastes: the "externalities" of industry. The only legislation concerned with wider ecological issues, the Endangered Species Act, came later (1973) almost as an afterthought and, from an ecological perspective, it is minimally effective. Environmental legislation during the 1970s was reformist in nature, and designed essentially to allow industrial development to continue at accelerating rates, while making minor concessions to "cleaning up the environment" and protecting ecological integrity.

National opinion polls taken over recent years have consistently shown support for environmental issues. But an analysis of these polls reveals that much of this support consists of pollution consciousness. Concern for more ecocentric issues such as human overpopulation and wilderness destruction ranks much lower than concern for air and water pollution, toxic waste disposal, etc.; and these issues are often seen as separate. A reasonably sophisticated awareness of the interrelated nature of these issues, and of the overall threat to the planet, is not widespread among the general public. The news media makes almost no effort to educate the public in a comprehensive way about the current environmental crisis. Environmental education in the schools, although mandated by law in states such as California, is also pitifully inadequate.

After the unprecedented anti-environmentalism of the Reagan administration, George Bush now claims to be an "environmental president." Bush appears to be encouraging a more vigorous approach to some forms of pollution control by the EPA, but he also continues to pursue the Reagan-type exploitation of public lands by appointing pro-development people as heads of the Department of Interior and other public land agencies, and by promoting oil drilling in marine mammal sanctuaries off the California coast and in the Arctic National Wildlife Refuge. Although Bush and his advisors have had access to the environmentally comprehensive annual Worldwatch Institute *State of the World* reports since 1984, his concept of environmentalism has advanced little beyond the "pollution control" level, what G. Tyler Miller, author of the leading environmental textbook, *Living in the Environment*, refers to as the first and most simplistic level of environmental awareness.(82)

The leaders and citizens of industrial

countries have yet to face the fundamental incompatibility of continued human expansion and economic development with the viable ecological functioning of the Earth. They continue to equate economic growth with "progress" when just the opposite is the case. Years ago, Karl Polanyi pointed to radical nature of the emerging consumer society which involved "no less a transformation than that of the natural and human substance of society into commodities."(83)

If Americans (and the rest of the world) are to deal effectively with ecological problems, then there must be a decisive shift from the economic/consumerist vision of reality to a genuinely ecological/ecocentric world view. Gary Snyder has claimed that "economics must be seen as a small sub-branch of ecology."(85) As a way of making the transition to an ecologically sustainable society, Anne and Paul Ehrlich have promoted Herman Daly's steady-state economic theories.(86) In short, the "business" of the world must become primarily ecological protection.

The structures of governments must be reorganized from their present human-centered pro-developmental orientation to reflect this new emphasis upon ecological protection. A new overarching agency — possibly called the Ecosystem Protection Agency — needs to be established to coordinate and oversee the efforts to protect both the biocultural zones and the ecological protection zones. This agency should be heavily staffed with professional ecologists and conservation biologists.

The EPA would become a branch of the Ecosystem Protection Agency and could continue as the primary agency concerned with the ecological reform of the bioculture (air and water pollution, organic agricultural reform, etc.). The Forest Service would be removed from the Department of Agriculture and, together with the Department of the Interior (including the National Park Service, Fish and Wildlife Service, and Bureau of Land Management), would be overseen by the Ecosystem Protection Agency. Their function would shift primarily to ecosystem protection. The functions of the Bureau of Reclamation and the Army Corps of Engineers would become primarily ecosystem restoration. An agency concerned with encouraging the reduction of population would be created.

With the "cold war" presumably winding down, a large portion of the defense budget should be allocated to environmental protection: acquiring land for the

protection zones, staffing environmental protection agencies, educating the public about current ecological realities and proposed solutions. The government and media should promote a national debate on these issues. The effects of ozone layer depletion, the greenhouse effect, acid rain, air and water pollution, pesticides, human overpopulation, and current consumerist growth policies freely cross the boundaries between the bioculture, free nature, and ecosystem protection zones. Only an integrated holistic approach to environmental problems has a chance of succeeding.

Increasingly, our environmental problems are recognized as global in scope and, as such, requiring international cooperation. Noel Brown, director of the United Nations Environment Program, indicated that an "ecological council" comparable to the Security Council could soon be a reality.(87) The UN also needs to reorganize its population control agencies and environmental protection programs to reflect a unified ecosystem protection approach. The UN General Assembly adopted a basically ecocentric approach when it approved the World Charter for Nature in 1982. The Charter asserts that:

Every form of life is unique, warranting respect regardless of its worth to man, and, to accord other organisms such recognition, man must be guided by a moral code of action ... Nature shall be respected and its essential processes shall not be disrupted.

The Reagan administration gained international notoriety by opposing the Charter for Nature. The General Assembly voted for the charter, 111 to 1, with the US casting the one dissenting vote!(88)

The United Nations should step up by several orders of magnitude efforts to stabilize the human population in the shortest time possible, while also protecting human dignity, ideals of justice, and individual freedom of choice. The UN should continue to help feed the hungry and improve basic living conditions in Third World countries. As part of an overall program of ecological and economic sustainability, the UN should also help nations establish ecosystem protection zones; help police these zones (as in Africa where large mammal populations have declined precipitously in the 1980s at the hands of poachers); and discourage industrial consumerism. The UN needs to develop educational programs to "ecologize" the peoples of the world.

In pursuing these goals, it should be recognized that the situations of First World and Third World countries are very different. As Arne Naess has pointed out, unlike First World countries, which are already overdeveloped and ecologically unsustainable, Third World countries will need to continue

to develop, but along ecologically sustainable paths. Environmentalists in First World countries must be sensitive to the unique human problems in Third World countries. It is unrealistic and unjust to expect Third World countries to protect their natural ecosystems at the expense of the vital needs of their human populations. At the same time, the magnitude of the global environmental crisis must be fully appreciated. Third World countries should be encouraged to expand ecosystem protection zones, and protect large areas of free nature. Rich industrial nations will have to pay most of the costs of global environmental protection and restoration. The Worldwatch Institute's 1988 *State of the World* report estimates these costs at \$150 billion a year. Naess claims that a step in the right direction would be for industrial nations to forgive Third World debts and loans.(89)

Paul Taylor sees such goals as achievable:

A world of harmony between human civilization and nature is a distinct empirical possibility ... it should be evident from my discussion of the biocentric outlook and the attitude of respect for nature that an inner change in our moral beliefs and commitments is the first, indispensable step. And this inner change is itself a psychological possibility. Some people have actually made such a change, exercising their autonomy in the decision to adopt new moral principles regarding their treatment of the natural environment ... (90)

The shift from an economically dominated exploitive world view and society to an ecological "green" society should be seen as a joyous gain for humanity and Gaia rather than as a self-denial for individuals and humanity. To experience the transition in this way no doubt requires a conversion to an ecological consciousness, an "ecological self," or what Taylor refers to as an "inner change." While this inner change is occurring among people at an increasing rate throughout the world, and while people are adopting ecologically compatible bioregional ways of living, ecological destruction is also accelerating at a terrifying rate. Interim legalistic strategies such as ecosystem protection zoning and the ecological restructuring of governments seem indispensable at this point. Ultimately, we must work at all levels of ecological protection and restoration, social justice, and human spiritual renewal simultaneously.

George Sessions, an author and professor at Sierra College in California, co-authored *Deep Ecology with Bill Devall*, and formulated a basic deep ecology platform with Arne Naess.



THE GRIZZLY DEN

Thoughtful Radicalism

by Howie Wolke

author's note: The description below of a felony is pure fiction and is for entertainment purposes only. For the discussion that follows, "radicalism" means monkeywrenching (ecological sabotage), various forms of civil disobedience (road blockades, illegal occupations, tree sitting, etc.), and even legal demonstrations that promote protecting all remaining wildlands and restoring much that has been degraded.

Three men in a rusty foreign car drank a warm sixpack of Pabst as they drove down the Limestone Creek Road in Wyoming's Bridger-Teton National Forest. Behind them were the peaks of the Gros Ventre Range, glowing the later afternoon sun. Earlier, the three men and a 7 year old boy had stood among those peaks baked by the intense June sun in a world of wet snowbanks, meltwater, bare rock and glacier lilies: a "Sierra Club Calendar wilderness" of glaciated brilliance, one that even the Forest Service concurred to protect.

The driver, a slightly overweight university professor, was a thoughtful man whose son it was that had succumbed to sleep. As the pitiful machine lumbered down the gravel road, all three were admiring the adjacent rich habitat of Mountain Sagebrush, grass, Douglas-fir, Subalpine Fir, Lodgepole Pine, and Quaking Aspen. This was the unprotected roadless country beneath the peaks; the land of multiple use where the Forest Service proposed logging, oil rigs, and new roads.

In 1980 the blasting of seismic crews was ubiquitous in western Wyoming. Roads and oil rigs followed the seismic crews deep into the wilds; the rigs pierced the earth by pulverizing thousands of feet of sedimentary rock. Big oil was looking for natural gas in the Wyoming wilds. But this day was Sunday and local seismic workers were off, hungover from a typically drunken Saturday night in Jackson.

At once, the two young men noticed the "Doghouse" a hundred or so yards from the road. The small building contained a seismic crew's "nerve center," where high tech devices recorded the rumblings of a bruised Earth and translated those rumblings to a potential bottom line calculated in some sterile boardroom hundreds or thousands of miles distant: in horrible places such as Houston, New York, and Casper. The devices inside the locked building were worth hundreds of thousands of dollars. The young men told the professor to stop the car, let them out, continue down the road and then return to pick them up in a half hour. With little hesitancy, he obliged. In broad daylight with little forethought and no planning, with stealth but no tools, the two men committed a felony. They broke into the building and attacked the computers, switches, dials and data with the appropriate available technology: rocks. Within minutes, the damage was done; the ecoteurs crossed the shadowed sagebrush meadow, met the nervous professor along the road, and were in the tourist mecca of Jackson by dark.

As ecological calamity unravels the living fabric of the Earth, environmental radi-



alism has become both common and necessary. But if lacking a sound ethical and biological basis, environmental radicalism can be a double-edged sword: a threat to the enemy, yes, but a danger to its wielder, too. In order to avoid self-defeating radicalism, I suggest a commitment to what I'll simply call "thoughtful radicalism." The 4 cornerstones of thoughtful radicalism are: 1) Thwart. 2) Protect. 3) Restore. 4) Educate.

It is admittedly impossible for all radical actions — legal or not — to always build upon all 4 cornerstones. Sometimes, all you can hope for is to thwart, or perhaps to contribute to long-term protection for an area. But it is possible to always avoid regression. That means we should consider both the short and long term consequences of our actions. For instance, generally avoid monkeywrenching a project if a legal victory to stop it seems at hand. Monkeywrenching in that situation might impair public support for long term protection. Don't damage any cornerstones.

Education is the most fundamental of the cornerstones, and it's the one most important when we look beyond the short term crises that so often co-opt our efforts. It's also the easiest cornerstone to neglect or subvert. Any action, however radical or illegal, should avoid unnecessary, juvenile or thoughtless acts that might prevent open-minded people from heeding our message. Remember, we want to convince the populace (70% of whom now consider themselves to be "environmentalists," according to pollster George Gallup), or at least elicit their sympathies. The stupidest thing that radical activists can do is to appear as common criminals. That's the fastest way to negate education.

For instance, when carrying out civil disobedience or monkeywrenching, don't dilute your message by committing extraneous illegal acts. There are great philosophical differences among radical environmentalists regarding laws and lawbreaking in general. Regardless of those differences, though, getting busted for grass, getting stopped for DUI, or getting caught shoplifting will only convince the public that radical activists are a bunch of anarchist hooligans with no sense of decency or respect for others. Regardless of how badly you'd like to rip off that store with the anti-wilderness sign; regardless of how badly you'd like to slip out of the Exxon Valdez station with a full tank and a full wallet, do it on your own time if you must; avoid such temptation when carrying out or preparing to carry out radical environmental defense. Consider the impact upon those we're trying to reach. Focus.

Moreover, we want the public to focus not on our style but on the substance of our message. With substance in mind (not the controlled kind), it is often good strategy for radical activists (this generally does not pertain to monkeywrenchers) to wear fairly conventional attire. Again, the public needs to learn about the ecological atrocity; we don't want undue attention diverted to the unusual dress or lifestyle of action participants. Swallow your pride and leave your hippie or 1830s mountain man duds at home. Ecosystems are more important than your personal identity. Again, focus.

Furthermore, since we want the public to get the message, don't confuse the issue at hand with other issues, no matter how dear to your heart they may be. In Earth First! the issue is wilderness/biodiversity/planetary survival. At radical actions promoting natural diversity, don't confuse the issue by promoting legalization of dope, the right to burn a flag, women's rights, racial equity, tax protests, nuclear disarmament, or anything else extraneous to the particular issue. Do we have legitimate feelings about these things? Certainly. Are nuclear weapons, unfair taxes, and racism symptoms of a thoroughly corrupt and destructive system? Of course they are. Nonetheless, do we want those who might politically differ from us but agree with us on wilderness and planetary survival to jump on our bandwagon? Emphatically yes! Once more, just say "No" to your ego. Focus.

Thoughtful radicalism means that spokespersons (and ideally all who are involved) must be knowledgeable. Quoting biologists is often effective. Even better is to include a reputable biologist as a spokesperson. Publicize the "why" as well as the "what." Prepare an informative packet for demonstrations. Thoughtful radicalism will create public support for wildness and natu-

ral diversity. Occasionally that will contribute to thwarting a project or to gaining long term protection for an area. Thoughtful radicalism can also lay the groundwork for future restoration of damaged wild places. Again: Thwart, Protect, Restore and Educate. Whenever and however we decide to break the law in defense of the planet, we must do so without egocentrism, and with clarity of purpose. That is, focus. Understand the issue and leave your baggage at home.

How does the episode at the beginning of this essay relate to the 4 cornerstones of thoughtful radicalism? On that June afternoon the three radical activists thwarted, at least for a while, destruction — oil exploration in roadless habitat. Moreover, monkeywrenching in general can thwart many destructive but economically marginal projects by adding significantly to their costs (read Ecodefense for a discussion of this topic). In itself, the men's act of planetary defense was probably neutral regarding long term wilderness restoration. The action, however, certainly helped incite a polarized atmosphere which contributed to the eventual designation of an incomplete but substantial Gros Ventre Wilderness. Moreover, social polarization regarding wilderness in the Jackson Hole area has created at least some diffidence in the Forest Service's desire to wreck habitat. Regarding protection, I give the monkeywrenchers a slight plus. Unfortunately, though, the local media reported the act as "vandalism." The ecoteurs should have carefully and anonymously publicized why they demolished the "Doghouse." Crudely put, seismic exploration had opened the door for the throbbing organ of an industrial dragon planning to rape the Gros Ventre roadless area. Though they could have said it more gently, the saboteurs failed to educate.

The monkeywrenchers who thwarted the seismic operation acted spontaneously. They had simply been hiking. There was no planning and little consideration of the potential consequences. But the men knew the intent of the industrial dragon, and they acted with a focused purpose: to damage a vulnerable appendage of the monster; to emasculate its lust for unprotected wilderness. Spontaneous monkeywrenching is ok. Dragonian claws are everywhere, suddenly emerging at unexpected times and places. Occasionally, ecodefenders have little choice but to seize the moment and act.

Should illegal acts of environmental defense be undertaken only as a last resort when all methods of legal resistance fail? Not just no, but Hell no! Again, the claws of the mutated beast are everywhere. To neutralize opposition, a primary strategy for agencies such as the Forest Service and BLM is to wear us out with process. Assaults on natural diversity are so overwhelmingly common, so multidimensional that it is impossible for activists to monitor — let alone resist — more than a tiny fraction of threats to wildlands. Hearings, negotiating sessions, EISs, appeals, lawsuits, and informational (propaganda) workshops are time consuming and expensive for volunteer activists, yet represent bread and butter for bureaucrats and corporate officers. Remember that Thursday night when you wanted to read at home after a hard day's work or maybe watch your kid play basketball, but instead you went to that wilderness meeting? You got the shaft, but the Freddie got overtime pay. And you wrote the check!

By submerging ourselves in the process; indeed, by making an effort to exhaust the process prior to conducting illegal but moral resistance, we guarantee more fodder for the dragon. Yes, we need more people working within the system because occasionally that succeeds. But we also need more focused monkeywrenching and more civil disobedience to fend off the dragon, even when the individuals involved make little or no attempt to spar with the beast in its own arena.

Also, there's an inherent danger in committing civil disobedience or monkeywrenching after staggering through the confusing maze of the "legitimate" process. Chances are, after you've spent time, energy and money on meetings, phone calls, and appeals ad nauseum, all to no avail, you'll be quite justifiably angry. If you're like me, you'll be thinking REVENGE. Such a mindset, though natural and occasionally stimulating, is not conducive to clarity of purpose; that is, to conducting a well-focused effort to thwart, protect, restore, and educate. Though I'm not certain of this, I suspect that serious radical activists — monkeywrenchers in particular — should generally avoid work-

ing within the system altogether.

In 1986 I spent 6 months in a county jail. I was a convicted remorseless monkeywrencher who had gone through all available legal channels in a futile attempt to thwart an oil drilling and logging project in Wyoming's Grayback Ridge roadless area. The final straw was a meeting at which Bridger-Teton National Forest Supervisor Reid Jackson refused Chevron Oil's offer to restore and reclaim the new road and drillsite if the well proved dry. The supervisor wanted access for future below cost timber sales in the wildlife-rich area. This situation illustrates the pitfall of "frustration monkeywrenching." On the day I got busted, my cohort and I had spotted the full-time guard (the project had already been de-surveyed twice, though, of course, not by me!) before he spotted us. Nonetheless, we unwisely decided to continue to monkeywrench. We should have waited until night. Or until Sunday, when the guard's hangover would have impaired him. Or until we had another cohort to monitor the guard. But I was angry. I remembered the time consuming sessions, the paperwork, the late night phone calls, and the Forest Service's stubborn refusal to compromise. Pure anger can result in a lack of focus on the 4 cornerstones of thoughtful radical activism, and that can be dangerous. A pissed off monkeywrencher can be careless. That mindset cost this one 6 months.

There is, of course, a bigger question that I've thus far avoided. Implicit in my plea for thoughtful radicalism is an assumption that there are limitations on what ecodefenders can accomplish. If, however, we see ourselves as a rising power capable of bringing the industrial system to its knees before it squelches all that remains wild, then perhaps we should do as follows: Lash out at every offensive aspect of society at once. Decry all laws as unjust and blatantly break them. Be wild and radical to encourage rebellion for its own sake. Dress like punks, hippies, or Neanderthals at demonstrations because conventional attire is worn by land-ripping pillagers. Most important, because everything is connected to everything else, and because planetary demise is the result of a complex tangle of greed, injustice and overpopulation, lash out at everything — attack the whole enchelada because it's all equally rotten. That's one way of emphasizing our disgust with the insanity of a world paradigm based upon consumption, greed, and growth for its own malignant sake.

But if we assume, as I do, that for a while at least we're stuck with the dragon, an insatiable force that can be slowed but not entirely subdued, then focus where it is occasionally vulnerable, and where its slime-encrusted claws are directly assaulting nature. Convince our fellow humans by being thoughtful yet unyielding that we must radically alter the way our species treats its embryonic home, the wilderness, and the rest of this beleaguered planet.

Quite honestly, I doubt that anything, including thoughtful radicalism, can bridge the gap between saving some wilderness today and creating a society that lives within its ecological means: humans as members, not outlaws, of the biotic community. I doubt even more strongly, though, the ultimate effectiveness of unfocused organized tantrums. Thoughtless radicalism will save little that remains wild now. Despite the insanity of modern consumerism, shopping mall "puke-ins" don't educate; they alienate. A bunch of naked anarchists smoking dope at a wilderness demonstration will neither speed the demise of the industrial dragon nor save a besieged roadless area. Neither will militant vegetarians who won't work with us omnivores to save wild country.

The demise of the beast will, I venture, occur via the ungodly weight of its own momentum. Education today will increase the chance of creating an ecologically sustainable society after the inevitable demise of today's biological aberration. What will eventually replace today's dragonian madness is anybody's guess. It's my guess, though, that thoughtful radicalism will save some biotic diversity in the short term, and allow more to be saved and restored for the longer run. Then, when the floundering beast finally, mercifully chokes in its own dung pile, there'll at least be some wilderness remaining as a seedbed for planet-wide recovery. Maybe even some Griz; some Flat-spined Three-toothed Land Snails, some Pallid Bats; some man-eating Tigers; some wild humans; and some living canyons like the Colorado's Glen. Some hope. And maybe even some human wisdom.

WILD CODGERS

by Barry Greer

One evening a while back I drove to a Eugene motel for one of those perpetual wilderness study area hearings. Though testimony could barely be heard above the din from the adjacent meeting room, I did catch one witness using the standard "age-ed" argument as reason not to have any more protected wild areas in the high desert east of the Cascades.

The argument rests on the dubious assumption that wilderness excludes "the age-

ed," a dubious social category, one never clearly defined by those who find sudden concern for people supposedly nonambulatory and immobile. Being "age-ed" now apparently means being infirm. The argument and its inherent prejudice toward anyone not young is usually buttressed with grand democratic pronouncements. For instance, the hyper-commercial Swiss ski industry is praised for promoting alpine accessibility for all. Environmental groups are accused of shutting off mountains to all but an elite group of aerobic androids who hike 20 miles before their first morning cup of gorp.

I won't bore you with the European origins of the argument. Historian Roderick Nash presents a fine summary of what he calls "the access-resort philosophy" in *Wilderness and the American Mind*. The issue is really one of access to scenery, one of drive-up mountains, the kind of access offered at Mt. Hood, Mt. Rushmore, Crater Lake, Yosemite, Yellowstone, Grand Teton, Glacier, and other Parks. A few too many such Parks for Franklin Roosevelt, the one "infirm" American president, the president who endorsed California's roadless Kings Canyon National Park in 1940.

Here are a few facts you might find useful when the "age-ed" argument is raised at the next hearing you attend:

Given that age bias in the United States first affects people at about 35, when the social label "middle-aged" appears, let's start with Raymond Lambert. This toeless 38-year-old Swiss guide went to 28,100 feet on Mt. Everest in 1952 with 38-year-old Nepalese guide Tenzing Norgay. Norgay walked to the summit the next year with New Zealand beekeeper, Edmund Hillary, 34.

Middle-age has always been the norm according to mountaineering historian James Ramsey Ullman. "A remarkable number of the great ascents in climbing history have been made by men [and women] well into middle age ..."

Indeed, social bias, much more than physical limitation, has kept most people over 40 chairbound. In 1838, 45-year-old Henriette d'Angeville shocked Switzerland when she became the first "lady" to ascend Mont Blanc under her own power. In 1936 at age 40, famed British mountain explorer H.W. Tilman climbed Nanda Devi, 25,645 feet, an altitude record that stood until 1950.

In 1975, 49-year-old Pierre Mazaud reached the summit of Everest with Kurt Diemberger, 46. In 1987 Diemberger climbed K2, second highest summit in the world.

If your opponents dare counterattack with the suggestion that they're really talking about people over 50, you're set for the kill.

In 1888, 50-year-old John Muir climbed Mt. Rainier. In 1980, 58-year-old Smith College Latin professor Annie Peck was the first to ascend the north summit of Huascarán, a major South American peak. At age 50 in 1925, Albert MacCarthy completed the first ascent of Canada's massive Mt. Logan. At age 52 in 1965, Italian mountaineer Riccardo Cassin climbed Alaska's Denali. Washington resident Dave Mahre, father of champion downhill skiers, was not content to watch his twin sons get all the glory. Mahre went above 8000 meters on Everest without oxygen in 1982 at age 54.

What about 60?

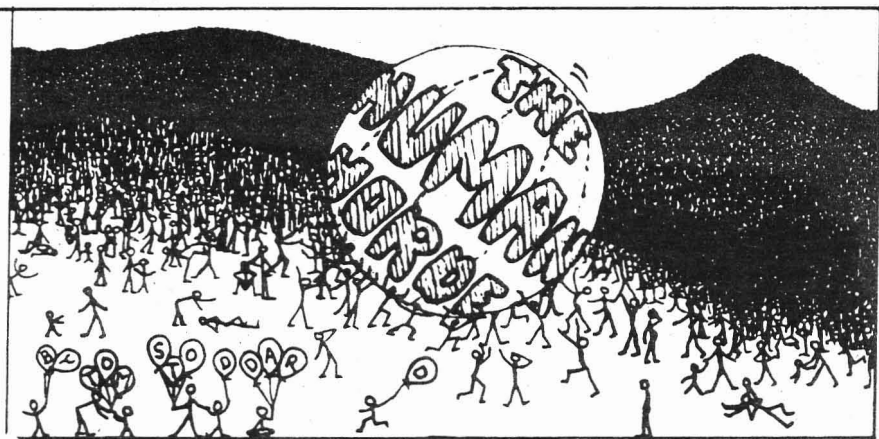
Sixty-year-old Norman Read made the second ascent of Mt. Logan in 1952. In 1975, 67-year-old Jean Juge, president of the Union of International Alpine Association, climbed the Eiger north face, one of Europe's most dangerous climbs.

Or 70?

H. Adams Carter, editor of *The American Alpine Journal*, wrote to tell me: "I took my first serious rock climbing fall just a week or two after my 70th birthday and broke eight ribs." But his ribs healed, and he also said that his friend Brad Washburn, a famous Alaskan explorer, "at 75 still shoulders 50 pounds of surveying equipment and keeps climbing to push cartography to greater perfection."

By now your opponents should be struck dumb. If not, assure muteness with mention that John Muir wrote at age 73 in 1911 that the calendar "offers startling proofs of age. Yet, strange to say, I am almost wholly unconscious of the fast-flying years.... This, in part, is the reward of those who climb mountains and keep their noses out of doors." You could add that at 74 Muir traveled to the Andes, where he slept under the stars while his younger friends crawled into a tent for the night.

You might also mention Norwegian Herman Smith Johannsen. "Jackrabbit" Johannsen introduced cross-country skiing to Canada around 1900, exercised daily, and remained self-sufficient until he died on 26 December 1986, a spry 112 years old.



"If we don't change our direction, we'll end up where we're headed," says a Chinese proverb. In 1989, 85 million net new humans will join Earth, the greatest increase ever, and propel us to a doubling of human population in the next 40 years.

Immigration has proven a handy subterfuge for criminals, mostly gang connected drug dealers, to enter the US. In the past six months the Western Region of the Immigration and Naturalization Service (INS) has deported 9000 legal immigrants identified as criminals. In addition Cuba has dumped thousands of its criminals and insane on Florida. These figures include only "legal" immigrants. An estimated two-thirds of all immigration is "illegal."

Kenya's President, Daniel arap Moi, threatens to sack senior government officials who have too many children. Some senior officials want 8-10 children. Kenya's 4% annual population growth is near the highest in the world.

America's history of social and political upheavals is characterized by allowing a problem to get so bad it is obvious to everyone. A few examples are slavery, the robber baron era, securities speculation and frauds leading to crash of 1929, the abuse of labor

and fight against labor unions, and abuse of civil rights leading to the burning of Watts, Detroit and other black areas. The population problem, including a high birth rate among parents who cannot support or properly care for their offspring, is hurtling down that old familiar railroad track.

Order a Dominos pizza and you are supporting anti-abortion zealots. Tom Nonaghan, owner of Dominos, is a leading supporter of and financial contributor to anti-choice forces. Pro-choice organizations are urging a boycott of Dominos.

The State Department's Undersecretary for Refugee Affairs says, "I have smaller populated states who have agreed to employ refugees, but they all want to go to California, and I simply cannot compete with the generosity of the California Welfare System."

By Presidential decree refugees are allowed to immigrate into the US in unlimited numbers. In 1988 over 50% of all refugees who have entered since the Vietnam War are on welfare. California led the percentages with 90% on welfare and Washington state came in second with 74%. What other nation would voluntarily add to an already burgeoning population problem and

at the same time exacerbate existing fiscal and social problems?

Pro-choice supporters are more pro-child than anti-abortionists. The pro-choicers favor children who are wanted, healthy, educated and properly cared for. They oppose the birth of grossly deformed children or those who would be born into families of convicted child abusers (most pro-choicers believe such persons should be sterilized), or neglected, or could not be supported by their parents.

India has lower per-capita food-grain production in 1988 than it did in 1900. This is a result of a population explosion from 237,000,000 to 796,000,000.

Religious zealots, in effect, sentence a mother to 20 years of raising a child she doesn't want and can't afford. The result is newborns found in garbage dumpsters.

The projected drought in northeast and central Africa may make the Ethiopian famine of 1984-85, when a million people starved to death, look insignificant, according to Werner Fornos, President of the Population Institute. He noted, "It might shock Americans into realizing ... food is not a limitless resource. In most of the world it is a shrinking resource."



ed. note: The following is the first of a new column by roving outside agitator Roger Featherstone, giving his views on where the movement is and where it is going. Roger will give special attention to new ideas gleaned from the road and problems facing the movement.

THE SOUTH RISES AGAIN

The South has long been known as a conservative area. As industries have relocated to areas more accepting of their polluting ways, the South has become home to more polluting industries than anywhere else in the US. Paper mills spew dioxin into streams and groundwater. Wetlands are drained for development and agriculture. The Everglades are near death. Forest plans in the southern National Forests call for an average of 60% of each Forest to be clearcut in the next 20 years. The Forest Service wants to build enough new roads to create 2 miles of road per square mile of National Forest.

The forests of the Southern Appalachians and of Florida are among the most diverse anywhere. One-half of the nation's tree species live in southern forests. Half the country's population lives within a one day drive of these forests and they are the most heavily used for recreation. Yet, the Forest Service persists in spending its money on roads and clearcuts, not trails and wilderness.

For years, the general impression was that folks in the South would swallow this land abuse hook, line and sinker. Well, not any more, Yankee! The South is rising again!

Seldom in my years on the road have I felt such commitment to stop the destruction. Southerners are generally friendly, conservative, and slow to get riled, but get them upset and ... "George bar the door." This is happening in every city we visited on the Green Fire tour.

Earth First! is on the rise in Florida. Folks in Gainesville and Tallahassee are hot after the Dept. of Environmental Regulation. Tallahassee and Gainesville shared a demo in Tallahassee following the Green Fire tour. Earth First!ers stand ready to help Sea Shepherd stop dolphin captures in the Gulf. Birmingham EF! is working to save the Cahaba River, which flows through Birmingham and has more species of fish than any other American river. Students in Birmingham and Montgomery are becoming politically active in environmental issues and in recycling. EF! is also rising in Atlanta and Athens,

GA. Further north, citizens Asheville, NC and Knoxville, TN stand on either side of the Smokies and are committed to out-do each other to preserve the region. North Carolina was the hot-bed of environmental conferences this fall. Chapel Hill just had a major student environmental conference. The Asheville area hosted a biodiversity conference, regional activist conference, and recycling conference.

Activists in the South seem inclined to focus on these issues: 1) Saving the South's numerous and diverse rivers, which are now being destroyed by siltation from clearcutting and pollution from paper mills. 2) Stopping the clearcutting of the southern forests. 3) Restoring Red-cockaded Woodpecker habitat. 4) Restoring coastal habitat. 5) Restoring the high elevations of the Appalachians. 6) Curbing development, roads and toxic polluters.

For me, the South means a refreshing change from the internal bullshit that is drawing down some established EF! groups. Let's hope the folks in the South can learn from our inactivity and break the cycle of timidity. Rumor has it that there will be a Southeast RRR in early May. We'll be singing songs of "Dixie" around the campfires in 1990!

IMPLICATIONS OF THE FBI'S GROWING INTEREST IN EF!

Speaking of bullshit, we are up to our ears in it now. As the full scope of the FBI investigation comes to light, what are the implications for the way we conduct ourselves? None of us have any doubts about the feds trying to entrap Dave Foreman and others. Michael Tait (Mike Fain?), Ron Frazier and "Kat" Clark tried hard to talk EF!ers into committing illegal acts and the best they could do was one night in the desert. The cases are flimsy, but still the harassment takes its toll. The "investigation" of the Arizona Four is apparently over, but other "investigations" just as chilling continue.

The feds continue to follow and harass folks within the movement (including myself), alleging that we had something to do with the downing of powerlines at the Palo Verde nuclear power plant in 1986. This has no basis in reality, as the feds must know, yet they seem determined to convict EF!ers.

The FBI's seizing of personal effects and diaries of EF!ers in Missoula, and then sealing the search warrant affidavits, should send chills down the spines of everyone who cares

about civil rights. With such direct violations of 4th amendment rights occurring, none of our personal possessions or papers are secure. Even as Eastern Europe becomes more open, the "freedom" we have in this country becomes ever more hollow.

The violation of our civil rights should come as no surprise to those familiar with social movements. It is new to the environmental community, however. It can be said that we have brought it upon ourselves. We have challenged the very foundations of the developers and timber beasts and they are irritated enough to bring the full brunt of their allies down on us.

What to do? First, we need to go back to an old adage: "tell me no secrets, I'll tell you no lies." As long as we have no secret meetings, nothing in our daily business that cannot be public, we are untouchable. The feds cannot deal with a movement that has no leaders and no secrets. So what if they rifle the files. So what if they "infiltrate" our meetings. Second, we need to form long-term affinity groups — admit that we are in this for the long haul and work with friends we can trust for years. Third, we need to develop strategies to integrate new people into our movement carefully and safely. Fourth, it's time those of us who have been involved for a long time get together and discuss where the movement is going. Fifth, it's time for some of us to personally stop monkeywrenching; but it's also time for others to begin (on their own, at night, with their parents' permission). We must not forsake advocacy of monkeywrenching. It's long been the case that most monkeywrenchers have nothing to do with EF! Sixth, it's time to fight, in court if necessary, those taking away our civil rights. If our civil rights go, wilderness has no chance. If we allow this repression to continue, those who work in the mainstream will be next. The developing thugs will do their utmost to prevent an environmental consciousness from emerging. We need to get word of the tactics used against us out to all allies so that the feds cannot use the tactics they've used on us with others.

We have always had a lot to do; now the work-load will be heavier for a while. We will weather this storm too, and we will be stronger because of it. The feds don't know it yet, but they've done us a favor.

—Roger Featherstone

INDIAN GIVER

by Andrew Bard Schmookler

When I was a kid, there was an expression you don't hear much any more: *Indian Giver*, which meant someone who gave a gift, and then expected to get it back.

It was a pejorative term, and I suppose the expression has fallen into disfavor because people think it's an ethnic slur on the Native American. But recently from reading a book about the Gift, I've come to understand that it is not the name itself — Indian giver — that shows our ethnocentrism. It is our thinking there's something wrong with being an Indian giver.

The root of the matter is that the Indians had a different sense of ownership from ours. And different doesn't mean worse — particularly in this case.

Among the Indians, a treasured object would be "the Gift" — something that would move among the tribe, never *belonging* to anyone. (Hyde, Lewis; *The Gift: Imagination and the Erotic Life of Property*, 1983) So an Indian might pass the Gift to an Englishman who, with his sense of property, thinks

"Great! We can keep this in the British Museum." The Englishman is into *accumulation*, and he is annoyed when an Indian, seeing the Gift in the White man's house, keeps it moving by taking it with him.

In the Indian giver and his counterpart, the *White Man Keeper*, we see two ways of relating to the goods of life: as things that flow on through, or as things stored and possessed.

We all know how the contest between these two approaches to life turned out. Those who were into acquisition acquired the homelands of those who were not. The continent is now possessed by those with a sense of possession.

But to say that the way of possession has triumphed is not to say that we are the winners. Not if we ourselves are *possessed by the spirit of possession*. We live in the richest country in the history of the world, but we're always hungry for more. As if our things were themselves so much stored up happiness. As if money, embodying all the gratification we've delayed, were a promissory note for a future of fulfillment. Like magic.



I saw on television a few years back a feature on some Hollywood mogul with 250 telephones strewn around his Beverly Hills estate, as if by magic his owning those phones assured that he would forever be connected with the world. And then there is Imelda Marcos's amazing collection of 3000 pairs of shoes — as if she thought that, by magic, she herself would last until all those shoes were worn out.

But life is not like that. As the saying goes, "You can't take it with you." Anyone

who insists on fighting that fact of life is sure to lose.

Life is a gift that's not ours to keep. All we can do is pass that gift along in our tribe, which alone endures.

The Lord giveth and the Lord taketh away. There's the archetypal Indian Giver.

Andrew Schmookler is the author of *The Parable of the Tribes: The Problem of Power in Social Evolution*.

Fragments of Earth Wisdom

Yule, Christmas, and the Seasonal Affective Disorder

by Dolores LaChapelle

The human body evolved on the planet in close contact with the earth. Breaking these bonds with the earth leads to peculiar types of insanities found in cities. Breaking the bonds with the earth causes "the paper reality" of civilization to encroach upon one's consciousness to a point where one believes that the paper reality is real, rather than a convenient construction of man.

—John Lilly

When I did the research for my book, *Earth Wisdom*, back in 1977 the only material I could find on the influence of positive and negative ions on humans was a badly translated document from Russian research. Essentially, American authorities refused to admit such a possibility, so the best research was being done in Russia and Israel. Having lived in Switzerland I knew that the Swiss recognized the effect of positive ions from the *foehn* wind which blows in the spring. If one had a *foehn* headache one could leave work. Occasionally, when the ion effect was unusually severe, they even closed the schools. Because I am "weather sensitive," I could see the wisdom in this; hence began research into seasonal and weather effects on humans.

By the time I wrote *Sacred Land Sacred Sex*, this country had finally begun to recognize the situation, labeling it Seasonal Affective Disorder or SAD. Now, only a year later, we have a full blown new academic discipline called biometeorology to cover the entire spectrum of human relationship to seasons and weather. Just a few years ago scientists estimated the population incidence of seasonal-related depression at only 5%, but at a recent American Psychiatric

Association meeting they said it's far higher.

In addition to seasonal winds such as the *foehn*, another potential SAD source is the approach of winter, which triggers what is called the "hibernation response." More melatonin, a pineal gland hormone, which prepares the body for sleep, is produced in the darkening days of autumn and winter. This can lead to depression in some people. According to Whybrow and Bahr: "... the urge to hibernate is a response of the human as animal. It's that conflict between the tendency to hibernate and the impossibility of doing so which makes autumn and winter a disastrous time for millions of us around the world."

There's a quick technological fix for this of course — "make your own sunlight by using a bank of full-spectrum fluorescent bulbs." That means still more use of electricity, thus more dams, high tension wires, etc. The natural remedy is seasonal festivals. Archaic human cultures for at least 50,000 years countered the effects of increasing darkness with ritual festivals to overcome the anxiety and quarreling. Tribes in this country who lived in dark, gloomy winter areas had specific rituals for this purpose. For example, the Iroquois did the "false face ceremony" which lasted for weeks. Each day they shared their dreams of the night before; and then around the shared fire in the long house, acted out the more powerful ones; thus resolving bad feelings, conflict and depression.

The other common "weather sensitive" effect, the type associated with seasonal winds, is due to varying ratios of atmospheric ions. An abundance of positive ions in the atmosphere can lead to symptoms such as irritability, headaches, anxiety, insomnia, nightmares, nausea, and depression. Higher ratios of positive ions occur in cities and from so-called ill winds. Negative ions have a calming, healing effect on humans and are produced by waterfalls, ocean waves, and the tips of vegetation (another reason why trees are necessary). Traditional cultures held festivals when such bad winds occurred, as well as when the dark season arrived.

The basic orientation of all festivals is provided by the inter-relationships between the two circles: the circle of the four seasons (sacred time), and the circle of the horizon around us — the "Powers" standing in each of the four directions (sacred space), mediated to us by the "holy winds" that walk about the "rim of the world." The pivot of these two circles is the power of the relationship between Mother Earth under our feet and Father Sky above our heads.

Aboriginal means "native to a region" (from the Latin, *ab*, "from" and *origine*, "the

beginning"). *Sacred* has to do with "the power" that flows through all the cosmos. In most major civilizations it gets lodged in one god above all else. But in Aboriginal cultures, still in touch with their roots in the land, it has to do with the flow of power through the plants, animals, land, humans, gods, earth and sky. As long as this flow of energy circulates unimpeded, it is sacred — whether it is flowing through food, sex, birth or death. One who tries to stop this flow arbitrarily or to control it for one's own ends brings doom onto himself or his people or the earth of his own place. The human mind, having come out of nature, follows the same patterns as nature. "Heaven, earth and man have the same *Li* (pattern)."

The major earth festival days rectify or realign this flow of power so that it does not get badly out of balance due to human arrogance. Our Celtic ancestors held their major Samhain (Halloween) Festival when the growing darkness of autumn came. The Celtic people originated about where Yugoslavia is today and moved west, reaching France, Belgium, parts of Italy, Ireland and Scotland. They brought their cattle into nearby fields at Samhain (late October). Later, as it grew close to severe winter, decisions were made about how many cattle could be carried through the winter with the available fodder. The rest were slaughtered, after which came a feast on the meat as the people gathered around giant bonfires to counter the growing darkness. Eventually this feast was fixed in the Germano-Celtic calendar in the middle of November under such designations as *Juleis*, *Giuli* and in Scandinavia, *Yule*. When the Christians took over, the *Yule* rituals were added onto the Christmas festival.

The actual date of the birth of Jesus is not mentioned anywhere in the Gospels. Pope Liberius officially fixed the date as December 25 to counteract the Saturnalia and the Mithraic ritual in honor of the birth of the Sun. December 25 in the old calendars coincided with the Winter Solstice.

In our modern world, unfortunately, all the festivals have been loaded onto this one day. The myriad good effects, which only a true festival can accomplish, are all "supposed" to happen on December 25. The result, of course, is disaster! There are too many expectations without any real grounding in the power of the returning sun with its blessings on people and place. Besides sheer loneliness, there is increased violence within families and even suicide on this day. In his article, "Tis the season to be lonely," Melvin Maddocks says getting out of this "lost centre of loneliness is like climbing out of a sand pit. Is it because we lack rituals?...and all the villages have become so big!"

Maddocks hits two of the main problems here but misses the root of it all. "Psychology without ecology is lonely," as Tom Jay tells us. Until more people realize that we

must include the earth, the sky and the place in our celebrations, there will be no "climbing out of the sand pit" of loneliness.

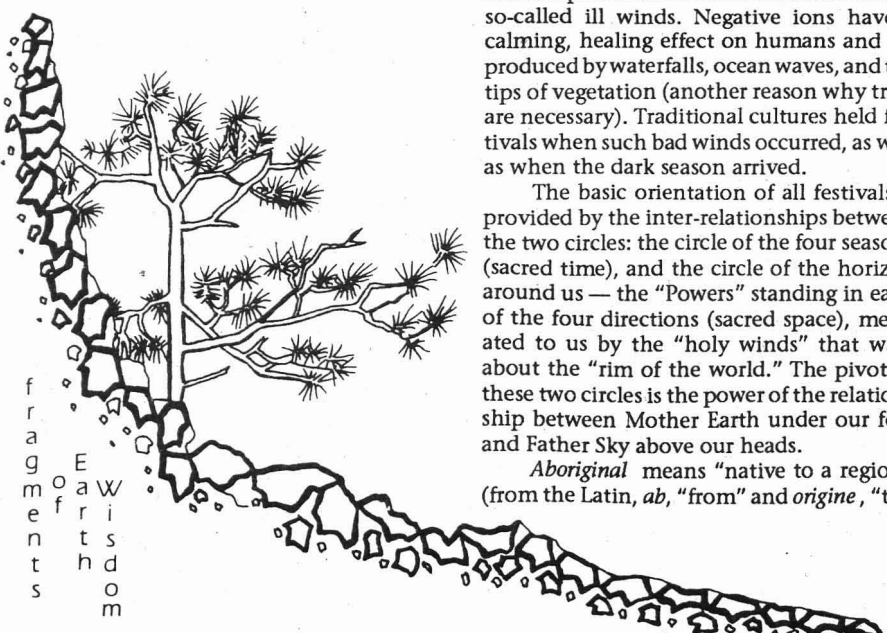
Because Winter Solstice is the longest night of the year, the anxiety brought on by darkening days reaches its peak then. In archaic times it was felt that if proper attention and respect was not paid, the sun might not turn back toward his summer house and it would just get colder and darker. In these modern days, we find that due to human greed, smog is growing and the sun is losing some of its power — at least as far as we here on earth are concerned. "The sun is becoming darker," Loloma, a Hopi artist, said at a Convocation of Indian Scholars at Princeton University. At this meeting, as others made speeches about the problems of Indians and the future of America, Loloma thought they were ignoring the true problem. "I stood up and all I had to say were seven words: 'In the East, there is no sun!'" At first there was silence, and then everyone applauded.

Winter Solstice is a World Renewal Ritual; and in such rituals, the entire "sacred hoop of the world" is present. In "Future Primitive" Freeman House writes of the "richness and complexity of the primitive mind which merges sanctity, food, life and death — where culture is integrated with nature at the level of the particular ecosystem." And *nothing* is left out. An Eskimo shaman, Ivaluardjuk, says: "The greatest peril of life consists in the fact that human food consists entirely of souls." The heightened awareness that comes from recognizing this awesome responsibility works toward a sense of dynamic harmony with the "rest of the world." We, in the modern world, are so little at peace within our own selves and in our relations with each other because we are not at peace with our "place," our land. Seyyed Nasr says the Earth, our Mother, is our closest bond and until we end our violence against the Earth, how can we hope to end our violence against each other?

Not only can you counteract depression, you can renew your "world" by celebrating Winter Solstice together in the "old way." I give directions in Chapter 14 of *Sacred Land Sacred Sex* on how to accomplish this as well as further insight into the importance of World Renewal Festivals for bonding human beings with their place on earth.

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THE CHALLENGE OF GLOBAL WARMING; Dean Abrahamson, editor; introduction by Senator Tim Wirth; 1989; Island Press, 1718 Connecticut Ave NW, DC 20009; in cooperation with Natural Resources Defense Council; cloth \$34.95, \$19.95 paper; 350pp.

ENTROPY: Into the Greenhouse World, revised edition; by Jeremy Rifkin with Ted Howard; 1st published 1980, revised 1989; Bantam Books; distributed by The Greenhouse Crisis Foundation, 1130 Seventeenth St. NW, Suite #630, DC 20036; \$9.95 paper; 350pp.

THE END OF NATURE; by Bill McKibben; Random House, 201 E 50th St, NYC 10022; \$19.95 hb; 225pp. Soon to be carried by the Earth First! Bookstore.

These three new books are among the early works to address anthropogenic climate change (and to challenge Twain's classic remark that everybody talks about the weather but nobody does anything about it). They are valuable for activists fighting for population control, simple living, recycling, or deindustrialization ... insofar as these appear to be prerequisites for averting climate changes far greater than those we've already induced. The first two books are projects of environmental groups, Natural Resources Defense Council and The Greenhouse Crisis Foundation (which emerged in part from The Foundation on Economic Trends, a group Rifkin leads); the third is by a former *New Yorker* staff writer.

Though there is no reason to see these books as rivals, it is interesting to compare the two sponsored by environmental groups. Abrahamson et. al. offer more statistics and predictions pertaining to climate change. Rifkin more explicitly points to the source of the greenhouse crisis: technology. Rifkin uses the second law of thermodynamics (the entropy law) to show that machines always represent a conversion of energy from a usable to an unusable form, and that even with so-called renewable energy technologies, pollution is unavoidable. That *Entropy* is more forthright than *Challenge* in citing problems inherent in technology suggests that Rifkin's group, The Foundation on Economic Trends (despite its singularly uninspiring name), is more willing to go to the

root of problems than is the more mainstream Natural Resources Defense Council.

Bill McKibben's book has received perhaps the highest compliments of the three: It has been reviewed with derision by newage theorist Walter Truett Anderson and by a *Forbes* magazine writer. McKibben brings global climate change home, simply yet skillfully showing what the greenhouse effect really means: It means the end of Nature. In saying this, McKibben does not mean that the planet will cease to be inhabitable. No, life will survive, McKibben thinks, but it will no longer be — indeed, *no longer is* — Nature; that is, it no longer has existence independent of humans, for we have altered everything, even the globe's upper atmosphere and climate. In an unusually frank and insightful discussion of *what we can do*, McKibben describes the 2 main options he sees: 1) We can maintain our defiant refusal to conform to Nature, and create an altogether artificial world, through genetic engineering (another big GE!) and macromanagement of the planet. This would in essence be the second death of Nature, as we would then be not only altering but *manipulating* life from the microscopic level to the global level. 2) We can choose the path being touted by a small, somewhat peculiar band of nonconformists who call themselves Earth Firsters, deep ecologists, and such. These people uphold a humble attitude toward Nature, and so does McKibben, with eloquence.

In short, *Challenge* is perhaps the best popular source of data on the greenhouse effect; *Entropy* is a compelling critique of technology; *End* is among the most lucid environmental books of recent years; and all three books provide informative and depressing reading. These selections exemplify their sad tidings:

CHALLENGE: *While we don't know nearly enough about the operation of the earth's climate system to make reliable predictions of the consequences of the greenhouse buildup, we do know enough to say that these impacts are potentially quite serious. Regardless of the scenario adopted, it seems to me that the earth's remaining wildlife will be dealt a serious blow. If, as the climate record in ice and sediment suggests, climate changes come in leaps rather*

Why the Greenhouse Effect Could be a Major Inconvenience

*The Earth has a unique atmosphere, not frigid cold like Mars, nor broiling hot like Venus. The localized aberration called Life on Earth is a benefactor of, and interactive with, this comfortable atmosphere.

*About 99% of the aerial gases surrounding our planet are nitrogen and oxygen, which have little direct effect on climate.

*Among the remaining 1% are gases that allow solar radiation into the lower atmosphere, but trap heat on its way back out. These "greenhouse gases" warm the Earth, which would otherwise be a ball of ice.

*As more and more of humanity has been dragged into the industrial mode, greenhouse gases, notably carbon dioxide and methane, have progressively (and exponentially for the last four decades) accumulated in the atmosphere.

*In theory, if greenhouse gases build up, more heat will be trapped near the planet's surface and climate will intensify, leading to bigger and more frequent hurricanes, rising seas, drought over large regions, and chaos for agriculture and natural ecosystems.

*Analyses of ancient air trapped in bubbles within deep polar ice affirm the relationship between greenhouse gases and prevailing climates. The ice shows that over the last 160 millennia, through ice ages and hot times, CO₂, methane, and global temperature have increased and decreased together.

*The ice also shows that the current atmospheric load of both CO₂ and methane, the most important gases affecting climate, is greater than at any time since at least 160,000 BP.

*Evidence is accumulating that the in-

tensified greenhouse effect is upon us: The extent of polar ice has declined; sea level has been rising faster and with more certainty than previously thought; and global temperature has increased, with the six hottest years in the 12 decades of direct measurement all occurring in the 1980s.

*Though the 1990s could be hotter still, it is not certain because climate naturally varies. Climate is a product of literally billions of continuous interactions between the atmosphere, water, heat, and the entire Biosphere.

Only the naive or arrogant would attempt a detailed prediction of this infinitely complex organism's behavior for any given decade. But it is clear that severe alteration of the planet's atmospheric chemistry is well under way, and reasonably certain that, without dramatic changes in the way industrial societies operate, most people under the age of 40 will live (and die) to see the destructive power of a climate gone berserk. Of course, the Biosphere is already enduring worldwide ecological attack that will act synergistically with the greenhouse effect, escalating the destruction.

Fortunately, the changes in daily human lifeways required to save the Biosphere are the same as those needed to ward off global heating: Stop killing ecosystems; stop burning fossil fuels; stop reproducing so many cows and people that consume and fart so much.

Indeed, climatological science is acknowledging what eco-radicals have sensed all along. We of industrial ways will change radically, or be subject to radical change, of very unpleasant sorts.

—Bhyst Wrath

than gradually, then the greenhouse buildup may threaten the continuity of our food supply. To date, we have dealt with this problem as if its impacts would come in the sufficiently distant future and so gradually that we could easily cope with them. While this is certainly a possibility, there is, I believe, an equally large possibility that the impacts will be considerably more dramatic. Hence, we must pull our heads out of the sand and deal with the climate problem as with the cancer problem and nuclear defense problem. As there are no quick fixes or easy solutions, we must gear up for the long, hard job of figuring out how the Earth system operates....(ch.13, "Greenhouse Surprises," Wallace Broecker)

ENTROPY: *The greenhouse global warming trend cannot be effectively reversed in the short run. It can however be slowed down enough to allow our species several more decades of lead time to adjust to the epochal change in the economy and climate of the planet. Buying just a few decades of precious time may well make the difference between survival and extinction for much of life and civilization.*

There is no quick technological fix to the greenhouse phenomenon. The only solution is to eliminate the sources of the problem. At both the Belagio Conference held in Italy in 1987 and the Changing Atmosphere Conference held in Toronto, Ontario, in 1988, scientists from around the world agreed that the first order of business is a radical reduction in the burning of fossil fuels — coal, oil, and natural gas — that produce CO₂ emissions. The goal is 50% or more reduction in fossil fuel use by 2015. To reach that goal, governments must begin immediately to devise programs to increase efficiency. That initiative should begin with the United States and the Soviet Union, who together account for nearly 45% of the fossil fuel burning CO₂ emissions on the entire planet. (p.210-11)

END: *I've been using the analogy of slavery throughout this discussion: we feel it our privilege to dominate nature to our advantage, as whites once dominated blacks. When one method of domination seems to be ending — the reliance on fossil fuels, say — we cast about for another, like genetic tinkering, much as Americans replaced slavery with Jim Crow segregation. However, in my lifetime that official segregation ended. Through their courage, men and women like Martin Luther King and Fannie Lou Hamer managed to harness the majority's better qualities — idealism, love for one's neighbor — to transform the face of American society. Racism, it is true, remains virulent, but the majority of Americans have voted for legislators who passed laws — radical laws — mandating affirmative action programs.... It would be wrong to say categorically that such a shift couldn't happen with regard to the environment — that a mixture of fear and the love for nature buried in most of us couldn't rise to the surface...*

Most of my hope, however, fades in the face of the uniqueness of the situation. As we have

seen, nature is already ending, its passing quiet and accidental. And not only does its ending prevent us from returning to the world we previously knew, but it also for two powerful reasons, makes any of the fundamental changes we've discussed even more unlikely than they might be in easier times....

The end of nature is a plunge into the unknown, fearful as much because it is unknown as because it might be hot or dry or whipped by hurricanes. This lack of security is the first reason that fundamental change will be much harder, for the changes we've been discussing — the the deep ecology alternative, for instance — would make life even more unpredictable. One would have to begin to forgo the traditional methods of securing one's future — many children, many possessions, and so on....

...Every good argument — the argument that fossil fuels cause the greenhouse effect; the argument that in a drier, hotter world we'll need more water; the argument that as our margin of security dwindles we must act to restore it — will lead us to more La Grande projects, more dams on the Colorado, more "management." Every argument — that the warmer weather and increased ultraviolet radiation is killing plants and causing cancer; that the new weather is causing food shortages — will have us looking to genetic engineering for salvation....

At the same time — and this is the second kicker — the only real counterargument, the argument for an independent, eternal, ever-sweet nature, will grow ever fainter and harder to make. Why? Because nature, independent nature, is already ending.... (pp.204-6, 209)

ECOLOGY, COMMUNITY, AND LIFESTYLE; Arne Naess, translated and edited by David Rothenberg; Cambridge University Press, 32 E 57th St, NY, NY, 10022; 1989, \$44.50 cloth; 220pp.

Deep ecology philosophical writings are reputed to be esoteric and abstract. *Ecology, Community, and Lifestyle* thus comes as pleasant surprise: Despite some elusive parts, as a whole, this book is understandable even for the uninitiated, and practical for anyone wanting to reduce their adverse impacts on Earth. Its practicality is evident from the many pressing topics Arne Naess (the Norwegian philosopher who coined the term 'deep ecology') addresses, including simple living and direct activism, green politics, conservation biology, and ecologically sound economics. Its comprehensibility is due in part to the fine work of editor David Rothenberg. Rothenberg, an American philosopher, lucidly introduces Naess's philosophy and dispels some common misperceptions about Naess and deep ecology. (See also Arne's article in this issue.) One of these misperceptions is that deep ecology is a dogmatic, rigid philosophy. Rothenberg and Naess both emphasize that deep ecology

THE DEEPNESS OF DEEP ECOLOGY

by Arne Naess

Long ago I read in *Earth First!* an amusing article about the pretentiousness of the term "deep ecology." Unfortunately, terminology is important, and I think some clarification is still needed.

In about 1971 I started to use three terms: "the deep ecology movement," "supporter of the deep ecology movement" and "ecosophy." The term "deep ecology" slowly gained acceptance as a somewhat ambiguous word synonymous to one of the three terms or corresponding to combinations of the three. "Deep ecology" is useful in its shortness — for instance in titles — and also as a near synonym for "ecosophy." By the latter term I refer to the articulations of a total view partly inspired by ecology and the deep ecology movement and being closely tied to decisions and actions. That is, an ecosophy is not an academic philosophy which may lack careful reference to practical consequences in concrete life situations.

The "deepness" of the deep ecology movement, as opposed to the non-deep or shallow, consists, roughly speaking, in its insistence that to overcome the ecological crisis, deep (basic, fundamental) changes that affect every aspect of human behavior on Earth are necessary. The supporters of the non-deep or shallow movement accept, roughly speaking, that there is a crisis, but that new technology will take care of it, and only repairs on a moderate scale are necessary. On the whole: business as usual!

There is nothing pretentious about being a supporter of the deep ecology movement. A call for "deep change" is sometimes rather silly. By using the terms "deep" or "shallow" we do not imply that we are deep and others shallow. A couple of illustrations may help.

The famous Baron Munchhausen (1720-1797) once told of being thrown from his horse into a bog. Being physically very fit at that time and having marvelously strong hair, he dragged himself to the shore by his own hair. Nonsense, most people would say,

this is impossible according to the laws of physics because his arm was not attached to the shore. Shallow judgment, a "deep" fellow might say, physical laws are only inventions telling what had been the case millions of time in the past. We have to dig deeper into the problems of philosophy of science, perhaps also into the question of God's interference. Munchhausen may well be right and our physicists should propose new versions of physical laws compatible with the experience of the Baron. The example illustrates how a decision ("nonsense!") of little consequence is pertinent and not one that implies tremendous consequences for basic areas of the scientific enterprise.

Another example: Anne and Bertie, who have lived happily together for 10 years, disagree whether to buy the book *The Grapes of Wrath* or borrow it from the library. Their friend Charles hits a simple solution: He has read the book and proposes to give them his copy. Very superficial, says David, the fourth person of the drama. The disagreement reveals basic differences of attitudes. Give up your home, David continues, go to New York, contact one of the ablest psychiatrists, don't desire to read books anymore, or the fatal conflict might repeat itself! The "shallow" Charles is here the hero, not the "deep" David.

Suppose somebody says "You have been called a deep ecologist. But you are not an ecologist and certainly not a deep person." You might, for instance, answer, "You may be a much deeper person, but I never pretended to be deep or an ecologist. I am a supporter of the deep ecology movement and perhaps you also are — without knowing it."

In short, as supporters of the deep ecology movement we are convinced that deep changes must occur in order to overcome the ecological crisis and restore life conditions on Earth. We emphatically reject that to dig deep in this situation is to overreact. The two examples show that to ask for deep changes may in other situations be silly.

is a very general worldview compatible with any number of Earth-centered movements and philosophies. Naess's own philosophy, which he calls Ecosophy T, has as its ultimate norm Self-realization, but even this norm is amenable to numerous interpretations, so long as they involve recognition that Self is not bound by the individual ego, but encompasses all life.

This book should be read especially by mainstream environmentalists and critics of deep ecology. It will convince many of them that deep ecology is an appropriate paradigm under which to group today's various bio-centric movements and philosophies. Deep ecology's openness is suggested by this passage from the book's introduction:

... there are many motivations for the particular gestalt switch needed to reach an understanding of the abyss between our species and the Earth. One of Naess's aims is to reveal as many possible motivations as possible.

One thing common to all these motivations (ways of reaching the switching point) is that they all connect the individual to the principles of interconnectedness in nature. Naess's key concept in this is "Self-realisation," used throughout the book in various guises.... Arne stubbornly refuses to pin down this term to a rigid definition.

"People are frustrated that I can write an entire book upon an intuition that is 'nowhere defined or explained.' It is tantalizing for our culture, this seeming lack of explanation ... But if you hear a phrase like 'all life is fundamentally one!' you must be open to tasting this, before asking immediately 'what does this mean?' Being more precise does not necessarily create something that is more inspiring." (p.8)

THE UNIVERSE IS A GREEN DRAGON; by Brian Swimme; 1984; Bear & Company, Inc, PO Drawer 2860, Santa Fe, 87504-2840; \$9.95, 173pp.

The author is a physicist; his format is a conversation between wise old "Thomas" (after Thomas Berry) and a youth (after the immature human species). He tells a new/old story of the universe.

This book says things we already know/experience in diverse ways outside of thought. For me, the ideas tickled, bent, and stretched my left brain into contortions my right brain takes for granted, thus connecting them in ways that make me vibrate and hum with ecstasy. To Brian Swimme, Cosmic Allurement runs the gamut from gravity to instinct to interest to love. He cites the sea when discussing cosmic sensitivity, and mentions lands in cosmic memory. Fire's principle is unseen shaping; wind's is celebration! Simple statements he made about

fundamental principles, we know with our atoms, cells, spirits; principles that I express in song; that mystics and deep ecologists and magicians practice.

You must experience this book, not just read it. Like we must experience our lives, not just survive them, because we are the self-reflexive aspect of the universe. My view of gravity, its heavy connotations of weight and falling, changed dramatically after reading *Universe*. Allurement seen as attraction, longing, the glue that holds the universe together, the idea expanded out of the material plane linking it with a myriad of other planes! I was lost for hours just contemplating the implications! I couldn't read this book fast and will read it again and again, slowly assimilating ideas. I got the most out of it while sitting outside in the weather near living things, so I could stop and experience what he was talking about.

Reviewed by Peg Millet.

CONSCIENCE OF A CONSERVATIONIST: Selected Essays; by Michael Frome; U of Tennessee Press, Knoxville; 1989; \$24.95 cl.; 285pp.

Dave Foreman has called Michael Frome the finest environmental journalist in this country. Frome has a rare gift of weaving fascinating and informative tales, with conservationists as the warp and Nature as the weft. That is, Frome mixes human interest stories — often about colorful personalities in conservation history — with natural history. *Conscience* is an anthology incorporating many of his best essays from the 1960s to the 1980s. A taste of the book can be gleaned from a part of his discussion of Thoreau in the Maine woods:

One evening at dusk, I had gone paddling and fishing from my campground on the shore of Lake Umbagog, about midway along the Allagash Waterway. A bronze sheen of fading sun spread over the water. Across the lake a lone moose raised his dripping antlers, then submerged them to browse the roots of water lilies. Instinctively I thought of the words of Henry David Thoreau, which I had reread that very afternoon.

"It is all mossy and moosey," recorded the master of the Maine wilderness. "In some of those dense fir and spruce woods there is hardly room for the smoke to go up...."

How astonishing that the scene around me should parallel so closely Thoreau's description of more than a century ago! Such is the marvel of the Maine Woods. More than 80% of the state is covered with forest. No other state possesses so great a proportion... The towering white pines that once stood as high as 240 feet and were three

centuries old are now gone, though even they could return in time, given human wisdom and appropriate self-restraint. Still, Thoreau through the printed page is as valid a guide and companion as the day his words were written. (p.258; from *Vista*, fall 1973)

ON CONFLICT AND CONSENSUS; by C.T. Lawrence Butler; 1987; Food Not Bombs Publishing, Rm 306-35, 1430 Massachusetts Ave, Cambridge, MA 02183; 67pp; paper \$7.50 (more if you can, less if you can't), \$1.50 postage.

If war is the violent resolution of conflict, then peace is not the absence of conflict, but rather the ability to resolve conflict without violence.

This book is a gem for those wanting to incorporate non-hierarchical meeting processes into their everyday lives. It explains consensus in a clear, concise manner much the way Robert's Rules of Order describes parliamentary procedure. The secular form of consensus has its roots in the native nations of Turtle Island — such as Haudenosaunee (Six Nations Iroquois Confederacy). It came to many of us Amerigo Vesputians more recently via the Society of Friends, and is becoming a popular form of decision-making in many organizations.

Although the book explains processes particular to large groups, the formats can be used at work, school, for family meetings, large and small. Consensus is a great tool for subverting the dominant paradigm. Non-violence, trust, respect, and insusceptibility to infiltration, all contained herein, are important for building any successful movement.

To counteract these anti-democratic tactics by the state, the movement needs to develop and encourage decision making processes which cannot be covertly controlled or manipulated.... Since the assumption is one of cooperation and goodwill, it is always appropriate to ask an individual to explain to the group how and why their behavior is in the best interest of the group. Disruptive behavior should not be tolerated. While it is true this process cannot prevent openly disruptive behavior, the point is to prevent covert disruption, hidden agendas and malicious manipulation of the process. Any group for which infiltration is a threat ought to consider the process outlined in this book if it wishes to remain open, democratic and productive.

This self-published work by a long-time participant in direct action and civil disobedience is essential for anyone familiar or unfamiliar with consensus.

Reviewed by Deadmeat Verde.

Earthsounds

DESERT SOLITAIRE, by Steve Roach, Kevin Braheny, and Michael Stearns. CD \$15 or cassette \$9 from Celestial Harmonies, POB 30122, Tucson, AZ 85751. Add \$1.50 postage.

Edward Abbey once wrote that of all the music he knew, the music of Arnold Schoenberg and Ernst Krenek came closest to "representing the apartness, the otherness, the strangeness of the desert." Like Schoenberg's and Krenek's music, "the desert is also a-tonal, cruel, clear, inhuman, neither romantic nor classical, motionless and emotionless ... both agonized and deeply still." (*Desert Solitaire*, U of AZ Press ed. p.241) For those unfamiliar with the composers Abbey mentioned, what he meant was that music of the desert isn't "easy-listening."

How true. Good desert music requires close attention, like the desert itself. It is austere, spare, commodious — and sometimes unpleasant. I don't know if Ed Abbey would have liked the music I'm about to describe, an album named after his best-known book. Ed loved Bach, Beethoven, Mahler, and his feelings about electronic music are unrecorded.

But I urge you to sample this record — a memorial to Ed Abbey just issued by three well-regarded Los Angeles composers of electronic scores. Paradoxical as it may seem, these synthesizer whizzes have succeeded in capturing the eerie, the remote, the numinous quality of unspoiled desert spaces — with nothing but synthetic sounds. No good tunes here, and only rudimentary harmonies and simple rhythms. Unfolding and shifting timbres — that's what this music is. Listening to it will either open the door to stark yet unexpectedly rich landscapes, as it did for me, or it will leave you cold. Even if you don't like this sort of thing, listen anyway if you want to hear music history being made.

These sustained and subtle tones will evoke a landscape haunted by hawks, owls, spring peepers, singing crickets, and maybe a few lingering specters of the Anasazi. Listen for Kokopelle at the end of track 6. Spooky. Cleansing. If you keep the volume just about right, you might even get the 'oties to sing along.

Perhaps whatever remains of Edward Abbey is now participating in a telluric symphony we cannot even imagine, and might regard these composers' efforts as hopelessly crude. Who can tell? But I like to think that music of this quality comes close to evoking the spirit of the land Abbey most held dear. It's a fine memorial and a great listen.

Reviewed by Daniel Conner

Ned Ludd Books

ECODEFENSE

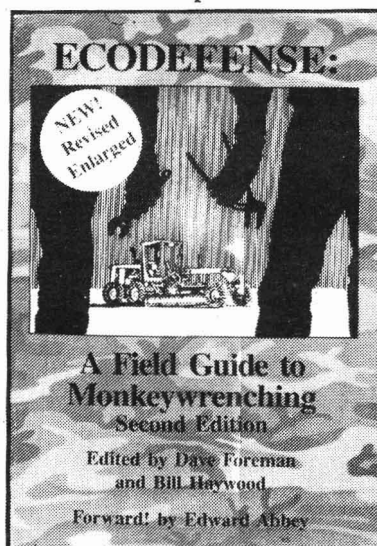
A Field Guide to Monkeywrenching
 Edited by Dave Foreman and Bill Haywood
 Forward! By Edward Abbey

Even before the FBI launched a \$2 million campaign to intimidate us from publishing and distributing it, ECODEFENSE was the most controversial conservation book ever written. Now with the accelerating destruction of wilderness, the failure of "legitimate" means to halt the destruction, and the crackdown by authorities against monkeywrenching, ECODEFENSE is needed as never before.

ECODEFENSE features detailed, field-tested hints from experts on:

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- ✓ Spiking trees
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- ✓ Felling billboards
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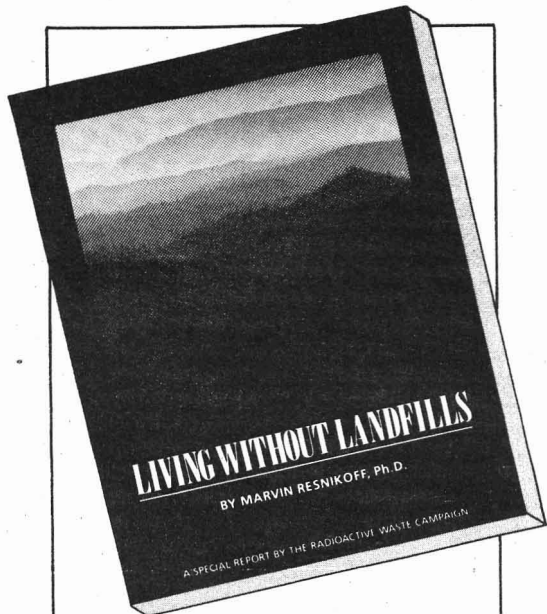
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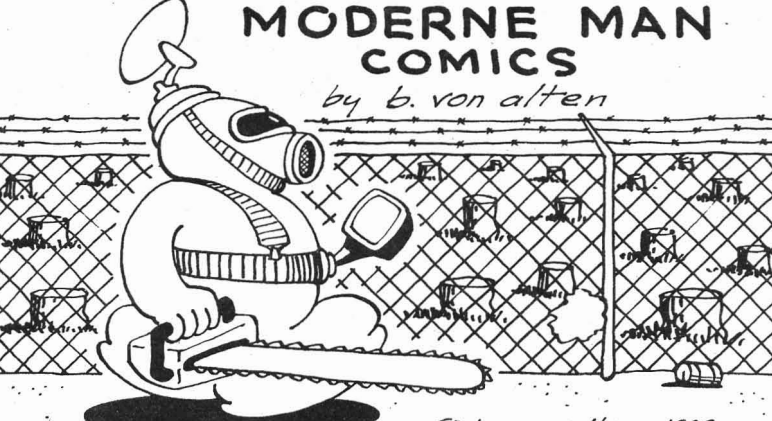
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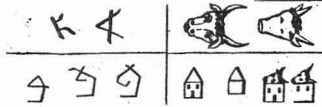
clear as cut glass
& just as dangerous

Due to space constraints, we reserve
the right to excerpt and occasionally edit—ED.



BYODO-IN

I look out with Amitabha through the temple
window
grey sky, rain has stopped
looking, looking.



Far from here
a light chop on the alpine lakes
a few flakes in the first winter wind

Fred Wah
South Slovan

From a recent chapbook, "Rooftops,"
published by Gary Lawless of Blackberry Books,
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DOWN UNDER

Below the fat belly of the Equator
where a billion simians grasp
for a scrap of food,

where a public turd is a sign
of at least one good mouth full
of another gaunt animal's dead end,

where sick jokes are more common
than enough paper to buy shelter
between some whore's spindly legs,

where you and I norteamericanos
dream to vacation,

try to live off golden sunsets
and the diamonds of the Southern Cross

Garrett Lambrev
Oakland

up here on Sweetwater Creek
we run after wild animals
try to jump into their skin
eat grass drink springwater
live with no fear
sing our songs
over warm blood

Ed Engle
Durango



"E"

from The Modern Word Association Alphabet

TAKURI

Hopi word for "yellow corn"

The saguaro are dying, jackrabbits
gnawing at their bases, digging
burrows in the Salt River bed
dry
running through Phoenix.

Coyote hangs rotting from barbed wire.

Sonoran Desert,
what can I do for you?
You're nothing now but a dead whore,
the only woman in town still raped
by those who'd pretend you loved them.

Overlooking Mesa
& its oozing slick of white
concrete houses, I turn my eyes
towards me - fields of brittlebush
climb the hills of Lost Dutchman,
a few bursting into a thousand suns.

Three walls of igneous rock
encase me, dirty arms
around my knees. Inside this red
rock husk I am no answer
just flesh, blood & bone
in a tiny golden seed.

Beth Fox
Santa Fe National Forest



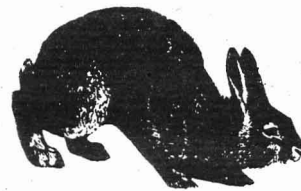
CHANT IX

Steamboat Mt., Wyoming

climbing up the slope I easy
side of a buffalo jump
I have no imagination for the sheer
for the run
or fall

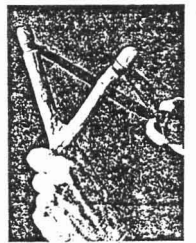
but a feel for the body of the boy that fell
adrenalin charged and flat
so gamey a squaw might say
the wolves wouldn't touch it

James Taylor, III
Black Hawk



Eco-System
Environment
Existence
Endangered
Epidemic
Emergency
EARTH FIRST!
Example
EXXON
Economically
Egocentric
EMPIRE

Loral
Mountain View



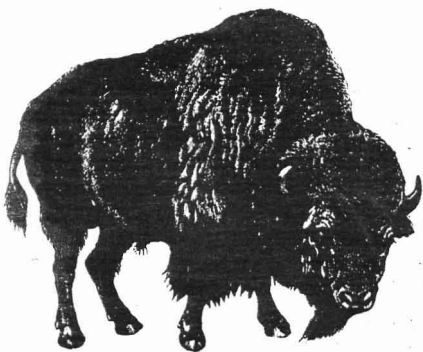
DELTA

Darkly-furred rocks
curving into silvery-pale
thighs of sand;
high tide licks you
salty-wet smooth.

Kim Ly Bui-Burton
Santa Cruz



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FROST

-from Dazzled, Floating Island, 1982

Notice each windowpane has a different
swirling pattern of frost etched on the glass.

And notice how slowly the sun melts
the glaze. It is indelible: a fossil of fern,
or a coelacanth, or a derelict who
rummages in his pockets and pulls out a few
apple cores. Notice the peculiar
angle of light in the slow shift of sunrise.

Where is the whirr of the helicopter?
the search for escaped convicts in the city?

Be amazed at the shine and the wet.
Simply to live is a joy.

Arthur Sze
Santa Fe



THE BOULDERS

-from The Sharp-Shinned Hawk (1987)

Some bird
was always riding the high limbs
of the dead cottonwood
below the house.

You saw it sweep the sky
like a dark woman.
The dentist below,
busy all winter with
his chainsaw,
got her this month -
brush stacked over the stump.

But in the open field,
two boulders
we never saw before.

Roger Dunsmore
Montana

INTERSTATE

The desert floor has swallowed
every noise, and a coyote
moves on sparkling steps
across his country, unaware
that it is growing smaller. No boundaries
block his way, but the lights
from the long road are too many.

In coyote time, they move
at speeds beyond the heart
along their blinding strip.
The distance sags
between desert cities, and the journey

is temporary, ending
where the land is a commodity
and once it has been sold
there is nothing to do
but to sell it again.

David Chorlton
Phoenix



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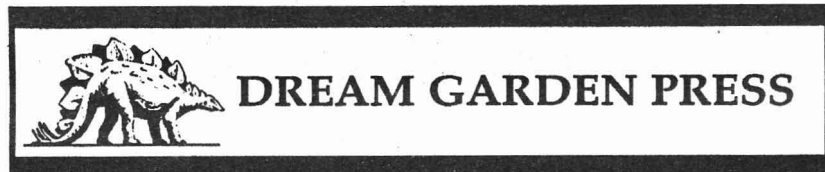
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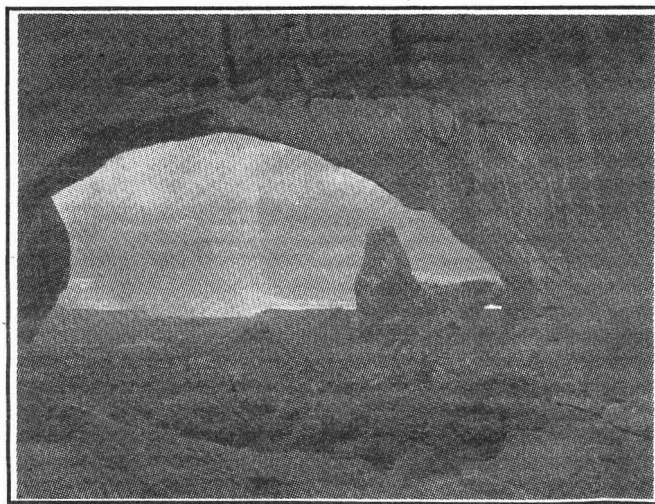
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At long last, Darryl took time out from his many blockade and demonstration gigs to record some of his latest radical tunes. Besides the title song, this has: Xerox The Money; Board of Forestry Song; Potter Valley Mill; Earth First! Maid; You Can't Clearcut Your Way To Heaven; Free The Dead; We're All Dead Ducks; Ballad of Don Hodel; Knocking on Extinction's Door; Ballad of the Lonesome Tree Spiker; Stop the War; Running For My Life; Where's Bosco?; Spike A Tree For Jesus; This Monkeywrench of Mine. Includes lyric sheet (complete with chord notations) and a classic burning 'dozer cover. \$9 postpaid.

Lone Wolf Circles "Full Circle"

A poetic journey into the artist's magical worldview, set to the music of man and the music of nature. A return to awareness and sensitivity, to our wild and true selves, alive and free. Gary Snyder says "Full Circle is a surprising experience; archaic, fresh, future; wild, refined, all at once. Which should be no surprise — that's how the real world is — my respects to Lone Wolf Circles." 27 poems. \$10 postpaid.

Lone Wolf Circles "Tierra Primera"

Live recordings of the Deep Ecology Medicine Show featuring Wolf's primal poetry

backed by a variety of musicians. Well engineered, this tape captures the spirit of a road show and makes you want to go out and do something. \$10 postpaid.

Dakota Sid "... For The Birds"

You've enjoyed the heart-stirring songs of Dakota Sid at the Round River Rendezvous. Now you can purchase his cassette featuring For the Birds, Eagle Song, High Flyin' Tune, Endangered Stranger, The Condor at the Western Gate, Runnin' with the Moon (Owl Song), and Hawks & Eagles. This one's for the birds — and all you bird lovers, too. \$10 postpaid.

Dakota Sid "No Mercy"

Dakota Sid's latest (and best!) album features the powerful song, "Greenfire" created on EF! roadshows along with the hit of the '87 Round River Rendezvous "It's All Bullshit!" Also includes Their Brains Were Small And They Died, It's All Right Kid, Expanding Universe, Redwood, 2187, The Seed, Smoke, No Mercy, Trouble Deep, and Nirvana City Blues. \$10 postpaid.

Kelly Cranston "For the Kalmiopsis"

Wilderness activist Kelly Cranston escaped from the hinterlands of New Mexico with a love of the land, a wicked sense of humor and a keen eye for Amurrican culture. After honing his music beside countless campfires, he finally put some on tape. Besides the title song, this includes Dragonfly, Country Song, Public Lands, The Greenhouse Effect (The American Response), Northern Pines, Free the Wolf, All of Stone, You Bet!, and Wisdom of Growing Older. \$9 postpaid.

Mark Graham "Natural Selections"

Intelligent, funny, misanthropic music with a twisted bluegrass flavor. Some great picking on songs like: I Can See Your Aura (And It's Ugly), I'm Working On The Food Chain, Have a Nice Day, Life Is Hard When You're Dumb, Their Brains Were Small and They Died (he wrote it), and more. \$9 postpaid.

Greg Keeler "Songs of Fishing, Sheep and Guns in Montana"

Greg Keeler's marvelously satiric first album pokes fun at everything worth poking fun at in the West. Includes: Ballad of Billy Montana, I Don't Waltz (And She Don't Rock'n'Roll), Drinkin' My Blues Away, Miles City Buckin' Horse Sale, Latter Day Worm Fisherman, Fossil Fuel Cowboy, Montana Cowboy, Cold Dead Fingers, Last Great American Cookout, I Call My Mama Papa, Good Morning Sailor, Make Bucks Get Rich, Roll On Missouri. \$9 postpaid.

Greg Keeler "Talking Sweet Bye & Bye"

Greg's encore and just as biting. Includes Little Bitty Bugs, There'll Come A Revolution, Talking Sweet Bye & Bye, Facilitators From The Sky, Talking Interface Blues, Old Friends And Lovers, Big Budget Woman, Church Bells, Ski Yellowstone, Idaho, Death Valley Days, Dark Clouds. \$9 postpaid.

Greg Keeler "Bad Science Fiction"

Keeler returns with an all new album: Bad Science Fiction, Cow College Calypso, Do Not Ask, Montana Banana Belt Cowboy, Nuclear Waste Blues, Is The Ouzle Stupid?, If Bears Could Whistle, Nuclear Dioxin Queen, What's Left Of The West, Ode To Rough Fish, Take Me Back, Duct Tape Psalm, Modern Problems Dancing. \$9 postpaid.

Greg Keeler "Post-Modern Blues"

Ohmigod, he's back. Includes: P-U-B-L-I-C L-A-N-D-S, Post-Modern Romance, Swiss Army Beatitudes, Rain Forest Rider, Give Us Fiber, Ryegate Montana Testicle Festival, Lament of the Laundromat, Lady Please Drive Me Back To Oklahoma 'Fore I'm Driven To Tears, and others. \$9 postpaid.

Greg Keeler "Nuclear Dioxin Queen"

Keeler goes pro, complete with backup musicians and slick production. This tape has a few new songs, including "Manly Men", hit single of the '89 RRR, and No Dog Bathroom. Otherwise, this is largely a "greatest hits" collection, with remixed versions of the title song; WD-40 Polka; Lady Please, Drive me Back To Oklahoma; Lament O The Laundromat; New Age Cowboy; Talking Interface Blues: Do Not Ask; and Bad Science Fiction. \$10 postpaid.

Katie Lee "Colorado River Songs"

Katie writes, "In the late '50s and early '60s, protesting anything the Wreck-the-Nation-Bureau did to our rivers was like putting out a forest fire with an eyedropper. Nobody was listening. The fact that NOW the Barry Goldwater and Stewart Udall types are 'sorry' doesn't make me feel one bit better — their gross mistake is still my sorrow. GLEN CANYON IS GONE and will stay gone until someone blows up that heinous dam or the great old Colorado gets mad enough to kick its ass downstream. Most of these songs were written before, and in protest of, those life-killing plugs and have survived to be added to, re-arranged and parodied by river runners. A few are new. They are LOVE SONGS to a truncated Grand and to those glorious canyons over whose bones the unenlightened multitudes race on a freeway of stagnant water." \$12 postpaid.

Katie Lee "Fenced!"

Twelve new songs about the old West, written in the folk tradition. These songs remind us of some of the things we should try to keep from slipping away. Includes: Wreck-The-Nation Bureau Song; Bert Loper; Ridin' Down The Canyon; Fenced; and others. 60 minute cassette. \$12 postpaid.

Katie Lee

"Ten Thousand Goddam Cattle"

28 spirited songs about an older and disappearing West. Includes: A Cowboy's Prayer; Old Dolores; The Last Wagon; Dobe Bill; Jose Cuervo; Empty Cot in the Bunkhouse; The Ballad of Alferd Packer; and more. 90 minute cassette. \$14 postpaid.

Katie Lee "Love's Little Sisters"

17 heart-tugging, poignant, yet tasteful ballads about the souls, lives and loves of women who made The West and its men! Includes: House of the Rising Sun; The Sisters of the Cross of Shame; The Hooker (written by Tom Paxton); Casey's Last Ride (written by Kris Kristofferson); The Flower of Virginia City Fire Company; and more. \$12 postpaid.

Dana Lyons "Our State is a Dumpsite"

A short but powerful cassette by Washington State environmental singer/songwriter Dana Lyons. Includes title song, The Company's Been Good to Me, The Stars Will Always Move, and Drying Tears. \$6 postpaid.

Dana Lyons "Animal"

Dana's long-awaited second tape is finally out. For anyone who has heard him at a RRR, you know he's one of the finest musicians and songwriters in the country. For those of you who haven't heard him yet, you'll just have to buy this tape. Includes: RV, Building One In My City, I Am An Animal, I Saw His Body, Music Off The Moonlight, Timebomb, The Tree, OEO When Will The Work Be Done, and others. \$11 postpaid.

Mokai "Clearcut Case Of The Blues"

Mokai is an original EF! tree-climber and accomplished blues guitar picker. His first album includes: California Condor; Goin' To The Wilds; Wild Places; Springhead Blues; Pollution Blues; Clearcut Case Of The Blues; Goddamn The Forest Service; Earth First! Now (What Did I Say?). \$9 postpaid.

Bill Oliver "Texas Oasis"

Bill Oliver's first inspiring, witty and rollicking album. Includes: Texas Oasis; Pretty Paper, Pretty Trees; If Cans Were Nickels; Shopping Maul; Village Creek; Holes; Snail Darter March; River Libber; Have to Have a Habitat; and lots more! \$9 postpaid.

Bill Oliver & Friends

"Better Things To Do"

Bill Oliver has rearranged his fine "Better Things To Do" cassette with the addition of several new songs including Turtle Island; Champ! (with the Austin Lounge Lizards); and Rio Grande Valley. Also includes Muir Power To You; Better Things To Do; Get Along Litter Dogies (with Jerry Jeff Walker); Pine Away Pine Bark Beetle; Grand Canyon Rendezvous (by Glen Waldeck); When I

Look Into The Sky; and more. \$9 postpaid.

Bill Oliver "In These Ancient Trees"

This short tape is a fundraiser for the Ancient Forest Rescue Expedition, and features two of Bill's best and most recent tunes: In These Ancient Trees and Woodpecker Rebellion. \$5 postpaid.

Cecelia Ostrow "All Life Is Equal"

Cecelia has one of the most beautiful voices in music today. The lyrics and music to her songs are haunting and profound. Includes: Sweet Oregon Home; Water; Wild Things; Forest Song; Oh California; Dark Time; You Were There For Me; and more. \$8.50 postpaid.

Cecelia Ostrow "Warrior of the Earth"

Here's a new taste of Cecelia's gently piercing voice and Earth-sensitive lyrics. Includes the title song, along with: The Blockade Song; Chicago; Eagle Creek; American Pacific Northwest; Bird Song; You've Got The Power; Idaho; My Soul Is Dancing; Love Song; The Day The Forest Died; In the Mountains; I Know A Tree. \$9 postpaid.

Rainforest Information Centre

"Nightcap"

An outstanding one hour long documentary of the successful defense of the Nightcap Rainforest in Australia in 1979. One half music including "Take Your Bulldozers Away," "Tonka Toys," and other great Australian environmental songs. The rest of the tape is live action recording from the blockade. \$10 postpaid.

Joanne Rand "Home"

Joanne was the surprise hit of this year's Rendezvous, with an amazingly powerful voice reminiscent of Joni Mitchell's early days. Another great find from the Pacific Northwest. Includes: I'll Be Washed Away, Eyes Like Salmon, Home, Blood Red, Wayfarer, Radiation On My Windshield, Banks of Time, Nobody Lays A Hand On Me, and Thanks. \$10 postpaid.

John Seed, Bahloo & Friends

"Earth First!"

From Australia, John has done more to launch the global rainforest movement than has any other single person and has become one of the leading developers of the Deep Ecology philosophy. His first album of Aussie music includes: Extinction, Handful Of Timber, Ballad Of Mt. Nardi, The Water Song, Tonka Toys, Solomon Island, Killing Of The Trees, The Future Is In Our Hands, and more. \$9 postpaid.

Jon Sirkis "A Few Less Colors"

Lone Wolf Circles reviewed Jon Sirkis' debut album in EF!, writing, "It is popular for its funny political ramblings, tunes that seem to have hitchhiked here from the sixties, the soles of their feet black from walking city sidewalks and kicking idealistic coals back into the philosophical fire." \$9 postpaid.

Susan Grace Stoltz "Circle of Friends"

The first tape from Susan Grace, performer on the most recent EF! roadshow, shows that Walkin' Jim isn't the only great singer in his family. Besides the title song, this includes: Old Time Friends, Song of the Arctic, Beverly's Song, Auroras Dance/Midnight on the Water, Coffee, Ribbon of Steel, The Love We Carry Within, Northern Lament, Chatanika River Song, and Follow Your Heart. \$10 postpaid.

Walkin' Jim Stoltz

"Spirit Is Still On The Run"

Walkin' Jim's deep voice and wilderness-inspired lyrics will send shivers up your spine and launch a howl in your heart. Includes: All Along the Great Divide; Lone Lion Runs; Followin' the Rainbow Trail; Yellowstone Tales; Sweetwater; and more. \$11 postpaid.

Walkin' Jim Stoltz "Forever Wild"

Walkin' Jim Stoltz has walked 15,000 miles across the wilds of the West. These songs were written in the wilderness and are sung with his incredibly deep and resonant voice. Jim's second album includes: The Brand New Grand Canyon Suite, The River Song, Just A Part of the Sky, Let Me Listen To The Wind, Wolf Song, Old Cisco, Follow Your Heart, I Walk With The Old Ones, Green and Growing, Forever Wild. Includes liner notes. \$11 postpaid.

Walkin' Jim Stoltz "Listen to the Earth"

Walkin' Jim has put out another classic, full of Earth-music. His passionate lyrics and deep voice put you straight out into the wilderness, or remind you of why you should go. Includes: River Runnin' Through It, Listen To The Earth, Man Of The Mountains, I'm Goin' Back To Idaho, Montana Moon In The Pines, The Sacred Buffalo, and more. \$11 postpaid.

Glen Waldeck "Wreckin' Ball Waldeck"

Longtime star of the campfire circuit and frequent accompanist to Bill Oliver (his humor makes Bill look like a straight man, a real accomplishment), Glen has finally put out a tape of his own stuff. And it's about time — we've nearly worn out the bootleg copy we got for the office several months ago. Includes: With My Friends, Tulsa Rag, N.O.L.A., Inspired By You, It's Apparent, Every Dog Has Its Day, Them People, Sign of the Times, Yellowstone or Bussed, Wreckin' Ball. \$10 postpaid.

NOTE CARDS FROM HELEN WILSON

The *Journal* is proud to carry a line of notecards from wildlife artist and EF! activist Helen Wilson. They are 4" by 5 1/2" and printed on recycled cardstock. \$4 postpaid for a set of eight (two each of four designs), plus envelopes.



& SNAKE OIL

T-SHIRTS

Unless otherwise noted, all shirts are 100% cotton and are available in sizes S, M, L, and XL.

NEW!

EARTH FIRST! SWEATSHIRTS

Years of requests and a trip to the Frozen Northlands (upstate New York) finally convinced us to print an EF! sweatshirt, and it turned out to be a beauty. It features the fist and slogan in emerald green on a gray 50/50 Hanes sweatshirt. \$20 postpaid.



French Cut Clearance Sale!

We are closing out our stock of french cut t-shirts. All french cuts will go for just \$5 postpaid, as long as supplies last. Shirts are all 50/50 blends in sizes S, M, and L (note that these shirts run very small), with colors and patterns as described in t-shirt listing. Please give an alternate selection with your order, just in case.

MOTHER GRIZZLY AND CUB
DEFEND THE WILDERNESS
EARTH FIRST!

LONG-SLEEVED T-SHIRTS

For cool-weather wear, we offer two of our t-shirt designs on long-sleeved 100% cotton shirts, with colors and patterns described in t-shirt listing.

MOTHER GRIZZLY AND CUB \$16 postpaid.
DEFEND THE WILDERNESS \$13 postpaid.

A NOTE ON TAN T-SHIRTS

Alas, we are victims of fashion! We expect to be running out of all our tan t-shirts over the next few months because we just can't get any more. Current fashion trends run to day-glo colors, and none of the big t-shirt makers are producing heavy-weight tan t-shirts. Oh, woe! Much as we at the Journal like tan, our current stock is all we expect to have for some months - until fashions change again. If you really want tan, get it now.

EMBROIDERED PATCHES EARTH FIRST!

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

These are black 3 inch diameter round embroidered patches with a red monkeywrench and the words HAYDUKE LIVES in red. \$3.50 postpaid.

DON'T TREAD ON ME

Monkeywrenching rattler on front with the words "Earth First!" and "Don't Tread On Me" (no longer printed on back). Brush Wolf's amazing full color snake seems ready to lunge off the shirt. Now in two colors: sand (tan) and watermelon (pinkish). Sorry, no large tans. \$13 postpaid.

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. "American Wilderness - Love It Or Leave It Alone" slogan. Art by Susan Van Rooy. \$13 postpaid.

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 shirt. \$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 cotton/poly 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.

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. \$10 postpaid. In kid's sizes, too! Only color is green, 50/50 blend, sizes S, M, and 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 shirt (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 (dark blue) or fuschia (hot pink). \$12 postpaid.

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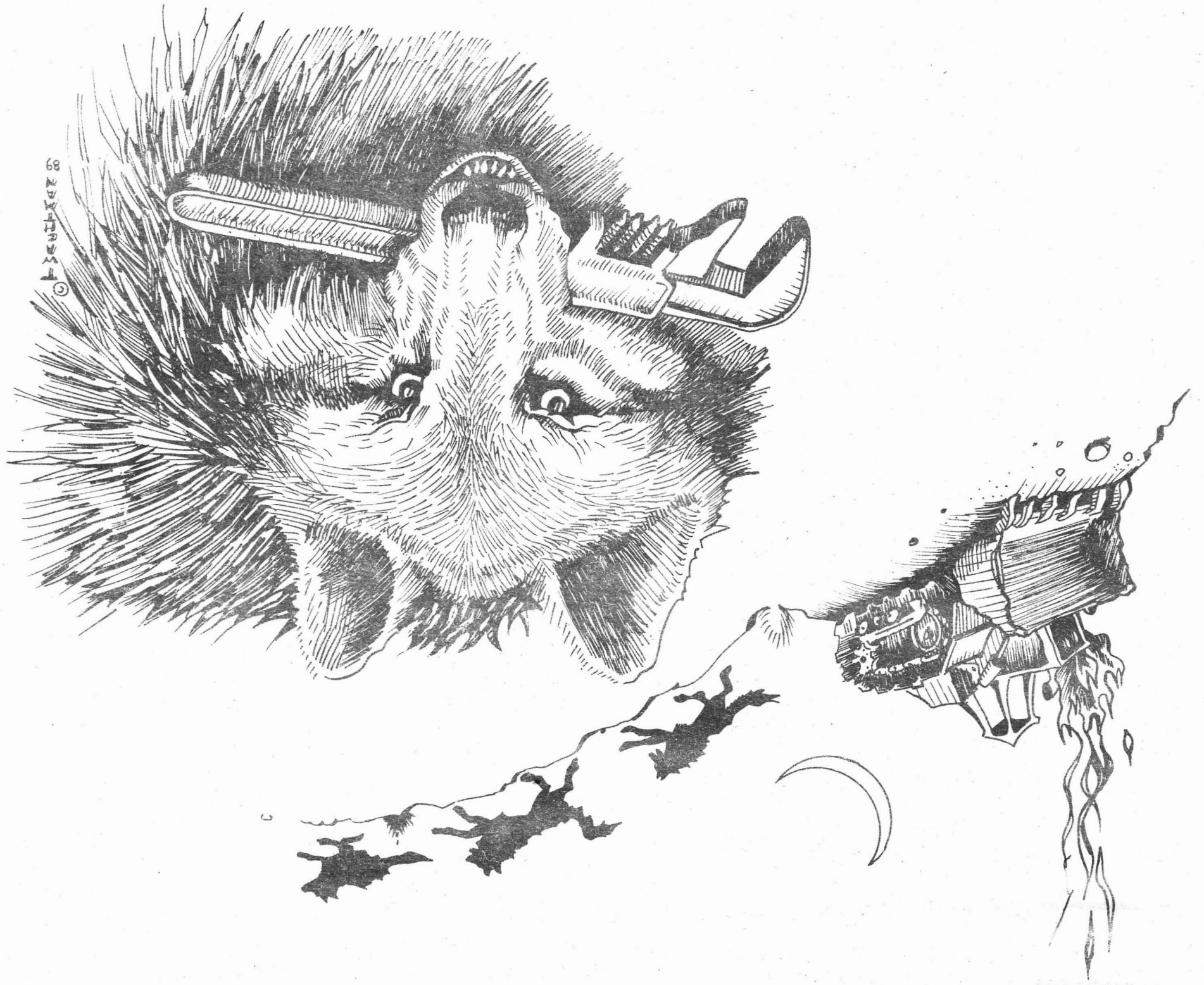
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