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High Country News

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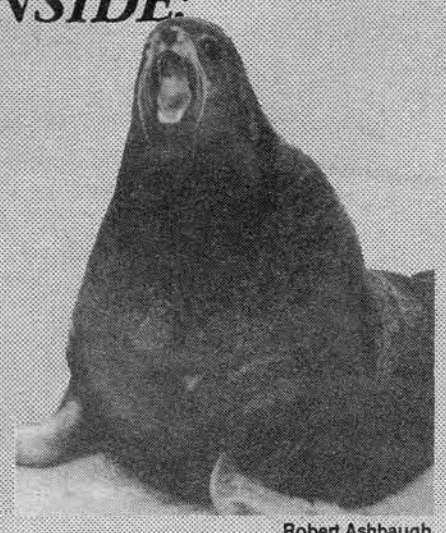
INSIDE:



Robert Ashbaugh

Sea lion

Audubon's 'ranch': ungrazed, but used

by **Roger Di Silvestro**

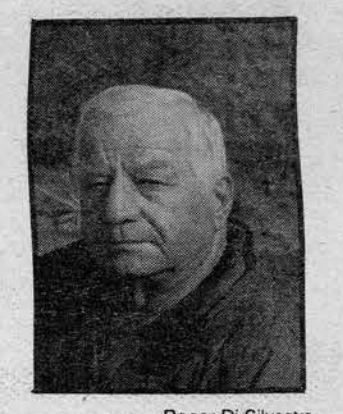
Throughout much of the West, even first-time visitors can't miss seeing the telltale signs of grazing: Grasses on road shoulders are often tall and crowned with seed heads. Grasses in fenced lands are cut short, like suburban lawns, and the vast landscape is dotted with piles of dung.

Harder to find is prime grassland where you don't see signs of grazing. This is what makes the National Audubon Society's Appleton-Whittell Research Ranch near Elgin, Ariz., so valuable. First homesteaded early in this century, the ranch was set aside by the Appleton family in 1968 as an ecological research center. Grazing was banned on its roughly 8,000 acres. Then in 1980, Audubon purchased the ranch with funding from philanthropist George Whittell and its name became Appleton-Whittell Research Ranch.

The ranch now serves as a baseline against which to compare grazed lands in the same region. Closed to public recreation, manager Gene Knoder says it exists primarily to provide scientists an opportunity for studying how previously grazed lands respond to the removal of livestock. But citizens groups also visit, such as the 6-6 group Dan Dagget wrote about Sept. 21 (see essay, letters and response by Dan Dagget following this story).

Some range managers believe the grasses on the ranch will grow "overmature" and "decadent," terms meaningless to those more interested in natural processes than in cattle and fodder. As Knoder puts it, the ranch "may go to desert, which is fine as we'll be able to study the process."

The ranch lies about 60 miles southeast of Tucson, some 4,900 feet above sea level, where normal summer temperatures rise only to about 80 degrees. The country pitches and rolls in steep hills above windswept flats, flanked on all sides by distant mountains. Grazing artifacts punctuate the ranch, including patches of grass species imported from Africa and dams and sand traps that provided watering holes or diverted streams.



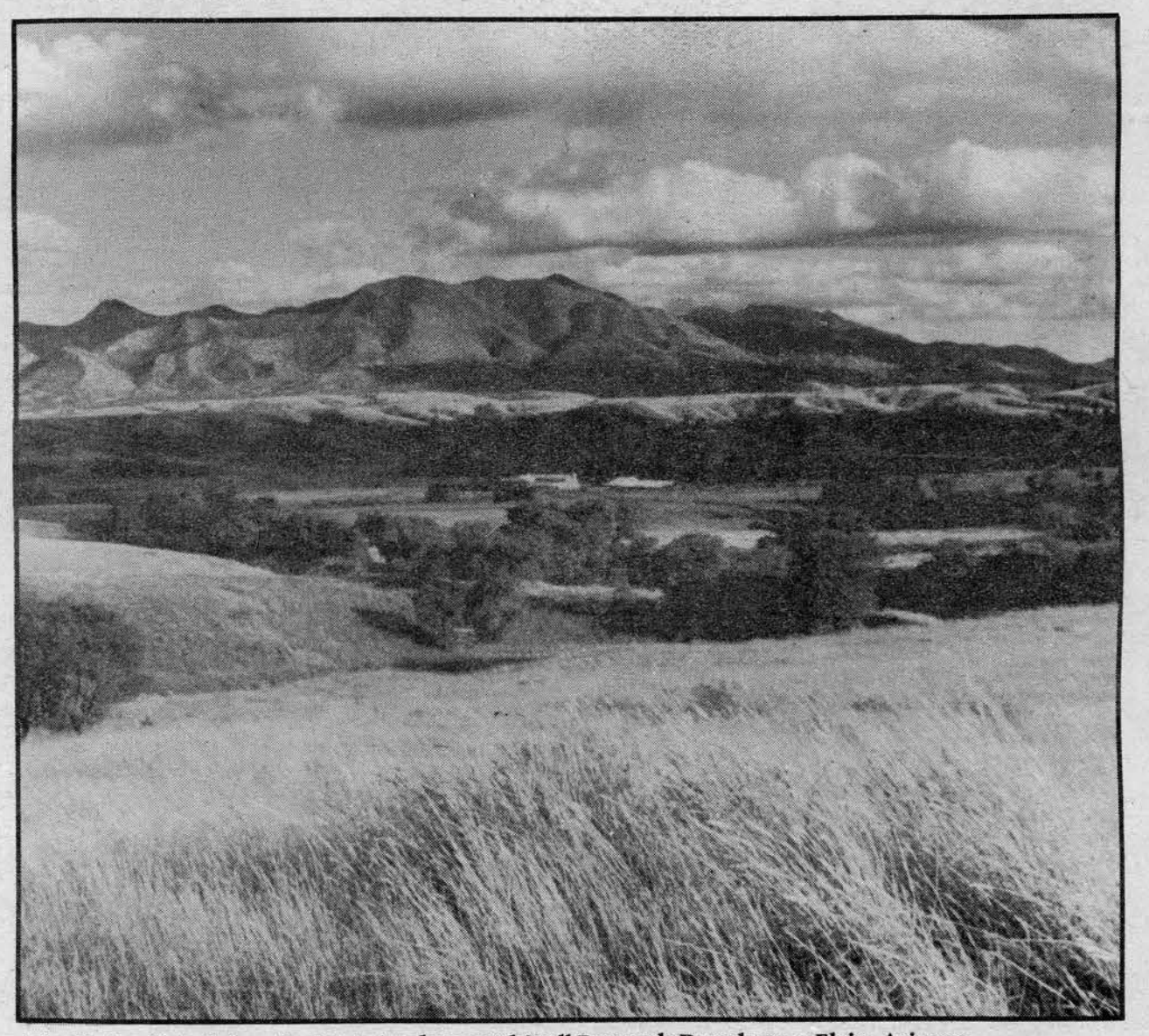
Roger Di Silvestro

Gene Knoder

Some research at the ranch is purely academic — inquiries into the hummingbird's affinity for sugars, or examinations of the activity levels of coyote pups. The title of one 1989 scientific paper reveals how esoteric the research can be: "Year-to-Year Changes in Phenotypic Gender in a Monoccious Cucurbit, *Apodanthera undulata*."

But that's just good clean fun to a botanist. The real down-and-dirty work focuses on comparisons of the ranch with grazed lands and with itself before grazing stopped. Local vegetation tells some interesting tales. During the cattle-rearing years, oaks disappeared from the high, north-facing slopes they had cloaked for millennia. Cottonwoods, Arizona walnuts, ash trees and sycamores ebbed from streamsides. Grasses on

continued on page 12



The National Audubon Society's Appleton-Whittell Research Ranch near Elgin, Arizona

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Dear friends,

Bonus issue

A subscriber ordering a gift subscription writes to say: "I can't keep up! Information overload. So I will punish another friend with the same problem."

This last issue of the year makes the overload problem more serious: It is 20 pages instead of the usual 16. Were we a real publication, we would call this a "bonus" issue. In reality, it is our way of starting 1993 with a relatively clean deck.

The 20 pages will have to last you until Jan. 25, 1993, because we are skipping, as we do each year, the first issue in January.

Great Basin potluck

Subscribers who live within driving distance of Reno, Nev., should have received an invitation to a Great Basin potluck gathering to be held on Saturday, Jan. 23, 1993, starting at 6:30 p.m. at the Will James Lodge of the Washoe Pines Ranch in Washoe Valley, Nev. It has been organized by Jon Christensen, *HCN's* Great Basin regional editor.

The potluck will follow the High Country Foundation's all-day board meeting and provides a chance for the paper's board and staff to meet readers in the Great Basin. If you can make the potluck, which is always informal and unceremonious and fun, please RSVP to Linda at 303/527-4898.

A Phoenix gathering

Readers in the Phoenix, Ariz., area are also invited to a *High Country News* event. Subscriber Erick Sorenson has organized a gathering at The Nature Conservancy's Hassayampa River Preserve on Sunday, Jan. 17, 1993, at 10 a.m.

Arizona State University law professor Joe Feller, an expert on grazing, is tentatively scheduled to speak. The event will be outdoors, weather permitting. Coffee will be served, and all those attending will receive a one-year membership in the Grand Canyon Trust.

For more information, call Erick at 602/468-0659,

Visitors

Long-time subscriber Dean K. Moffatt, an architect from Glenwood Springs, stopped by on his way to Lake City, Colo.

New subscribers Gary Fleener and Gwen Beacham of Boulder, Colo., stopped by the office on their way to scout out the San Miguel River near Telluride, Colo. Gary, an old friend of assistant editor Paul Larmer, is planning to study cottonwood regeneration along the relatively pristine 100-mile-long river as part of his doctoral thesis. Gwen is a third-year law student. They both attend the University of Colorado.

On time delivery

Eileen Ferguson of Prescott, Ariz., writes to say that the Nov. 30 issue of *HCN* arrived on Nov. 30. "Keep up the good work."

And Larry Calloway, a columnist for the *Albuquerque Journal*, cited a story in the Nov. 30 *HCN* in his Dec. 1 column. In it, Calloway speculates that the National Park Service at Chaco Canyon and other parks has come up with a new strategy to discourage people from stealing artifacts. The agency is releasing letters from visitors who stole items and then had bad luck. The message from the usually scientific-minded agency, Calloway writes, is:

"Steal a shard and the Gods will get you."

Corrections and disagreements

Mike Jacobs, editor of the *Grand Forks Herald* in North Dakota, writes to say: "If I have one complaint about *HCN*, it's that there's too little news from North Dakota. Imagine my chagrin, then, when an item from North Dakota contained a couple of errors."

The item was an article in the Nov. 30 issue headlined "Wolf is killed in the North Dakota badlands." Jacobs says we should have located the killed animal near New Town rather than in the Little Missouri River badlands. And he disagrees with one of the persons quoted in the article, who speculates that the animal may have migrated down the James River from Canada. The river, Jacobs writes, doesn't come within 100 miles of Canada.

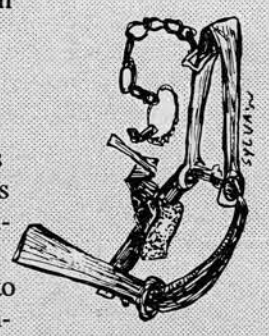
Dick Randall took the photo of an inquisitive badger in the Nov. 30 issue, and several readers know a long-eared coyote when they see one. In the same issue, we ran a photo of a coyote in a Roundup story about restoring the Mexican gray wolf.

— Ed Marston for the staff

HOTLINE

State evicts federal trappers

In a ruling hailed by environmentalists, the New Mexico Department of Game and Fish told the federal government that it can no longer trap coyotes, mountain lions, bears and other predators on state lands.



Since its inception nearly 60 years ago, the Animal Damage Control agency has trapped predators on New Mexico's public lands without any restrictions, according to New Mexico officials. In late March, State Land Commissioner Jim Baca began negotiations to set rules for the agency. Talks broke down in November when the ADC refused to agree to check its traps every 24 hours, a standard for all private trappers. It said a 72-hour check was adequate. That did not please Commissioner Baca, who said: "This agency, which uses public funds to destroy wildlife for private industry, has shown it is nothing more than an anachronism." If ADC sets traps on state land, Baca said he will pursue trespassing charges. The ADC's mission is to protect farms and domestic livestock from predators, although trapping foes point out that "non-target" animals are often caught by mistake. Dogs, cats and other animals suffer pain and may die lingering deaths before they are finally found and released by trappers, according to Forest Guardians, a group based in Santa Fe. Says group member Pat Wolff, "The land commissioner's eviction of ADC serves as an example to other public-land managers having problems with ADC. It's a sign that ADC's days of running roughshod across the West are numbered."

Rocky Flats unveiled

The public may soon have access to a sanitized version of the controversial grand jury report on environmental crimes at Rocky Flats, near Denver, Colo. U.S. District Judge Sherman Finesilver ordered the government Dec. 3 to rewrite the secret report to "enlighten the community on matters dealing with health, safety and environmental concerns." Members of the "renegade" grand jury told the media in October that the Justice Department ignored their recommendation to indict several employees of both the Department of Energy and Rockwell International. Rockwell is the former operator of the plutonium trigger plant. The Justice Department said it didn't have enough evidence to indict individuals and chastised the grand jury for going public with its confidential report (*HCN*, 11/2/92). But grand jury members, led by rancher Wes McKinley, heightened the controversy at a Denver press conference in November, reports *The Denver Post*. There, they released a letter to President-elect Bill Clinton signed by 12 of the 25 members. It asked Clinton to appoint a special prosecutor to investigate the Justice Department's plea bargain with Rockwell. Under the plea bargain, Rockwell pleaded guilty to five felony and five misdemeanor violations and agreed to pay an $18.5 million penalty. Finesilver's order requires the U.S. attorney's office to submit the "redacted or excised" version of the grand jury's report to him by Dec. 21. It did not specify a public release date.

Prairie dogs: bane or boon?

South Dakota state law labels them pests worthy of mass extermination. But some biologists say prairie dogs take the heat for a larger four-legged beast: the cow. Under South Dakota's Weed and Pest Control Law, ranchers can call on state and federal agencies to exterminate prairie dogs on public lands if they might invade nearby private land. On Nov. 13, Custer National Forest District Ranger Forest Morin poisoned 700 acres containing prairie dogs on the Grand River National Grasslands. Sierra Club chairman Wayde Schafer says his group tried to persuade Morin to consider alternatives to poison, but failed. On Nov. 12, the Sierra Club appealed. Before the appeal could go into effect, Morin enlisted help from ranchers, who poisoned the prairie dogs, Schafer charges. U.S. Fish and Wildlife Service biologist Dan Ecklund called the effort a waste of taxpayer dollars. He says prairie dogs migrate to grazed areas where short grass does not obstruct their view of incoming predators; once there, they rejuvenate trampled habitat by fertilizing and aerating the soil. "Prairie dogs are a symptom of cattle overgrazing and, contrary to what the ranching community says, we do not have evidence that their existence results in significant weight loss in cattle," the biologist says.

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WESTERN ROUNDUP

Idaho may go to court to save salmon

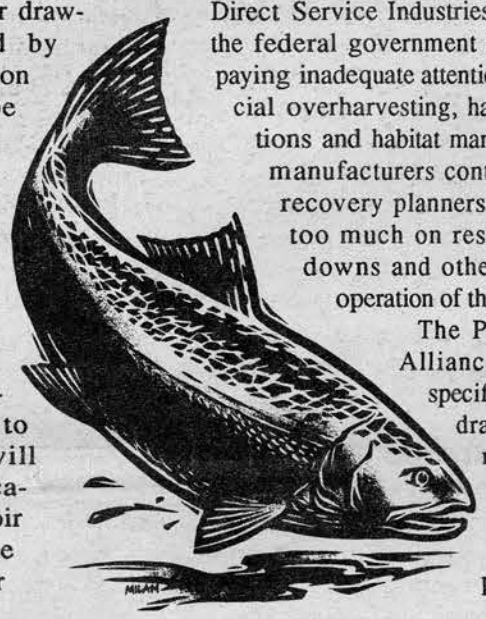
The battle to save the endangered Snake River salmon from extinction heated up this month, as Idaho Gov. Cecil Andrus threatened to sue the U.S. Army Corps of Engineers and other federal agencies responsible for salmon recovery plans.

Speaking before a U.S. Senate oversight committee Dec. 2, Andrus accused the Corps and the Bonneville Power Administration of ignoring the Endangered Species Act and abandoning the region's wild salmon runs to extinction.

"I believe there are some who continue to think that if they hold out long enough there will be no salmon to worry about, and the energy system will be off the hook," Andrus told committee chairman Sen. Mark Hatfield, R-Ore. Then, departing from his prepared remarks, Andrus added, "If I have to go to the federal courthouse in the name of Idaho, that's where I'll go."

The Army Corps responded a week later by issuing a draft report estimating that it will cost billions of dollars and take up to 17 years to rebuild Snake River dams to aid in salmon recovery.

Under the Snake River drawdown plan championed by Andrus, four large dams on the lower Snake would be partially emptied each year. That would accelerate the flow of the river, pushing salmon smolts to the sea. Last March the Corps did a month-long test, lowering water levels in two of the four dams.



But a draft report analyzing the test says that to work, the drawdowns will require structural modifications on dams and reservoir banks; new turbines capable of operating at lower water levels; new fish ladders and fish barging facilities; extended spillways and boat ramps; and the shoring up of port docks and grain terminals.

All of that, the Corps estimates, will cost between $1.3 billion and $4.9 billion, and will take 14 to 17 years to construct. The report also says that the March test resulted in $1 million-$1.6 million of lost electric power and cost riverside businesses almost $4 million in lost revenues

Anticipating those numbers, Andrus warned Hatfield not to trust the Corps study. "The contents of the report and the results of the test drawdown differ. The data are much more positive and straightfoward than their press release," Andrus testified. "I expect that, as usual, these will be worst-case estimates, and will contain the usual amount of gold-plating."

The Corps' criticisms, however, are just part of the growing resistance by Northwest utilities and businesses to changing the operation of the Snake and Columbia river dams to help endangered salmon. A group of aluminum and other hydopower-dependent industries — Direct Service Industries Inc. — sued the federal government in August for paying inadequate attention to commercial overharvesting, hatchery operations and habitat management. The manufacturers contend that fish recovery planners are focusing too much on reservoir drawdowns and other changes in operation of the dams.

The Pioneer Ports Alliance, formed specifically to fight drawdowns, has rallied behind the cry of "good science." The ports near the Washington-Idaho border say no proof exists that drawing down reservoirs to flush young fish to the ocean increases the number of salmon that return as adults.

In its recently released plan to help salmon, the alliance scorned the drawdown idea. Instead, the ports endorsed the Army Corps' program to barge salmon smolts around the gantlet of dams on the two rivers.

Jim Baker of the Sierra Club likened the alliance proposal to an oil spill: "It's very slick, very thin and very toxic to fish."

Baker and other environmental groups say the barging plan is a proven failure. They cite a 95 percent death rate for salmon smolts from dam turbines and from predators in reservoirs behind the dams. Baker also responds to concerns about the drawdowns hurting the Northwest economy by pointing out how much the region would benefit from healthy salmon populations and a multibillion dollar effort to rebuild dams.

However, environmentalists face an uphill battle. The ports alliance is supported by the Northwest Utilities Coordinating Council, which represents the major utilities that buy Columbia basin hydropower. It, too, insists that the drawdown plan is unproven and not worth the costs ratepayers would pay for lost energy production and dam reconstruction.

Likewise, the National Marine Fisheries Service, which is responsible for writing recovery plans for the three threatened and endangered Snake River salmon, issued an opinion this year saying that dam operations for the year would not jeopardize the salmon.

While the agency is not expected to change that for 1993, Andrus, in his testimony to the Senate oversight committee, warned that it "better not come back with a no-jeopardy finding, or we'll be in court."

— Julie Titone and Steve Hinchman

HOTLINE

Maybe, maybe not

Extensive genetic analysis by federal scientists failed to unlock the identity of the wolf-like animal shot Sept. 30 near Yellowstone National Park. Regional U.S. Fish and Wildlife Service Director Ralph Morgenweck announced Dec. 10 that scientists are unable to determine if the animal is a purebred wolf or a wolf-dog hybrid because "some of the basic research on genetic differences between dogs and wolves has never been done." The agency said that its tests and an examination of the carcass revealed that the wolf is not related to those living near Glacier National Park in Montana. It also said that at the time of its death, the animal was in excellent condition, had a stomach full of elk and showed no signs of having lived in captivity. Because of the inconclusive results, the agency said it will not proceed with civil charges under the Endangered Species Act against the hunter, Jerry Kysar, who shot the animal.

BARBS

This sounds like almonds: hard on the outside and nutty on the inside.

Perry Pendley of the Mountain States Legal Foundation told the Wyoming Mining Association Dec. 8 that environmentalists are the same people who used to be communists before the fall of the Soviet Union, reports the *Casper Star-Tribune*. Pendley said environmentalists are like watermelons because "they're green on the outside and red on the inside."

Colorado coal firms see black days ahead

An attempt to encourage Colorado's electric utilities to find cleaner sources of electricity has drawn heated opposition from the state's coal industry.

The controversy is over Public Utilities Commission's proposal to begin Integrated Resource Planning (IRP). If adopted, IRP means that utilities needing new power supplies must compare traditional power plants and fuels against alternative technologies, such as energy-efficiency, renewable power and gas-fired cogeneration. Utilities must also include — in dollar figures — the environmental and social costs of each power supply option (*HCN*, 6/29/92).

Generally, IRP is backed by Public Service Company of Colorado, which supplies electricity to most of the state, and by consumer and environmental groups. But the regional coal industry fears that the new system will push alternative technologies over coal, which is the nation's cheapest and dirtiest source of power.

A new coal-fired power plant that cost $60 million, for example, might have environmental costs totaling another $60 million. A cleaner-burning natural gas plant could cost $80 million and have environmental costs around $20 million. Or a third alternative, using conservation to cut demand for energy rather than increase supplies, could cost $85 million, and have no environmental costs because it reduces pollution. Under IRP, a utility planning a new power plant would have to choose conservation because it has the least overall cost to society.

At public hearings before the PUC Nov. 2, several coal companies attacked the plan, calling it an attempt by environmentalists to shut down the coal industry.

"The primary actors in this effort are organized environmental groups acting as agents for commercial interests in the natural gas industry and in the renewable power sector," Frederick Palmer, president of the Western Fuels Association, told the commission. Western Fuels is the largest coal mining and transportation company in the region. It supplies 20 million tons of coal a year to public power utilities in the West and Midwest.

Palmer and others — including Peabody Western, ARCO Coal, Colowyo Coal, Cyprus Coal, the United Mine Workers Association, and the Colorado Mining Association — say that most of the coal industry's pollutants are already regulated under the federal Clean Air Act.

Adding environmental costs into the planning process under IRP — usually called "externalities" — represents a form of economic double jeopardy, they say.

"(Externalities) are an unnecessary layer of cost directed at the coal industry, which threatens the industry as a whole, the economies of northwest Colorado and (electric) ratepayers throughout the state," David Usilton, president of the Colowyo Coal Co., told the commission.

Industry officials also argued there is no credible scientific link between fossil fuel emissions and global warming, and therefore there should be no financial penalties for CO_2 emissions from coal.

The industry was supported by officials from Colorado's coal counties. Jim Evans, executive director of the Associated Governments of Northwest Colorado, said the externalities proposal could cost the state over 5,500 coal jobs, almost $20 million a year in tax revenues and a $280 million-plus industry.

However, Bruce Driver and Eric Blank, who head the environmental team working with the PUC on the new regulations, say that for decades the cost of coal-fired power has been kept down by ignoring its environmental and health impacts.

"Today, even after complying with the Clean Air Act and other laws, coal plants still have enormous amounts of emissions," says Blank. "Those emissions have significant economic, environmental and health impacts on Colorado citizens."

The externality rule, says Driver, is not a tax, but only a way of quantifying those costs during planning in order to compare the total impacts of each potential electric resource. "The coal industry is trying to cut off the debate on externalities," adds Driver. "They appear to be fearful of competing on a level playing field with efficiency, renewable power and natural gas."

Driver and Blank, who represent the Land and Water Fund of the Rockies, a Boulder-based environmental law group, argue that a switch to energy efficiency could "lead to more jobs and higher personal income ... in addition to saving consumers money, reducing energy imports and cutting pollution."

Driver also criticized the coal industry for opposing provisions that fund increased public participation in integrated resource planning.

The PUC will issue its final IRP ruling early next year. It will also decide on proposals to give utilities an incentive to do more energy-efficiency programs.

— Steve Hinchman

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HOTLINE

Undercover cop under fire in Arizona

An undercover cop allegedly encouraged students at the University of Arizona to sabotage telescopes at the new Mount Graham observatory. His identity was uncovered during a lively protest on Columbus Day, when a 9mm semi-automatic pistol fell out of his backpack, according to *The Arizona Daily Star*. At least two students then identified the policeman as an activist, saying he spoke out during several meetings of students who oppose the observatory. One student recalled that at a meeting in April he said, "What we really need to do is sabotage the telescopes." University of Arizona Police Chief Harry Hueston says he was unaware that the officer infiltrated the student meetings. But the Tucson Police Department says it provided the agent after a request for assistance from the university.

Owling for dollars

Timber companies in the Southwest may end up making a profit without cutting down a single tree. The Forest Service has already paid three companies some $1.3 million because they can't log trees in habitat set aside for the Mexican spotted owl and northern goshawk. Environmentalists say the Forest Service should never have allowed sales to White Sands Forest Products, Kaibab Forest Industries and Bates Lumber. They point out that federal and state wildlife agencies recommended against logging in sensitive areas. "The Forest Service pushed these sales through with full knowledge of possible habitat," says Sam Hitt of the Santa Fe-based group, Forest Guardians. "Now the taxpayers are bailing them out for their mismanagement." Kaibab Industries spokesman Jim Matson also faults the Forest Service for mishandling the contracting process. "We would just as soon have had the opportunity to complete our contracts, and would have been better served by having a contract based on a valid biological evaluation," he says. Dan Cramsey, Forest Service spokesman in Albuquerque, defended the agency's decision. But he says more sales will suffer if the owl is listed under the Endangered Species Act. A decision from the U.S. Fish and Wildlife Service is long overdue. If the owl is listed, the Forest Service is contractually obligated to award a number of timber companies up to $6.3 million in further compensations.

BARBS

But where are the tree stumps and oil spills?

Weyerhaeuser, the tree-cutting company, and ARCO, the oil giant, distributed 22,000 cheerful pop-up books on the environment to Seattle children in elementary school. A Weyerhaeuser spokeswoman says the book "will teach youngsters about ... natural resources and also how to respect our parks," reports Vancouver's *The Columbian*.

WIPP takes one giant step forward

A bitter, five-year congressional fight over the world's first engineered nuclear waste dump has been settled in time-honored fashion: in the back room.

A last-minute, closed-door compromise bill to clear the biggest legal roadblock to opening New Mexico's $4.4 billion Waste Isolation Pilot Plant has angered critics of the project as much as it overjoyed WIPP supporters.

New Mexico environmentalists blasted the state's senators for allegedly not standing up strongly enough for health and safety. Environmental activists also took a shot at one of Congress' most outspoken environmentalists, House Interior Commitee chairman George Miller, D-Calif. They accused him of trading support for a weak WIPP bill to get a tough water conservation bill for California.

Miller and New Mexico Sens. Pete Domenici and Jeff Bingaman deny the charges. But to those who have spent years holding WIPP at bay, the passage of the bill is a classic story of insider compromise, in which big issues about how to safeguard a nuclear repository were almost drowned in Congress' last-minute rush to adjourn.

Passage gives the U.S. Department of Energy what it has wanted for years — ownership of the dump's 10,240 acres of Chihuahuan desert southeast of Carlsbad, N.M. Until now, the Interior Department owned the land, which put WIPP in legal limbo.

WIPP's warehouse-scale, above-ground buildings have been largely completed since the late 1980s. Below ground, numerous rooms have been carved into its 2,150-foot-deep salt beds. But under federal law, DOE could not bring in a single truckload of nuclear wastes to WIPP until it owned the land.

With this new law in hand, DOE is close to being able to import a few thousand drums of plutonium-tainted wastes from Idaho and California for a series of controversial tests. The only obstacles are another round of federal and state agency approvals, lasting maybe 10 months, and lawsuits from environmental groups.

DOE wants the tests to see if the site meets federal nuclear and hazardous-waste safety standards. If the tests work, it plans to permanently bury hundreds of thousands of drums of wastes brought in from weapons plants around the United States.

Environmental groups and the state watchdog, the New Mexico Environmental Evaluation Group, charge that the tests lack scientific value. The pro-WIPP National Academy of Sciences and DOE contractor Sandia National Laboratories have argued that DOE hasn't proven the tests are necessary, but they also say the idea of testing with wastes is good.

The bill allowing the tests squeaked through Congress when House Energy Committee Chairman John Dingell, D-Mich., orchestrated a compromise in a meeting of key senators and representatives. His solution was to more or less split the difference between the stronger House version of the bill and the weaker Senate version.

But critics say that this dividing of differences did not result in an acceptable compromise. The House bill, for instance, required DOE to prove that the tests are necessary to ensure that WIPP meets federal safety standards; the final version changed necessary to "directly relevant."

The House bill required EPA to hold public hearings on DOE's testing plans; the final version makes hearings optional. The House bill required DOE to produce a plan that would answer the politically explosive question of where it would ship the waste if WIPP didn't meet the safety standards. The final bill removed that requirement, although it still requires DOE to discuss more generally how it would retrieve the wastes.

The House bill required several federal agencies to inspect WIPP's structural stability and to make sure emergency workers are properly trained. The final bill forbids citizens from suing to make sure these protections are carried out properly. Finally, the compromise bill gives New Mexico $300 million over 20 years for new highways to accommodate the waste trucks to roll on, but only after WIPP opens.

After the bill passed, Santa Fe syndicated columnist Roger Morris quoted anonymous sources as saying that Republican Domenici, the state's senior senator, ran roughshod over Democrat Bingaman in the final days of the fight.

When Bingaman's staff seemed to be wavering on whether to kill key safety measures in the House bill, Domenici allegedly told Bingaman in a last-minute phone call, "You can't embarrass me. You can't let me down," and Bingaman backed down.

Bingaman and Domenici denounced the column as false, but critics weren't mollified.

"If Bingaman and Domenici had said we agree with the health and safety provisions of the House bill, that is what would have passed," said Don Hancock, nuclear waste safety director for Albuquerque's Southwest Research and Information Center, which has fought WIPP for more than 15 years.

As for Miller, New Mexico and Nevada critics plan to bring a life-sized replica of a nuclear waste cask to his northern California district next spring. They want to dramatize his support of both the WIPP bill and of an energy bill that gives a helping hand to the Yucca Mountain, Nev., high-level nuclear waste repository.

These actions seem out of character with Miller's reputation. An article in the Sierra Club's *Sierra* magazine recently praised "Chairman George" as a "tough and uncompromising" environmentalist.

Yet without Miller's support, a WIPP bill allowing testing of nuclear wastes might never have passed. The previous Interior chairman, Arizona's Morris Udall, had opposed such a bill. Miller signed onto the measure when he replaced Udall in spring 1991.

Environmentalists favored a bill requiring WIPP to prove it is safe using computer tests — rather than the physical placing of wastes — before opening. But that bill "was never a possibility politically," a House staffer said.

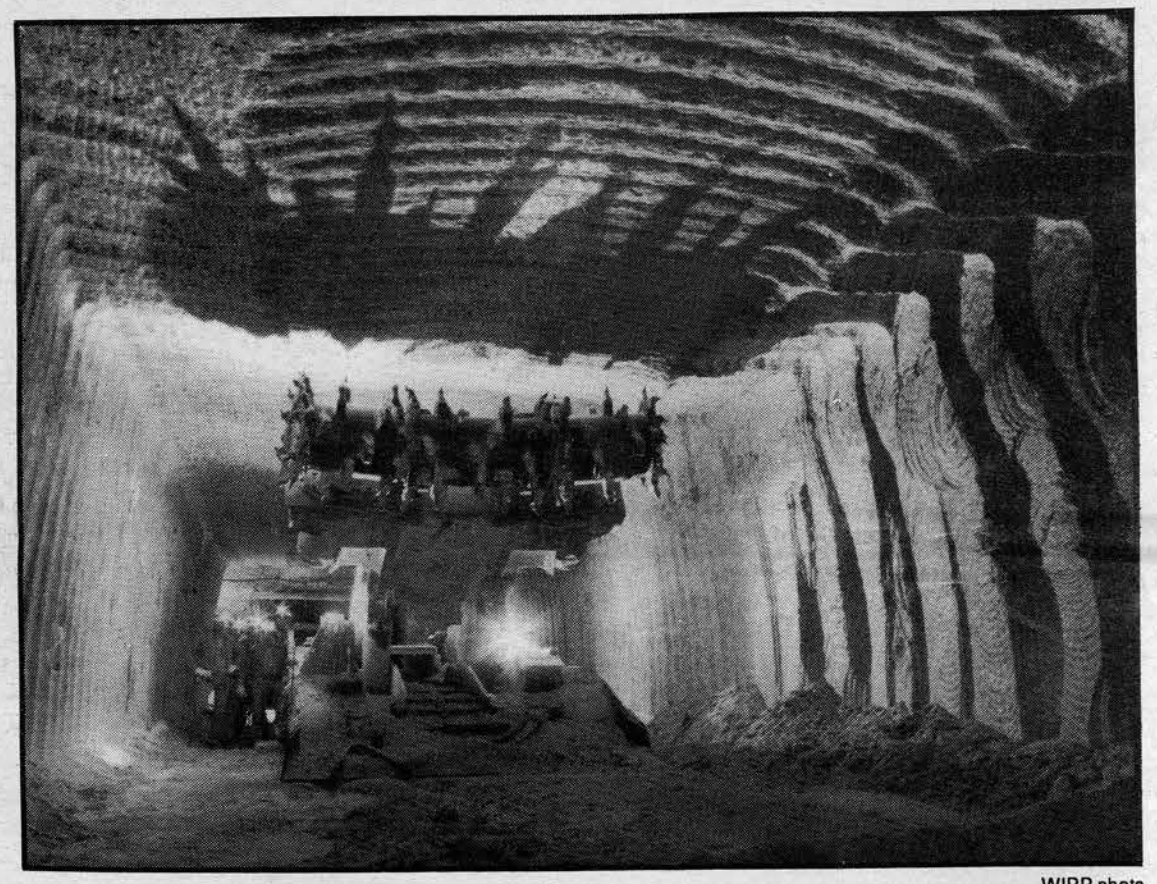
Hancock and other critics contend Miller supported WIPP and an energy bill in exchange for Senate Energy and Natural Resources committee chairman Bennett Johnston's support of a water bill Miller had wanted for years. The water bill transfers hundreds of thousands of acre-feet of California's Central Valley Project water from farms to rivers and wildlife. It, like the WIPP and energy bills, passed in the waning days of Congress.

In the energy bill fight, Johnston rammed through a provision giving the pro-nuclear National Academy of Sciences a key role in writing federal nuclear-waste disposal standards. That has set off fears among Nevada activists that it will become much easier to open the Yucca Mountain high-level waste repository. Miller's support was needed in conference committee to get the energy bill passed, while Johnston's committee had jurisdiction over the water bill.

Miller's staff and other House staffers deny that their boss traded WIPP for his water bill. "He (Hancock) should come to Congress and try to get a piece of legislation through Congress by himself," Miller's press secretary Danny Weiss said. "The bill was the result of a lot of negotiation. We got as much environmental protection for WIPP as possible."

— Tony Davis

Tony Davis writes for the *Albuquerque Tribune*.



WIPP photo

Workers excavate rock salt 2,150 feet underground at WIPP

Target LRT-BE4-V2

BLM may adopt grazing incentive plan

Prodded by stinging internal audits and the likelihood that Congress will pass a sweeping reform bill in 1993, Bureau of Land Management officials are pushing a new grazing fee policy they hope will resolve the controversy over use of public lands by livestock.

The plan would hike the current grazing fee to fair market value and give ranchers big discounts for improved livestock management and land stewardship.

But ranchers and environmentalists are giving the proposal mixed reviews.

"I think it's a wretched policy — it's destined to fail," says Ted Hoffman, a Mountain Home, Idaho, rancher. "If the fee goes up, it'll be a disaster for ranchers and local communities, and you'll see less money in the BLM coffers."

Although Hoffman supports the idea of rewarding good stewardship with discounts, he doesn't think ranchers will get them. He and other ranchers fear the perennially understaffed BLM will fail to quickly verify requests for discounts, and environmentalists will try to block discounts with appeals. The anticipated result: higher fees with no discounts.

Under a fee formula set by the Reagan administration, ranchers now pay about $1.92 per Animal Unit Month (the amount of forage eaten by a cow-calf pair in a month) for the privilege of grazing livestock on federal lands. Fair market value ranges from $4.68 in the desert Southwest to as much as $10.26 in North Dakota and South Dakota, according to a BLM study completed earlier this year. Critics say that the low BLM fee has the following consequences:

• Low fees encourage ranchers to overstock public lands, causing documented abuse to native grasses, streambanks and water quality. A 1990 BLM report showed that 52 percent of federal lands were in fair to poor condition, 33 percent in good to excellent condition, and 14 percent unclassified.

• Ranchers sublease their public-land allotments for $10, $12 and even $15 per AUM — more than five-to-seven times the amount they pay the government. A recent Interior Department Inspector General's report found that ranchers pocketed $5.1 million in illegal profits from subleasing in 1990 (see page 16).

• It is no secret that grazing fees fail to cover the cost of the federal grazing program. A federal study showed that fees cover only about 75 percent of the government's cost.

For the past five years, Rep. Mike Synar, D-Okla., a rancher himself, has proposed hiking the fee to more than $8 per animal unit month. Each year, his proposal comes closer to approval. With the Clinton-Gore team entering the White House in January, many expect the grazing fee to be hiked to some degree.

"These guys are in for the biggest reaming they've ever seen in the next Congress," says New Mexico Public Lands Commissioner Jim Baca. "They've been so successful in stopping any progress on this issue for far too long. These guys have to change; they just have to."

K. Lynn Bennett, the BLM's point man on the grazing fee proposal, says the agency has met with environmentalists, ranchers and economists in an effort to craft a compromise grazing fee policy. The policy would set a higher fee based on local fair market value; it would then give ranchers 25 percent discounts for each of the following three steps: 1) developing a management plan for the public land allotment; 2) improving the allotment's environmental condition; 3) restoring the land to excellent condition.

Bennett says the program would be voluntary, and at this point no appeal process is envisioned for disputes between the BLM and ranchers or environmentalists. "It's our feeling that the debate over grazing fees isn't going to go away in the near future," he told the Idaho Cattle Association recently. "This is just a concept in the discussion stage. If this won't work, tell us what will work."

The agency says it will test its plan in Idaho, New Mexico and Wyoming before submitting it to Congress next March.

Jimme Wilson, a Montana rancher and president of the National Cattlemen's Association, says ranchers are committed to resolving the grazing fee issue in the next Congress. "We have to put this thing (grazing fees) to bed. It's costing us too much money and too much adverse publicity. We've just got bigger fish to fry."

As for the incentive-based grazing fee system, Wilson says, "It's a good program to look at. If you give a guy an incentive, he'll take better care of the land."

Jim Baca says he installed an incentive grazing fee system in New Mexico to improve environmental stewardship. Under the program, the state grazing fee has increased to about $4 per animal unit month, a fair market price for a desert state, Baca says. Ranchers receive a 25 percent discount on every acre that's been improved to good or excellent condition. They are also required to hire consultants to document improvements, and consultants must attend a range-management training school and use U.S. Soil Conservation Service standards for an ecological site inventory.

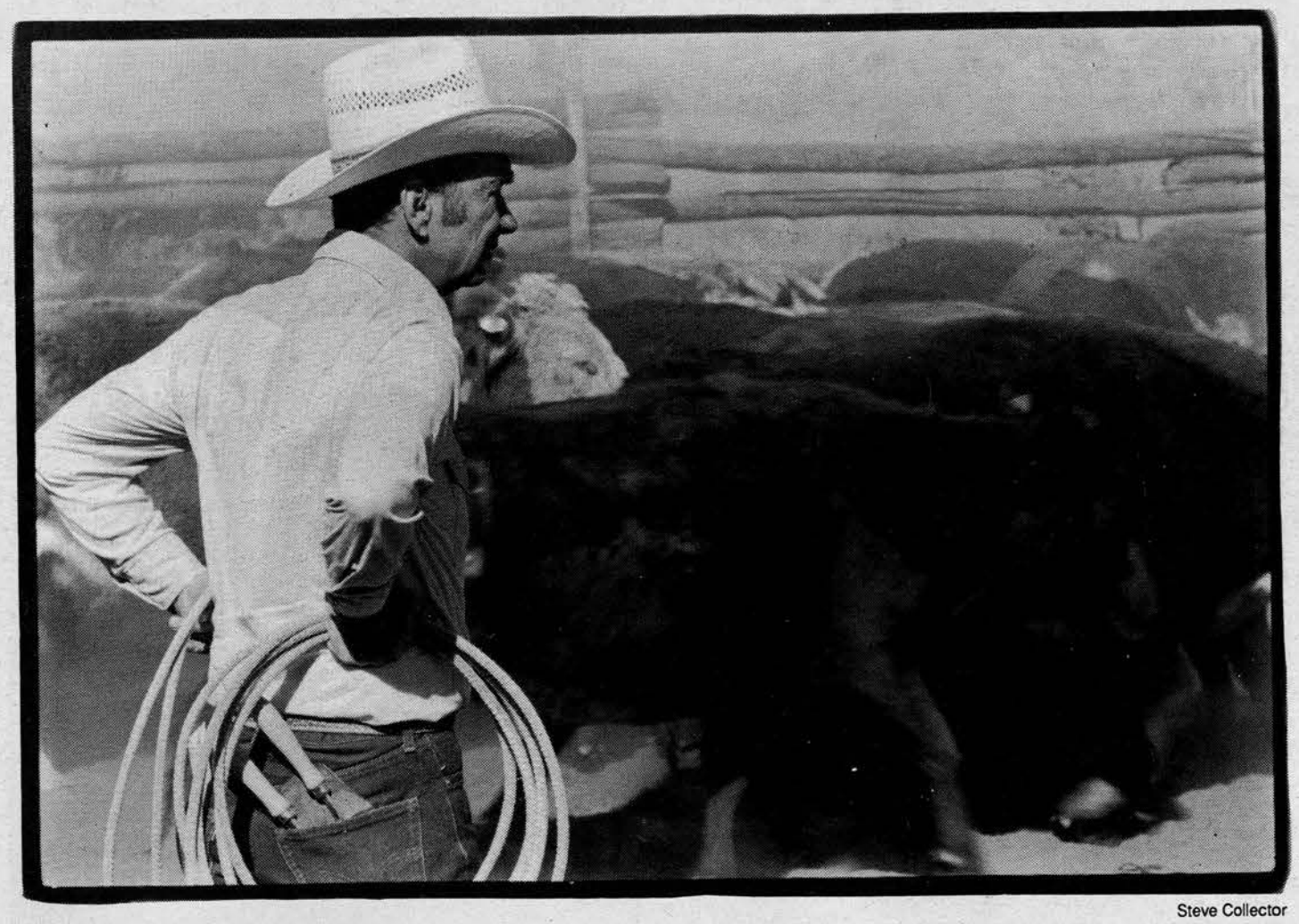
In the program's first year, 28 ranchers grazing livestock on 300,000 acres have applied for discounts. Baca says New Mexico ranchers screamed about higher fees before they went up, but none has surrendered a state allotment as yet.

"It just doesn't make sense for neighboring ranchers to pay the same price, if you look down the fenceline and one side looks like a billiard table, and the other side has thrifty native grasses," he says. "You have to increase the fee so if a guy doesn't have the land in good condition, he'll have to pay for it."

The BLM tried to copy New Mexico's program, but so far, the proposed federal program appears too weak and bureaucratic, Baca says. "They have to make it as simple as they can if they really want it to work. Right now, the system is designed to fail."

Bruce Apple, director of a new environmental group, Rest the West, in Portland, Ore., says ranchers don't deserve discounts for good stewardship. "We think the livestock industry is already subsidized too much. Good stewardship should be part of the privilege of grazing on public land."

— Steve Stuebner



Steve Collector

Earl Haller works in the corrals in Glade Park, Colorado

HOTLINE

Peter MacDonald convicted again

A federal jury in Prescott, Ariz., convicted former Navajo leader Peter MacDonald Nov. 13 on charges of conspiracy and burglary stemming from a 1989 riot, which left two of his supporters dead. MacDonald, who is currently serving a six-year tribal sentence for bribery, could be sent to prison for life when he is sentenced Feb. 16. Although MacDonald was not present when his supporters broke into tribal headquarters, the jury decided that he was guilty of initiating the riot that followed, AP reports. His supporters were protesting the Navajo Tribal Council's decision to suspend MacDonald from office in 1989. The suspension came after a U.S. Senate committee charged MacDonald with corruption and misuse of $2.5 million in tribal funds (*HCN*, 2/27/89).

Don't fence them in

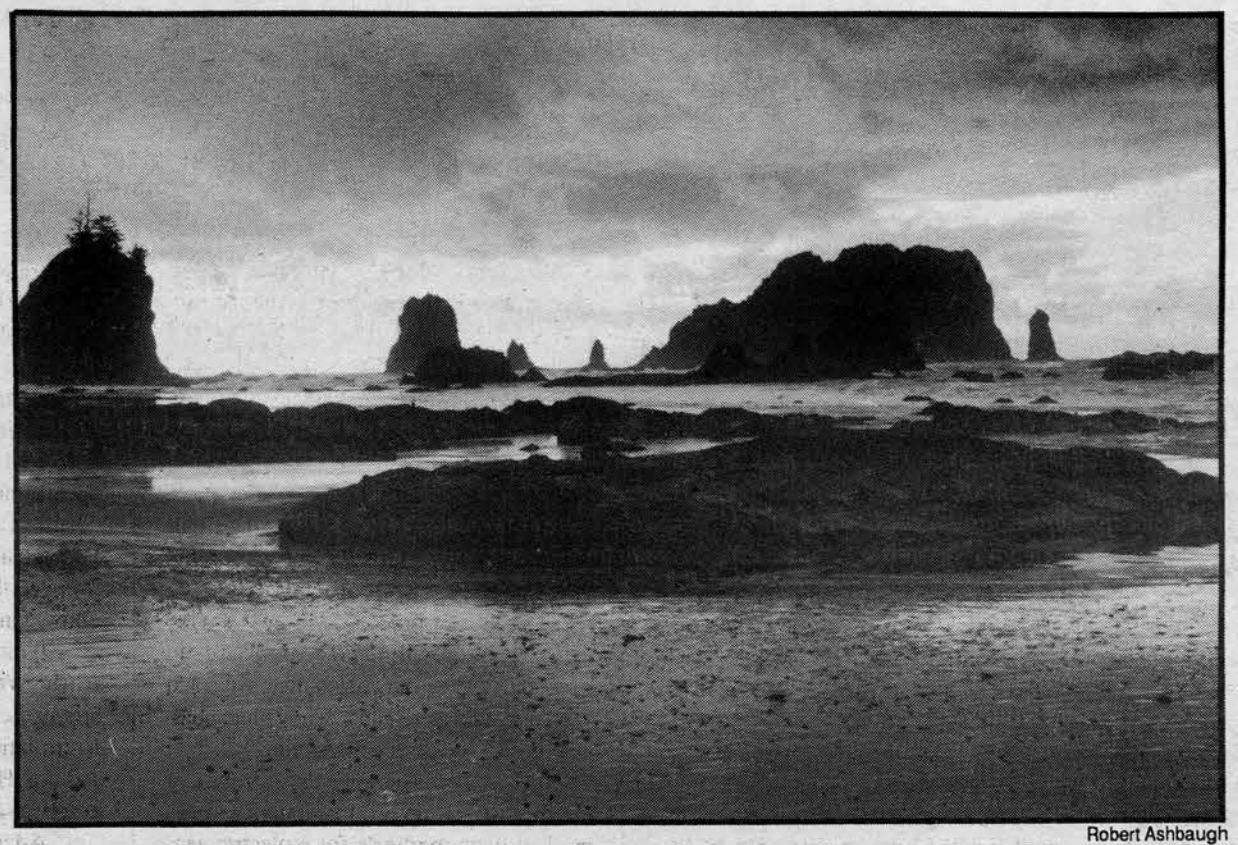
What's big and brown and says, "Moo-ow?" It could be a cow that wanders off a grazing allotment while wearing an electronic ear tag. Range scientists Art Diedemann and Tom Quigley, working with the Forest Service and the Blue Mountains Natural Resources Institute in La Grande, Ore., hope to market their system in about a year. When an animal enters a "forbidden zone," a remote transmitter emits a warning tone. If the cow ignores the sound, a mild electrical shock follows. Tom Quigley says that test cows quickly became conditioned to the tone, turning away before they received the shock. "We've found that a low buzz gives a good signal," he notes in *Agricultural Engineering*. The researchers say electronic eartags will cost less than miles of traditional fence. For more information, call 503/963-7122.

Blazing tires

A 100,000-tire fire Oct. 20 sent a plume of oily smoke into the air and forced the evacuation of some 1,000 Phoenix, Ariz., residents for 53 hours. The blaze started as a grass fire in a mixed industrial and residential area on the city's south side. Tire-owner Sheldon B. Swain Jr. said he intended to send the mountain of rubber to a recycling plant he planned to build in the town of Gila Bend, reports the *Arizona Republic*. Unfortunately, Swain said, financial backing for the project fell through. The mayor of Gila Bend, however, said Swain walked away from the recycling plant after stringing town officials along for almost three years. He said Swain promised to hire 300 of the town's 1,800 residents. Recently, the Arizona Department of Environmental Quality charged Swain with abandoning at least 700,000 tires at four sites. But since Arizona passed a law in 1990 banning tires in land fills and encouraging recycling, illegal collection sites have proliferated.

Line Reference Target LR

Wildlife 'refuges' play host to bombers, cattle and jetskiers



Robert Ashbaugh

The outer coast of Washington

Wildlife refuges have never been just for wildlife. The 90 million-acre national wildlife refuge system also hosts military maneuvers, cattle, hunters, boaters and other "secondary" users.

"People are shocked when they learn that national wildlife refuges are not really refuges," says Karin Sheldon, an attorney for The Wilderness Society.

At Copalis National Wildlife Refuge, on Washington's rugged Olympic Peninsula, multiple use is as obvious as the roar of a Navy jet.

Bombing began at the refuge during World War II and intensified during the 1960s. The target practice with chalk bombs was grandfathered in when the series of islands were designated as wilderness in 1970. That meant A-6 jets continued to buzz the refuge at speeds up to 500 miles per hour, scattering seal lions and stressing nesting sea birds

Since 1978, regional U.S. Fish and Wildlife Service officials have asked the Navy and Department of Interior to stop the bombings at Copalis. They point to a steady decline in nesting bird populations in the refuge. They say planes cause young chicks to topple from their cliff-top nests into the cold waters of the Pacific.

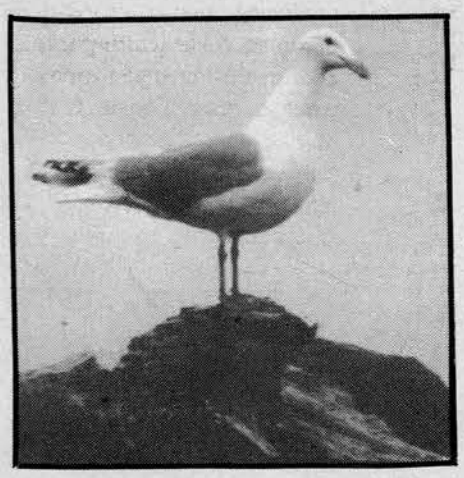
In 1989, the Copalis refuge manager made a formal determination that the Navy bombing runs were "incompatible" with the purposes of the refuge. But the bombings continued. The Navy refused again last May, when regional U.S. Fish and Wildlife Service officials and environmentalists asked it to cease taking runs for at least the four-month breeding season. The U.S. Fish and Wildlife Service office in Washington, D.C., backed the Navy.

"It's a matter of national security," says agency spokesman Duncan Brown.

Armed with a 10-refuge lawsuit, environmentalists now intend to kick the Navy out. In October, the National Audubon Society, The Wilderness Society and Defenders of Wildlife filed two lawsuits against the Department of Interior in U.S. District Court in Washington state. The first focuses solely on Copalis National Wildlife Refuge; the second involves nine refuges, including seven in the West.

The groups charge that the director of the U.S. Fish and Wildlife Service repeatedly issues permits for secondary uses on these refuges against the advice of refuge managers.

Copalis may be the most graphic example of a national wildlife refuge compromised by destructive uses, but it is not unique. A survey conducted by the Fish and Wildlife Service in 1990 found that 63 percent of the country's more than 450 national wildlife refuges nationwide are plagued by incompatible and often harmful activities. A survey of the seven Western refuges named in the lawsuit demonstrates a wide variety of conflicts.



Robert Ashbaugh

Glaucous winged gull

• Camas National Wildlife Refuge, Idaho. Cattle grazing is degrading wetlands and upland areas at this 10,600 acre refuge just north of Idaho Falls, charges the environmentalists' lawsuit. The refuge is home to large flocks of migratory waterfowl, as well as greater sandhill cranes, trumpeter swans, mule deer and antelope.

• Cabeza Prieta National Wildlife Refuge, Ariz. The Air Force uses the air space above the 1,000 square mile refuge southeast of Yuma for training that includes air-to-air gunnery missile firing and low-altitude supersonic flight. Frequent sonic booms and other loud noises startle the desert bighorns and Sonoran pronghorns in the refuge and may inhibit their abilities to forage and breed, says Jim Norton, a staffer at The Wilderness Society's Santa Fe office.

• Havasu National Wildlife Refuge, Ariz. Recreational powerboating and jetskiing are driving away black-necked stilts, grebes, herons and egrets that breed on this 38,000-acre refuge along the lower Colorado River, the lawsuit charges.

• McNary National Wildlife Refuge, Wash. Beach use, swimming and picnicking disturb migratory birds that rest, nest and feed in this 3,600 acre haven along the waters of the Columbia and Snake rivers, southeast of Richland.

• Monte Vista National Wildlife Refuge, Colo. Cattle, sheep and goats compete in this 14,000-acre San Luis Valley sanctuary with bald eagles, whooping and sandhill cranes, white-faced ibis and other species, the lawsuit charges.

• Umatilla National Wildlife Refuge, in Oregon and Washington. This 24-000-acre refuge along the Columbia River suffers from heavy public use, including airboats, jetskis and motorboats. The lawsuit says these activities damage wildlife habitat and displace important feeding, resting and nesting areas for up to 350,000 waterfowl.

• Turnbull National Wildlife Refuge, Wash. Cattle grazing is degrading water quality and wildlife habitat at this 15,500-acre refuge located southwest of Spokane in the eastern part of the state, charges the lawsuit.

Despite the overwhelming evidence that wildlife refuges are being overrun, environmentalists say reform has proceeded at a snail's pace.

The refuge system "tends to be the poor stepchild" of the nation's public-land systems, says Wilderness Society attorney Karin Sheldon. "Nobody pays a whole lot of attention to it."

The refuge system also lacks a central legislative covenant. Unlike the National Park System, the National Wildlife Refuge System does not have a core law that provides national management standards for the entire system. Each refuge has its own mission, ranging from wildlife habitat protection to increased duck production. Some even exist to improve public grazing lands.

In the 1960s, Congress attempted to buttress the refuge system with a more solid legal foundation. The Refuge Recreation Act of 1962 limited recreational use of refuges to those activities "compatible" with refuge wildlife goals. The 1966 National Wildlife Refuge System Administration Act formally brought all the refuges under a single roof and required that all secondary uses of refuges be "compatible" with the purposes for which individual refuges were established.

Bu the definition of compatibility was left to the discretion of the secretary of the Interior, so the laws did little to change the management focus at most refuges, says Sheldon.

The passage of another law, the Refuge Revenue Sharing Act of 1964, probably promoted environmentally destructive activities, she says.

This law provides the refuge's host county with money for roads and schools based on a percentage of the receipts generated by the refuge. "This puts pressure on refuge managers to continue or expand money-making uses," Sheldon points out.

Together, these laws create a system where on-the-ground managers and national agency decisionmakers are often at odds over management practices. In Idaho's Camas National Wildlife Refuge, for instance, the refuge manager determined in 1981 that "grazing precludes managing for the best interests of wildlife." But the U.S. Fish and Wildlife Service has not eliminated or reduced grazing levels, although a drought has forced a temporary 50 percent reduction, according to refuge manager Charles Peck.

As for why cattle haven't been removed from the refuge, Peck says, "There's probably not a field employee in any agency that wouldn't like to be totally free from anything but pure science. We'd like to be able to make management decisions without the influence of economics or politics, but the secretary of Interior doesn't take his orders from us."

Environmentalists hope the lawsuits will force the secretary of Interior to heed the recommendations of refuge managers. Their hand is strengthened by the fact that at five of the 10 refuges cited in the suits, U.S. Fish and Wildlife officials have already determined the incompatibility of secondary uses.

But the real goal of the lawsuits is to provide momentum for the passage of a new organic act that would put the refuge system in the same league as the National Park System.

Reform bills were introduced last year by Rep. Gerry Studds, D-Mass., and Florida Sen. Bob Graham, D. They specify strict national standards for determining which secondary activities are compatible with wildlife protection on the refuges. Graham promises to reintroduce his legislation early in next year's session.

The U.S. Fish and Wildlife Service remains opposed to reform legislation. At congressional hearings last year, Director John Turner said there was no need for reform because his agency was already addressing incompatible secondary uses.

But Karin Sheldon doesn't expect much from internal reform:

"Over the last quarter-century, there has been a steady stream of reports by blue-ribbon committees, the General Accounting Office and outside interest groups about the shortcomings of the refuge system," says Sheldon. "Legislation is necessary and long overdue."

— Kristy Ratliff, Paul Larmer

Robert Ashbaugh

Harbor seal

LETTERS

OFF-ROAD VEHICLES ARE A SCOURGE

Dear *HCN*,

There may be a case to be made for reconciliation with ORV interests but Randall O'Toole doesn't make it (*HCN*, 8/24/92). ORVers are really battered by environmentalist rejection and "driven into the arms of the industry"?

ORV groups are well financed by the manufacturers and politically savvy. Their decision to align themselves with the consumptive users rather than recreation, conservation or environmental interests is conscious and calculated. Environmentalists needn't feel guilty about their decision; rather we should accept it as an indication of where their sympathies lie and proceed from there.

Sure, it would be nice if they didn't make any noise, although I find the image of ORVs flitting silently through the trees and across the deserts difficult to reconcile with the current reality. And golly, wouldn't it be great if they stayed on the trails? But they don't.

There's the problem. The machines are hyped as being able to go anywhere, and any rider worth his salt is bound to try and live up to that hype. Organized ORV groups do encourage their members to stay on the route but they represent only a fraction of riders. In many places (alpine tundra, wetlands and arid or semi-arid areas) it takes only one or two passes to cause lasting damage and establish a new "trail" that will inevitably be followed by others. The pictured Bookcliffs in western Colorado are an excellent example. Look down the next time your plane prepares to land in Grand Junction and you will see a desert irretrievably scarred by off-road use. Or, if Mr. O'Toole is really in search of hormonal excess, he might try observing an 18-year-old mounted on an all-terrain motorcycle in the midst of a high-country meadow.

The problem of new route pioneering is becoming particularly critical. Formerly roadless areas that provide the secluded habitat required by wildlife are increasingly fragmented by unauthorized routes. Environmentalists reviewing a proposed travel plan for the Grand Mesa National Forest found themselves looking at a map with a spider web of ORV routes penetrating formerly unroaded areas. Many of the routes had been created simply by use over the eight years since the last forest plan and were of doubtful quality. On the Uncompahgre Plateau the announcement of potential wilderness status for Roubideau Canyon brought a rush of ORVers to establish routes and "historic use." As a result, several thousand acres may be removed from the proposed wilderness.

But, after all, some of us are also offended by day-glow clad backpackers strewing granola bar wrappers in a wilderness. Don't all recreational uses cause some resource damage? Of course, but it's the sheer magnitude of potential ORV damage that environmentalists object to. Consider that backpacker: The best he or she is likely to do in a day is 15 miles, and 10 is likely much nearer the average. What does he carry with him? Forty to 60 pounds of mostly non-expendable equipment. In contrast, the ORVers can easily double the mileage, at the same time applying much more erosive pressure to the route and likely carrying many more expendable supplies that often end up discarded along the route.

Routes constructed to non-erosive motorized standards are more expensive to construct than a foot trail built on the same terrain. Because ORVs place more pressure on the ground surface, maintenance is more frequent and expensive. There is probably no other recreational use that poses more of a potential for conflict with other users and with wildlife. In a time of dwindling budgets and increased demand for recreation, does it make economic sense to *encourage* a high-cost, high-impact form of recreation? As recreation pressures on public lands continue to mount, we desperately need an outdoor ethic that says tread lightly and with care. Does the nature of the ORV experience promote this ethic?

Mr. O'Toole asks, "I go to the forest to get away from urban noise; why do these people have to bring it with them?" Why indeed? The question is left unanswered, but the answer might reveal the underlying difference that separates environmentalists from ORVers. It's the desire "to bring it with them" as if by "bringing it with them" they could improve this place, a place that would welcome them without their machines, a place that was already perfect.

Bill Schapley
Grand Junction, Colorado

THE RIVER REQUIRES COOPERATION

Dear *HCN*,

I'm writing to offer a comment on David Getches' essay, "This Process Is Out of Control" (*HCN*, 11/16/92). While I find much to disagree with in Mr. Getches' evaluation of the situation and his proposed solution, I do agree that a new process, involving additional interests, is needed to manage the river. We have been struggling with this problem for some time, particularly in connection with Glen Canyon Dam. The recently passed Grand Canyon Protection act may hold the key to a solution. As a part of the negotiations in drafting the Act, we were able to get a requirement that the secretary of the Interior establish a broad-based formal consultation process in making operational decisions for the river. The secretary is now required to consult with a wide range of interests, far beyond the governors of the seven basin states, as previously required.

While this does not provide a complete solution to the management problem, it does present us with a golden opportunity to develop one. If the various interests can get together, this opening in the law can be used to achieve the common goal of bringing more sense to the way the river is managed.

The Colorado River Energy Distributors Association is already trying to open a dialogue with the secretary on establishing this consultation process, and invites other interests to join with us. If for once we can set aside some of our differences, we could work together to reach a worthwhile common goal. I think it's worth trying.

The act also requires the secretary of Energy to open up a consultative process in identifying methods for replacing generation lost through changes in operation of Glen Canyon Dam. The recent meeting in Farmington, N.M., sponsored by Western Area Power Administration and the Grand Canyon Trust (*HCN*, 11/30/92) represents a small but important step in forming the kind of collaborative effort that will be required to make the consultation process work. CREDA strongly endorses that effort.

Clifford Barrett
Salt Lake City, Utah

The writer is director of the Colorado River Energy Distributors Association, an organization that represents utilities that use Colorado River hydropower.

SIERRA CLUB BETRAYED A VISION OF COMMUNITY

Dear *HCN*,

The article "Sierra Club sued over an old grant" (*HCN*, 10/19/92) by Tom Sharpe asks whether environmental causes blend with social ones. Environmental causes are social causes, and social issues have environmental consequences. Not to recognize this is to forfeit holistic, sustainable solutions to our planet's most pressing problems.

The *Graham v. Sierra Club* lawsuit in microcosm illustrates this. Isolated rural areas can either become playgrounds for the wealthy and/or urban dwellers with accompanying environmental degradation, or can become laboratories for biocultural communities to develop and conserve, sustainably.

This was the vision in 1970, when the Sierra Club Foundation entered into an agreement with a cooperative of low-income Hispano livestock growers in our community to purchase grazing land for economic and conservation purposes. We trusted foundation staff's commitment to this vision and dedication to purchase land. It was practical.

It didn't happen. We were not told the truth. We didn't need Mr. "Graham (to) stir up resentment against the Sierra Club Foundation" as quoted by their attorney Adang. How stereotypical to blame an outsider for stirring up the natives.

Adang claims that "proceeds from the fund (of the Sierra Club Foundation) helped pay off interest from loans to that co-op." The counselor appears to have been misled by his clients. The co-op took a loan for a livestock project based on the imminent purchase of a parcel of land by the foundation.

This loan could not be paid back in full due to lack of promised land, and future assistance from the lender was jeopardized. Today, the fallout from this dispute is not only the bitterness in this community about betrayed trust ... but, as well, the erosion of a mediated process initiated by Ganados in 1990 to bring New Mexico environmentalists and our community together around shared environmental goals and sustainable economic development programs.

The winners? Attorneys for hire who have generated enough fees to have already settled this case.

Maria Varela
Los Ojos, New Mexico

Maria Varela is a community organizer in northern New Mexico.

FARMERS DON'T FARM

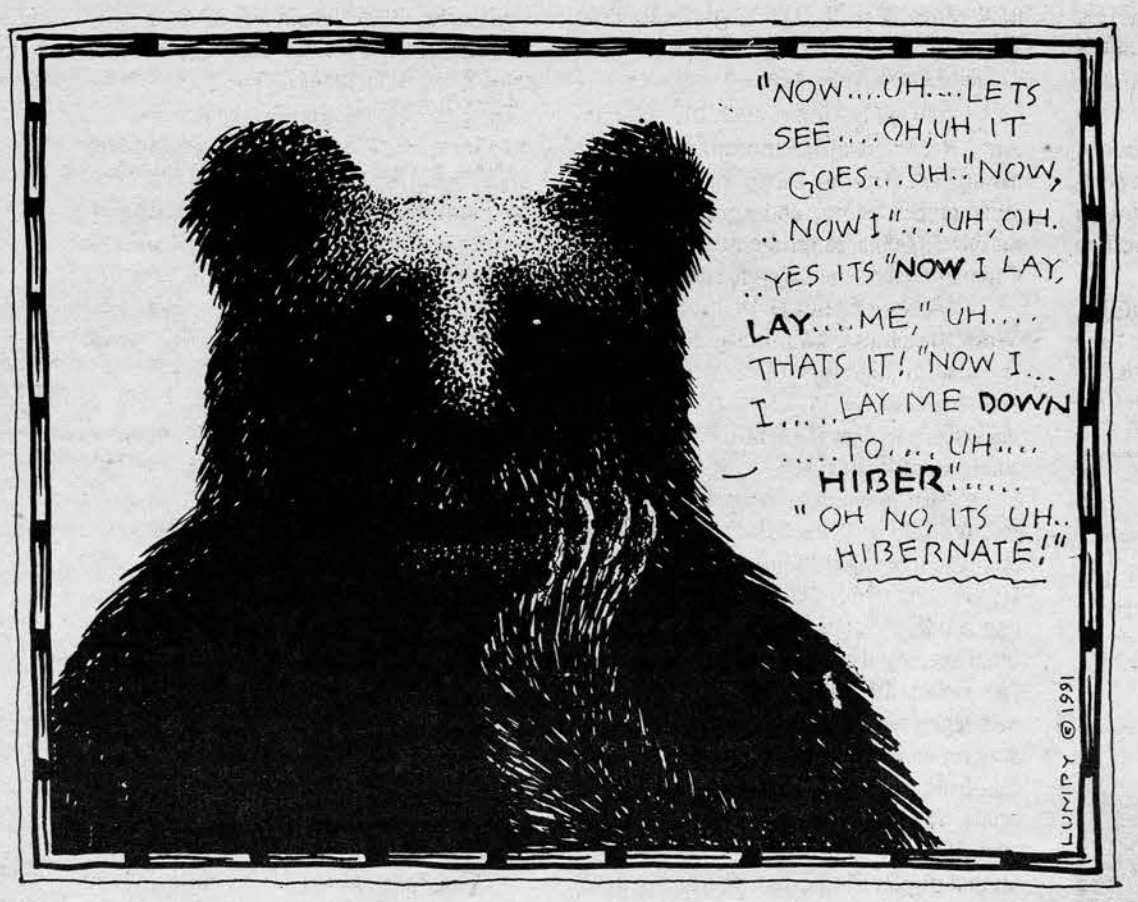
Dear *HCN*,

Incredible as it seems and contrary to Elliott Bernshaw's rejoinder about the *Garlic Testament* (*HCN*, 10/19/92), most farmers do not grow their own food. Farming is a label for a certain kind of business, not a word for the life it used to stand for. Monoculture is still the dominant paradigm. And diet is determined by advertising images that suggest that we can and should eat things produced very far from our homes ...

This adds up to a focus on producing selected crops for a maximum dollar return per acre, and then using that money to purchase other foodstuffs from other sources that operate in the same manner ... Thus, participants in this system, which exists primarily to support an urban lifestyle, find themselves with little time, energy, or motivation to devote to raising their own food, quality or not.

Jim Green
McKenzie Bridge, Oregon

OFF THE WALL



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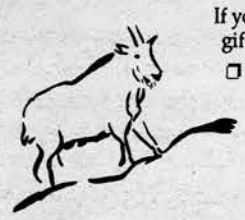

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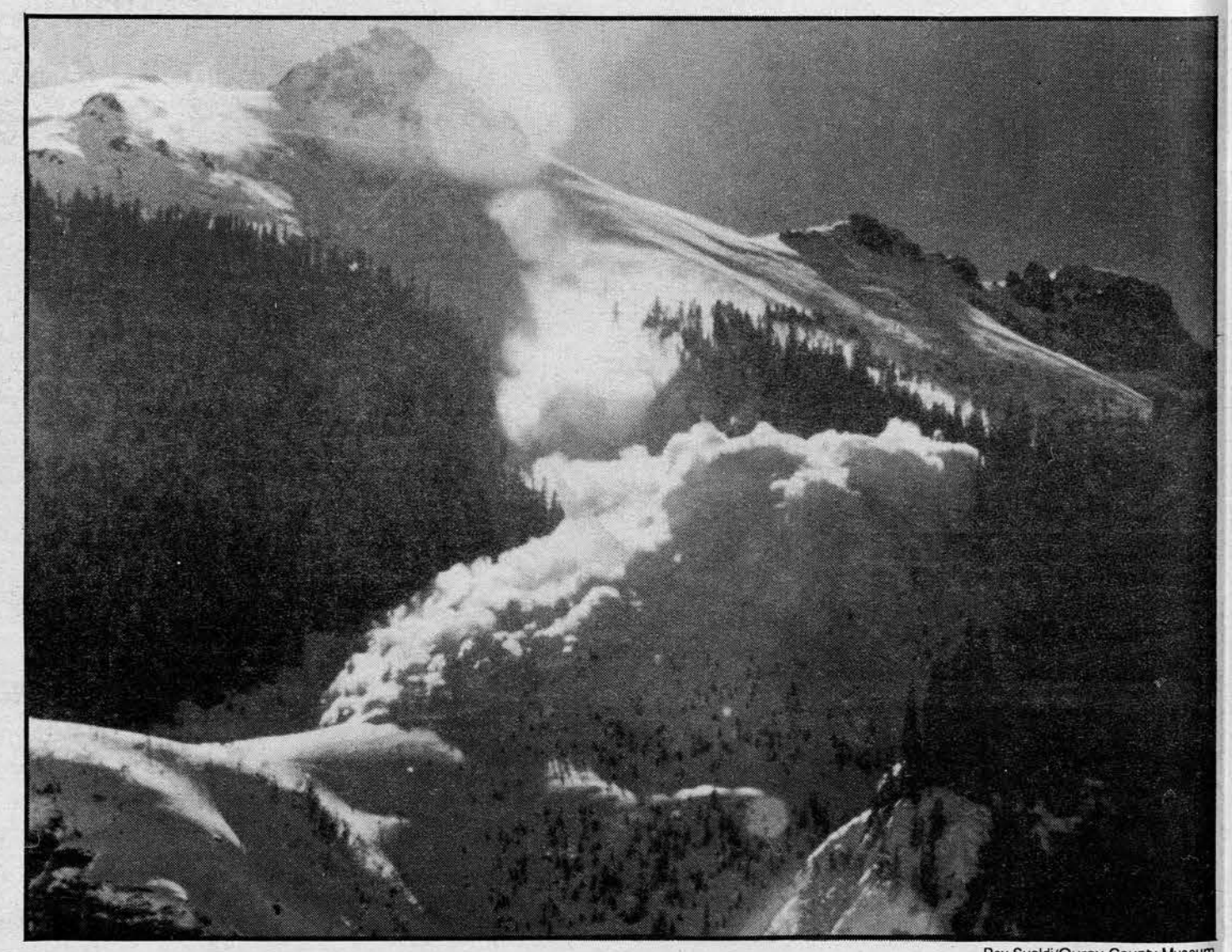
Jim Lane

The Battleship avalanche runs north of Silverton, Colorado

The East Schoolhouse slide Feb. 14, 1958, killed three men

Gerald Swanson Collection

A June 11, 1947, snowstorm in Silverton left this Fish and Game Department truck buried



Ray Svaldi/Ouray County Museum

Three men were killed in the East Schoolhouse Slide on Camp Bird Road (also pictured above)

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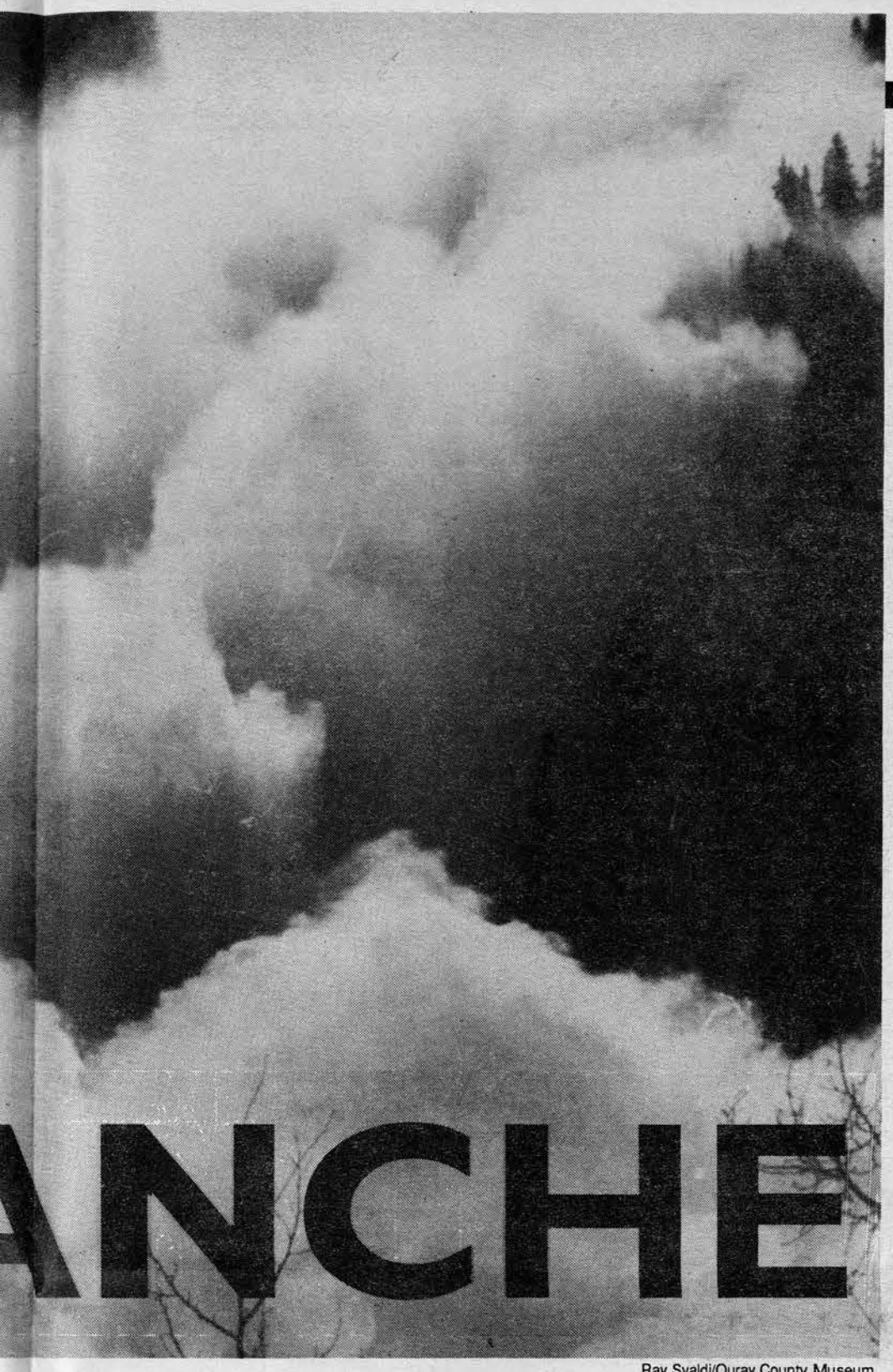

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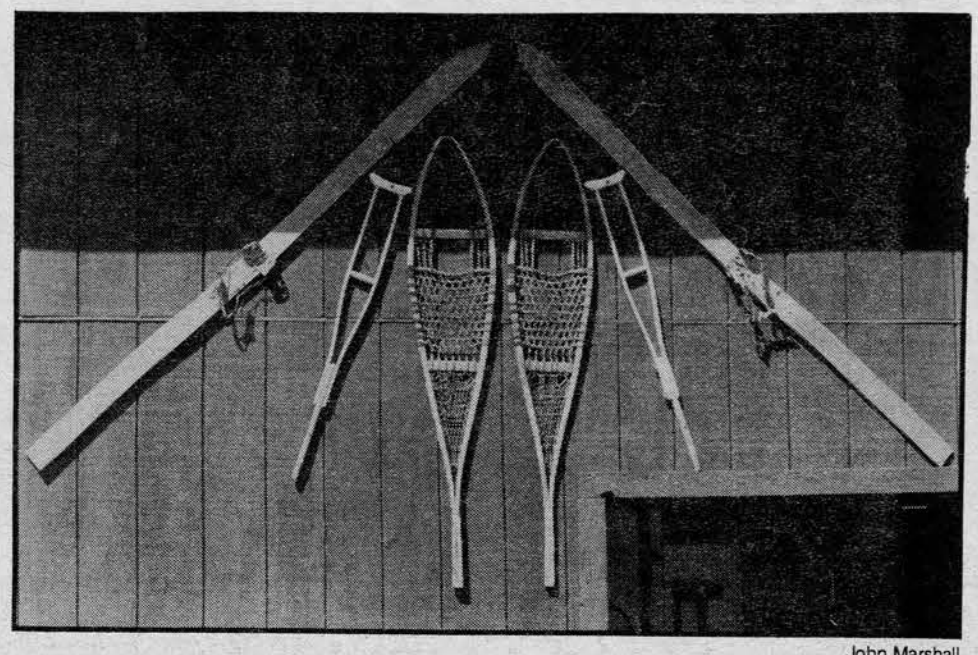
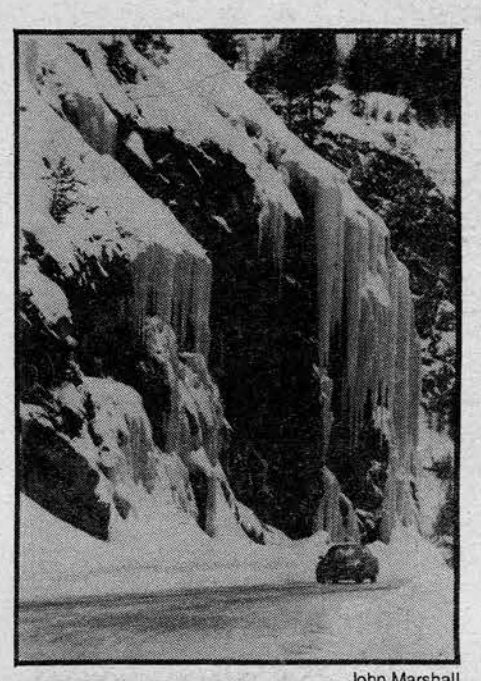


John Marshall

Snowplow driver Jack Rodman mounted tools of his trade on his garage



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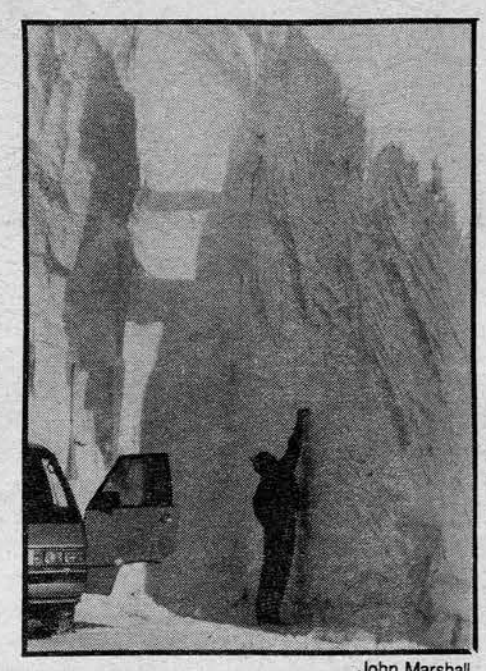
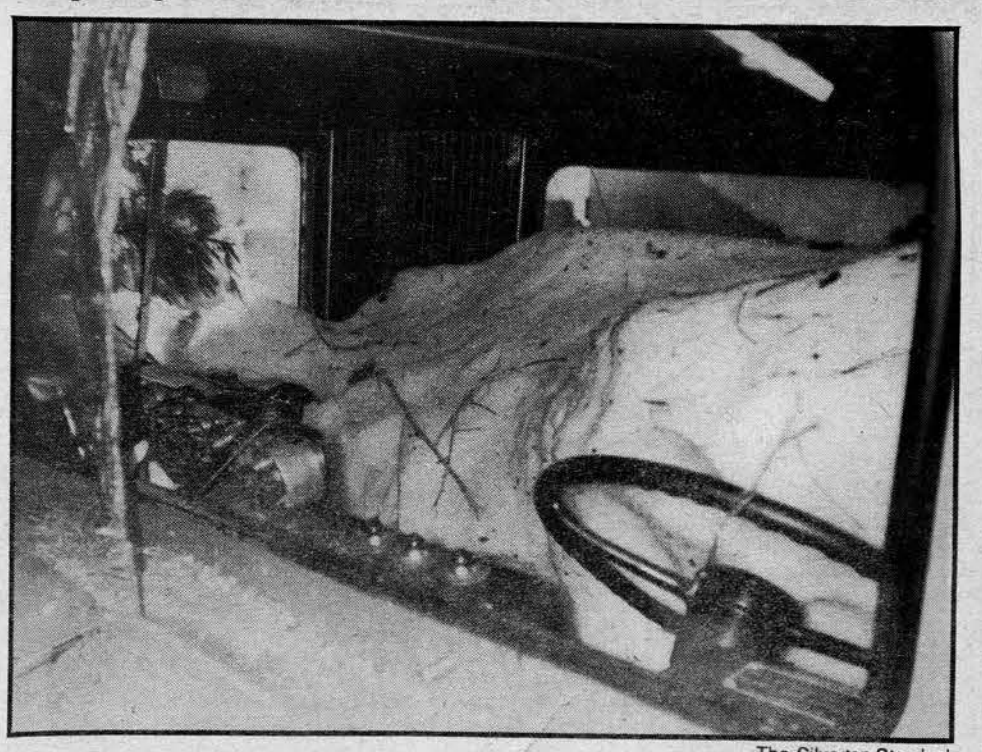
Ice from the Mother Cline threatens passing motorists



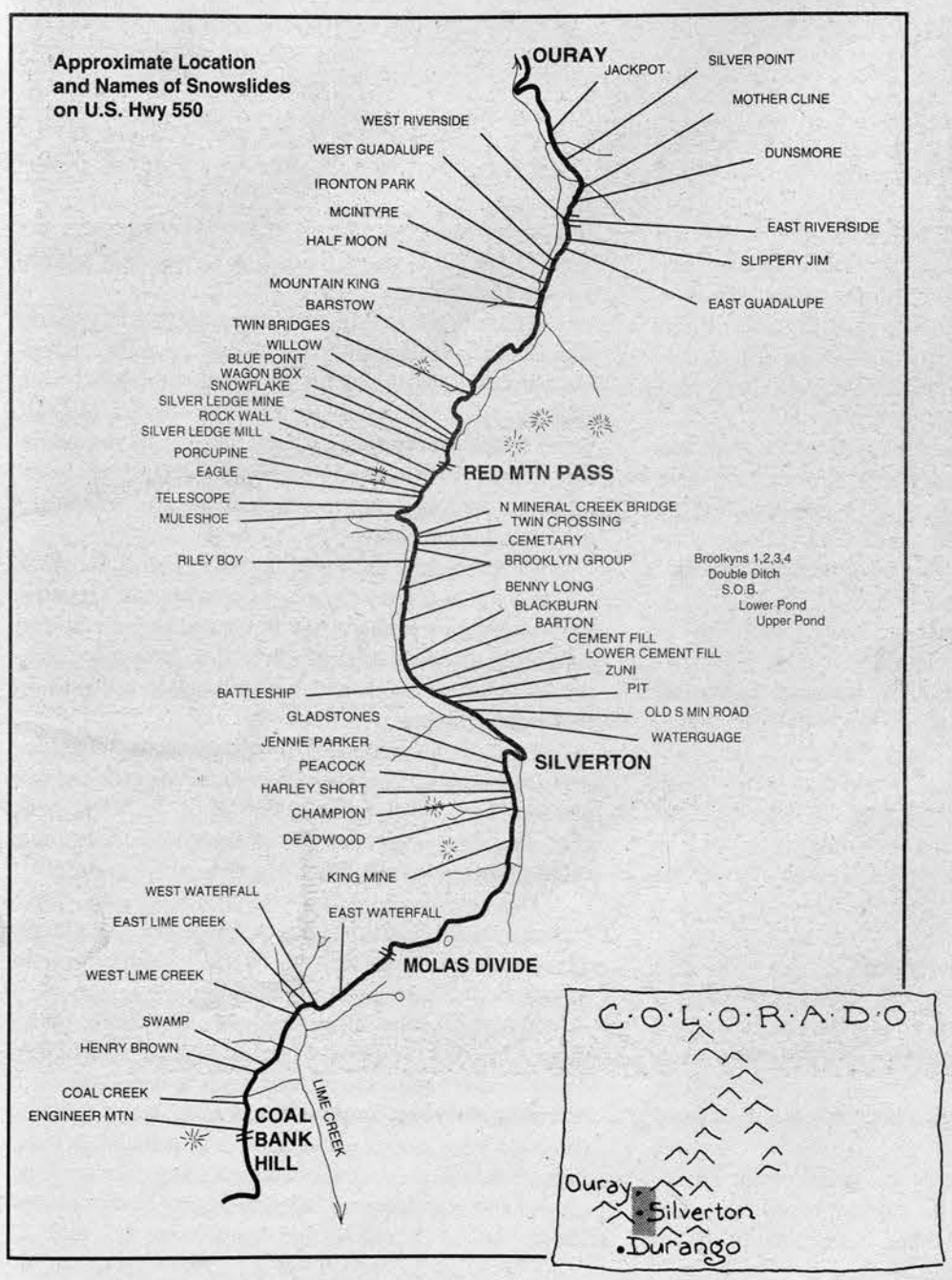
John Marshall

This January 1992 slide along the Brooklyns covered the road for a mile



The Silverton Standard

Two highway workers were buried in this plow after a slide in March 1992. One was able to dig himself out and walk 200 feet to a snowshed. The other died.



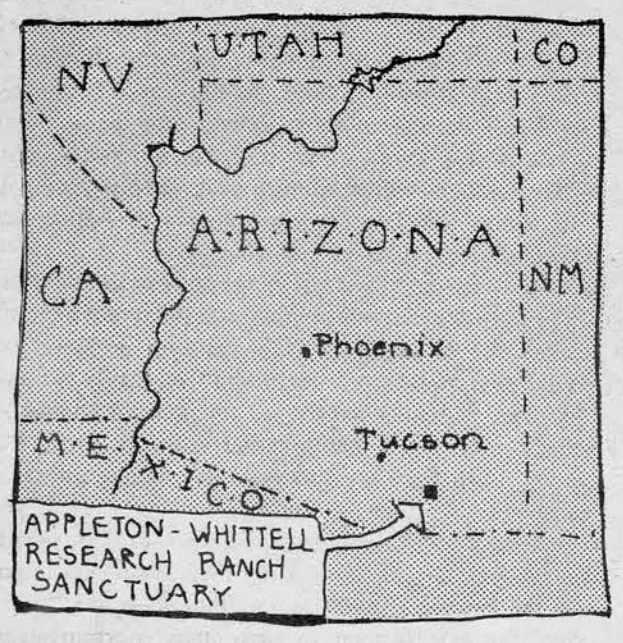
Photographs from
Living (and Dying) in Avalanche Country
by John Marshall with Jerry Roberts.
Copies are $18 from A Simpler Way Book Company,
River Street, Silverton, CO 81433 (800/456-5376)

Audubon's 'ranch' ...

continued from page 1

hillsides and flatlands were eaten to the ground, and rainfall, no longer detained by plants, rushed across the land and into streambeds, flooding rapidly downstream and leaving waterways dry much of the year.

Now, after 25 years without grazing, oaks are spreading across hillsides. Knoder says that without cows, young cottonwoods, ashes and Arizona walnuts grow along streams. Two taller grass species, plains lovegrass and Arizona cottontop, grow more abundantly on the ranch than on neighboring livestock outfits.



Research helps to explain these changes. Cattle, it seems, ate young oaks and cottonwoods. With cows gone, those tree species recovered. Knoder says sycamores have not been so lucky. Cattle generally do not eat sycamore seedlings, but affect them indirectly. Sycamore seedlings sprout in sandy streambeds where annual, grazing-induced flood waters scour them from the earth. To solve this problem, Knoder says, will require management changes on federal lands that surround stream headwaters as well as removal of the ranch's dams and sand traps.

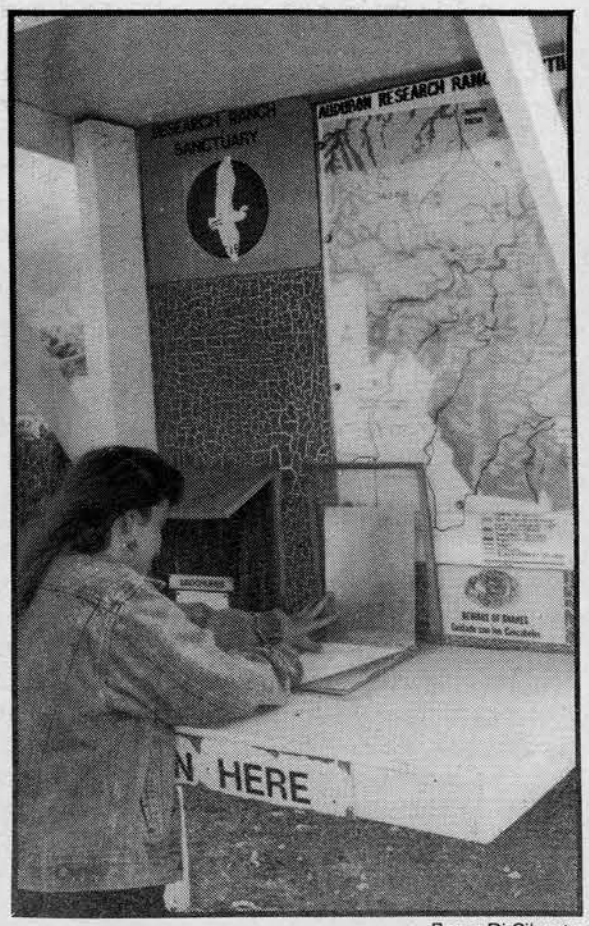
Bird studies indicate that grazing determines which species will prosper. Researchers have found that grasshopper, Cassin's and Botteri's sparrows — sparse or rare throughout the West — are common on the ranch, where they live in tall grasses, while birds better adapted to open habitat generally outnumber them on grazed lands. Researchers believe that species most birders think typical of southeastern Arizona, such as the horned lark and lark sparrow, became abundant only in the wake of grazing. Prior to grazing, they probably were restricted mainly to recently burned areas, as no large native grazing species occurred in the region.

If native grasses today were freed of bovine appetites, some presently common birds would be replaced by species that prefer taller grasses. But widespread cattle removal is unlikely, which means that the ranch offers a vital refuge to tall-grass birds, Knoder says.

Researchers have found that rodents are more abundant on the ranch. To range managers with a narrow agenda, this may seem good news. To ecologists, it carries another message. The larger rodent population has vital implications for an array of predators, from falcons to foxes. The rodents are critical prey species, and their decline on grazed lands probably jars natural balances. More research is needed to be sure.

At a recent grazing conference in Tucson, a rancher expressed disdain for research on grasshoppers by saying, "I'm not in the business of raising grasshoppers." But studies at the Appleton-Whittell ranch suggest that ranchers are indeed in the business of raising grasshoppers. A study in the early 1980s discovered that in autumn, when grasshopper populations are at their annual peak, the insects are nearly four times more abundant on grazed land than on the research ranch. However, in summer — when grasshopper populations are lower overall — the insects are nearly four times more abundant on the research ranch.

Why the difference? The species most abundant in summer are rapidly maturing, grass-eating species, and they find more grass on the ranch. Slower-maturing, herb-eating grasshoppers take over both the ranch and neighboring grazed lands in the fall, but produce much greater numbers on the grazed lands, where they find more herbal fodder and less grass. This indicates that grasses are generally more abundant on the ranch.



Roger Di Silvestro

A woman signs in at the Audubon ranch

The manifold relationships that researchers are discovering among grassland species highlight the complexity of grasslands ecology. Were we to study only grazed land, we would learn only what grazed lands tell us. To better understand the dynamics of grasslands we need also to examine ungrazed land. But research conducted on the ranch thus far is only preliminary.

Grazing has been extinct on the ranch for only a quarter of a century, while understanding fully the ecological dynamics of a grassland shed of grazing is the work of a century or more.

■

Roger Di Silvestro is a free-lance writer. The Audubon Society's Research Ranch can be reached at Box 44, Elgin, AZ (602/455-5522).

ESSAY

Healthy ecosystems and cows will never mix

by **Mike Seidman**

A great deal of praise is being lavished on certain ranchers and concerned citizens who have formed "working groups" to solve livestock-induced problems on public lands. The people in these groups tend to look righteously down at those who refuse to come together to talk — complacent ranchers and uncompromising Earth-First!ers — whose polarized views, they feel, stifle the communication necessary to create solutions.

My perspective as an uncompromising Earth-First!er who is also a member of one of these groups may be of interest.

For the three years of its existence, the 6-6 group here in Arizona (originally six ranchers and six environmentalists — see *HCN*, 9/21/92, page 13) has not been a "working group" but rather a forum in which progressive ranchers, Forest Service employees and other supporters of public-lands ranching could talk with those who are critical of livestock grazing on public land.

The ranching advocates are invariably believers in Holistic Resource Management. In the face of ever-mounting criticism of grazing, HRM is a shining beacon to public-lands ranchers. It is, they hope, the final defense their livelihoods will ever need. Sticking to an HRM perspective allows the more progressive ranchers and agency people to disassociate themselves from the "bad" ranchers while continuing to defend ranching in principle; it allows them to agree to some extent with the critics of public-lands ranching while holding out the promise of reform.

HRM sets the tone and the agenda of our meetings. Debate does not center on the question of whether cattle grazing has been compatible with ecosystem health, but on whether it can be. The group generally meets on public-land grazing allotments which, we are assured, have been "improved" by intensive management, often involving the use of cattle as a "tool." After visiting portions of these allotments, we argue back and forth, posing questions none of us can answer:

What should the land look like? Does the land need to be grazed? Which species of large grazers lived there in the past, how abundant were they and what was the extent of their impact on the land? Can cattle be managed to mimic the beneficial effects of those wild animals? Does it matter?

A major problem is that the word "improved" is ambiguous. A thing can be improved without being anywhere near right. I'd like to know how our "improved" public lands compare to those lands 150 years ago, before the injection of cattle into the system. "Improvement," in fact, may mean little more than "closer to the way ranchers want it." They consider fences and the extermination of predators "improvements." And is enhanced production of the plants favored by cattle (or elk) necessarily an improvement for the ecosystem as a whole?

Even if cattle can improve soil stability and forage production, soil and vegetation only partly define a healthy ecosystem. Can an ecosystem be considered healthy if it lacks a complete set of *native* plants and animals (taking into account that the mix of native species may vary unpredictably over time)? In a healthy ecosystem, won't the distribution and abundance of native species be determined, not by the goals of one species manipulating from outside the system, but by the natural carrying capacity of the land and interactions of species and environment over time? In my view, the more we have to meddle in an ecosystem to maintain its health, the less healthy it is.

Which is not to say that our meddling is usually altruistic. Human management of land invariably means the enhancement of certain "resources" to ensure that enough will be produced to satisfy people (or at least some people) indefinitely. When humans set the goals, the system is deliberately skewed. Human land managers are forever trying to put back together what they are continuing to unravel.

The problem is not humans making use of the earth for survival and some degree of comfort and security. Our subjugation of other life forms and systematic and prolonged transformation of the earth to grow more people and more frivolous and wasteful human artifacts — that is the problem.

Treating the earth as a living warehouse is analogous to the imperialism of rich and powerful nations not too long ago, which either exterminated the native peoples they encountered or forced them to plunder their motherlands to enhance the lives of their oppressors.

This sort of cold greed was once acceptable. Only gradually did it begin to seem shabby. But it has not yet struck us that converting the world's biodiversity to human flesh is ecological imperialism.

Ecological imperialism flourishes today under many guises. In order to support vigorous populations of large domesticated herbivores on arid lands to which they are not adapted, habitat must be transformed: water must be removed from natural water sources or polluted, natural processes such as fire and ecological succession must be altered and vegetation modified, soils may be eroded and sedimentation increased, and "improvements" such as

fences and the elimination of certain plants and animals instituted.

So accustomed are we to coercing the land to make it produce more than it naturally would, whether of forage for cows, timber, or scenery, that we have come to believe the land *requires* human manipulation to be healthy. We confuse healthy ecosystems with ecosystems that are made to produce what we want. The truth is that our ignorant and greedy manipulation of ecosystems has precipitated an ecological crisis.

So accustomed are ranchers and agency people to thinking of ecosystem health solely in terms of the production of objects of human interest that, for instance, when they try to impress environmentalists with talk of the benefits of ranching "improvements" to "wildlife," they talk of a superabundance of animals people like to hunt.

Alas, a chasm of misunderstanding separates us. An overabundance of deer and elk may please hunters and be consistent with multiple-use guidelines, but it cannot be reconciled with my idea of ecosystem health, according to which it's not more deer that is healthy but only the amount of deer the habitat can support (without our meddling). Even if that means no deer.

The cattle ranchers I've spoken to seem to live in another world, a pre-ecological world in which life is a struggle for power and the goal of humanity is to grab all we can lest another species takes it. In the rancher psyche is the frontier idea of nature as a stubborn and corrupt adversary that must be beaten before it can be loved. Their love of animals is sentimental: animals are good if they have some use or give us some pleasure or, at the very least, do not resist our will; they are bad if they stand in our way. This is the last flush of ecological imperialism.

Ranchers seem not to understand that all species have roles and interests, and value. Thus they can claim to be responsible stewards of the land ("the original conservationists," etc.) while exterminating predators and competitors with righteous and unrepentant fury.

In their resistence to Mexican wolf reintroduction here in Arizona, cattle ranchers reveal a bias against complete ecosystems that seems to come with the job. Despite Allan Savory's blessing on predators, no HRM rancher I know of has publicly advocated reintroduction of the Mexican wolf. If one's livelihood depends on pampering helpless (and tasty) creatures in a difficult environment, reducing the risk of predation and competition from native animals is good business. One can see their point of view. But simplifying an ecosystem to make it hospitable for exotic half-ton eating machines is not conservation.

The Land as a Community

Some try to justify our systematic global manipulations by arguing that as part of nature, whatever we humans do must be acceptable. While it's true that humans have come out of the earth and to the earth will return, in the interim we have chosen alienation, relinquishing our connection to nature for the illusion of power and security.

But despite our efforts, we are a partner in the dance and cannot get sufficiently outside the system to be able to direct it. Failure to accept our imbeddedness in nature is at the heart of the ecological crisis.

The point is that we are all in this together, humans, beasts, flowers, stones and shit, and the ability to co-exist is a better measure of our maturity as a species than is the use of our power to subjugate.

What's radical in today's conservation movement is taking the needs of other species seriously and suggesting that we give up our project of endless human expansion. The goal is not a sustainable level of exploitation but a reduction of our desires. The Wise Use people are right to feel threatened by this. And "working groups," because they do not see deeply enough into the cause of the ecological crisis, must fail: the crisis will not be solved by juggling various human uses of the land but by limiting human use.

Why, then, do I continue to go to 6-6 meetings when our interests and goals are so obviously irreconcilable? Well, I do not go, as I was quoted as saying in a recent issue of *HCN*, because 6-6 is the only environmental group that talks about the environment. I am a member of 6-6 for two reasons. First, we meet on the land in the company of those who are impacting the land — Forest Service agents and permittees — and I consider this a learning opportunity not to be passed up. The strong opinions of progressive ranchers have provoked ever deeper pondering and helped crystallize my views. I also go to preach: to expose these would-be earth directors to biocentrism, the source of my "extremist" point of view.

I am not so absorbed in my biocentric fantasy that I fail to see that as long as current human-centered values prevail, any suggestion that people vacate our public lands in the interest of biodiversity will be viewed as ludicrous. Still, it gratifies me that ranchers are worried these days.

Ranchers attempt to convince the skeptics among us that cattle can be compatible with, and even necessary for, ecosystem health. I'm not convinced, but some of the "environmentalists" in the group seem almost convinced and are restless to test the theory. So the group is poised to "adopt" a ranch in need of improvement, the goal being to formulate a management plan that will allow us to see the effects of our decisions. But the elimination of grazing will not be one of our management alternatives and HRM, with its dogged faith in "animal impact," will be the guiding model.

> Ranchers think animals are good if they have use, give us pleasure, or, at the least, don't resist our will

Participation in this experiment will be difficult for me. After three years of listening intently to arguments in support of "enlightened" public-lands ranching, and looking at the "improvements," I am as far as ever from seeing it as an appropriate activity here in the West.

6-6 and other working groups pride themselves on their diversity of viewpoints. But they fail to see that already a winnowing process has occurred, and those who believe that only radical changes will solve our environmental crisis have long since dropped out.

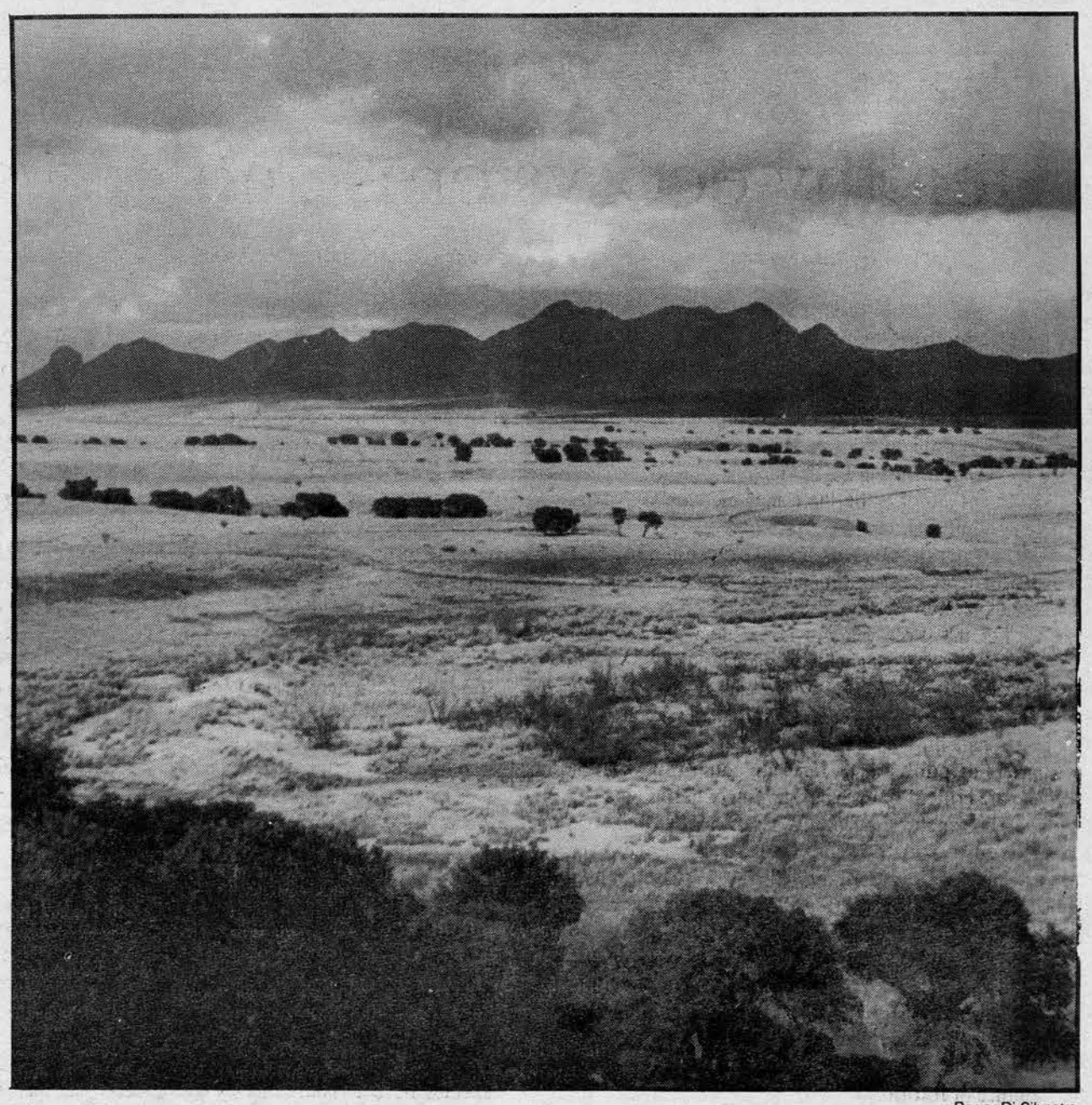
The ranchers and urban environmentalists can work together because of their shared belief that humans ought to be in charge of the world. In this mind-set, problems arise only when one human use interferes with another.

The interest of Sierra Club environmentalists in wilderness would seem to imply an empathy with the needs of other species that sets them apart from ranchers and other human chauvinists. But "mainstream" environmentalists want wilderness preservation not for the sake of healthy ecosystems — if they did they would have lobbied for much larger wilderness areas; they want wilderness so they can continue to live decadent city lives and still "get away" when the mood strikes them. Breath-taking scenery, pristine-looking riparian areas, an occasional deer — the illusion of wildness is sufficient. Since the illusion is too easily spoiled by the vacant stares of cattle, they want to banish them. (I'm exaggerating, of course — I know Sierra Club members who feel much more deeply than that. But I think this is a fair representation of mainstream conservationist thinking in this country.)

"Extremists" like myself, who believe that humans are but one species among many, are put down by these groups as "people haters." The issue for us biocentric types is not how to divide public lands among "diverse" human interests, but whether we should be dividing the world among ourselves at all. In the 6-6 group, I am the only person asking that question. It should be called not 6-6, but 1-11.

I reiterate at nearly every 6-6 meeting that when it comes to public-lands ranching, it's the "sin" I hate and not the sinner(s). And I believe that were the "cattle-free" fantasy to come to pass, many, perhaps even most, ranchers could remain on the land. If our land management agencies stopped seeing our public lands as warehouse/playgrounds for people and devoted their money and personnel to ecosystem rehabilitation and protection, there might even be an ethical living to be made out there, one befitting a species with our Latin name. ■

Mike Seidman lives in Phoenix, Arizona, and is a member of Earth First!



Roger Di Silvestro

Audubon ranch near Elgin, Arizona

LETTERS

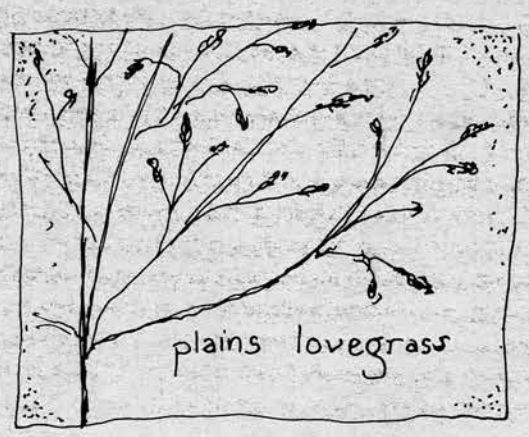
RESEARCH RANCH IN ARIZONA IS A BENCHMARK

Dear *HCN*,

As a land manager and one in a group of researchers studying Audubon's Research Ranch for the last 20 years, I felt Dan Dagget's essay (*HCN*, 9/21/92) on "6-6" meetings was very helpful. Certainly communication about ecological processes is critically important if sustainable land-use decisions are to be made.

But grasping at grasses fails to interpret complex data. Audubon's Research Ranch was set aside as a small portion of the vast grasslands of southeast Arizona without grazing or other intrusive "management." Scientifically, it is a "control" site while the vast majority of southeastern Arizona is an "experimental" area where people manipulate the plant community with grazing in its myriad forms.

Many grazing operators readily understand the scientific concept of "control" and "experimental" sites. But some reject this approach as "reductionist" or "non-holistic"; in this case a rational discussion may be impossible but an emotive approach may appeal. Some may raise red herrings like "see this dead plant?" or "see the dead grass in the center?" or "see how easy it is to pull out?" Anecdotes like these must not be interpreted as data.



What do data from the control site indicate? First, change is slow. When manipulations on the landscape stopped, it took 18 years for a significant change to show up, requiring thousands of data points from the grassland.

Twenty years are a mere flicker of time; many of the individual grass plants, often clonal in life form, are probably hundreds of years old. Some research sites have changed dramatically, others have not. Quick glances at a few sites cannot tell the story. The research area is not "becoming a desert" or "suffering from too much rest from cattle" as some have claimed. Total area of soil covered by plants increased significantly on the research sites, much of it due to an interesting grass, Plains Lovegrass, which is relatively rare on the grazed sites and was less abundant on the research site 20 years ago. A much longer list of leafy plant species thrives on the research sites. Blue Grama grass does indeed grow in rings with dead material in the center, just as trees have only an outer ring of living tissue. Where hooves do not compact soil year round, grass roots are surrounded by loose, well-aerated soil. On experimental sites, especially along fences (where cattle spend an inordinate amount of time), soil density can resemble that of concrete.

Grasslands often change over time with regard to the species present. Some grasses, many in the mid-grass or tall-grass prairies of the Great Plains, germinate and grow for a short time (10-50 years) only after the soil surface is opened to sunlight by disturbance.

Agents of disturbance can include fire, disease, aging plants that have died, or plants that have been removed. For instance, many forest species thrive and grow only in "light gaps" formed where older trees die and fall (or are removed). As time goes on, different species shade out the "light gap" or pioneer species.

To some extent, Plains Lovegrass may depend on disturbance, but this was not known until recent research was done at the Audubon site. Where grazing or wildfire have removed litter from treated sites, new vigorous plants are common in places. Without grazing or fire, this grass had some mortality. Some of this grass mortality may be due to the long dry spell during the 1980s in the Sonoita grasslands.

Even where some of the Plains Lovegrass individuals died, other living individuals of this grass are still far more abundant on the ungrazed research lands compared to adjacent grazed sites. This complex pattern suggests that this grass probably did not thrive on the site with large herds of hooved herbivores but that it was rejuvenated by the occasional lightning fire.

The fossil record in southeastern Arizona does not include hooved herd animals typical of fossil records from the Great Plains, but fire is a common natural source of disturbance. "Succession," or an orderly series of plants replacing each other on a site, starting with bare soil, is not necessarily driven by a "lack of cattle" (as some claim), but by dynamics between plants, disturbance, light, litter, climate and soil.

Natural wildfires now offer another challenge to managing our native grasses. Since people introduced African grasses, including Lehman's Lovegrass, it has spread following fires. This grass apparently has started to invade and replace even the research/control sites dominated by the native perennial bunchgrasses. Lehman's Lovegrass and a related South African transplant (Boer's Lovegrass) often form a closed-canopy monoculture virtually devoid of native birds, mammals and insects. As researchers continue to study our native grasses, patterns of dependence on disturbance, as suggested here for Plains Lovegrass, may be confirmed and we hope to learn more about other native (and exotic, potential 'weed') grasses.

Discoveries like this rely on continued access to long-term control sites that are large enough to allow normal ecosystem functions. Audubon's land, along with control sites made available by the Bureau of Land Management and the Coronado National Forest, form a unit large enough to serve as an adequate control site. Very few control sites in southeastern Arizona grasslands are large enough to serve as control sites. There are many tiny (e.g., 50 ft. x 50 ft.) grazing exclosures.

But most of these exclosures I have seen are knee-deep to a rodent in rabbit or rat droppings. Often including the only standing vegetation on "closely utilized" rangeland, these relatively small plots can offer cover to native herbivores whose nocturnal grazing may be devastating. As grassland studies include ever longer time spans, the Research Ranch becomes ever more valuable as a benchmark.

It is particularly important for the Coronado Forest and for the Arizona state office of BLM to continue to be involved in maintaining this unique reference area called the Research Ranch. We need to keep a few sites in reserve and then do whatever it takes to see that our academic research and land management options are shared and understood.

Mark R. Stromberg
Carmel Valley, California

The writer is on the staff at the University of California, Berkeley, Museum of Vertebrate Zoology, Hastings Natural History Reservation.

IT'S EASY TO ATTACK

Dear *HCN*,

Each time someone attempts to solve one of the West's many problems they are bombarded with angry letters filled with terms like "ludicrous scene" and "naive." I applaud people like Dan Dagget (*HCN*, 10/21/92), environmentalist and ranchers alike, who have the moral fortitude to offer concrete solutions. How easy it is to throw stones at these people and their ideas from the comfort of our word processors.

Things will be much different when the dust finally settles in the West. We may settle into an equilibrium which includes both cows and wolves.

Jim Winder
Deming, New Mexico

WHY SHOULDN'T WE WORK TOGETHER?

Dear *HCN*,

I'm pleased that my essay in the 9/21/92 issue of *High Country News* on finding common ground between ranchers and environmentalists inspired so much discussion. I'm disappointed, however, that the larger point of the article, that ranchers and environmentalists share common concerns and can work together, seems to have been trampled. The stampede of response almost exclusively took issue with my description of a field trip to two cattle ranches and the Audubon Research Ranch in southeastern Arizona. In that account, I suggested that the conventional wisdom on this issue — that grazing in any form is bad, while rest is inevitably positive — is not borne out on the land.

While people were writing to say that to have come to such a conclusion I obviously hadn't looked closely enough, or hadn't consulted the proper authorities, I was back in the area for another look. This time there were a number of experts along for the trip.

In addition to 6-6 regulars, our gathering of about 45 included Tony Burgess, project coordinator for the University of Arizona's Desert Lab; Mark Dimmitt, curator of plants at the Arizona-Sonora Desert Museum; Bob Bement, former chief scientist for the Central Plains Experimental Range; Dan Campbell, head of the Arizona Nature Conservancy; Gene Knoder, director of the Audubon Research Ranch; and Ruken Jelks III, owner of a ranch that adjoins the Audubon Ranch. Also along were people from the Arizona Game and Fish Department and the U.S. Forest Service as well as a number of activists and ranchers. We toured the Nature Conservancy's Canelo Hills Preserve, the Audubon Ranch and Ruken Jelks' Ranch, which he manages according to the principles of Holistic Resource Management and grazes intensely.

Not surprisingly, we found that the land asked more questions than it answered. We also found that you can't judge someone's stewardship by the hat they wear. On the Jelks ranch, Tony Burgess was enthusiastic about the abundant evidence of life he found as he dug into soil that had been bald as a parking lot just eight years before. When we moved to an area where a stand of perennial cane beardgrass stood as high as our belts, and in some cases reached to our chests, Burgess said to Jelks, "I don't know what you're doing here, but keep it up. You should be very proud."

Moments before, we had been standing on the Audubon Ranch, which hasn't been grazed since the late 1960s. There, we could not only see our neighbor's belt, but we could read the labels on their sneakers. Instead of praising the soil, Burgess talked about how it took a thousand years to make an inch of it.

Does that mean the Audubon Ranch is being managed improperly and should be opened up to cattle grazing? Everyone who I talked to on that field trip spoke of the Research Fund as indispensable in doing the very job that Gene Knoder said it was designed to do: to serve as a control against which to compare the management of neighboring lands.

And if in making those comparisons, we find that our old ideas don't work any more, do we have any choice but to come up with new ones? When paradigms are threatened, our tendency is to surround them with an armament of semi-religious words that make them off-limits to challenge. Some say that what Ruken Jelks and others who manage intensely are doing is wrong, in spite of the results they are achieving, because it is not "natural," because the grasses that grow in southeastern Arizona evolved without large grazers. In truth, bison bones rest just across the fence from where we stood that day (J.N. McDonald, *North American Bison: Their Classification and Evolution*, p. 80).

How do we determine what is right for the land? By how fierce a fence of regulations we can build around it, or by what's happening on it? If ranchers and environmentalists can identify common goals and agreeable means to achieve them, why shouldn't we work together? Every day more groups are doing just that. The Arizona Nature Conservancy has decided to use cattle on some of their preserves to control exotic grasses. 6-6 is considering a number of collaborative restoration projects. And the Audubon Society, along with the University of Arizona, recently sponsored a symposium to bring ranchers and environmentalists together. Should we be fighting over legislation in Washington instead?

Dan Dagget
Flagstaff, Arizona

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GUEST OPINION

Lawsuit ducks the real issue

by **Sam Bingham**

This fall, three major environmental groups filed suit against the U.S. Fish and Wildlife Service charging that 10 of its refuges are mismanaged (story on page 6). Many refuges are mismanaged, but at the Monte Vista National Wildlife Refuge the groups have missed the real problem.

The Monte Vista refuge is in Colorado's high, wide and wind-swept San Luis Valley. The lawsuit portrays the refuge as the scene of a cattle-duck conflict which the ducks are losing.

As evidence, the attorneys cite a study based on 15 years of data gathered at the refuge. The lead author on the study, David Anderson of the U.S. Fish and Wildlife Service's research center in Fort Collins, Colo., says:

"It is the longest data series we have on this subject, and it shows conclusively that ducks and cattle don't mix."

That seems definitive until you talk to Anderson's co-author, James Ringelman, of the Colorado Division of Wildlife. He says:

"It would be a disaster if that study resulted in barring grazing from wildlife refuges. Dave (Anderson) sees in black and white what to me is all grey, and our paper does not support his opinion, or what is argued in the suit."

Underlying the disagreement is a fundamental question the scientific study and the lawsuit never address: How and for what should the Monte Vista refuge be managed? Instead, the study and the lawsuit take it for granted that the purpose and operation of the refuge are obvious, and all that needs to be done is to alter or eliminate grazing.

But the Monte Vista refuge is far more complicated than the study or lawsuit would lead you to think, and events have already overtaken both of them. The cattle-grazing system — a three-pasture, dormant-season, rest-rotation approach — and the duck-raising system — best described as a late-19th-century slum tenement approach — are no longer used at the refuge.

Both approaches ended in 1990, when the U.S. Fish and Wildlife Service sent a maverick named Steve Berlinger to Monte Vista as the refuge's new manager.

Berlinger had been chief land-management specialist for the agency's Region 6, which stretches from Utah to the Dakotas. It was an important policy post for farming, pest control and private landowner relations, and Berlinger's unorthodox views had made waves within and without the agency. As a result, some friends say, there was a certain amount of satisfaction within the agency when Berlinger was sent to Monte Vista.

Berlinger had a mission

Although the transfer was probably a blow to his career, Berlinger wasn't unhappy. "In Denver I was only a glorified consultant. A refuge manager can really do stuff."

He has already done plenty of stuff at Monte Vista. Most people assume refuges are natural islands that shelter all sorts of wildlife. In reality, refuges are intensively managed pieces of land meant to produce maximum numbers of huntable wildlife. Some, like Monte Vista before Berlinger, resemble feedlots: They raise grain to attract and hold waterfowl.

Berlinger never agreed with the single-species, intensive-farming approach. After spending years trying to change it from Denver, he wasted no time turning Monte Vista on its head.

"We were spraying weeds and monocropping 500 acres of barley with more nitrates and pesticides than any commercial farmer could afford. We had aerial gunning of coyotes and we were harassing elk off the place to save the feed for birds," he says.

In the winter, "We cleared snow with tractors so the birds could get at the feed. And we burned energy pumping water like there was no tomorrow, and watched the water table drop." Nor did the place look like a wildlife refuge. "It was crisscrossed with barbed wire to control the cattle," Berlinger continues.

"On top of that, the senator who sponsored our state weed law happened to come from this area, and that put us under tremendous pressure to spray a whole list of so-called noxious weeds."

Berlinger ripped out the barbed wire and called off the air war against coyotes. But because the "paradise effect" attracts hordes of predators, he does trap skunks and raccoons during the nesting season. He cut barley farming back to 200 acres and mixed peas in with the grain to substitute for the nitrates he no longer applied. He drilled the seeds into the stubble to avoid plowing.

He also let the elk back in; they repaid him by breaking the snow for feeding birds.

Berlinger recalls, "I couldn't persuade the weed board that the tall white top (a weed) had as much right on the refuge as they did, both being exotic species. Instead, I got them to accept sheep and goats in lieu of herbicides." The lawsuit cites sheep and goats as evidence of aggravated mismanagement.

A waterfowl refuge requires open water to attract birds. At Monte Vista, open water depends on pumping groundwater to create marshes and ponds. Berlinger

reduced the pumping as much as he dared. And over a once-flowing stream he put a sign informing the public that Spring Creek stopped flowing in 1968, due to over-pumping by farmers AND by the refuge. It was, in typical Berlinger style, a poke in the agency's eye, and it did not please his superiors.

No more assembly line

More seriously, Berlinger took aim at what had been the central point of the refuge. "When I got here, I found a duck factory that would have done justice to (chicken baron) Frank Perdue," says Berlinger. Even with the grazing, "we were the densest duck nesting area in the lower 48. And commonly as many as half the 30,000 or so ducks that wintered here died of avian cholera because of overcrowding."

To reduce crowding, Berlinger closed some of the flowing wells on the reserve, allowing some open water to freeze and discouraging migrating ducks from stopping at the refuge. At the same time, he vigorously recruited neighboring landowners, asking them to create habitat elsewhere. Over his nearly three years, about 100 collaborators have created mini-wetlands by letting their artesian wells flow, or they have attracted birds by leaving grain stubble and unharvested shelter breaks.

Complaints have come from some hunters, who were accustomed to the privilege of shooting into a cloud of birds at the refuge. But the cholera epidemic ended.

"My goal is diversity," Berlinger explains. "I won't run a duck factory. I want plant diversity, pheasants, hawks, and all the rest of it. And I want the health that comes from that.

"You need open areas for breeding pairs and goose feed. You need some moderately rank grass for snipe nests and loafing cranes, and you need really rank undergrowth, too."

To produce this mix, Berlinger uses cattle as his main instrument, even while agreeing that the grazing policy of the past was wrong. "I can manage vegetation in a very flexible and benign way with strategic use of livestock and electric fence. The old, inflexible routine had produced a monoculture over wide areas."

Three seasons of experiments aren't enough to prove Berlinger right or wrong. The duck-maximizers above him in the agency are particularly nervous about his grazing policy because it is his most radical change. And Berlinger admits that increased diversity may come at the expense of duck production on the refuge itself.

To achieve the plant diversity he is after, Berlinger replaced the old grazing system, which rotated cows among 20 or so barbed wire enclosures, with more intensive grazing of smaller areas. Overall, he has cut the area grazed by nearly 25 percent and reduced the amount of forage the cows eat each year.

But the point of the change wasn't to reduce grazing — it was to create diversity. In areas where he wanted to create various levels of habitat, he concentrated herds for short periods during the growing season, but only after the ducklings had left the nests.

The dense herds did have a heavy, short-term impact, and the state Division of Wildlife's Ringelman suspects that duck production the following year will suffer where grazing was heavy.

But "our beef with Berlinger is not over grazing in principle," says Ringelman. "It's in the kind of habitat he wants to produce. He wants the refuge to have a little bit of everything. But a lot of people think he should concentrate on what the ducks can't find enough of elsewhere, which is the build-up of vegetation you get after years of rest, and grain.

"Even some of his people think he's managing for too much low- and medium-level vegetation. And he could probably run more water, too."

The Audubon position

Ringelman's argument is about management goals, not about cows. But the subtlety is lost on the Audubon Society's chief voice on the subject, Gene Knoder, whom I called in an attempt to discover why the Monte Vista section of the lawsuit concentrated on grazing.

Knoder manages the Appleton-Whittel Research Ranch (see story on page 1) in southern Arizona, an experiment into what happens when land is rested from grazing.

"The study is clear that cattle are detrimental to water birds," he says, without qualification. "A large ruminant is an exotic that has no place there."

Would Knoder recommend other means of opening and revitalizing vegetation? "No," he replies. "I wouldn't want to see fire, spraying or a mowing machine in there either. I think there simply needs to be more of that dense, high-successional habitat. Sure, a lot of species need something else, but they can find a lot of it elsewhere. The mandate of the refuge is to maximize water-bird production."

Why, then, I ask, does the lawsuit not list mowing, spraying and fire alongside grazing as examples of mismanagement? Many refuges use them.

Knoder admits to a political consideration. "You can say all you want about using livestock as a tool for habitat management," he replies. "But the minute the ranching crowd has a vested interest in it, it's going to get abused. We're better off without them."

Knoder is no doubt right: Ranchers can exert a heavy political hand, whether it's on the Bureau of Land Management or on a refuge manager. But it is also true that pesticide and herbicide manufacturers, duck hunters and even the Audubon Society have been known to get political.

It seems to me the goal should be to use good science and sound experimentation — such as Berlinger's work at the Monte Vista refuge — to figure out what works, and then to fight to implement those practices more widely.

What bothers me about the Monte Vista part of the lawsuit is its distortion of science and its attempt to narrow a difficult question into one that simply pits waterfowl against cattle. As Berlinger has shown, cattle are only one part of a much more complex question. ■

Sam Bingham is a free-lance writer in Denver who co-authored with Allan Savory the *Holistic Resource Management Workbook.*

BULLETIN BOARD

WHERE IS THE WEST?

The summer 1992 issue of *Montana: The Magazine of Western History*, asks the question, "Where is the American West?" and presents responses ranging from academic to poetic. The quarterly, published by the Montana Historic Society, says that revisionist Western history calls for new definitions, not just of the West as frontier, but the West as place, both in landscape and in our imaginations. Editors compiled 251 responses (not all reprinted here) from around the region. Answers include geographical and historic data, plus impressionistic comments. Subscriptions cost $20 for one year. For a single issue, contact the Montana Historical Society, 225 N. Roberts St., Helena, MT 59620.

HANFORD IS HISTORY

Now that the Cold War is over, it seems fitting to memorialize its relics — even radioactive ones. A group in the state of Washington formed the B Reactor Museum Association 15 months ago to preserve the world's first plutonium production reactor at the Hanford Nuclear Reservation. The association wants to open an interpretive museum so that visitors can learn about the beginning of the nuclear era. Part of the Manhattan Project, the B reactor was hastily built during World War II by a team of physicists, engineers, chemists, construction workers and military men and women, recounts the association's newsletter, *The Moderator*. Filmmaker Tom Putnam is also working with the association to produce a documentary that includes oral histories of people involved in Hanford during the 1940s. The B Reactor Museum Association can be reached at P.O. Box 1531, Richland, WA 99352.

RANCHERS PROFIT AT PUBLIC EXPENSE

A few Western landowners make as much as $5.1 million a year subleasing their federal grazing permits, according to a recent audit by the inspector general of the Interior Department. What's worse, the Bureau of Land Management doesn't keep track of subleasing practices on its allotments. The audit found that 1,800 landowners rent their grazing permits to ranchers at higher fees than the government charges for them. In one case, a 12-company conglomerate — with gross revenues in excess of $1 billion — made an estimated $120,000 by subleasing permits that the BLM issued in 1990. Under the Taylor Grazing Act of 1934, grazing privileges are allotted to landowners involved in the livestock business, but they must own "base properties" consisting of land, a water source and cattle. Before 1985, the BLM allowed ranchers to sublease their permits for whatever profit they could get. Congress restricted this practice in 1985 by requiring the BLM to collect all money in excess of the federal grazing fee. Auditors found the BLM never asked for any financial information regarding subleasing activities. If the government charged what the permits were worth, environmentalists say, subleasing would not be profitable.

Selected Grazing Lease Activities, Bureau of Land Management (No. 92-I1364) Office of Inspector General, Interior Department, 1849 C St., Washington, D.C. 20240. 703/235-9338. 40 pages.

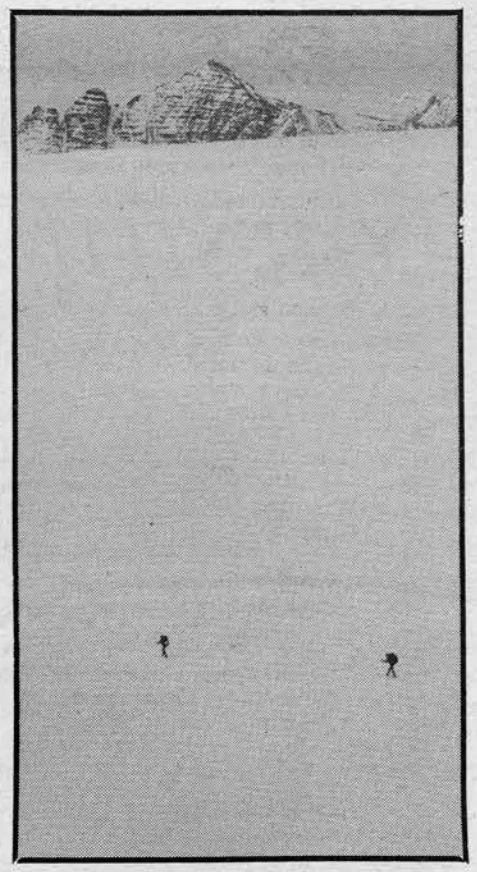
— Shahn Towers

YOU READ THE ARTICLES — NOW SEE THE SYMPOSIUM

The Colorado Department of Agriculture will bring to life the March 23, 1992, issue of *High Country News* that described a new approach to grazing in Oregon. The afternoon session of the Friday, Feb. 19, 1993, Governor's Agricultural Outlook Forum will feature Oregon ranchers Doc and Connie Hatfield and Fred Otley, Mary Hanson of the Oregon Environmental Council, Joe Walicki, who is conservation director for the Washington Wilderness Coaltion, and Chad Bacon, head of range for the Bureau of Land Management in Oregon. The forum's morning session will discuss the impact on Colorado of the North American Free Trade Agreement, featuring negotiators for Mexico and Canada and a former U.S. trade official. The trade discussions will be moderated by former Denver Mayor Federico Peña and Dr. Kirvin Knox, Dean of Agriculture at Colorado State University. Registration is $80 before Feb. 9 and $90 thereafter. For further information on the event, to be held in the Colorado Convention Center in Denver, contact the Colorado Department of Agriculture, 700 Kipling St., Suite 4000, Lakewood, CO 80215; 303/239-4100.

LIGHT IT AND LOG IT

Chainsaws could start cutting spotted owl habitat next spring under a plan proposed by Oregon's Willamette National Forest. Willamette Forest Supervisor Darrel Kenops has recommended intensive salvage-logging in the Warner Creek watershed, where fire scorched 9,000 acres two years ago. Forest Service biologists have called for logging less than 5 million board-feet of the damaged trees, but Kenops wants almost 40 million, the maximum obtainable without building new roads. Environmentalists say the proposal would set a dangerous precedent, as it would be the first logging anywhere in an officially designated spotted owl Habitat Conservation Area. Since the fire was deliberately set, they argue that any logging encourages arsonists to light more blazes in owl habitat. "It's the firebug proposal," says Tim Ingalsbee, a member of a public participation team that advised the Forest Service to leave the area alone to recover naturally. The Willamette is accepting public comments on the proposal until Jan. 11: 211 E. 7th St., Eugene, OR 97401, 503/465-6533 (telephone), or 503/465-6717 (fax). Although the proposal still has to pass through several review committees, logging could begin as early as March.



Brian Litz

Skiing below Castle Peak, Colorado

HEAD FOR THE HILLS

If cold feet are standing between you and your dream trip exploring Colorado's backcountry, *Colorado Hut to Hut: A Guide to Skiing and Biking Colorado's Backcountry* could be the wool socks you need. The color photos alone may persuade you to grab a rucksack and head for the hills, but be sure and make reservations first. Nearly 50 hut trips are described, including estimated travel time, distance and the relative skiing or biking smarts required. Some trips are simple, needing only a sleeping bag and food. Other expeditions are technical, and only a fool would take off without avalanche training or a professional guide. Author Brian Litz, 31, who says he began exploring as a first-grader, also includes a handy directory of addresses and phone numbers of all hut operators and weather-forecasting centers, as well as topographic and regional highway maps and an equipment checklist.

Westcliffe Publishers Inc., Englewood, Colo. 272 pages, color photos, maps. Paperback: $19.95.

— Kristy Ratliff

ART FOR THE ENVIRONMENT'S SAKE

Do you know an artist who has a brilliant idea for an environmentally related project? The Tucson, Ariz.-based Melody S. Robidoux Foundation could provide something he or she lacks: money. The foundation's Communication Arts and the Environment Award contributes $16,000 each year to an individual, team of individuals, or non-profit organization in Arizona, Colorado, Utah, New Mexico or Sonora, Mexico. Eligible works proposed in print, photography, film, video, television, music or illustration must focus on these states, and all should strive for a positive, practical environmental objective. Last year's recipient produced a photographic exhibition of a dry tropical forest near Alamos, Mexico. Robidoux created the foundation two years ago with an $8 million endowment. It also provides technical and financial assistance to non-profit organizations wanting to computerize their operations or produce brochures and posters. For application information, contact Rob Ruisinger at 602/722-1707 or write Communication Arts and the Endowment Award, The Melody S. Robidoux Foundation, 6601 E. Grant Road, Suite 111, Tucson, AZ 85715. Deadline for applications is Jan. 15, 1993.

NEVADA MIRAGE

Ever since the first explorers hastened down the Humbolt River in search of a quick way to California, Nevada's image has swung wildly between that of a godless wasteland and God's country — often within the same accounts.

Mirage-Land: Images of Nevada, by Wilbur Shepperson with Ann Harvey, chronicles the swings in Nevada's schizophrenic identity over the past 150 years. This compendium of sources makes a reader want to search out the originals.

A University of Nevada history professor with a ready sense of humor and dedication to serious scholarship, Shepperson was a unifying spirit in a state sundered between "north and south, urban and rural, cowboy and culture, gold and glitz." He died last year. This is his testament to embracing the whole of Nevada, for better or worse.

Shepperson, a Nevadan of 40 years, obviously preferred "friendly" writers who, like himself, warmly embraced Nevada's paradoxes. In his book, few voices are of people who came and stayed and called Nevada home. While Shepperson succeeds in showing how Nevada has been portrayed in literature, the popular press, movies and television, the task remains to create fuller images that fit the territory.

The outside world has been fascinated by the myths of the bonanza, the glitter of gambling and the awesome space, but for the most part it is nonplussed by how people actually live here. Now, as so many other places fashion themselves Nevada-style images with gambling, Nevada is beginning to seek other realities to live by.

It could well be that a new generation of Nevadans will carry on in the tradition of Walter Van Tilburg Clark, Robert Laxalt and others who created stories and identities grounded in Nevada lives. We may still find something firmer to measure ourselves by than mirages.

University of Nevada Press, Reno, Nev. 702/784-6573. 1992. 176 pages. $21.95, cloth. ***— Jon Christensen***

e Target LRT-BE4-V2

Unclassifieds

BIO/WEST, Inc., environmental and natural resource consultants, is offering three-day-long training courses in NEPA implementation and compliance in 1993. Courses will be held in Phoenix, Reno, Logan, Bellevue, Jackson and Denver. Staff with federal and state land and resource management agencies, conservation groups, consulting firms and others are encouraged to write for a free course brochure. Write to Scott George, BIO/WEST, Inc., 1063 West 1400 North, Logan, UT 84321. (2x23p)

The Southern Utah Wilderness Alliance is a regional grass-roots organization of over 10,000 members. SUWA has a nine person staff and offices in Salt Lake City, Moab, and Washington, D.C.

We are seeking an Executive Director to lead, manage, fund-raise and direct our advocacy strategy. We are looking for someone with a passion for wildlands, an understanding of the political environment and process, and an ability to be innovative and entrepreneurial.

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OPPORTUNITY IN CONSERVATION: The Nature Conservancy's Wyoming Field Office is seeking a Yellowstone Field Representative to assist the Director of Conservation Programs in developing a comprehensive program to protect natural lands in Wyoming. Qualifications: Bachelor's degree; minimum 2 years' experience in land acquisition or related field; and fund-raising experience. Send résumé to: B. Robinson, 258 Main St., Suite 200, Lander, WY 82520. (2x24b)

OUTDOOR SINGLES NETWORK, established bi-monthly newsletter, ages 19-90, no forwarding fees, $35/1-year, $7/trial issue and information. OSN-HCN, P.O. Box 2031, McCall, ID 83638. (6x16p-eoi)

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Wake Up Colorado!

Do you know that the Department of Defense has control over 70 percent of the air space in Nevada and is trying to do the same thing here in Colorado? Using the Colorado Air National Guard as its pawn, the Dept. of Defense is trying to grab more of the air space over our national forests and wilderness areas right now.

Do you know what this means? They can fly their jets anywhere from 100 to 500 feet off the ground at 600 miles per hour, destroying our chances for preserving our wildlife areas for our children and grandchildren.

The Colorado Air National Guard will try to establish a Military Operation Area (MOA) over the Sangre de Cristo Mountain Range and the Great Sand Dunes National Monument. They want to run thousands of fighters, per year, day and night. They plan to make this area a national jet air combat training facility. If we don't stop them now, some of the best Colorado wilderness will be lost to future generations forever.

Please don't let them steal our wilderness right out from under our noses. Write or call and voice your opposition to this environmental disaster. Contact Governor Roy Romer: State Capitol Building, Denver, CO 80203; 1-800-332-1716 and/or Major General John France, the leader of the military team responsible for trying to get this (MOA) approved: 6848 S. Revere Parkway, Englewood, CO 80112; 1-303-397-3028.

We need local volunteers all across Colorado as well as contributions to help fight the military. For more information regarding MOA's and to volunteer your time and/or send your monetary contribution, call 1-800-892-0135. For every minute you wait, Colorado will lose more of its wilderness. SAY NO WAY MOA!

This ad paid for by the Say No Way MOA Alliance

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the sun is one red coal
glowing in the ash-gray plain.
Nothing moves — except a coyote,
ducking into the draw,
me and the blue horse.
The cows are still bedded down,
chewing, steam rising at both ends.

At last the light divides
hill shadow and bright frost.
A Mack with its lights on
rumbles past, dusty
as the snow.
The driver waves.
The country belongs to me.

— Linda Hasselstrom
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Vol. 24, No. 24

REPORTER'S NOTEBOOK

Forest Service is trying to turn over a new leaf, but critics have doubts

by **Richard Manning**

The U.S. Forest Service believes there is a patch of land in Montana that affords a clear view of the future's enlightened forestry. The problem is, the agency's own past sometimes sullies the view.

That past is apparent on the place known as Lick Creek in the Bitterroot National Forest. A natural history also is evident there, scribed out in black blips in the growth rings of 300-year-old ponderosa pine. Since 1659, the limit of the memory of these trees, fire swept through an average of every six or seven years.

Fire made the forest what it was.

This steady beat ceased suddenly about 1900, when man's manipulation began, first with fire suppression, then with logging. The first cut was laid out in 1906. Gifford Pinchot himself, first chief of the Forest Service, founder of modern American forestry, had a hand in the sale.

Since then, Lick Creek has been logged and logged again, not hard but frequently. Truck roads laid new layers of lines on the web of abandoned railroad grades that are still visible and still shed sediment into the Bitterroot drainage. Trees fell. Photos accrued. A record accreted. It is on the basis of the record that the Forest Service now wishes to build a future on the past, to restore, as nearly as possible, nature's forest, fire and all.

The site has been chosen to demonstrate a bundle of techniques coming to be known as new perspectives in forestry, or, by recent directive of Forest Service Chief Dale Robertson, ecosystem management. Robertson also has directed that the agency reduce clearcutting by 70 percent. Ostensibly, the intent is to reverse a 40-year course of turning the nation's public lands into tree farms by restoring natural conditions.

On the surface, this was good news for environmentalists who had long sought such change. But relief was tempered with some cynicism wrought by the Forest Service's record of duplicity. Lick Creek is as good a place as any to examine what lies behind the promise and politics of the "new forestry."

On a pleasant morning in August, a group of Forest Service officials herded reporters into green vans for a tour of Lick Creek. Among the officials was Steve Arno, a scientist with the Forest Service's Intermountain Research Station who has a firm idea of what is meant by "natural forest," the baseline by which all new forestry must be judged.

There is an unfounded assumption that new forestry simply means the Forest Service will stop cutting, give the forests a rest and all will be well again. Arno says this is not possible since nearly a century of fire suppression has remade the forests.

Arno supports this contention with pre-logging photos from the very place he stands. One shot in 1909 shows a few monster ponderosa pines presiding over a grassy park. Subsequent photos show a progressive thickening of the trees, with the ponderosa finally edged out by Douglas-fir.

The site now supports as much as 50 percent more trees than at the turn of the century, logging notwithstanding. Annular rings show that growth has slowed dramatically because of the stress of competition. Some of the fir, susceptible to bud worm and mistletoe, have died. The canopy has closed, shading out the grasses, shrubs and forbs of the forest floor, the food of the one-time inhabitants. Habitat has suffered and fuels have accumulated.

A fire today would not resemble the gentle underburns that show on the growth rings of these ancient trees. Instead, there would be a conflagration.

"We can't simply reintroduce fire. The fuels are too heavy now," says Arno. Too heavy on Lick Creek and too heavy on most Forest Service ground in the Northern Rockies' 25 million acres.

The solution on this demonstration project is logging, admittedly not a particularly new idea for the Forest Service. But the type of logging is new. Instead of taking big trees, loggers have removed smaller trees, especially Douglas-fir, and left the older pines to mature to something resembling the 500-year-old monarchs of old.

Commercial thinning and selective harvest are old techniques, but forester Cathy Stewart, who oversaw much of the work at Lick Creek, said new restrictions were applied. Slash was cleared and piled to preserve topsoil. Standing trees were not scarred. Skid trails were limited. Standing dead trees — valuable nesting and feeding habitat for a wide variety of forest creatures — were left. No new roads were built; some existing roads were closed.

Yet all of this is at best a rough sketch of nature's art, the Forest Service admits.

"Any time you go in with a chainsaw and cut trees down you are not mimicking a natural process," says Clint Carlson, a Forest Service scientist.

Dick Manning

The Lick Creek area after logging

To partially offset this, the agency plans a controlled burn of the area after logging removes the heavy fuels. This will weed out smaller fir, stimulate shrubs with a pruning effect and feed a burst of ash-borne nutrients to the recovering forest, the same burst natural fire once provided every seven years.

Still, this is logging, and still roads remain ground in the flour-fine and erodable dust that is the Bitterroot's soils. The Forest Service admits each of the skid trails likely will become infested with spotted knapweed, an exotic now tearing up western Montana's plant communities. There is no defense against the weed. The skid trails, each 10 feet wide, spaced every 100 feet, mean fully 10 percent of the forest has been given to the weed, not pine.

Arno admits the weed is bad. He argues that fire is worse.

"A severe, unnatural wildfire is not going to save the streams or riparian areas," he says.

Another dilemma is economic. So far, the project has been allowed to remain as an isolated experiment not held to the harsher light of timber industry economics.

"We should be stewards of the land," says Carlson. "We're not out here just to make a profit."

Because of the severe restrictions and because only small, low-value trees were to be cut, the Forest Service had a hard time finding a buyer for the Lick Creek sale. Nonetheless, the industry has been retooling to handle smaller trees, so there is some demand for the thinnings. Finally, timber giant Champion International bought Lick Creek's trees.

But the more interesting question is: How will the industry respond to a new direction that promises to replace wholesale clearcuts and their massive volumes with the pickings and thinnings of the new forestry?

Thomas Wagner, Darby district ranger for the Bitterroot forest, agrees the new methods will take some getting used to in the industry. But he also predicted that ultimately there will be little, if any, reduction in volumes, if the methods are applied across the board. Even if volume falls, ultimately the system will produce something like nature's trees — big, old-growth trees that are becoming scarce and so more valuable. Quality will be traded for quantity, he says.

Yet it is difficult to see how volume can hold steady when the stated goal of the program is to reduce drastically the number of standing trees. And it is difficult to see how high-value trees will placate an industry that today values volume above all else.

That question has already been faced in the Shasta Costa basin of Oregon's Siskiyou National Forest.

As at Lick Creek, the Forest Service intended the sale there to stand as a national model for the new forestry. It brought the environmentalists into the planning process to help create a model for sustainable logging in unroaded old growth. The model would have reduced volumes slightly below those projected in the forest plan.

But when the industry got wind of the reduction, the Forest Service quietly revised the agreed-upon plan. It pushed volumes up toward the targets and methods of clearcut forestry, says Jim Britell of the Kalmiopsis Audubon Society. At the same time the Forest Service promised a steady stream of logs to the industry, it also promised stewardship to the environmentalists, Britell said.

"They basically promised each of us a full loaf," he says.

The Shasta Costa case now is a model — in environmentalists' minds — of failure. The Forest Service failed to make the tough decision implied in the new forestry.

No one says that the techniques of the program are not a vital step toward sustainable forestry. The new forestry perked up from below — it was hatched by committed and well-meaning scientists and foresters within the agency.

But these progressive techniques were met by cross-currents gushing down from above — industry's pressure to get out the cut.

"If we're going to do ecosystems management, we're going to see a drop in the cut," says Jeff DeBonis, head of the Association of Forest Service Employees for Environmental Ethics. "There is no way they (Forest Service managers) are going to allow that."

Robertson did decree a 70 percent reduction in clearcutting, but DeBonis advises a close reading of the decree's fine print. Therein lies a list of exceptions to the new rule, the very exceptions the Forest Service has used to justify all of the clearcuts of the past 40 years.

"If we're managing ecosystems, then we can't be guided by the cut," says Forest Service scientist Arno.

And yet Forest Service Chief Robertson says the cut will drop at most by 10 percent, and then only in the short term. The cut still rules. ■

Richard Manning is the author of *Last Stand*, a book about timber politics in the Northwest, which was issued in paperback by Penguin this fall.

Let's save the world, starting with the Northwest's salmon:

An open letter to the vice president-elect

Dear Mr. Gore,

Last February, long before Bill Clinton asked you to be his running mate, you spoke in Boise, Idaho, to a large crowd at the annual Frank Church Symposium. Your theme was our world's environmental cancers, our nation's calling to lead the healing, and how in that work environmental and economic health are inseparable.

It was the best exposition of the subject to a large audience I have heard. It led me, like others, to your book *Earth in the Balance*, and leads me now, like others, to view the next four years with hope. That someone with your dedication to our earth household will soon be vice president is exciting. In the West, deep, untapped energies are waiting for the challenge of your ideas.

Bill Clinton and Al Gore were elected to "get the economy moving." But your book is clear: You understand that the economy as it now exists is devouring our household, and that speeding up what now exists will speed the destruction. The real task is to get the economy *turning* — by finding, inventing, and applying levers that can pivot its movement toward paths of sustainability.

I believe — your book is too heartfelt to believe otherwise — you will try to pioneer this search in your vice presidency. Pioneering guarantees frustration, false starts and loss, but I think you frame it rightly: as a calling, not a choice. Simply beginning — serving as a catalyst — is a most important step now.

Besides wishing you luck, I want to call your attention to the best of those levers for the region where I live. In the Northwest the keystone challenge of environment and economy, and thus of community, is restoring endangered salmon.

You may not know Northwest salmon, but you know the pattern: a highly productive renewable native resource, built over time in widening circles which scaffolded far larger natural and then human communities. Then, seizure and consumption by our runaway modern economy, speeding down the short straight line. Now, alarm bells in growing chorus, as salmon stocks go down, with them salmon economies and communities — and, with them....

The next terms of that series mark salmon off. By inhabiting nearly all Northwest waters; by migrating 900 miles inland, thousands of miles round the Pacific Rim, through hundreds of "jurisdictions"; by passing up and down the rivers which produce nearly all our electricity, water most of our farms and ranches, carry much of our commerce, in lower reaches hold ever more people and in higher reaches ever less forest; by itself still supporting economies and cultures — by all this, the salmon's health is the Northwest's health.

You compare our global predicament to the TV game *Concentration*. As events are revealed — the garbage barge, Exxon Valdez, Bhopal, acid rain — we see them one by one, only slowly matching them up as parts of a pattern, only more slowly seeing what the pattern is. In our Northwest version, salmon are not just some of the tiles. When all the tiles are turned, salmon is also the pattern underneath, connecting everyone and nearly everything. As they go, so shall we go.

Where are they going? Over 100 genetically distinct stocks are now extinct, and another 200 are at risk of extinction, regionwide. The Northwest, which writer Tim Egan says is wherever a salmon can get to, is shrinking. The shrinking began decades ago, but only now, as the pace accelerates, are we sensing the full scale of our trouble.

Our response, especially from the government you are inheriting, has stuck mostly in the ritual groove: "environment vs. economy." But people now recognize that is futile. Our regional economy is water-built and waterborne; it can't be sustained over time without healthy watersheds, which means healthy salmon. But neither can we restore and sustain wild salmon regionwide without reinventing our regional economy.

This can't be done from Washington, D.C. Northwesterners must do it, watershed by watershed, over time. Already there are solid beginnings in a few coastal watersheds, and we now have three governors — Cecil Andrus, Barbara Roberts and Mike Lowry — able and, I think, willing to build that start into a regional initiative. Northwesterners should and can pay for most of it, primarily through our electric rates.

But we need help. It would help if you simply come to the Northwest and personally challenge us to bring environment and economy into alliance through regionwide restoration of wild salmon. Putting our crisis into the national and global context you sketched so well in Boise would help. None of our in-region leaders are doing it, and it would especially engage the young, who have eyes for global patterns but have seen few wild salmon.

And, indispensably, we need help with the most determined saboteurs of regional salmon recovery: the "public" bureaucracies of the federal government. We can't make them partners in building a sustainable future rather than bunkered embalmers of the past. We can't make them, except maybe through the long labyrinth of the courts, obey the laws. Perhaps you could.

Federal agencies are uniquely embedded in Northwest lands, waters, and economies, and thus culpable in the condition of salmon. Agencies spread over five cabinet departments control watersheds, hatcheries, fisheries, and river infrastructures. Twelve years of Reagan/Bush and the inertia of bureaucracy have left them, institutionally, at odds with the ideas and challenge you wrote about. Now you inherit them.

The worst offenders are the Bonneville Power Administration and Army Corps of Engineers. Their coordinated hydroelectric system — ours in law, theirs in fact — on the Snake and Columbia rivers powered and developed the Northwest. It also made hash of salmon runs that were once the region's most plentiful, still the most extensive, and now the first to be listed under the Endangered Species Act.

The BPA and the Corps have been lawless. In the 1960s, Congress told the Corps to build its Snake River dams with safe passage for salmon; it did not. In 1980, Congress told the agencies to give salmon equal treatment in hydrosystem operation; they have not. Now, the Endangered Species Act requires the agencies to restore Snake River salmon; so far they have rolled up the act's timid enforcer, the National Marine Fisheries Service, and stuffed it in their back pockets. All with the support and connivance of recent administrations.

I am not seeking just a turn of the political tables, although these agencies need new leaders willing to lead and to comply with the law. I hope Mr. Clinton sweeps pretty clean and does it pretty quick, at BPA, the Army Corps, and NMFS — since their momentum will drill Reagan-Bush policy in much deeper by spring. But the larger point here is the ritual combat. These agencies are riveted on "environment vs. economy." So are many Northwest leaders, including many Democrats. So are many salmon advocates.

It doesn't have to be that way. Individual minds and hearts — within the Corps, fishery agencies, tribes, private utilities, conservation groups — are willing and able to re-engineer the public hydrosystem to allow salmon safe passage while still providing energy, irrigation, and inland navigation. These same folks are also pushing hardest towards an interconnected energy system for the West based on renewable and conservation technologies. But they are not allowed or enabled to work with one another, or creatively compete with one another. And they are not in charge.

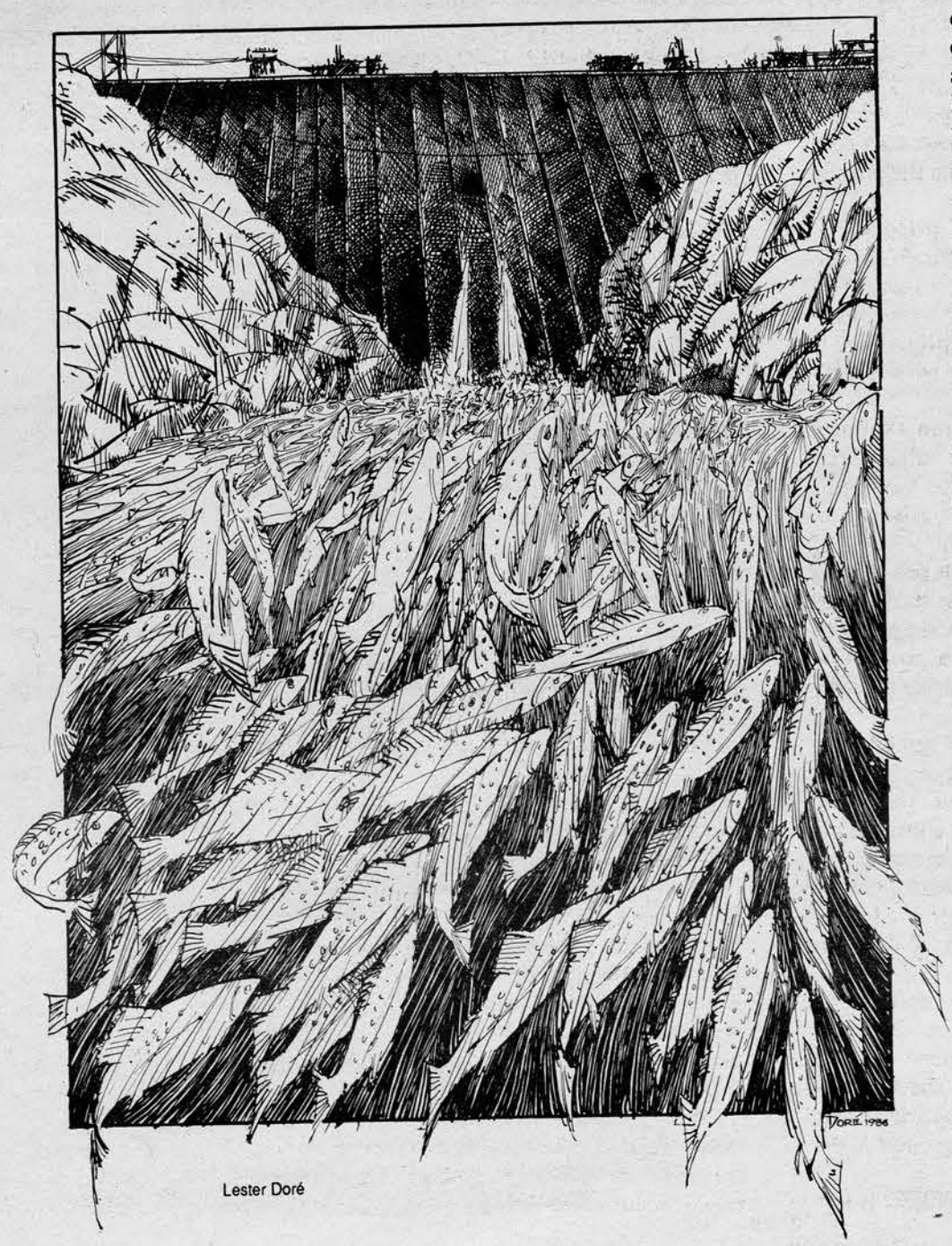
Please *don't* give these federal agencies new money or more employees. Give them new leaders committed to "environment *and* economy"; clear, firm direction to obey the law; an injection of entrepreneurial governing techniques; and a steady troubleshooting presence from the administration.

Then challenge us — Northwest governors, tribes, industries, communities, fishermen — to the work only we can do: restoring salmon and building economies for the long haul.

We will thrash around more than we ought, and spend more time in the ritual groove than we should. But I think we can learn, especially from the salmon themselves, how to do it. Thank you.

Pat Ford
Boise, Idaho

■



Lester Doré

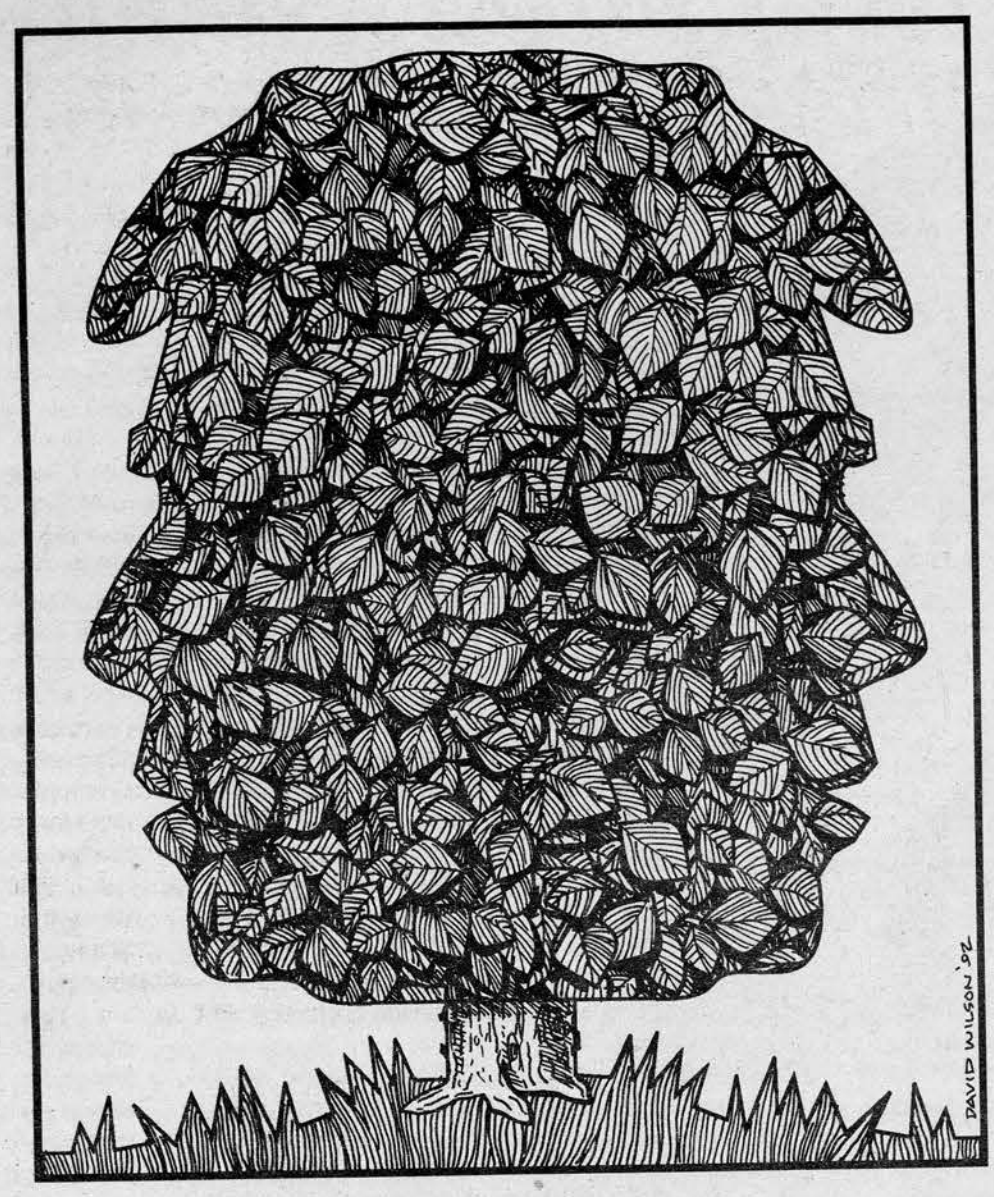
Pat Ford is the former Northwest regional editor for *High Country News*. For the past year he has been working on salmon restoration.

Line Reference Target LRT-BE4-V2

ESSAY

The Forest Service: divided against itself

by **W. Dean Carrier**



Within the ranks of the Forest Service two strong groups abide: those who love the Forest Service and those who love the forests. Between these two groups turmoil persists, because each group is well aware of this direct competition.

The first group is part of the "old guard." They want the Forest Service as it was. They grew up with the smell of wood chips in their nostrils, packed fingerling trout to high mountain lakes in milk cans strapped to pack mules or on their backs, and find the complexities of today's world a nuisance. They were trained to grow and cut trees and fight forest fires. They were the first to condemn the environmental movement and the last to accept computers as a way of life.

To them, the Forest Service is akin to the armed forces: regimented, rigid in structure and impenetrable to the outside world. They take pride in wearing the uniform and seeing Smokey the Bear on posters. They are proud that the agency maintains a line/staff organization and that the line officers are the indisputable commanders.

They are impeccably honest, painfully stubborn and quick to make judgments. Few of them have read *The Fragmented Forest* or taken the time to understand the concepts of conservation biology.

They came to the Forest Service to fill a life-long ambition — to be a Forest Ranger.

The second group is part of the "ologists." They want the Forest Service as it could be. They grew up in the years of the environmental movement, marched on Earth Day, donated months of free time to save oiled seabirds, beached whales or distant wildlands they'd probably never see.

They received post-graduate degrees because they couldn't find work upon graduation. They are idealists, hoping to change the course of human events in the world, especially those events that threaten the thing they hold dear, the natural environment. They hate regimentation and despise military rule, much of this due to their involvement in the Vietnamese conflict.

They prefer management by committee and rely on legal decisions, computer simulations and theoretical ecology. They are honest in their motives but occasionally devious in their methods. They are emotional and may have secretly cried when the last condor was taken into captivity.

They are well-educated, well-read and well-informed on worldwide environmental conditions, but may regard local social and economic considerations as unimportant. Few have more than a vague idea of how and why the national forest system was established or who Gifford Pinchot really was.

They joined the Forest Service because it offered jobs in the out-of-doors.

The first group sees the second group as unpatriotic preservationists, as caring more about the biological intricacies of the forest than the perceived mission of the agency. They rely on emotion and may run to their peer groups with "secret information."

The second group sees the first group as militaristic egotists, relics from a time when resources were abundant and people scarce. They say the old guard fears change and squelches progress not found in the "manual."

Neither group is willing to bend as far as the other wants them to. Thus, a stalemate has occurred, and the future of the Forest Service appears dim. But, at some future time, if the end occurs, both will grieve equally over the loss. ■

Dean Carrier is a former Forest Service employee who now works as an environmental consultant in California.

LETTERS

MAKE ORVs PLAY BY THE RULES

Dear *HCN*,

Kraig Klungness' article on ORVs (*HCN*, 11/2/92) struck a chord. Several times while building a hiking and horseback trail to a wilderness area in western Colorado, I've had to stand by and watch a man on an ORV cut across my trail on his way up the hill. Since his vehicle was too wide to negotiate my trail where it traversed a steep hillside, he drove straight up the bed of a small creek instead. Each time he did this, he wore the path deeper into the muddy ground. The erosion became so bad that the stream was diverted away from its natural channel and into the ruts he had made, leading the water away from the culvert designed to carry the stream under a highway.

My trail is hardly noticeable beside the one gouged from the streambed by my four-wheeled colleague. His is much wider, much deeper (up to four feet in places), and far more visible. It has essentially destroyed all the natural riparian vegetation in the streambed and traverses a route deemed far too steep for a hiking trail. It has initiated erosion which is likely to continue for years if left unrepaired. His actions brought to mind a hike I made earlier along the sandy cryptogamic soils of Fish Creek Canyon in Utah. An ORV making two traverses, in and out, had played mechanical games along the trail. The tracks it made in just a few minutes were much wider and much deeper than those trod by hundreds of hikers and thousands of game animals over the years. In places the only way I could discern the real trail was by noticing that it was the one which was *not* punctuated by smashed vegetation.

I have built several trails for the Bureau of Land Management, Forest Service, Bureau of Reclamation, and Colorado State Parks. In each case I was required to follow stringent standards as to trail gradient, tread width and tilt of the trail tread. I had to avoid sensitive vegetation, place water bars and steps wherever necessary, and build corduroy bridges across marshy areas. All of this was intended to assure that excessive erosion would not occur because of the trail's construction. Before building each trail, I surveyed alternative routes, selected the optimum path, and walked the route with agency representatives. I signed contracts, obtained the necessary permits, and fulfilled every other requirement that bureaucracy could devise.

ORV users are not required to get permission from anyone to do the same thing. Apparently it is written down on paper somewhere that these vehicles can go anywhere without doing any damage. But in thousands of places it is deeply inscribed in the land itself that they cannot!

This policy comprises a definite double standard. Those who wish to traverse the land on foot or on horseback, and who wish to do so in the least damaging way by staying on established trails, are rigorously constrained. Those who employ mechanical means to traverse the same area are subjected to no restrictions whatsoever, in spite of the fact that their passage does many times as much damage to the terrain.

It is time for the federal land agencies to recognize that a single passage of an ORV generally constitutes the construction of a trail. Those who use such machines should therefore be required to conform to the same restrictions I must follow when I build one of my trails. Equal treatment for all would mean that every ORV user would be required to sign a contract, get a permit, plan his route on foot (heaven forbid!), and walk it with an agency representative before he is allowed to set tire on any piece of public land. Such measures may sound severe, but so is the damage caused by unrestricted use of the machines. Control of ORVs is in no way incompatible with sensible management and protection of the public lands. Only by restricting the activities of all in the same way can the government hope to achieve equality among all public land users.

Dick Guadagno
Paonia, Colorado

ABSOLUTE SILENCE AT CHACO

Dear *HCN*,

I visited Chaco Culture Historical Park in early October. A day with no clouds, no winds. I stood in the center of Pueblo Bonito, next to the main kiva, a complex in which perhaps 3,000 people had been a thousand years ago, and there was *absolute silence*.

Now, unless you shut yourself up in your closet, absolute silence is a rare experience these days. Experiencing it at Pueblo Bonito is a great privilege. We were lucky. It was past the tourist season, not a weekend, and the visitor load was light. Very little traffic.

I cannot imagine how different Chaco would be if the road were paved, with a Holiday Inn at the entrance (*HCN*, 11/30/92). Certainly, the chances of absolute silence in Pueblo Bonito would be somewhere between slim and none.

You get none of this magic among the throngs at Mesa Verde.

The 25-mile dirt road in was rather pleasant. Our van went along at about 40 nearly the whole way. Of course, it would be a difficult transit in rain, but in that desert country, rain is rare. Don't let them pave the road.

Edwin L. Wolff
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