

High Country News

January 28, 1991

Vol. 23 No. 1

A Paper for People who Care about the West

One dollar

Coyote slaughter:

A federal killing machine rolls on

—by Michael Milstein

One day last winter rancher Dave Neves called Jack Clucas, one of 21 animal damage control specialists employed in Wyoming by the U.S. Department of Agriculture, to report some trouble. One of his ewes had died and he thought a coyote had killed it.

Early the next morning Clucas took off in a government-chartered airplane. Snow had fallen overnight, making it easy to spot tawny coyotes against the usually brown Wyoming landscape. As the pilot swept over the hills around the ranch near Emblem, Clucas fired his shotgun out the plane's door at the tawny spots speeding over the white ground. By the time he was through, the federal trapper had killed and skinned five coyotes, leaving the carcasses along two separate drainages.

Federal policies require that trappers of the Animal and Plant Health Inspection Service's Animal Damage Control program, known as ADC, try to target only those predators that have actually killed livestock. But according to government records, interviews with biologists, ranchers and even trappers themselves, that rarely happens. Many sheep and cattle owners' requests for help — even when not based on any livestock kills — result in the deaths of dozens, even hundreds, of coyotes.

"It's purely a numbers game, how many can you kill," says Bill Austin, an ADC trapper for 20 years in seven of Wyoming's counties. "They have simply wanted to kill coyotes, lots of coyotes. And that is the only thing they have ever wanted to do."

In Hot Springs County, Wyo., one coyote-killed calf last year led trappers to shoot 20 coyotes: two from an airplane, three lured by calls imitating a frightened rabbit and 15 pups yanked out of their dens. Near the mouth of northwestern Wyoming's Wood River, the death of one sheep brought about the demise of 24 coyotes with cyanide baits. ADC offices routinely report spending many times more taxpayer dollars keeping rangeland safe for livestock than what ranchers report as the cost of livestock losses to predators.

In the absence of any comprehensive national strategy to handle predatory animals — like the one for threatened and endangered species — the Agriculture Department's Animal Damage Control branch has emerged as the one pro-

"The body count is what matters."



Dick Randall

Coyotes shot from a helicopter, hauled in to the skinner, and dumped

gram to determine the fate of American predators. It does this primarily by killing them. Most are coyotes (76,033 in 1988), but there are many others, such as bobcats (1,163), red foxes (4,427), mountain lions (203), egrets (6,729), herons (133), wolves (53), raccoons (5,347), badgers (939), beavers (9,127) and black bears (289). More than 6,600 other "non-target" animals — among them hawks, falcons, antelope and kingfishers — were killed by mistake.

Animal Damage Control is a massive federal body with around 900 employees and a rising annual budget of almost \$30 million. More than four-fifths of this is spent in the West, along with \$15 million in state donations. But the body has no brain.

Its vague 1931 authorization calls for "campaigns for the destruction or control" of "animals injurious to agriculture, horticulture, forestry, animal husbandry, wild game animals, furbearing

animals and birds." Its archaic, outmoded policies have virtually no biological basis. It relies mainly on maverick poisoning, trapping and shooting rather than potentially more effective non-lethal methods.

"What they're doing makes absolutely no sense; killing coyotes like they do is like arresting every kid in town because someone stole a candy bar," says predator ecologist Robert Crabtree of the University of Idaho's Wildlife Research Institute. "Nobody's saying that coyotes don't kill sheep or that you shouldn't control coyotes. But you've got people spending millions of our dollars on this, and they can't see beyond the sights on their gun."

Unfortunately, an opportunity to reform the ADC program has just been missed. After identifying three simple program alternatives, a draft Environmental Impact Statement of the federal government's predator control activities

proposes simply to continue the agency's program of killing animals.

Conservation groups have denounced the draft EIS as a "million-dollar pat on the back" and an attempt to justify an unnecessary and environmentally destructive program. Officials at the Humane Society of the United States say they intend to protest the document in court unless the final version, due out later this year, is improved substantially.

"It is just awful in every respect," says Humane Society Vice President for Wildlife John Grandy, a biologist. "All this document does is to glorify the status quo. It's more of slaughter the West."

Completed by the U.S. Department of Agriculture's Animal Damage Control branch at a cost of about \$1.7 million, the EIS is the first major review of government predator-control activities in more than a decade. It is intended to replace an outdated Environmental Impact Statement finished in 1979, when ADC was still part of the U.S. Fish and Wildlife Service.

The EIS considers three alternatives: no predator control, continuing current actions or compensating ranchers for predator damage. Other options, including complete eradication or suppression of problem wildlife, providing no lethal control and only technical assistance to stockowners, or transferring control work to private contractors, were deemed repetitive or not feasible.

Eliminating predator control would prompt a return to the days when livestock owners poisoned predators (and, inadvertently, other animals) on their own, the EIS says. Compensation would cost more than the \$38 million now spent on predator control because, without control, more livestock would be killed.

Several "mitigation measures" to minimize impacts of the ADC program are mentioned for "consideration," including requiring stockowners to meet minimum husbandry and predator prevention requirements before they are eligible for free ADC control. But there is no commitment to establish such standards.

After the Humane Society asked its members to write to their congressmen about the ADC program, the Agriculture Department defended the program and the EIS in a letter it sent to congressmen. The program is run "by professional

Continued on page 12



HIGH COUNTRY NEWS

(ISSN/0191/5657) is published biweekly, except for one issue during July and one issue during January, by the High Country Foundation, 124 Grand Avenue, Paonia, CO 81428. Second-class postage paid at Paonia, Colorado.

POSTMASTER: Send address changes to HIGH COUNTRY NEWS, Box 1090, Paonia, CO 81428.

Subscriptions are \$24 per year for individuals and public libraries, \$34 per year for institutions. Single copies \$1 plus postage and handling. Special issues \$3 each.

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Articles appearing in High Country News are indexed in Environmental Periodicals Bibliography, Environmental Studies Institute, 800 Garden St., Suite D, Santa Barbara, CA 93101.

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Dear friends,

Emma

This issue is full of canine news, beginning with Michael Millstein's well-documented front-page story about coyote killing. The controversy over how to reintroduce wolves also is reported, on Page 3. So perhaps readers will indulge us as we use this space to say goodbye to our dog Emma. We found her at the Alexandria, Va., pound when she was six months old some three years ago. Her black and white coat suggested border collie lineage, but she ran like a greyhound. Emma died the day after Christmas, the victim of human abuse inflicted near home on Lamborn Mesa. An autopsy indicated that she died from internal hemorrhaging caused by a long spike, such as a nail or pitchfork, or a projectile. However, no bullet or shattered bone was found. Our door-to-door inquiries yielded next to nothing, so we have asked the Delta County sheriff's office to investigate. Worrying livestock does not appear to have been a pretext for Emma's worse than varmint-like killing. We shall miss her very much.

Visitors

One hardy pilgrim who passed through a couple of weeks ago was Andy Teetzel of Healdsburg, Calif. Unfazed by cans exploding in his van, he was car-camping in the depths of an arctic freeze, testing his -40° sleeping bag in -35° weather. Believe it or not, Andy was leaving Paonia for an overnight raft trip on the San Juan River. Another recent visitor, Tim Willson, was en route from tiny Richford, Vt., to Park City, Utah. He plans to start a sourdough bakery there and will,



Mary and Emma by Minnesota Creek near Paonia

Larry Mosher

we hope, get plenty of business from the nearby Deer Valley resort.

Myia Johnson, a Stanford University friend of intern Erika Zavaleta, stopped by to congratulate Erika on escaping from school and to wish everybody "a wild winter solstice." Kate Fay, temporarily escaping from Washington, D.C., visited on her way from Telluride, Colo., to Pearl Pass, where she and her companion, David Fenimore of Truckee, Calif., planned to ski. Kate works for EPA and had been toiling on the new clean-air legislation; David teaches English at the University of Nevada at Reno. He was about to give a workshop called "Wilderness: wonderland or wasteland?" for an Elderhostel group.

Corrections

In a Hotline item on the Annual Easter Jeep Safari (HCN, 12/17/90), we misspelled the name of Southern Utah Wilderness Alliance spokesman Brant Calkin. Sorry!

It has also been called to our attention that the San Juan River doesn't flow into Arizona, as it seemed to do on the map that accompanied our Animas-La Plata lead story (HCN, 12/17/90). Actually, the San Juan just misses Arizona as it flows by Four Corners into Utah.

—Larry Mosher and Mary Jarrett
for the staff

HOTLINE

Montana gold mine expansion advances

Overruling the concerns of nearby residents and members of the Gros Ventre and Assiniboine tribes, the Interior Board of Land Appeals has approved expansion of Pegasus Gold Corp.'s Zortman mine. The two tribes appealed a Bureau of Land Management permit for an almost completed 100-acre cyanide heap-leach pad, now the largest of its kind in Montana. Native Americans, who historically have used the area for their Sun Dance ceremony, have formed groups opposing the mine's expansion (HCN, 12/31/90). Don Marble, attorney for Red Thunder, one of the groups, said the fight isn't over yet: "We knew when we got in this thing we were in it for the long haul." The group plans to appeal the expansion in federal court. An Environmental Assessment (EA) detailing the impacts of cyanide on groundwater is the only obstacle now preventing the pad's implementation. The mine has been expanding annually since 1979, but has never undergone an Environmental Impact Study assessing its expansions. The EA will be completed by late January. Public comments will be accepted until Feb. 24 and should be sent to the BLM's Lewiston District, P.O. Box 768, Lewiston, MT 59457.

Blast a varmint, make a buck

Ranchers in Baca County, Colo., wanted to get rid of a few coyotes they say were killing their livestock. Cattleman Dean Ormiston figured he could

make a little money and attract tourists in the process. His first Kirkwell Cattle Co. Coyote Challenge kicked off Jan. 13 as 116 sharpshooters vied for a \$2,500 purse in a sunup-to-sundown coyote hunt. The final death toll was 82 coyotes. The contest happened just before the state's Legislature began considering a bill to ban contests in which wildlife are killed for prizes. Colorado officials are concerned about the effects of these increasingly popular contests on the state's image. Animal-rights activists, who loudly protested last year's prairie dog shoot in Nucla, Colo., chose to lie low for the "Baca Challenge." They say the shoot should be fresh enough in the minds of legislators to seal the coffin on such events. Ormiston, who has 400 names on the waiting list for next year's contest, hopes the bill fails. "We're going to kill the coyotes anyway, so what difference does it make if someone makes a few dollars off of it?" he said. "It beats just tossing them in a ditch."

Timber industry is a big campaign contributor

Federal records show that over the last eight years the timber and forest products industry gave nearly \$5 million to presidential and congressional candidates. Environmental organizations gave just over \$2 million during that period, The Associated Press reports. Though both sides deny partisan politics, 73 percent of industry money went to Republicans and 93 percent of environmental contributions went to Democrats. Sens. Slade Gorton, R-Wash., and Mark Hatfield, R-Ore., received the largest amounts from industry. Among Western legislators, Rep. Les AuCoin, R-Ore., was the biggest recipient from conservation groups. Gorton (Agriculture), Hatfield (Appropriations; Energy and Natural Resources) and AuCoin (Appropriations; Interior) are all on influential committees. Ned Masee of Westvaco Corp., one of the country's largest producers of paper products, says that "today, politics is part of doing business."

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WESTERN ROUNDUP

Teton's regional ski area seeks four-season resort status

Controversy over the proposed expansion of a ski area on the western slope of Wyoming's majestic Teton Mountains has been simmering for years. Now it is coming to a boil, with the preparation of an Environmental Impact Statement for the Grand Targhee Ski Resort.

The 21-year-old ski area in the Targhee National Forest can accommodate about 2,000 skiers a day. Owners Mory and Carol Bergmeyer want to triple its capacity to 6,490 skiers and increase lodging capacity from 96 to 1,159 rooms, according to their recently released master plan. The Bergmeyers, who bought the ski area in 1987, also want to double the number of chairlifts from four to eight.

Primarily dependent on regional skiers, the area aims to become a year-round "destination" resort, with houses, condominiums, a conference center, shops, a bus terminal, medical center and

bank. Such amenities are necessary to "entertain [guests] and entice them into staying at Targhee for long periods of time," says the master plan. Key to the development would be a land exchange with the Forest Service that would provide a private inholding of at least 100 acres.

The prospect of thousands of additional visitors per day has spurred a variety of responses in this remote, agricultural valley.

"Holy cow, we can't handle it," lifetime valley resident Ronell Breckenridge told the *Idaho Falls Post Register* from under her curlers at the Sassy Hair Shop in nearby Driggs, Idaho.

Breckenridge is not alone. Citizens for Teton Valley (CTV), a group that successfully blocked an earlier expansion proposal that would have included a 270-acre land exchange, is an outspoken critic of the current plan.

"We've loved every nice place to

death," said John Borstelmann, a CTV spokesman. "It's happening here a little earlier than I expected." Borstelmann says that while the group doesn't oppose the expansion of the ski area, it objects to the size and nature of the Bergmeyers' plan: "What we want is something local and regional and totally on public grounds. We don't want real estate speculation around here."

Others welcome the prospect of the resort's full development as a much-needed shot in the arm to the valley's flagging economy. "Tourists have more dollars and less pollution than any other business I can think of," wrote one local resident in response to a survey on the proposal.

Resort owner Mory Bergmeyer argues that unlike the earlier proposed expansion, the bulk of the development will be at the base of the slopes, not on a ridgeline. "People are beginning to see we're reasonable people, and conscious about the environment," he says.

While the master plan predicts an expansion in the regional ski market, critics are skeptical of plans to expand the resort at a time when the ski industry's overall growth is flagging. Nearly half of the nation's 1,000 ski areas have gone belly-up in the last decade (*HCN*, 9/24/90). Critics also point out that Grand Targhee will be hard-pressed to compete for the "destination" skier market with nearby established resorts like Jackson Hole.

The study process that started this month will identify issues to be addressed in the EIS, which will take about a year and a half to complete. Written comments should be sent to Lynn Ballard, ID Team Leader, Targhee National Forest, Teton Basin Ranger District, P.O. Box 777, Driggs, Idaho 83422. The deadline is Feb. 15.

—Lisa Jones

Livestock people quibble over wolf reintroduction panel

Interior Secretary Manuel Lujan named a 10-person panel last month to decide how to reintroduce and manage the endangered gray wolf in Yellowstone National Park and the wilderness areas of central Idaho. The deadline is almost as daunting as the job itself: to present a plan to Congress and Secretary Lujan by May 15.

The announcement was greeted with excitement by wolf supporters, who see it as a sign of the growing momentum in favor of bringing the wolf back to Western wildernesses. But the panel's mission may be impossible. The group has less than five months to resolve an issue that has been contentious for years, and may become even more polarized now.

Even before its first meeting the committee was sharply criticized by the livestock industry and congressional delegates from Wyoming, Montana and Idaho. They say it is heavily weighted in favor of wolf reintroduction and that the quick deadline will prevent a thorough study. The committee represents state and federal wildlife managers, the livestock industry, hunting organizations and the environmental community.

"The committee has been stacked in a pre-determined bias to reintroduce the wolf," Rep. Ron Marlenee, R-Mont., told the *Great Falls Tribune*. "The secretary himself [Lujan] has been sold down the river."

Ken Hamilton, field director of the Wyoming Farm Bureau, also criticized the panel's membership: "It is designed to come up with an automatic plan to put wolves in Yellowstone. You look at the makeup of the committee and the result is really not going to be a surprise."

The gray wolf has been absent from Yellowstone since the 1920s. Sightings in central Idaho are sporadic but on the increase. The local ranching and hunting communities in both areas say the move to reintroduce wolves could devastate their economies.

Lujan has taken most of the heat over the reintroduction committee, although the panel was created by Congress as part of the 1991 Interior appropriations bill. To a large extent the Interior Department's hands have been tied. The committee's May 15th deadline, for example, was set by Congress.

Congress also told the Interior Department how to form the committee. It must include representatives from state fish and wildlife agencies in Idaho, Wyoming and Montana, from the

National Park Service, the U.S. Fish and Wildlife Service and the U.S. Forest Service, two representatives from the environmental community, and one each from livestock and hunting groups.

Lujan's selections, nevertheless, have been roundly criticized. The Montana Farm Bureau asked Gov. Stan Stephens to bar Montana wildlife director K.L. Cool from sitting on the panel. The Idaho Farm Bureau also protested to Gov. Cecil Andrus, and may sue to keep state Game and Fish Director Jerry Conley from participating.

Sen. Steve Symms, R-Idaho, says the Interior Department shuffled the committee assignments. One member — Ron Somerville of the Wildlife Legislative Fund of America — was nominated by Symms, Marlenee and other Western delegates to represent conservation groups. He will represent hunters instead. This leaves no representative of a legitimate hunting group on the committee, Symms spokesperson Dave Pearson says. The Wyoming Outfitters Association, however, supports Somerville.

Many Idahoans — as diverse as Symms, the Idaho Conservation League and the Idaho Wool Growers Association — say their state was slighted on the panel. Only one Idahoan, Department of Fish and Game Director Jerry Conley, was nominated.

"No matter how you look at it, Idaho is underrepresented," Symms and newly elected Sen. Larry Craig, R-Idaho, said in a joint press release. "We hope the Department of Interior understands that when it seeks support for the committee's recommendations."

The Interior Department has defended its panel as experienced and knowledgeable. "Basically, we think each interest group has their best and their brightest," says Interior Department spokesperson Steve Goldstein.

The department was apparently caught off-guard by the strong resistance. Washington did not give panel chairperson Galen Buterbaugh, head of the U.S. Fish and Wildlife Service's region 6 office in Denver, the authority to convene the panel until Jan. 15th. It was to hold its first meeting Jan. 23.

There also is some debate among members over the purpose of the committee: whether to write a reintroduction plan or to consider whether wolves should be reintroduced or not.

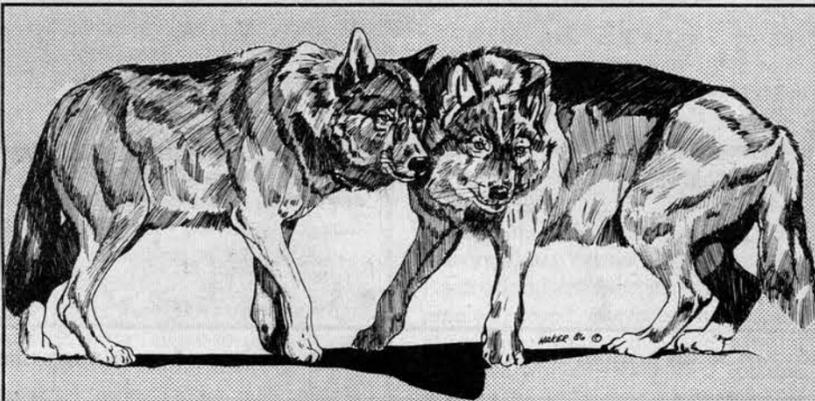
Buterbaugh says the language Congress used clearly states that the mission is how and when, not if. "The guid-

ance from Congress said that the committee will prepare a reintroduction plan for the two areas," he said.

Buterbaugh is backed by at least three other members, but is opposed by Pete Petera, head of the Wyoming Game and Fish Department. Petera, who notes that the wolf is a highly mobile and efficient predator, is concerned about poten-

tial depredation of Wyoming big game herds and livestock. Petera says the mission is to look at all the pros and cons of reintroduction; he has called for public hearings on the issue to be held in Wyoming. Six of the panel's 10 members must approve its final recommendation.

—Kevin Richert
and Steve Hinchman



The wolves are coming — anyway

The federal government should establish an experimental population of wolves in Yellowstone National Park now, while wildlife officials still have flexibility to manage the animals, says John Turner, director of the U. S. Fish and Wildlife Service.

Turner, a Wyoming native and former state senator, says that the gray wolf's rapid recolonization of Montana since 1986 shows that wolf recolonization of Wyoming is just a matter of time.

"What must be realized, especially by wolf opponents, is that there is a growing probability that wolves will return to the Yellowstone region without regard for the strong positions held by many in our state," Turner wrote in an editorial.

Once the wolves return, Turner warns, both the animals and their habitat will be protected under the Endangered Species Act, which drastically limits federal and state management options.

"Wolves could be killed only under special and very limited circumstances," he wrote. "Clearly management flexibility would be extremely limited."

Establishing an "experimental and non-essential" population of the endangered predator in Yellowstone, however, would open a loophole in the Endangered Species Act that would allow federal and state officials more

flexibility to manage the wolves, including killing troublesome animals.

Turner recommends designating Yellowstone National Park a "core recovery area," where the experimental population of wolves would be protected. He would circumscribe a larger management zone around the park to control wolves that stray. Management of those wolves would be determined by the three states surrounding Yellowstone, in consultation with the Fish and Wildlife Service.

The plan, Turner says, would "ensure that the states will be managing partners, that unacceptable impacts on livestock and big game herds will be addressed and that there is a reasonable chance of re-establishing the wolf as part of Wyoming's wildlife heritage." However, Turner adds, the act's loophole is limited. The Endangered Species Act stipulates that experimental populations must be wholly separate geographically from nonexperimental populations of the same species.

"If we sit back and wait for wolves to recolonize the Yellowstone area on their own, the opportunity to design locally responsive and flexible management strategies will be lost," he wrote. "Once they reach the area on their own the experimental option is forgone."

—S.H.

Snails, limpets and a sculpin help to preserve an Idaho treasure

Box Canyon joins the Snake River a few miles west of Twin Falls in southern Idaho. It is a small place — only one and one-half miles long, about 600 feet wide at its widest.

To scientists, Box Canyon is one of the geological wonders of North America, and a refuge for creatures found virtually nowhere else. To local residents, it is a precious remnant of Idaho's most unique and most violated natural area, the Thousand Springs reach of the Snake River. And to Earl Hardy of Boise, Idaho, who owns most of the canyon, it

is a site for a dam, a hydroelectric plant and a commercial fish farm.

For 20 years, Hardy and local residents have fought over Box Canyon's future. Last summer, Hardy's bulldozers began moving earth, only to be stopped by a last-minute injunction. Now the canyon's defenders have a new ally — the Endangered Species Act.

Box Canyon is true to its name. At its head, crystal-clear water bubbles up into blue-green pools from underground springs. The creek flowing from these pools, and the narrow canyon floor, are

isolated from the surrounding sagebrush desert of the Snake River Plain by nearly sheer, 200-foot basalt walls. Successive lava flows built up the plain into a layer cake that time has cut away and crumbled into the narrow, twisting canyon. Large boulders torn loose from the cliffs litter the canyon floor.

Landing his canoe at the mouth of Box Canyon, Randall Morgan points to the creek's clear flow 100 yards out into the murky Snake River. Morgan lives on the opposite bank of the Snake. "You can see where the eagles nest," he says,

pointing up the cliffs.

An old trail winds up canyon through the boulders, at the base of towering walls. About three-fourths of a mile up is the one large work of man in Box Canyon — a diversion dam built in the early 1970s by the Clear Springs Trout Company. From it, 300 cubic feet per second (cfs) of pure spring water is piped across the Snake to the company's huge trout farm.

A mile up is a broad 10-foot waterfall, unexpected in this desert environment. The walls here, only 200 feet apart, give a closed-in feeling. The canyon's mouth is no longer visible.

A little farther on, the canyon ends. At the base of reddish basalt cliffs lie the blue-green pools, full of trout, where the springs begin the creek. Box Canyon is the 11th largest single-source spring in North America, and the largest spring alcove system on the Snake River.

A Bureau of Land Management botanist summed it up this way: "This large clear stream with its undisturbed riparian plant communities, all housed in a short narrow canyon, creates a certain intangible atmosphere that sets Box Canyon apart from the rest of the world."

But Box Canyon hosts more than rainbows and raptors — namely, three species proposed for listing under the Endangered Species Act. The three species are rare mollusks: the Bliss Rapids snail, the Utah valvata snail and the Lanx limpet, which was just discovered last year. These three plus two more "candidate species" — the giant Columbia River limpet and the Shoshone sculpin, a small fish — probably once occupied many springs and spring-fed creeks along this reach of the Snake. But Box Canyon's alcove ecosystem is one of their few refuges now left.

For 25 miles, along the Snake River's north side, springs pour forth water that has been underground for 200 or more years. It is clean, clear, and a nearly constant 58 degrees year-round. This is the outlet for the Snake River



Known as the Sculpin Pool, this Box Canyon pool is one of many augmented by underground springs

Neils Nokkented

Can Idaho now tolerate the Endangered Species Act?

The U.S. Fish and Wildlife Service has proposed listing five rare Snake River mollusks, three of them found in Box Canyon, as endangered. The mollusks — four snails and a limpet — are found only in the cool, clear, free-flowing waters in the Hagerman reach of the Snake River, or in adjacent large springs.

On Dec. 14, the Department of the Interior signed the USFWS order proposing the listing of the five animals. The order will be published in the Federal Register, opening a 60-day public comment period. After considering the comments, USFWS will issue its final listing within one year.

The Bliss Rapids and Utah Valvata snails first were proposed for listing by a USFWS scientist in 1982. Both require unpolluted, clear, oxygen-rich water. Primary identified habitat for the snails is in lower Box Canyon, at and near Earl Hardy's proposed diversion. The proposed listing includes two other species, believed to be found only in the Hagerman reach but not in Box Canyon — the Snake River physa snail and the Idaho spring snail.

The Fish and Wildlife Service on its own initiated a review to decide whether listing the four snails as threatened or endangered species was necessary. Since there is an enormous backlog of such candidate species, the review proceeded quite slowly until the Box Canyon lawsuit over Earl Hardy's project (see

accompanying story) was filed in late 1989.

While surveying Box Canyon in September 1989, a field team from the University of Washington's Burke Museum discovered a limpet species, of the genus *Lanx*, in Box Canyon. There is only one other known population, in nearby Banbury Springs. Known as the Banbury Springs limpet, *Lanx* is a mollusk with a cone-shaped shell and a thick, fleshy foot.

The team's leader later testified that Hardy's project would likely extirpate *Lanx* at the two places in Box Canyon where shells were found. The plaintiffs in the Box Canyon lawsuit then petitioned for an emergency listing of *Lanx* as Endangered; the Fish and Wildlife Service wrapped that petition into its review of the other Box Canyon snails, and included it in the proposed listing.

The five rare animals are the remnants of some 90 mollusk species once found in Lake Idaho, which occupied this area some 12,000 years ago. "They are representative of a group of animals in the Hagerman reach that require top-quality habitat and flowing water with high levels of oxygen," said Jay Gore, endangered species director for the Fish and Wildlife Service in Idaho. "They are a good indicator of the health of the ecosystem." The white sturgeon, a huge bottom-feeding fish, which also is at very low numbers, is a better-known inhabitant of the same area.

If the snails are listed under the Endangered

Species Act, Earl Hardy's Box Canyon project will not be the only casualty. Two dams proposed on the Snake River downstream from Box Canyon — the A.J. Wiley and Dike projects — would almost certainly be squelched as well, since they would flood remnant free-flowing habitat for the creatures.

Listing by itself would not necessarily stop all development, Gore said. Federal agencies, however, must confer with USFWS before giving the go-ahead to proposed projects that may affect the snails. The Bureau of Land Management's policy is to treat candidate or proposed species as if they were listed. Hardy's project would require permits from the BLM and the U.S. Army Corps of Engineers. Both agencies have said it is unlikely they would issue permits — at least not without extensive review of the project.

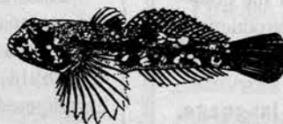
How will local Idahoans react if the welfare of the five inconspicuous, unknown species — tiny slimy mollusks — prevents further hydroelectric and aquaculture development in the Hagerman reach? Five or 10 years ago, one could safely have predicted outrage leading to backlash against the Endangered Species Act. But today the desire to protect Box Canyon and its unspoiled springs may be strong enough that the Endangered Species Act will be, if not welcomed, at least tolerated.

—N.N.

D.W. Taylor



Bliss Rapids snail



Shoshone sculpin



Utah valvata snail

Plain Aquifer, which underlies much of southern Idaho and holds an estimated 4 billion acre-feet of water.

The result, until recently, was a unique natural oasis extending for miles through arid high desert. Most spectacular was Thousand Springs, a mile-long cascade that poured from the Snake River canyon wall and fell 150 feet to marshes and grottoes on the river. Other springs burst from below, like Box Canyon's, creating alcove pools in folds and sidecuts of the canyon wall.

But these same unique qualities led to a total transformation in the last half-century. Today, Idaho Power Company captures Thousand Springs in a concrete flume set high in the canyon wall, then drops it through turbines to the canyon floor. Other hydro plants dot the canyon.

More flumes, on walls or from pools, catch more water and deliver it to hatchery raceways. Over 80 percent of the nation's commercial trout is raised on fish farms in this reach of the Snake River.

Long-time local resident Ed Shokal says less than 5 percent of the free-flowing springs where the Snake River Plain Aquifer discharges are available today as original habitat or for public use. He and most of his neighbors want to lose no more. "Hardy already owns so much water," Shokal says. "It's not selfish, it's piggish that he wants the last drops."

Earl Hardy, one of the entrepreneurs who built commercial aquaculture in Idaho, owns several fish farms along this reach of the Snake. In 1969, he bought all but 40 acres of Box Canyon, and over time acquired overlapping water rights in the upper, middle and lower canyon.

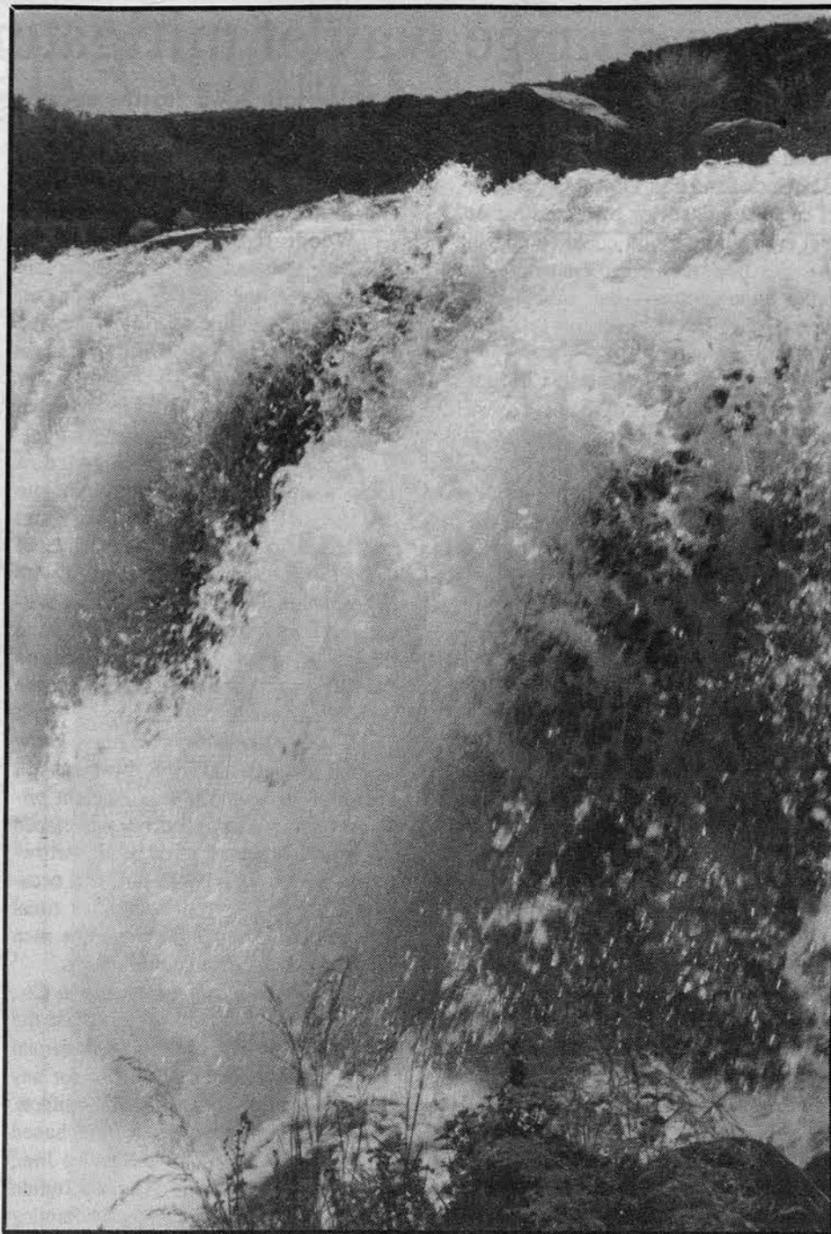
Hardy's plan for Box Canyon has three parts. A 16-foot-high dam near the canyon's mouth would divert 90 percent of the creek's normal flow and flood part of the creek above the dam. An 1,800-foot flume would carry the water — 250,000 acre-feet annually — to a 45-acre trout farm in adjacent Blind Canyon; Box Canyon is too narrow to house a hatchery. And upcanyon, just below the waterfall, Hardy would divert 300 cfs for one-third of a mile to power a small hydro plant producing energy for sale.

Hardy would have built it all long ago, but for that 40 acres he doesn't own. It is public land, at the canyon's mouth; his flume must cross it to reach Blind Canyon. Through the 1970s, Hardy's persistent requests for a right of way across the land were opposed by state agencies and local residents, and denied by its manager, the Bureau of Land Management.

In 1982 Hardy threatened to develop his water right in the pristine upper canyon if the state kept opposing him in the lower canyon. "We felt Earl's threat was probably real," recalls state Sen. Laird Noh, "— that he would sacrifice the upper canyon." So the Idaho Legislature relinquished state water right claims below the waterfall and told state agencies to stop fighting Hardy. In return, Hardy promised to preserve the upper canyon.

Hardy applied again for the right of way. In 1985 the BLM designated its Box Canyon land an Area of Critical Environmental Concern (ACEC). Its specific purposes included protecting naturalness, scenic quality, riparian vegetation and habitat to support existing populations of Shoshone sculpin and the four rare snails. The BLM said placing facilities or improvements within the ACEC was not compatible with the designation.

But a year later the BLM granted Hardy's application for the flume, hav-



A broad, 10-foot-high waterfall at the head of Box Canyon

ing "looked at the best interests of the alcove ecosystem consistent with private rights," said BLM area manager Bob Cordell. The values that resulted in ACEC designation must be protected, he said, and mitigation measures stipulated in the right of way will do that. But the stipulations clearly don't mitigate impacts to the sculpin and snails, which will lose known habitat without any replacement.

In June 1989, Hardy received his last necessary permit, from the Army Corps of Engineers, allowing him to discharge fill into the creek. The corps reviewed only his lower-canyon diversion and dam, saying later that the hydro project was "so preliminary as to be beyond a probable future activity." But Hardy had filed for a license to build the hydro project four months before the corps issued its assessment and permit.

After 20 years, Hardy had seemingly cleared all the hurdles, and a bulldozer began moving earth in Blind Canyon. But little has gone right for Hardy since.

In August 1989, Hagerman Valley Citizens Alert, the Idaho Conservation League, Randall Morgan and three other residents sued the BLM and the Army Corps of Engineers in Idaho's federal district court. The plaintiffs are represented by Boise lawyers Jeff Fereday and Mike Creamer. "Box Canyon is nationally significant, yet no full Environmental Impact Statement was done," said Will Whelan of the Conservation League. "Nor were the parts of his project considered as a whole." The suit particularly argued that the presence of candidate endangered species compelled a full EIS.

The plaintiffs sought an injunction to stop the bulldozer. In October 1989,

District Judge David Ezra granted it, saying that irreparable harm to the canyon would occur if construction continued before a ruling on the lawsuit.

Most crucially, Hardy's 19-year-old water right in the upper canyon lapsed in April 1990, for failure to put it to use. And the state Department of Water Resources, noting strong public opposition, denied his request to extend it.

Hardy had applied for a federal discharge permit for six hatchery raceways in the upper canyon, seemingly making good his threat to develop it if stymied below.

But also in April 1990, the Army Corps, responding to the injunction, revoked its discharge permit and the BLM suspended (but did not revoke) the right of way. The agencies now agree that an Environmental Impact Statement is needed to examine the connected and cumulative impact of all the developments in Box and Blind canyons. "If you look at them [the three parts] together, that certainly increases the impact," the BLM's Cordell says.

With an EIS assured and the permit revoked, the agencies have filed to dismiss the suit. The corps, the BLM and the plaintiffs have agreed on a settlement, but Hardy has refused to accept it. The court's final ruling is expected by early February.

Hardy's goal has receded, but he still owns Box Canyon. His opponents know that full public ownership is the only ultimate way to preserve Box Canyon. And Earl Hardy has given no hint so far that he's interested in selling.

— Neils Nokkentved

Neils Nokkentved is an environmental writer with the *Times-News* in Twin Falls, Idaho.

HOTLINE

Idaho cuts grazing fees

The Idaho Land Board has cut grazing fees on state-owned land and reduced the amount of money the state's public schools earn from grazing revenues. Currently, both sheep and cattle grazers are charged \$5.21 per animal unit month (AUM) — the amount of range forage it takes to feed a cow and a calf or five sheep for a month. In 1991, fees for cattle grazing will be cut by 4.2 percent and fees for sheep grazing will be cut 27 percent. The cut pleased livestock producers struggling against rising production costs and depressed market conditions. But it got a lukewarm reception from officials in the state's public school system, which received about \$1.3 million from grazing fees last year. The fee reduction will shave \$54,000 from the schools' annual budget of some \$600 million in 1991. While one education official called the amount "infinitesimal," State Superintendent of Public Instruction Jerry Evans pointed out that the state constitution requires the land board to maximize the income from state lands. Idaho isn't the only place where livestock producers have seen legislation go their way this year. A move to increase grazing fees on federally owned lands was struck down by Congress in October (*HCN*, 11/5/90).

BLM chief defends mining law

BLM director Cy Jamison has emerged as a defender of the 1872 Mining Law, which is currently under assault by environmentalists and politicians. The law allows the nation's hardrock miners to receive title to public lands for as little as \$2.50 an acre and exempts them from paying royalties on minerals they extract (*HCN*, 6/4/90). Hardrock minerals include gold, silver, uranium, copper, molybdenum, iron and aluminum. "I think the 1872 Mining Law has worked rather well for this country," said Jamison, quoted in the *Casper Star-Tribune*. "It just has to be fine-tuned a little. If you change the way the system is available to the industry to use, you basically, in my opinion, wreck the minerals industry." Two attempts to reform the law were narrowly defeated in Congress last session (*HCN*, 12/3/90), but legislators are expected to try again.

New Mexico endangered list grows

The New Mexico Department of Game and Fish recently announced the addition of 15 species to its endangered species list. This increases the number of state endangered species to 120. The newly designated species include two bats, several snails and the boreal and flammulated owls. John Hubbard, supervisor of the state's endangered species program, says most of the newly listed species "are threatened by logging and mining on federal lands." But the announcement will not necessarily ensure the protection of these species' habitat. Currently the 1973 Endangered Species Act protects only 20 of the 120 species designated by the state. Although state designation provides theoretical protection for all species, lack of federal funding prohibits implementing recovery programs for all of them. Six of the additions, species of land snails, occur only in New Mexico and "should therefore be of federal concern," Hubbard says.

'The white man has a strange way of mitigating stuff'

WOODRUFF, Ariz. — Like others born and raised in this tiny, century-old Mormon town, Norman Turley has spent a lifetime admiring the 1,200-foot-high volcanic cinder cone that rises from the desert and gives this place its distinction. But to the neighboring Hopi, Zuni and Navajo Indians, the Woodruff Butte has been a place of sacred significance for as long as 1,000 years.

Known to the Hopis as "Tsimontuqui" (see-MOAN-tu-kwi), meaning "the place of the gypsum plant," the butte is 50 miles beyond the reservation established for them by the federal government. Yet it marks the southern boundary of the aboriginal homeland the Hopis have known since before the coming of the white man.

Every year, Hopi religious and clan leaders come to the butte to lay sacred prayer feathers at their eagle and medicine shrines, offer prayers and send them skyward in puffs of tobacco smoke. On a pilgrimage to the butte last August they found their shrines were undisturbed. But shortly afterward they learned to their horror that several sites had been destroyed by a gravel mining company, which had leased the middle of the mountain-sized butte from Norman Turley.

Among the shrines razed was the Hopis' most sacred three-foot-high boundary marker, set up countless generations before in a holy pact with Maasaw, the creator of the Hopis' present world, who entrusted this land to their care.

"It's gone. It's been bulldozed," said Hopi tribal cultural preservationist Leigh Jenkins. "Verbally, Hopis won't express anger, but inside I know they are hurting. That's how Hopis worship."

No one intended to harm this important Hopi religious site, says the 63-year-

old Turley, a big, soft-spoken man with a Western drawl. For five years, he says, a friend urged him to lease the land to the Blackrock Sand and Gravel Co. so gravel could be mined for road construction. Yet even before much could be dug, the Arizona Department of Transportation ordered the company that was to resurface nearby Interstate 40 to avoid using Woodruff Butte rock.

"They have to complete an Environmental Assessment for any state project," said the department's archaeologist, Bettina Rosenberg. "According to our rules, they shouldn't have started mining anything for our project before we approved."

Now, watching his friend's gravel company teeter on financial ruin, Turley is contemplating his few options. One is to persuade the Hopis to buy the land from him to preserve it in their own way. Earlier this month four old Hopi religious leaders from the village of Shungopavi walked the site with him.

"I don't know where it's going to go," Turley said. "I hope they're willing to buy it. I'm willing to work with them but I'm not willing to give it to them. I can't afford to do that."

Meanwhile, Turley's non-Indian neighbors eagerly await news. The damage to the Hopi shrines occurred two months after some Woodruff residents first objected to the mining of their beloved landmark. Many were angered by the prospect that the top of their blue butte would be dug up for its gravel. In July, more than half of the town's 200 people signed a petition asking Turley to spare it.

"It's just part of Woodruff," says Morjorie Luper, 75, the town's local historian and its oldest native. Like Turley, she is a descendant of Woodruff pioneer founders. "It's just hard to think of

it being torn down for the sake of money, and especially by a boy that owned it who was born and raised in Woodruff," she adds. "This I can't understand. It hurts."

Woodruff Butte stands alone to break the straight horizon. From the top, Luper says, one can see the trains on the old Santa Fe line roll into Holbrook 12 miles away, and the Little Colorado River as it snakes through the rocky, dry country. "You haven't lived until you've climbed the butte," she says.

Turley says everyone laughed in 1935 when his late father bought the treeless, 640-acre "pile of rocks" from the Aztec, Arizona & New Mexico Land Co. With it came a deed stamped with the signature of President Woodrow Wilson. He says it was his father's dream to raise Hereford cows and graze them on the first spring grass that grew on the butte's high southern flanks.

Turley, like everyone here, knew Indians long ago had lived there and still secretly visited the place. Ancient pit-houses and petroglyph drawings etched into boulders were known to all. Arrowheads were frequently found, and occasionally a Hopi corn doll or other ritual object. Navajo and Zuni medicine men also came to gather medicinal herbs.

Last June, Tanner Construction Co., the contractor selected to resurface the interstate highway, hired a professional archaeologist to survey the area for any historical, cultural or prehistoric artifacts. Lyle M. Stone, of the Phoenix-based Archaeological Research Service Inc., found three prehistoric Anasazi Indian sites, the remains of pithouses and farming areas, and an historical site left by the early Mormon pioneers. He recommended these be preserved by avoiding them.

Stone also advised Tanner to halt the resurfacing project if any buried sites were found until an archaeologist could examine them. Stone noted that in 1901, Smithsonian Institution archaeologist Walter Hough visited the butte and reported finding what appeared to be 70 prehistoric terraced garden plots ringed with stone. These were similar to those known at the Zuni Pueblo and the Hopi village of Walpi.

After Stone issued his report and tractors began digging into the butte's cinder core, alarmed Hopis told him that he had failed to report the significance of their own religious shrines and markers, located precisely where the mining would take place. They said his research also failed to describe the butte as a site sacred to the Navajos since 1882.

Stone revisited the butte and a week later recommended that the gravel mining operation be stopped. "It's the first time it's happened in 800 projects," he said of his amended report.

Mining, however, continued. The heavy equipment destroyed the sacred Hopi shrines in September. Weeks later, when Turley learned that neither the state nor the federal government would buy gravel from a site eligible for protection under the National Historic Preservation Act, he silenced the diesels. He and Blackrock agreed it was time to negotiate with the Hopis.

"This is a classic clash of cultural differences," says Leigh Jenkins, a member of the Hopi Greasewood clan. "The white man has a strange way of mitigating stuff. He can record it, photograph it, and then bulldoze it. That's his way of preservation. But you don't just bulldoze shrines."

— George Hardeen

Crows struggle to overcome past political corruption

Last year's convictions of former Crow Tribal Chairman Richard Real Bird and 18 other tribal officials have left the southern Montana reservation in political upheaval. A new Crow administration is fighting to purge past corruptions and regain the people's confidence.

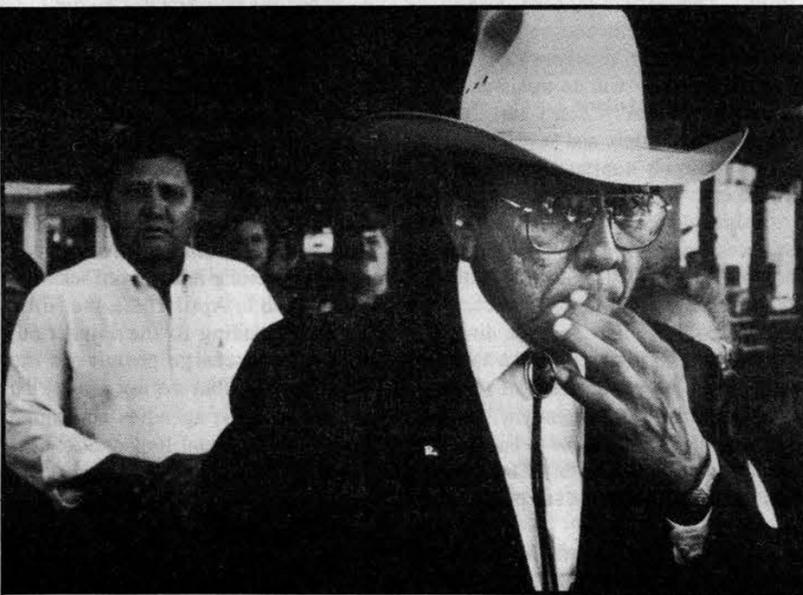
Real Bird was found guilty in two separate trials of one count of embezzlement and three counts of bank fraud and conspiracy. In an August verdict, he was sentenced to 21 months in federal prison and a \$57,000 fine. He awaits sentencing for his November conviction for embezzlement and is now out of prison pending appeal. Felony charges pressed against 26 tribal council members resulted in a total of 19 convictions.

A totally new administration began operating July 1 with the election of the first woman chairman, Clara White Hip Nomee. Each Monday Nomee brings together her staff of 70 to hold a prayer service and discuss tribal problems and solutions.

"We're trying to get the tribe back on its feet and strengthen our government," said Nomee. "With God's help our credibility and integrity is slowly coming back."

According to Dale Kindness, a member of the new Crow Tribal Council, the modern tribal government is patterned after the Anglo's form of democracy and has inherited the corruption and white-collar crime inherent in that system. He does have hope for the future. "It's taught us a lesson that has led to reform," he said.

A \$29 million bank account fell into the hands of the 8,500-member tribe in 1988 when a court battle against the state of Montana awarded Crows the rights to coal taxes from mining on the reservation. The 2.5 million-acre reservation in



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Richard Real Bird, former Crow tribal chairman

southern Montana is estimated to be worth \$26 billion in coal, timber and agricultural resources.

In 1988, Real Bird said he wanted to push for long-term economic development rather than dish out per-capita payments that would end up in the hands of Billings merchants and used-car salesmen (HCN, 6/6/88). His plans for economic stability and reservation improvements never went far.

According to Elizabeth Whiteman Runs Him, a tribal education specialist, officials became corrupted by the money. "Management was very political. Relatives and friends of the Real Bird faction were getting money, while others were not funded anything," Whiteman Runs Him said.

Whiteman Runs Him feels the money

is not a curse, and that with responsible administration and wise spending the tribe can become more self-determined.

The new administration is trying to gain more control of the grants and programs now being run by the Bureau of Indian Affairs. "We had become dependent on the BIA like junkies. The BIA always had the upper hand," said the new tribal administrative officer, Kayle Howe. "We're going to call the shots now and they will dance to our tune."

The new administration is focusing on better ways to utilize the tribe's resources. Kindness says some of the tax money is being distributed equally to each tribal member and \$5 million has been invested in a trust fund. An education department was formed to improve

the reservation's schools and to provide grants, loans and scholarships for students to attend college.

A land-resources department and a \$1 million fund were established to better manage tribal resources and to buy back lands that were sold to Anglos. Crows currently control about 51 percent of the reservation's 2.5 million acres. The Bureau of Indian Affairs controls 570,000 acres that are leased to outside interests. Non-Indian farmers, ranchers and miners have bought or leased land at bargain prices. According to Howe, Crows are charging only \$1.60 rent per acre for farmland whose market value is \$35 to \$60 an acre.

"They're not business-minded people. They're afraid to say no to an offer," Howe said. "We're trying to teach landowners to take responsibility for themselves and get a better deal."

Rather than selling or leasing their land, a small percentage of Crows are farming and ranching on their own. Marvin Stewart, director of the new natural resources department, hopes land purchases and education will encourage economic independence by getting more Crows involved in working their own land.

With an unemployment rate near 80 percent, Crows are looking for economic developments. Two large mining companies are now trying to get mining permits for some of the reservation's estimated 406 billion tons of coal (HCN, 6/6/88). The tax revenues from stepped-up coal development will challenge the new administration.

"We have all seen what corruption is," Howe said. "We know what not to do. It's easy."

— Beth Jacobi

High Country News INDEX

Volume 22, 1990

AGRICULTURE

The West's real cattle heritage: Damaged land and political paralysis, Ed Marston, 3/12/90, p. 4.

Barbarians within agriculture's gates, Sam Bingham, 3/12/90, p. 19: Is a nationwide policy to fight weeds needed?

Who's at home on the range? Florence Williams, 3/12/90, p. 8: Ecosystems differ in their ability to support livestock.

One team raking, five teams sweeping, Jim Fergus, 3/12/90, p. 27: Old-fashioned haying methods are surprisingly efficient.

They share cows but wear different hats, Jim Fergus, 3/12/90, p. 19: Two North Park, Colo., ranchers are poles apart politically.

Taxpayers plowed by prairie-busting farmers, Bert Lindler, 6/18/90, p. 6.

Herbicide causes plants to die en masse in a Wyoming drainage, Bruce Hampton, 7/30/90, p. 5.

BLM may spray more rangeland with deadly herbicides, Julius Dahne, 12/17/90, p. 3.

AIR QUALITY

Senate's new air bill would further dirty the West's air, Florence Williams, 4/23/90, p. 4.

The Senate's clean air bill wears chaps and a Stetson, Andrew Melnykovich, 4/23/90, p. 5.

House bill will let West see farther, Florence Williams, 7/2/90, p. 6.

Clean Air Act amendments will not help much of the West, Florence Williams, 11/19/90, p. 4.

ARCHAEOLOGY

A new road to ruins? Lisa Jones, 11/19/90, p. 3: Debate swirls around the pros and cons of paving the road to New Mexico's Chaco Canyon National Historic Park.

BOOK REVIEWS

Exploring the last few chunks of wild land, Review by George Wuerthner of *The Big Outside* by Dave Foreman and Howie Wolke, 1/1/90, p. 4.

At war with his time, review by Florence Williams of *For Earth's Sake: The Life and Times of David Brower*, David Brower, 4/23/90, p. 18.

Can we be America-the-beautiful and America-the-rowdy? review by Ed Marston of *More Like Us: Making America Great Again*, James Fallows, 4/23/90, p. 18.

Propaganda from academe, review by Ed Marston of *Seven Popular MYTHS about Livestock Grazing on Public Lands*, Jeffrey C. Marley, E. Lamar Smith, Phil R. Ogden, 7/30/90, p. 16.

Promise and ruin along the Pacific Rim, review by Pat Ford of *The Good Rain: Across Time and Terrain in the Pacific Northwest* by Timothy Egan, 11/5/90, p. 16.

Rambles in a Ravaged Land, book reviews by Pat Ford of *Ancient Forests of the Pacific Northwest* by Elliot Norse; *Fragile Majesty* by Keith Ervin; *Secrets of the Old Growth Forest* by David Kelly and Gary Braasch; *Wintergreen* by Robert Michael Pyle; *The Redesigned Forest* by Chris Maser; and *Forest Primeval: The Natural History of an Ancient Forest* by Chris Maser, 11/19/90, p. 32.

The Western soul has a watery grave, book reviews by Tom Wolf of *Overtapped Oasis: Reform or Revolution for Western Water* by Marc Reisner and Sarah Bates; *A Story That Stands Like a Dam: Glen Canyon and the Struggle for the Soul of the West* by Russell Martin; *A Life of Its Own: The Politics and Power of Water* by Robert Gottlieb; and *Markets for Federal Water: Subsidies, Property*



Dale Schicketanz

Rights, and the Bureau of Reclamation by Richard Wahl, 12/3/90, p. 14.

Those marvelous women of the Colorado Rockies, review by Liz Caile of *The Magnificent Mountain Women: Adventures in the Colorado Rockies* by Janet Robertson, 12/17/90, p. 16.

ECONOMICS

The decline of the West's made-in-Washington economy continues, Ed Marston, 1/1/90, p. 1: A year-end review.

Raw-log export ban helps Northwest, Jim Stiak, 9/24/90, p. 3.

EDUCATION

HCN's annual guide to outdoor education in the West, 4/23/90, p. 8.

Connecting the parts to make a whole, Becky Rumsey, 4/23/90, p. 15: Project WILD teaches children about the environment.

How the outdoors got into the West's schools, Becky Rumsey, 4/23/90, p. 16.

Where children, deer and habitat roam, Pat Ford, 4/23/90, p. 17.

Leadville campus teaches reclamation, Mark Harvey, 9/10/90, p. 6.

ELECTRICAL ENERGY

The decayed core at the center of rural life, Ed Marston, 3/26/90, p. 5: Rural electric co-ops need once again the progressive elements that initiated their creation.

Dying Nevada town bets its last bucks on a speculative power plant, Jon Christensen, 5/21/90, p. 8.

Hydro generation pulls the plug on Lake Powell, Mark Shaffer, 9/24/90, p. 4.

The Northwest's coming energy shortage poses hard choices, Jeff Marti, 12/31/90, p. 3.

ENVIRONMENTAL GROUPS

Land, water, wildlife gain lawyers, Florence Williams, 2/12/90, p. 4: Boulder-based

environmental law firm opens.

Nature Conservancy buys huge ranch in New Mexico, Tom Arrandale, 2/26/90, p. 5: The Nature Conservancy buys the Gray ranch in southern New Mexico.

Call 1-800-SABOTAGE, Jon Christensen, 3/12/90, p. 13: Nevada ranchers guard against radical environmentalists.

Group wants to keep wilderness wild, Mark Rutledge and Florence Williams, 4/9/90, p. 7: Wilderness Watch makes waves on the Western conservation scene.

Group says police, FBI dodge duty, Jim Stiak, 6/18/90, p. 4: Earth First! claims police drag feet in investigation of car bombing.

Idaho conservationists split over wilderness strategy, Rocky Barker, 7/2/90, p. 4.

Coalition fights for its half of Colorado, Florence Williams, 7/2/90, p. 6: The Western Colorado Congress celebrates 10th anniversary.

Earth First! gathering brings back the '60s, Patrick Dawson, 7/30/90, p. 4.

ESSAYS

The newest historians attack the frontier, Tom Wolf, 1/1/90, p. 14: "New" historians charge that a Manifest Destiny approach to the past ignores minorities and the environment.

Former ranger wishes he had raised hell earlier, Steve Mulligan, 1/29/90, p. 14: Park Service river-ranger recalls a wrong-headed tamarisk eradication program.

The shock of doing unintentional harm, Michelle Mara, 2/26/90, p. 9: A bird lover unwittingly cuts down a woodpecker's nest.

Forestry newspeak prevents us from seeing the ecosystem, George Wuerthner, 4/9/90, p. 14.

A call to revolution, Osborn Segerberg, Jr., 4/23/90, p. 19.

Hard negotiating, or treachery? Kay Matthews, 7/2/90, p. 13: Author has second thoughts about compromising with Forest Service.

Sitting out the Greed Decade in Wyoming, Geoffrey O'Gara, 7/2/90, p. 15.

The arid West turns depressingly moist, Bruce Farling, 7/2/90, p. 16: Wet weather is bad news for fishermen.

When a South Dakota night shuddered and shone, Linda Hasselstrom, 7/16/90, p. 16.

A wild Wyoming river is held hostage, LaMar Empey, 7/30/90, p. 13.

We must stop devouring the West, Thomas A. Barron, 7/30/90, p. 14.

Exxon caused panic in Needle Park, Andrew Gulliford, 7/30/90, p. 15: In western Colorado, memories linger of the oil shale boom and bust.

Let the circle be unbroken, Julia Crow, 8/27/90, p. 16: Wild honeybees warn of the destruction of the environment.

Strange tales along the Powwow Highway, David Seals, 9/10/90, p. 14.

Nice waves but 'no soft space' in La La Land, Peter Shelton, 9/10/90, p. 16.

Fly fishing, friends and super renegades, Dennis Bitton, 9/10/90, p. 16.

Metamorphosis at the Forest Service, Ed Marston, 10/8/90, p. 14.

Why I never burn one old juniper log, Edie Eilender, 11/5/90, p. 14.

Why storytelling is still an art in Rangely, Janice L. Friddle, 12/17/90, p. 16: Life in a small Colorado town is filled with interest in the small things.

FIRES

Present policy burns trees and money, Nick Sundt, 7/16/90, p. 15: The Forest Service needs to reform its fire-fighting policies.

FORESTS

Northwest's old-growth battles continue, Jim Stiak, 1/29/90, p. 5.

Forest Service edges toward change, Richard Manning, 2/12/90, p. 3.

Is the Forest Service changing? Pat Ford, 2/26/90, p. 1: No, it's all talk, says Jeff deBonis, who says he is close to resigning from the Forest Service.

Western forest cuts its timber harvest, Kevin Richert, 2/26/90, p. 3: Timber harvest reduced on Idaho's Targhee National Forest.

We need internal reform to do our jobs right, 2/26/90, p. 10-11: A letter to the Forest Service chief from forest supervisors.

Is the agency "an organization out of control?" 2/26/90, p. 10: Region 1 forest supervisors ask Chief Dale Robertson that question.

Old-growth forests fight global warming, Pat Ford, 3/26/90, p. 3.

Ancient forest protection: Groups plot political strategies, Jim Stiak, 4/9/90, p. 1.

Ancient forests: another issue to divide the West, Jim Stiak, 4/9/90, p. 10.

The most complex ecosystems on earth, Jim Stiak, 4/9/90, p. 12: Old-growth forests are a source of rich biological diversity.

Ex-employee says agency tried to gag him, Florence Williams, 5/7/90, p. 12: Forest Service employee Don Kern loses job after criticizing agency.

Jeff deBonis tells how agency employees can speak out, Florence Williams, 5/7/90, p. 13.

Olympic Peninsula loggers turn up the heat at rally, Jeff Maru, 5/21/90, p. 6.

Politicians in the Northwest hustle to save timber jobs, Larry Swisher, 6/4/90, p. 13.

Throttle your chain saws, forest is told, Florence Williams, 6/18/90, p. 3: Report concludes that managers over-emphasize timber production.

Forest Service officials hear from wilder-

Continued on page 8

Photos of Canyon de Chelly, Arizona, by Dale Schicketanz

1990 INDEX ...

Continued from page 7

ness critics, Richard Manning, 6/18/90, p. 16.
 "Adoptions" used as anti-logging tactic, Dan Daggett, 7/2/90, p. 7.
 Idaho forest ranger catches the president's eye, Lisa Jones, 9/10/90, p. 3: President Bush orders investigation into threats made against Don Oman.
 Forest Service may curb firewood sales, Sherry Devlin, 9/10/90, p. 4.
 Trees and dreams: a preface, Pat Ford, 11/19/90, p. 6: Pat Ford offers a prologue to HCN's special issue 'You don't know what you've got till it's gone...' — the Northwest rediscovers its ancient forests.
 An ancient forest primer, Randal O'Toole, 11/19/90, p. 8.
 The world's largest conifers grow in the Northwest, Elliot Norse, 11/19/90, p. 9.
 Olympic peninsula nightmare, Tim McNulty, 11/19/90, p. 10.
 Raping the private forests, Roy Keene, 11/19/90, p. 13.
 The politics of compromise, Keith Ervin, 11/19/90, p. 15.
 How 'Dutch Fred' set up old growth's 'big cut', Keith Ervin, 11/19/90, p. 16.
 Oregon's Opal Creek dilemma, Jim Stiak, 11/19/90, p. 17.
 Our ancient forests remember so many things, Chris Maser, 11/19/90, p. 18.
 The spotted owl as a canary, Jeff Marti, 11/19/90, p. 19.
 Ancient-forest animals are hard to know, Jeff Marti, 11/19/90, p. 20.
 Consider the yew — for cancer's sake, Jeff Marti, 11/19/90, p. 21.
 Intensive forestry has cut the cycle of soil renewal, Chris Maser, 11/19/90, p. 22.
 'Holding onto the seeds,' Pat Ford, 11/19/90, p. 23.
 The ancient forest has already lost its giants, Elliot Norse, 11/19/90, p. 24.
 Defending Oregon's Siskiyou, Jim Stiak, 11/19/90, p. 25.
 'New perspectives' to limit clearcutting, Roy Keene, 11/19/90, p. 26.
 Old growth on the dry side, John Daniel, 11/19/90, p. 27.
 Why senescence (rot) is not a dirty word, Robert Michael Pyle, 11/19/90, p. 28.

A vision for our future forestry, Robert Michael Pyle, 11/19/90, p. 29.
 Why the timber war is so bitter, Steve Forrester, 11/19/90, p. 31.
 Timber cuts raised in northern Rockies, Bert Lindler, 12/17/90, p. 6.

HAZARDOUS WASTES

Land of Enchantment acts to slow the flood of garbage, Tony Davis, 4/23/90, p. 6.
 Toxics from Canada pile up in U.S. reservoir, Julie Titone, 6/18/90, p. 8.
 Canadian operations inch toward clean-up, Julie Titone, 6/18/90, p. 8.
 Incinerator proposal generates heat in Green River, Mark Harvey, 7/2/90, p. 5.
 EPA's Reilly favors nuclear dump at WIPP, Tony Davis, 8/27/90, p. 3.
 Aspen's Superfund site gets messier, Clay Fong, 8/27/90, p. 7.
 Railroad plans garbage express, Peter Carrels, 9/10/90, p. 1: A massive garbage dump intended to serve faraway cities is planned in South Dakota.
 Waste kings target rural poor, Karen Dorn Steele, 9/10/90, p. 1.
 Disneyland's toxics end up in Wyoming, Jill Morrison, 9/10/90, p. 8.
 Confusion marks Idaho's toxic waste burning policy, Kevin Richert, 10/22/90, p. 4.
 EPA exempts nuclear waste dump from safety proof, Beth Jacobi, 12/3/90, p. 3: The Waste Isolation Pilot Project (WIPP) near Carlsbad, N.M., clears a major regulatory hurdle.
 Toxic mining wastes used on roads haunts Pecos area, Keith Easthouse, 12/3/90, p. 6.

MILITARY

U.S. Army re-stages Red Dawn in Montana, George Everett, 1/1/90, p. 3: Military drops 1,500 personnel into Montana for training exercises during big-game hunting season.
 U.S. military plots vast land coups, Steve Stuebner, 2/12/90, p. 1.
 Foes unite to fight military proposal, Bert Lindler, 2/12/90, p. 11: Citizens unite against proposed military training center in eastern Montana.
 Voters could bomb bombers, Pat Ford, 2/12/90, p. 12: Public outcry occurs over planned expansion of southwest Idaho bombing range.
 Torn between cows and jets, Andrew Melnykovich, 2/12/90, p. 12: Pentagon proposes

land expansions in Idaho, Montana, Nevada and California.

Military sweep turns up bombs and controversy, Florence Williams, 2/12/90, p. 13: Navy searches for lost bombs in Nevada.
 Citizens sue Rocky Flats bomb plant, Brian Collins, 2/26/90, p. 4: Rocky Flats faces two class action lawsuits.
 Pentagon orders about-face on land grabs, Diane Grauer, 12/17/90, p. 4.

MINING

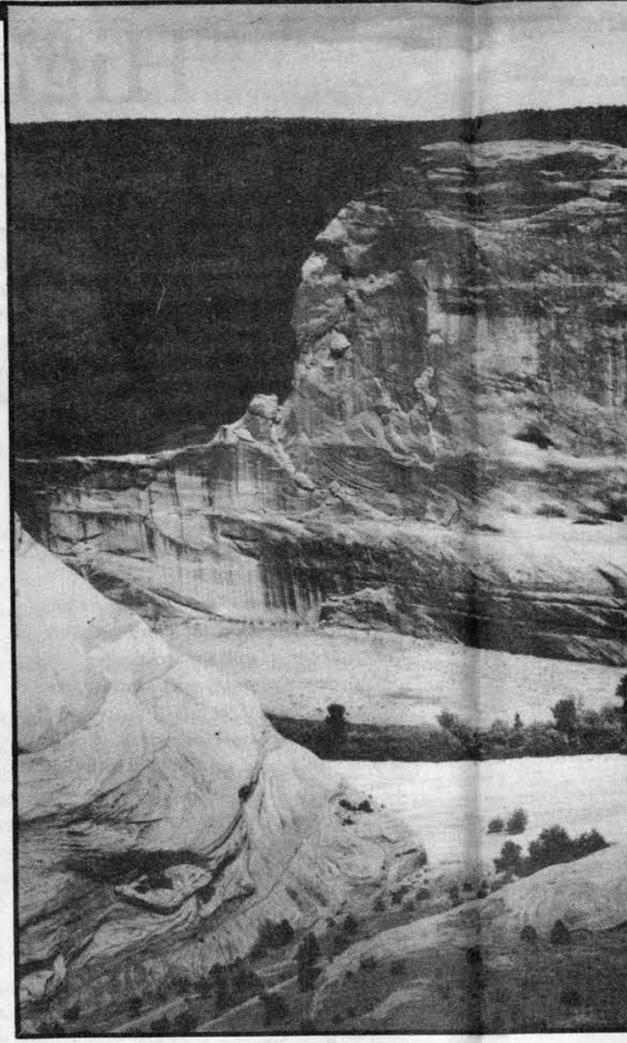
Gravel mines cut cottonwoods off at the knees, Florence Williams and Susan Bridges, 4/9/90, p. 5: In Arizona, gravel mining companies are destroying the Verde River.
 A tenacious law may lose its grip, Steve Hinchman, 6/4/90, p. 4: The Mining Law of 1872 faces demands for reform.
 A primer on the mining law, Steve Hinchman, 6/4/90, p. 5.
 A new gold rush hits the West, Jeff Marti, 6/4/90, p. 6.
 Birds fall prey to a King Midas technology, Tom Knudson, 6/4/90, p. 7: Cyanide-based gold mining endangers wildlife.
 States learn from Nevada, Jeff Marti, 6/4/90, p. 9: Requiring Environmental Impact Statements may slow the gold boom.
 The West: land of the free (ride), Tom Knudson, 6/4/90, p. 10: U.S. gold mines do not have to pay royalties.
 A clash between two kinds of wealth, Todd Wilkinson, 6/4/90, p. 11: Hard-rock mining worries Yellowstone.
 His marble claims are in a wilderness, Mark Harvey, 6/4/90, p. 12: Stefan Albouy plans marble quarry near Aspen, Colorado.
 Claims provoke gritty fight in Oregon, Tom Ribe, 6/4/90, p. 14: A sand-mining company stakes a claim in Oregon Dunes National Recreation Area.
 San Luis chooses Christ over gold, Steve Hinchman, 6/4/90, p. 15: Colorado's oldest town rejects gold mine.
 Retirement town takes on copper mine, Florence Williams, 6/4/90, p. 16: Prescott, Arizona, battles Phelps Dodge Corp.
 Stone-washed jeans threaten a wild river, Gingy Anderson, 6/4/90, p. 18: New Mexico's Jemez Mountains face strip-mining for pumice.
 Questa was awakened by its mining bust, Steve Hinchman, 6/4/90, p. 19: Questa, N.M., copes with the aftermath of a mining boom.
 Must Questa remain a company town? Steve Hinchman, 6/4/90, p. 21.
 Mine boss also reclaims the land, Mark Harvey, 6/4/90, p. 22: Ken Kico enjoys reclamation.
 Mining industry battles bill to protest the California desert, Mark Harvey, 6/4/90, p. 23.
 Can this law ever be reformed? Andrew Melnykovich, 6/4/90, p. 24: The 1872 Mining Law has survived despite reformers.
 Foes hope to crush gravel quarry proposal, Florence Williams, 6/18/90, p. 5.
 Old uranium mines continue to infect reservation, Tony Davis, 6/18/90, p. 10.
 House votes to aid uranium miners, downwinders, Andrew Melnykovich, 6/18/90, p. 11.
 How a gold mining company keeps expanding in Montana, Greg Bechle, Steve Hinchman, 12/31/90, p. 4.

versal and Triumphant spills fuel in Montana.
 Prairie dog hunt raises hackles, Jim LeFevre, 5/7/90, p. 5.
 In Wyoming, residents take the lead in recycling garbage, Donna Gilliland Shippen, 7/16/90, p. 4.
 Hells Canyon: Should it be a park? John McCarthy, 7/30/90, p. 8.
 The deepest gorge, Deborah Richie, 7/30/90, p. 9.
 Megadunes could create another Dust Bowl, Ann Rovin, 8/27/90, p. 4: Scientists warn that global warming could re-activate huge sand dunes.
 Utah wetlands revive after high waters, Chas S. Clifton, 9/10/90, p. 4.
 Arizona's mountain wetlands thrive on sewage effluent, Joan Baeza, 9/24/90, p. 6.
 Federal confusion obscures Mount Graham observatory, Lisa Jones, 9/24/90, p. 7.
 Biological corridors gain a foothold in Klamath forest, Jim Stiak, 11/5/90, p. 3.
 A Century to Reach the Other Side, poetry by and about Native Americans, 12/31/90, p. 8.

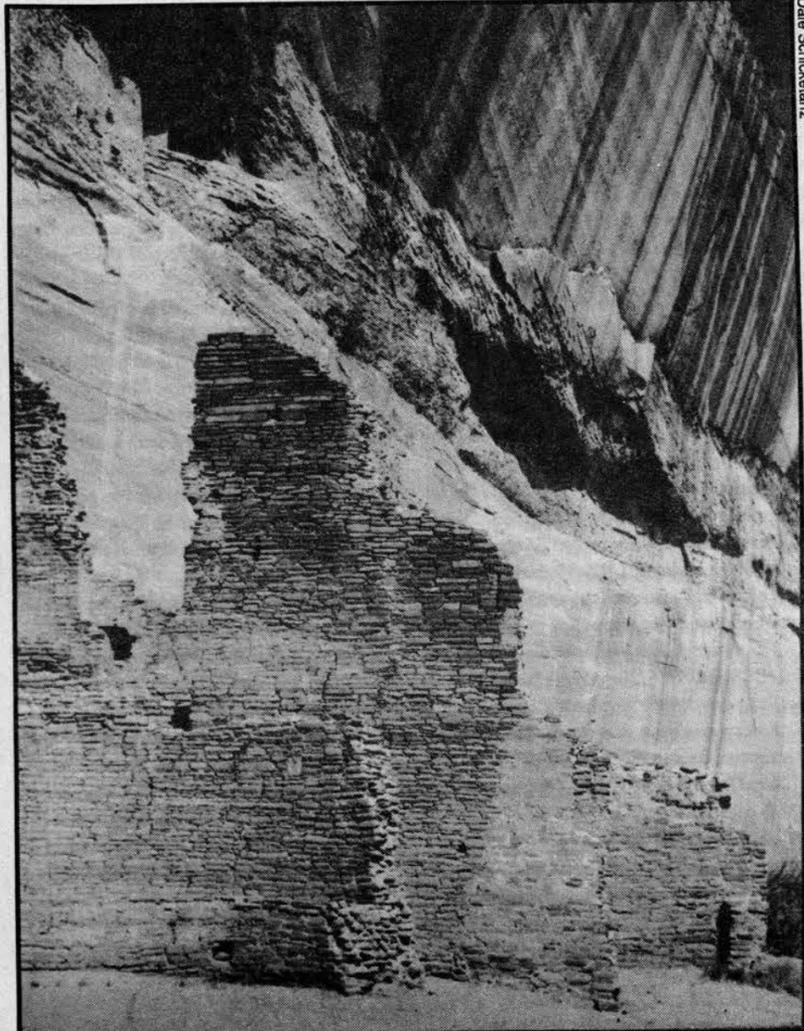
NATIONAL PARKS
 National parks face a very hazy future, Jim Robbins, 1/29/90, p. 4: Air pollution obscures views in national parks.
 Rocky Mountain National Park celebrates 75, Diane Sylvain, 2/26/90, p. 16.
 The West's time capsules, Florence Williams, 3/12/90, p. 6: Patches of original native grasslands are still preserved in Canyonlands National Park.
 Yellowstone in winter: Is there room for everyone? Todd Wilkinson, 3/26/90, p. 1.
 It may be all too easy to turn off Yellowstone's geysers, Todd Wilkinson, 7/2/90, p. 3.
 Is bigger better in Grand Teton Park?, Sue Trigg, 7/16/90, p. 14: Controversy surrounds airport expansion in Jackson Hole, Wyoming.
 Japan's Daishawa mum on dam removal in Olympic Park, Lawrence Mosher, 8/27/90, p. 5.

MISCELLANEOUS

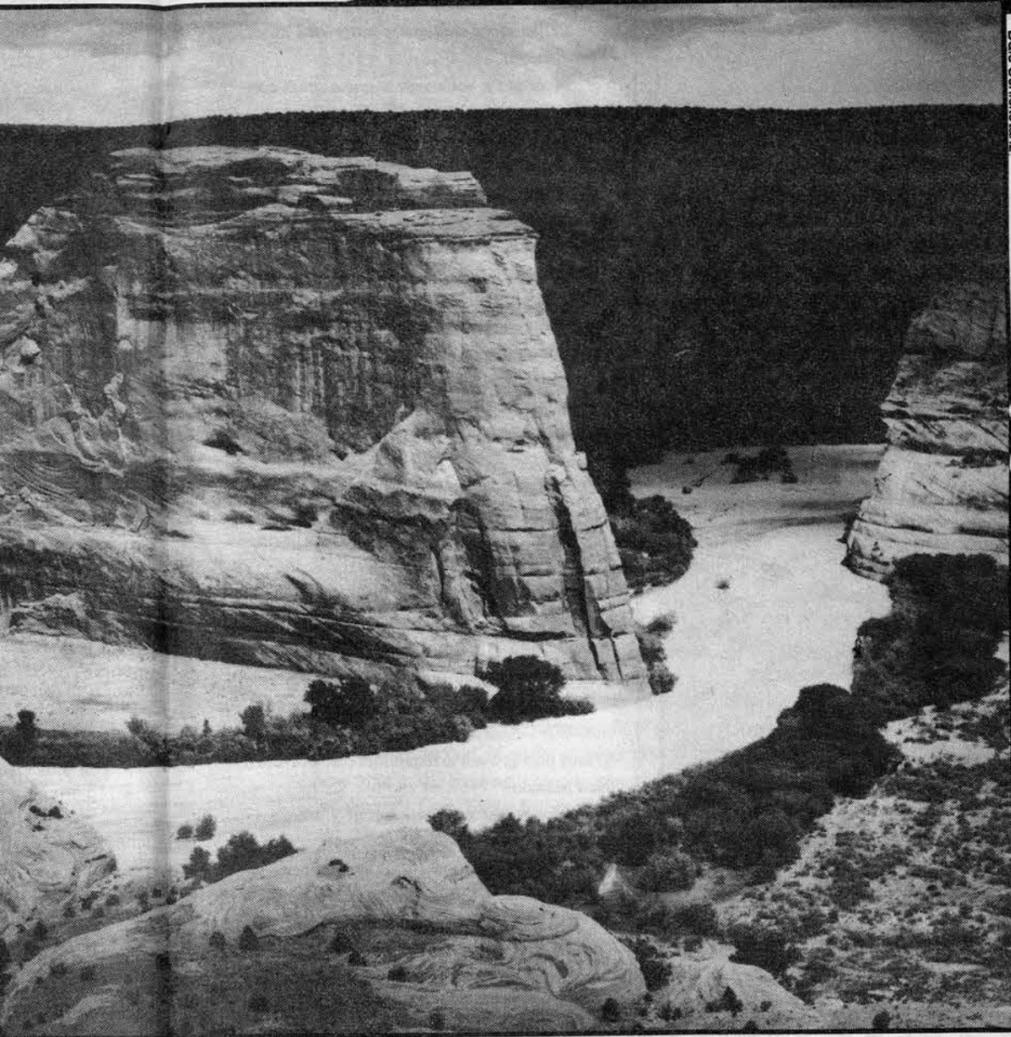
Is it an early spring or late-starting winter in the West? Rob Bleiberg, Brian Collins, Mara Rabin, 1/29/90, p. 3. Snow is sparse.
 This newsprint may harm your health, Jim Stiak, 2/12/90, p. 5: Dioxin used in paper mills is found in fish downstream.
 Winter's grip: How to survive the freeze, Bert Lindler, 3/26/90, p. 10.
 CUT spends money like there's no tomorrow, Pat Dawson, 4/9/90, p. 4: The Church Universal and Triumphant digs in for Armageddon in Montana.
 Forest Service trails sink into the mud, Mara Rabin, 4/9/90, p. 7.
 Idaho kids hook one at the Legislature, Pat Ford, 4/23/90, p. 3: A fourth-grade class gets the westslope cutthroat trout named Idaho's state fish.
 CUT's prophecy comes true, in a small way, Pat Dawson, 5/7/90, p. 3: The Church Uni-



Power
 Hinchman,
 recommend
 Paiute
 Hardeen, 4/
 Paiutes rece
 Indian
 McCool, 5/
 When
 rant, Frank
 Uranium
 Tony Davis
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 Tony Davis
 Tribe
 opposition,
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 7/30/90, p.
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 Hardeen, 9/
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 10/22/90, p
 Navaj
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 Is Pe
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 Some Hopi
 for the disa
 Utah
 the future,
 The l
 Shoshones
 12/31/90, p
OIL AND
 Energ
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 River Basin
 Leaki
 droughts
 7/16/90, p



Dale Schickelanz



Dale Schickelanz

Montana.
Ickes, Jim
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p. 6.
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p. 7.
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3.
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/90, p. 8.
future, Jim
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celebrates
Florence
of original
in Canyon-
e room for
p. 1.
off Yellow-
/90, p. 3.
Park?, Sue
rounds air-
oming.
a removal in
/90, p. 5.
ans deserve
/90, p. 4.
lex blend of
29/90, p. 6:
ans, Daniel
nt of Native
y rights and

Power to the tribes, panel says, Steve Hinchman, 2/26/90, p. 6: A U.S. Senate panel recommends dissolution of the BIA.

Paiute clan is close to tribal status, George Hardeen, 4/9/90, p. 7: The San Juan Southern Paiutes receive full federal recognition.

Indians defend tribes from attack, Daniel McCool, 5/21/90, p. 14.

When it comes to Indians, the West is ignorant, Frank Pommersheim, 5/21/90, p. 15.

Uranium has decimated Navajo miners, Tony Davis, 6/18/90, p. 1.

Experts knew miners were at great risk, Tony Davis, 6/18/90, p. 12.

Tribes stock river despite Wyoming's opposition, Ed Marston, 7/2/90, p. 3.

John Echohawk is leading a (legal) revolution, Bonnie Celine, 7/2/90, p. 14.

Revolution at Utah's grassroots: Navajos seek political power, Florence Williams, 7/30/90, p. 1: Native Americans run for office in San Juan County, Utah.

The need is great at the grassroots, Carol Sisco, 7/30/90, p. 10.

Mark Maryboy politicks with a two-by-four, Florence Williams, 7/30/90, p. 12.

Battle of the Big Wind River is over! Andrew Melnykovich, 8/27/90, p. 10.

Indians resist toxic incinerators, George Hardeen, 9/10/90, p. 10.

Hopis protest snake dance by Prescott businessmen, George Hardeen, 10/8/90, p. 3.

Navajo Nation: A 'weariness' haunts tribe's election politics, George Hardeen, 10/22/90, p. 10.

Navajos' unrepentant Peter MacDonald goes to jail, George Hardeen, 11/5/90, p. 4.

Is Peabody Coal's slurry sucking the Hopis dry? George Hardeen, 11/5/90, p. 6: Some Hopis blame Arizona's Black Mesa mine for the disappearance of their water.

Utah's Navajos build a political base for the future, Lisa Jones, 12/3/90, p. 7.

The land no one wanted: The western Shoshones look homeward, Jon Christensen, 12/31/90, p. 1.

OIL AND GAS

Energy companies zero in on Wyoming's methane, Devin Odell, 1/1/90, p. 6: Coalbed methane development is considered for Powder River Basin.

Leaking storage tanks cause gasoline droughts in small towns, Rob Bleiberg, 7/16/90, p. 3.

Exploding barbecues led to leaking gas tanks, Rob Bleiberg, 7/16/90, p. 3.

Town decides drill rigs and subdivisions are compatible, Ken Wright, 7/16/90, p. 4.

Forest Service 'mitigates' oil situation, Lisa Jones, 9/24/90, p. 3: In response to Mideast crisis, Forest Service considers loosening environmental protections that limit oil and gas drilling in national forests.

Can natural gas fuel a Rocky Mountain High? Lisa Jones, 10/8/90, p. 1: At least six proposed gas pipelines are racing to join reserves in the Rocky Mountain West with California.

Forest Service applies 'double standard', Angus M. Thuermer, Jr., 10/8/90, p. 1: Wyoming's pristine Brooks Lake faces threats from Exxon and Conoco.

Wyoming's pipeline race, Bill Lazarus, 10/8/90, p. 10.

Tax breaks and ecology clash in Wyoming's Red Desert, Katherine Collins, 11/5/90, p. 3: An oil company's effort to start a coal-bed methane project in fragile desert meets opposition.

Forest Service 'ignores' Blackfeet culture in Montana oil bid, Tracy Stone-Manning, 11/5/90, p. 5.

OIL SHALE

Mideast furor lights a tiny oil-shale fire in the West, Jon Klusmire, 9/10/90, p. 3.

OPINION

Will Nevada ever learn to just say no? 2/26/90, p. 12: Reno Gazette-Journal Editorial says Nevada must change its role as America's dumping ground.

You knew where James McClure stood, Rocky Barker, 1/29/90, p. 13: The Idaho senator announces his retirement.

The premise behind USA Today is proven false, Ed Marston, 2/12/90, p. 15: Wyoming's Casper Star-Tribune is an example to the West.

New Mexico is threatened by the possibility of peace, Jerilou Hammett, Kingley Hammett, 2/26/90, p. 12: New Mexico is too dependent on defense spending.

North Dakota: a Garrison junkie, Gary Pearson, 5/21/90, p. 13.

Barbaric mining practices can be civilized, Bruce Farling, 6/4/90, p. 26.

Our living desert is becoming a new Sahara, Bill Davis, 8/27/90, p. 12.

The selling of Adams County, Washington, Natasha Jernegan, 9/10/90, p. 11: Waste management industry woos the citizens of an eastern

Washington community.

Montana's wilderness imbroglio: Two views on how to end it, Ken Knudson and Bryan Erhart/Mike Bader, 9/24/90, p. 8.

Games (non-Native) journalists play, Kevin Lee Lopez, 10/8/90, p. 16: A Native American journalist, formerly an HCN intern, reflects on his experiences.

'Whose mountain is it, anyway?' Peter Shelton, 10/8/90, p. 16: Developing a ski resort is not a natural right.

On getting priorities straight in Washington, Lawrence Mosher, 10/22/90, p. 7: Iraqi intervention, the budget deficit and the destruction of the West are all connected.

Gold and grizzlies: a bad combination, Diana F. Tomback, 12/3/90, p. 11: A mining boom near Montana wilderness is setting the stage for a confrontation between the 1872 Mining Law and the Endangered Species Act.

How to remedy overgrazing, Karl Hess, 12/17/90, p. 12.

A peaceful woman explains why she carries a gun, Linda Hasselstrom, 12/31/90, p. 15.

PEOPLE

'Cause we needed it, Norm Sunderland, 1/1/90, p. 9: Reminiscences of a weekly newspaper publisher who grew up recycling.

Edward Abbey got the FBI interested in literature, Tom Knudson, 1/1/90, p. 7: Agency kept a dossier on Abbey.

One view of Joe Feller: He doesn't give up, Ray Wheeler, 3/12/90, p. 12: Attorney dogs the Bureau of Land Management.

Wanted: A spirit of cooperation, Pat Ford, 3/12/90, p. 23: Idahoan Ed Chaney thinks fish, wildlife and cattle can thrive together.

The gospel according to Pete Tatchl, Tom Wolf, 3/12/90, p. 25: Range conservationist leads drive to reverse desertification in Southwest.

Forbes: land destruction with a smile, Jim Carrier, 3/26/90, p. 12.

A 2400-mile 137-day trek blazes a Canada-to-Mexico trail, Philip Castle, 5/21/90, p. 4: Jim Mayberger does the footwork for a new national trail.

Yvon Chouinard: A mutinous captain of industry, Jim Robbins, 6/18/90, p. 15: The owner of Patagonia clothing approaches business in a unique way.

A blue-collar crusader, John McCarthy, 7/30/90, p. 9: Ric Bailey works to save Hells Canyon.

Ickes: Interior's noisy reformer, T.H. Watkins, 9/24/90, p. 14: Harold L. Ickes, Roosevelt's Secretary of the Interior, was a man of many facets.

'So long as I am Secretary...' T.H. Watkins, 10/8/90, p. 12: Part II of an essay on Harold L. Ickes' life and times.

They'd hoped to lead quiet lives, Jeff Marti, 6/4/90, p. 8: Mining turns Gary and Carolyn Brown into outspoken environmentalists.

Mules dance a backwoods ballet, Dean Miller, 12/3/90, p. 16: Veteran mule packer Cal Samsel continues to pack his teams into the roughest country for the U.S. Forest Service.

PHOTO FEATURES

Hidden Continent, Doug Rhinehart, 2/12/90, p. 8: Abandoned places: Poetry and pictures.

Modern-day Tom Horns, Steve Ryder, 3/12/90, p. 14: Stephen Collector's photos of brand inspectors, the modern-day stock detectives.

Alphabet Hills, Becky Rumsey and James Parsons, 7/16/90, p. 8: A geographer documents the giant letters on hillsides in the West.

Steamboat Springs' Winter Carnival, photos by Kevin Dougherty, 9/24/90, p. 16.

Quiet Light, photos by John Sexton, 10/8/90, p. 8.

The Stone House Lands, photos by J.D. Marston of Utah's San Rafael Swell, 10/22/90, p. 8.

Images from the Great West, photographs by Marc Gaede, 12/3/90, p. 8.

The closing of the American frontier: 100 years later, photographs by Courtney White document the tourists who roam the West today, 12/17/90, p. 9.

POLITICS

James McClure shakes up the Senate, and the West, 1/29/90, p. 1: Political ramifications of James McClure's retirement from Senate.

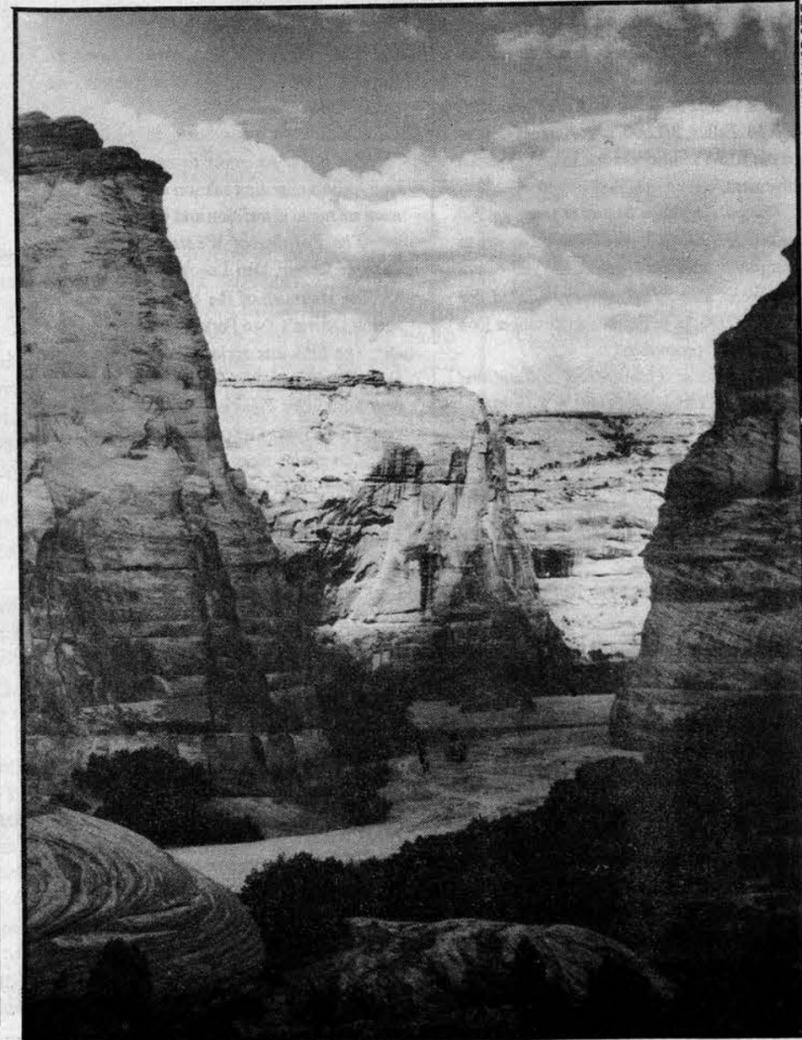
In Idaho, McClure will be a tough act to follow, 1/29/90, p. 12: Speculation on Idaho politics, post-McClure.

Wyoming Legislature votes to starve pollution programs, Will Robinson, 5/7/90, p. 4.

Air, water did poorly under McClure protegee, Pat Ford, 7/2/90, p. 4.

Yet another political hack at the BLM, Ed Marston, 7/2/90, p. 15: Cy Jamison disappoints

Continued on page 10



Dale Schickelanz

1990 INDEX ...

Continued from page 9

conservationists.

Smoking out Colorado's wilderness foes, Lawrence Mosher, 10/8/90, p. 6.

Will 1990 bring a greener West? Steve Hinchman, 10/22/90, p. 1: Environmental issues take on a new importance at the ballot box.

Closing Reclamation's loopholes, Dena Leibman, 10/22/90, p. 7.

Nevada: Politicos play with environmental rhetoric, Jon Christensen, 10/22/90, p. 10.

Washington: Ballot initiative would limit state's growth, Jeff Marti, 10/22/90, p. 11.

Utah: Mormon, male dominance at a crossroads, Lisa Jones, 10/22/90, p. 12.

New Mexico: GOP takes to smearing Democrats green, Tony Davis, 10/22/90, p. 12.

Montana: Wilderness issue clouds a hot Senate contest, Bert Lindler, 10/22/90, p. 13.

Oregon: Old-growth forests' fate dominates major races, Jim Stiak, 10/22/90, p. 13.

Idaho: Land-use issues draw national interest, Dean Miller, 10/22/90, p. 14.

Colorado: Senate race an easy call for environmentalists, Barry Noreen, 10/22/90, p. 14.

South Dakota: Garbage dumps and mining lead ballot, Peter Carrels, 10/22/90, p. 15.

Arizona: Industry landfill propositions a 'hoax'? Steve Hinchman, 10/22/90, p. 15.

Wyoming: Cowboy-hated polls offer voters little choice, Michael Milstein, 10/22/90, p. 16.

The ballot box serves up a thin environmental stew, Lawrence Mosher and Diane Grauer, 11/19/90, p. 3: The November election produced a mixed bag of environmental results.

Congressional roundup on the West, Diane Grauer, 12/3/90, p. 4.

A successor for New Mexico's 'water buffalo', Tony Davis, 12/17/90, p. 4: Eluid Martinez replaces legendary state water czar Steve Reynold.

'Son of Sagebrush Rebellion' is now playing in Montana, Jon Christensen, 12/3/90, p. 5.

California's Sen. Pete Wilson torpedoes a major water bill, Dena Leibman, 12/31/90, p. 7.

PUBLIC LANDS

Coal swap causes critics to see red ink, Devin Odell, 1/1/90, p. 3: Grand Teton National Park wants a conservation easement on a ranch that would prohibit owners from development.

Ranchers battle elk for grass in Arizona, Kate Guinness, 1/1/90, p. 6: Arizona ranchers investigated for shooting elk.

The Western wing of Kafka's castle, Joseph M. Feller, 3/12/90, p. 9: Attorney tries to force the BLM to obey the law involving public involvement.

The public range begins to green up, Ed Marston, 5/7/90, p. 1: A movement arises to reform public land management.

Ranchers' hold on agency revealed, Ed Marston, 5/7/90, p. 6: Forest Service ranger Don Oman refuses "promotion."

Two views of a forest: 'beat to death' and 'improving', Ed Marston, 5/7/90, p. 9.

Ex-BLMer says industry prevents resource management, Richard Kroger, 5/7/90, p. 11.

BLM is ripped at meeting on grazing, Warren Cornwall, 6/18/90, p. 7.

BLM is accused of punishing a critic, Bryan Welch, 6/18/90, p. 7.

Sagebrush Rebels try to call the shots in Nevada, Jon Christensen, 7/2/90, p. 1.

Rhoads stonewalls the BLM, Florence Williams, 7/2/90, p. 1: Nevada rancher and politician Dean Rhoads defies the BLM.

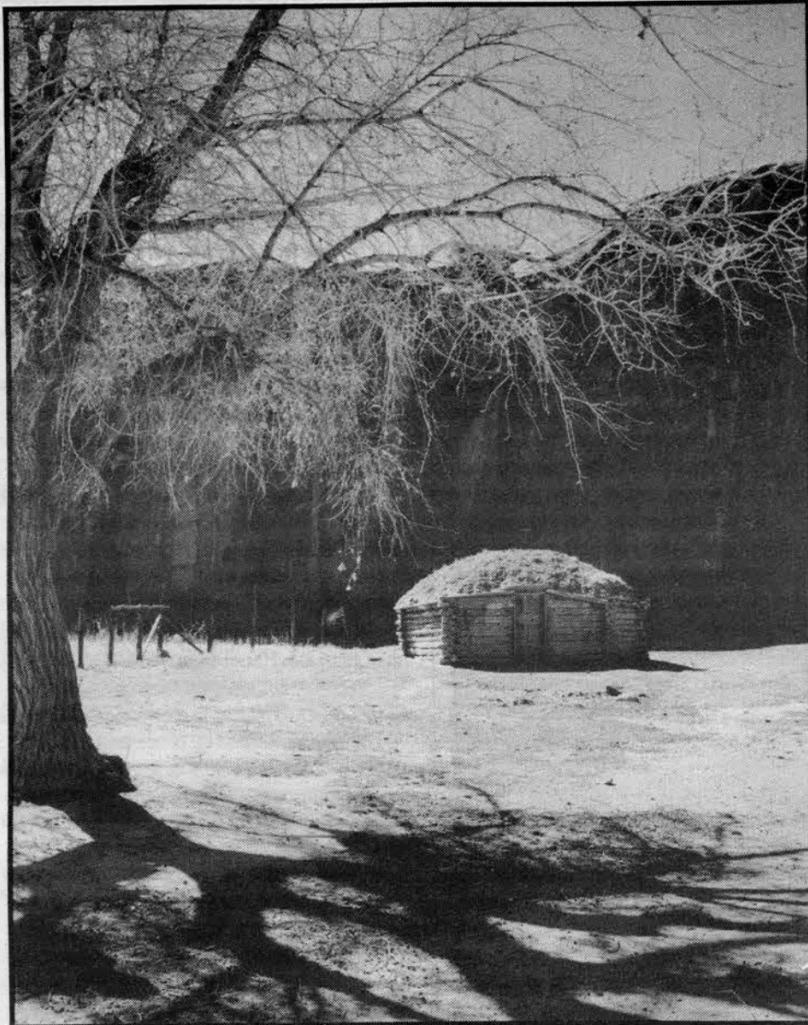
A BLM firing is turning into a federal case, Michael Milstein, 7/2/90, p. 9.

Grass-roots rustling, Doug McMillan, 7/2/90, p. 11: Ranchers and BLMers clash over trespassing cattle.

The Don Oman story has a twin in the Idaho Sawtooth, Pat Ford, 9/10/90, p. 7.

House bid to raise grazing fees dies in conference swap, Lisa Jones, 11/5/90, p. 5.

BLM's wild horse management: biased and out-of-date, Diane Grauer, 12/3/90, p. 5.



RECREATION

Utah takes aim at the Olympics and at Colorado ski areas, Devin Odell, 2/12/90, p. 6: Utah resort owners see gold for the state from the 1998 Olympics.

Ski area proposal in Utah runs into heavy sledding, Mara Rabin, 2/12/90, p. 6: Snowbasin owner wants to exchange land with the Forest Service so he can expand development.

West's ailing ski industry turns to all-season mega-resorts, Florence Williams, 9/24/90, p. 1.

Ski resorts face uphill climb, Florence Williams, 9/24/90, p. 10.

Big is not better in the Methow Valley, Lisa McKhann, 9/24/90, p. 11: Developers, environmentalists square off over ski resort in Washington.

WATER

Cities take water from distant farms, Pat Dawson, 2/26/90, p. 4: Denver suburbs buy distant irrigation water.

Gridlock at Busterback, Steve Bagwell, 3/12/90, p. 22: Attempts to resolve conflicts over Idaho's migrating salmon and a cattle operation are mired in tradition and animosity.

The Politics of Western water have changed forever, Dan Luecke, 2/26/90, p. 14-15: The aftermath of the EPA's veto process against Denver's Two Forks Dam.

The EPA was right: Kill the Two Forks Dam, Gerald Ford, 2/26/90, p. 14: Former President Ford urges President Bush to uphold the veto of Two Forks Dam.

Can cutting trees squeeze more water out of Arizona? Brian Collins, 3/26/90, p. 4.

Rare fish could dam water project, Steve Hinchman, 4/9/90, p. 6: Two fish species spell trouble for southwestern Colorado's Animas-Las Platas water project.

Water politics takes chinook to brink, Steve Stuebner, 4/23/90, p. 3: The chinook salmon may be on the verge of extinction.

Critics say agency flushes away Grand Canyon beaches, Mark Shaffer, 5/7/90, p. 5.

Will Las Vegas drain rural Nevada? Jon Christensen, 5/21/90, p. 1.

Is the Garrison project down for the court? Peter Carrels, 5/21/90, p. 3: North Dakota's Garrison water project runs into trouble again.

Endangered fish halt a Colorado dam, Steve Hinchman, 5/21/90, p. 7: U.S. Fish and Wildlife Service decides against Animas-Las Platas water project.

Three droughty states challenge Army

Corps of Engineers in court, Patrick Dawson, 5/21/90, p. 7.

Wild salmon in Columbia basin said to be in great peril, Pat Ford, 6/18/90, p. 4.

Supreme Court quashes state instream flow initiative, Peter Kirsch, 6/18/90, p. 7.

LA may slake its thirst with Idaho water, Steve Stuebner, 7/30/90, p. 3.

Idaho legal team hopes to block LA, Dean Miller, 7/30/90, p. 3.

Waterless in Wind River? Geoffrey O'Gara, 8/27/90, p. 1: Wyoming farmers and ranchers are caught in a water war between the state and the Arapaho and Shoshone tribes.

Irrigation water revives a wildlife refuge in Nevada, Steve Hinchman, 8/27/90, p. 6.

Idaho avoids the courts, Pat Ford, 8/27/90, p. 11: Shoshone-Bannock tribes settle with the state on Snake River water rights.

West faces a time bomb, Steve Hinchman, 8/27/90, p. 11: Indian water rights will be among the major natural-resource and civil rights questions facing the West.

Forest Service sues in Colorado to keep its water, Brian Collins, 9/10/90, p. 5.

Groping toward a consensus to save the Columbia's salmon, Rocky Barker, 10/8/90, p. 4.

In Butte, some of the best water goes to process ore, George Everett, 10/8/90, p. 4.

Kansas sues over dried-up Arkansas River, Barry Noreen, 10/22/90, p. 3.

AWDI now admits San Luis water damage, Gary Sprung, 10/22/90, p. 3: American Water Development, Inc. admits that its plan to pump water may harm Colorado's San Luis Valley.

Nevada's rural counties debate how to keep their water, Bill Goodykoontz, 12/3/90, p. 5.

Animas-La Plata: still flawed, Lisa Jones, 12/17/90, p. 1: Ute Indians, environmentalists, water lawyers and Anglo farmers continue to wrangle over a massive, boondoggle water project in southwestern Colorado.

WILDERNESS

Outfitters in Idaho are getting special attention, R.A. Cordes, 2/26/90, p. 13: Essayist raps outfitters in Idaho's Frank Church River of No Return Wilderness for getting special treatment.

Public land users denounce wilderness, Betsy Marston, 5/7/90, p. 15: Third annual National Wilderness Conference brings out anti-wilderness advocates.

Union and Montana environmentalists reach agreement on what should be wilderness, Dick Manning, 7/2/90, p. 8.

Colorado's wilderness water still moot, Barry Noreen, 10/24/90, p. 5.

Montana's wilderness wrangle splits conservationists, Bert Lindler, 9/24/90, p. 7.

WILDLIFE

Dig shows wolves in Yellowstone area, Todd Wilkinson, 1/1/90, p. 5: New paleontological evidence reveals that wolves lived in Yellowstone 960 years ago.

Coyote stops begging and starts biting, Todd Wilkinson, 1/29/90, p. 6: Coyote attacks skier in Yellowstone Park.

Sheepmen told: The wolf is at the door, Patrick Dawson, 2/12/90, p. 4.

Arizona also has a spotted owl fight, Peter Galvin, 3/26/90, p. 3.

Biologists use tranquilizers to collar bears, Fran Craigle, 3/26/90, p. 6.

Arizona ranchers are ripping off wildlife, Dan Dagget, 3/26/90, p. 16.

Wyoming says no to Noah's Ark ranch, Nancy Fitzsimmons, 4/9/90, p. 3: John Dorrance III runs into trouble trying to start a game ranch with both wild and exotic animals.

Wolf advocates hope to force reintroduction, Bill Donahue, 4/9/90, p. 6: Environmental groups plan lawsuit to return Mexican wolves to New Mexico.

Blood and emotions run at a Montana bison shoot, Greg Bechle, 4/9/90, p. 16.

Wolves need human allies to make restoration successful, David E. Brown, 4/23/90, p. 6.

Spotted owl report hit from all sides, Jim Stiak, 5/7/90, p. 4.

Eagle numbers crash in a New Mexico canyon, Bryan Welch, 5/21/90, p. 5.

Spotted owl issue divides the Northwest, Jim Stiak, 6/4/90, p. 3.

Wolves make a comeback in Montana, Bert Lindler, 7/16/90, p. 1.

Bush team quick-kicks the spotted owl issue to Congress, Jim Stiak, 7/16/90, p. 5.

Wolves are 'just another animal', Bert Lindler, 7/16/90, p. 12.

Radio waves and scent help wolfer track packs, Bert Lindler, 7/16/90, p. 11.

Two views of the wolf in Montana, Bert Lindler, 7/16/90, p. 12: Hunter Jack Atcheson and Earth Firster John Lilburn disagree about wolf reintroduction.

Wolves were once as common as the buffalo, Bert Lindler, 7/16/90, p. 13.

Wolf restoration needs passion, Andrew Melnykovich, 7/16/90, p. 13.

No agreement yet, Ken Wright, 7/16/90, p. 13: Wolf restoration in Yellowstone meets opposition.

Agencies team up to save Utah wildlife oasis, Florence Williams, 8/27/90, p. 4.

Wolf dens reappear in Washington, Greg Mills, 9/10/90, p. 6.

Plans vary on controlling infected bison, Ken Wright, 9/24/90, p. 5.

Montana trims its bison killing fields, Patrick Dawson, 10/8/90, p. 5.

Goats test notions of 'native' and 'exotic' species, Todd Wilkinson, 10/22/90, p. 5.

The game is changing in the wild West, Tom Arrandale, 11/5/90, p. 1: State game and fish departments begin to switch focus from hunting and fishing to preserving biological diversity.

'Worth the Watching' in Wyoming, Candace Crane, 11/5/90, p. 12: A native Californian is astounded by the wildlife to be seen in Wyoming.

A dead end for the grizzly? Rocky Barker and Kevin Richert, 12/3/90, p. 1.

Why the saving of six orphan wolf pups matters, Lilly Tuholske, 12/3/90, p. 6.

The boreal owl does not threaten timber jobs, but..., Julie Titone, 12/17/90, p. 5: Biologists have begun to monitor this tiny owl to see what conditions it needs to survive.

The delicate job of transplanting the trumpeter swan, Kevin Richert, 12/31/90, p. 5.

Montana bison hunt presages a range war, Todd Wilkinson, 12/31/90, p. 6.

Drought afflicts bison in Henry Mountains, Vicky Osborn, 12/31/90, p. 7: One-third of Utah's bison herd won't make it through the winter.

Indians pursue their Big Wind River rights

Along Wyoming's Big Wind River, non-Indian farmers and the Shoshone and Arapaho tribes are still battling over the river's waters as a new irrigation season approaches. But a pending state court decision and a heavier snowpack on the Wind River Range may help to allay one of the West's most dramatic water confrontations.

Last July the tribes sued the state of Wyoming, asking the state's fifth district court to require Wyoming State Engineer Jeff Fassett to regulate the Big Wind River so the tribes could exercise their newly-acquired water rights granted by the U.S. Supreme Court in 1989 (*HCN*, 8/27/90). The High Court affirmed a 1988 decision by the Wyoming Supreme Court, which awarded the tribes 500,717 acre-feet of water a year, slightly more than half the river's normal flow.

The tribes sought to use their new water rights to maintain an instream flow of 252 feet per second in order to plant rainbow trout in the river as a tourist attraction. Wyoming's Gov. Mike Sullivan and Fassett, however, refused to honor the tribes' instream demand, even after the Interior Department backed the tribes.

Last October the court-appointed special master, Terrance Dolan, sided with the tribes after holding four days of

hearings. Dolan said the tribes could use their court-awarded water rights as they saw fit. He said they could dedicate their water rights to instream flow (rather than to irrigation), and that the state engineer should protect such tribal uses by reducing diversions by junior water appropriators as necessary. But Dolan did not recommend that Fassett be held in contempt of court, as the tribes asked.

District Court Judge Gary Hartman heard additional arguments in Worland last month. He is expected to rule on the lawsuit early this year.

Last November the Wyoming Supreme Court eased the impact of the tribes' water victory on Crowheart, a farming and ranching region 50 miles west of Riverton. Non-Indian and Indian neighbors who had traditionally shared water shortages and surpluses on a Bureau of Indian Affairs water system suddenly became enemies because of the U.S. Supreme Court decision. The BIA gave Indian irrigators first water rights, which caused non-Indian farmers to sustain crop damage from lack of water last year.

In overturning a lower court decision, the Wyoming Supreme Court made non-Indian irrigators equal with the tribes in water rights if they had purchased their land from the Shoshone and Arapaho tribes.

"It will guarantee us water," said Crowheart rancher Ralph Urbigheit. "Our problems are solved."

The application and quantification process could take years, however, and some Crowheart irrigators may not have the financial resources to last that long. Also, the ruling appears to affect only non-Indian irrigators who acquired private or BIA-administered lands south of the Wind River. Midvale, Riverton Valley and LeClair, the three big districts north of the river, appear unaffected by the decision.

The extent to which these irrigators have been harmed by the tribes' new water rights remains at issue. Last September, however, directors of the Midvale Irrigation District said "nothing the tribes have done has hurt any Midvale water users, and we don't expect it to cause any damage in the future."

And that situation is one of the reasons why the tribes are suing the state. The tribes charge that these lower basin non-Indian irrigators took 114,000 acre feet of tribal water last year without even paying the tribes their fee of \$10 an acre foot.

— Dave Perry and Lawrence Mosher

Dave Perry is the editor of the Riverton, Wyoming, *Ranger*.

HOTLINE

Thefts unsettle the Zuni

Three sacred Zuni war gods, described by the tribe as "powerful religious beings who cause destruction and conflict if not at their shrine," were discovered stolen in December from the Zuni Reservation in New Mexico. The tribe has issued a nationwide alert to museums and art dealers and has obtained the FBI's assistance in efforts to recover the missing deities. Over the past two decades, the Zuni have successfully retrieved several long-missing sacred objects from museums and collectors and returned them to their shrines. Zuni head councilman Joe Dishta says that although repeated thefts have occurred throughout the century, "it is not the practice to cover or close [the shrines]." The open shrines, placed in secret and remote locations, are not guarded or regularly checked. Potential thieves can easily enter the reservation on state roads despite security provided by the state Game and Fish Department. Dishta explained that the missing war gods are considered guardians of the tribe. "Their disappearance affects the spiritual well-being of the community," he said. "The return of the war gods would set the minds of the people at ease."

CUT land development

A district judge has denied the state of Montana the power to bar all development on Church Universal and Triumphant property while an environmental study is conducted. The state Department of Health and Environmental Sciences had requested the injunction while completing its Environmental Impact Statement on proposed developments by the church. The updated EIS was necessitated by a fuel spill on church land north of Yellowstone National Park (*HCN*, 5/7/90). A state health official said that negotiations between the two groups are continuing, and the church is cooperating with the department in the fuel cleanup. The judge indicated that the Montana Environmental Policy Act gave the Health Department authority to prohibit specific developments by withholding necessary licenses and permits.

Co-op organizer gets grant

The head of a northern New Mexico rural cooperative has received a \$305,000 no-strings-attached grant from the Chicago-based MacArthur Foundation. Maria Varela was one of 36 individuals to receive a grant from the foundation last year. The program uses 100 anonymous people nationwide to nominate possible recipients whose work has been a benefit to society and exemplifies creative problem-solving. Ganados del Valle, the cooperative that Varela helped organize, is still attempting to persuade the New Mexico Game Commission to allow mixed grazing on state wildlife areas. The Tierra Amarilla group is convinced that limited use by their churro sheep is compatible with preservation of wildlife habitat (*HCN*, 11/6/89 and 9/10/90). The co-op expanded its business operations last summer, becoming the first certified organic lamb grower in New Mexico and initiating an outreach program to assist other rural communities. Varela said that much of the money, to be paid over five years, will go toward her daughter's education. "I chose to be an organizer," she said. "I never expected any financial reward, though it has always been rewarding in many other ways."

The sudden demise of the whitebark pine

In the upper reaches of North America's alpine terrain, the whitebark pine has lived for centuries, with many trees surviving for as long as 800 years. But today the species is on a serious decline, and some scientists believe the trees are waving a red flag at us.

"These trees have survived for centuries and all of a sudden they are dying out," said Cliff Martinka, Glacier National Park's chief scientist. Their decimation in Glacier has been both radical and recent.

Large stands of these ancient trees, once the dominant species on the park's alpine treeline, are now gray and lifeless. "We never paid much attention to them until they disappeared," said Glacier Park biologist Katherine Kendall. "And since they are not a forested timber, no one ever bothered to survey how many there were."

Estimates are that over 90 percent of the park's whitebark pine has died off. Scientists point to fire-suppression efforts that gave lower-elevation species a toehold.

"Fire suppression has favored shade-tolerant cone trees," Kendall said. "It is also to blame for apparently increasing the damaging effects of the mountain pine beetle and dwarf mistletoes and encouraging pine beetle epidemics."

The whitebark pine's survival is being looked at closely in relation to the effects of global warming, according to Wymann Schmidt, research unit leader for the U.S. Forest Service in Bozeman, Mont. "[The tree] is in a very tenuous position, since it lives at the upper elevations of mountains," he explained. "Warming could see it pushed right off the top by the species below." The alpine fir, which thrives just below the whitebark, would be its biggest threat if the climate indeed is warming, Schmidt said. "If global warming is actually having an effect on it, we would expect the tree to move northward and upward."

Although many types of vegetation could gradually move north with a warming climate, Martinka said he doubts the whitebark pine could march



U.S. Forest Service Photo

Whitebark pine

fast enough to keep up with the changes. "It occupies islands of high-altitude habitat," he explained. "It can't just march down one area to another."

The tree is unique to the United States and parts of Canada, occupying the Rocky Mountain region to the Cascades and Northern Sierras. According to Schmidt, the threatened existence of the whitebark pine has been recognized only in the last decade, which helps explain why little research has been done so far.

"They are hardy trees," Schmidt added, "but they must be 100 years old before producing significant seed cone crops. So a big problem with bringing back the population is that they do not easily regenerate."

Efforts at regenerating the species began with the recent planting of two small groves outside Yellowstone National Park and on the Rocky Mountain front. Another approach to regeneration entails grafting branches of the whitebark pine onto ponderosa pine trees.

"The whitebark pine issue is important to overall management of national

parks and forests because we are a kind of refuge for vegetation," asserted Martinka. "It's one of the most fascinating issues to come along, causing us to improve on some things we have not done too well up until now," he said. "I view it as one of those unique issues that will force interest groups to work together for the benefit of all."

— Patti Maguire Armstrong

Patti Maguire Armstrong is a social worker and free-lance writer in Bismarck, North Dakota.

BARBS

Pick on somebody your own size.

A Northwest logging group, the Oregon Lands Coalition, has accused Mattel Toys of using its Barbie doll to expose children to the "radical agenda" of environmentalists. Mattel used a Barbie commercial to invite children to send in their ideas for making the world a better place. One possibility Barbie suggested was to "keep the trees from falling, keep the eagles soaring."

Coyote slaughter ...

(Continued from page 1)

wildlife biologists" using "state-of-the-art technology," Assistant Secretary of Agriculture Jo Ann R. Smith wrote, not mentioning that most ADC work is done by shooting, snaring and trapping with weapons that have been used for centuries. "Non-lethal methods are used whenever possible," Smith insisted.

Wildlife held little value in the face of human expansion when states and territories first started offering bounties on mountain lions, wolves, bears and others during the 1800s. (Coyotes, called "prairie wolves" by Lewis and Clark, were then considered part of the wolf family.) In 1886, the Division of Economic Ornithology and Mammalogy was formed in the U.S. Department of Agriculture to find ways to control bothersome predators and birds. This became the Bureau of Biological Survey in 1905, and in 1915 Congress first appropriated \$125,000 to control wolves and coyotes in the West.

Government agents teamed up with agricultural boosters to lay bait carcasses laced with broken glass and poisons like strychnine across the range. Trappers dynamited wolf dens. Within two decades the continent's two preeminent predators, wolves and grizzly bears, became virtually extinct in the lower 48 states. Between 1915 and 1947, the government killed 1,884,897 coyotes, but this wary and adaptable predator — the wild version of man's best friend — still survived.

Only in the 1940s did some biologists begin to recognize predators for their vitalizing effect on ecosystems. They keep rodent numbers in check, as some California ranchers learned after they poisoned off coyotes and found legions of kangaroo rats eating away their range land. Coyotes keep wildlife healthy by culling weaker members from big game herds, as naturalist Adolph Murie realized in his landmark Yellowstone National Park study. Murie's characterization of the coyote as "a desirable member of the assembly of animals" brought an end to longtime predator elimination in the park. "Largely due to [the coyote] and other predators," wrote chief National Park Service biologist Victor Cahalane in 1947, "the deer, the antelope and other hoofed mammals have evolved into swift, graceful, efficient animals."

As early as 1930 the American Society of Mammalogists criticized federal predator-control efforts as misdirected and unnecessary. But in 1931 Congress passed the Animal Damage Control Act, the origin of today's ADC program. Even as Western sheep production began to fall in the 1940s and has continued to decline, predator control quickly became an integral part of Western land management. ADC even opened the Pocatello Supply Depot in Idaho to manufacture anti-predator poisons and traps.

In 1963, amid growing environmental awareness, Interior Secretary Stewart Udall appointed a committee to evaluate the program. (ADC had been transferred in 1939 to the Interior Department under the U.S. Fish and Wildlife Service.) In what became known as the Leopold Report, named for biologist and committee chairman A. Starker Leopold, the group criticized ADC killing as indiscriminate and excessive. Another oversight committee in 1971 came to the same conclusions, which led President Richard Nixon to ban the use of all poi-



Dick Randall

A wire with three hooks attached is used to extricate coyote pups from their den in a process called "denning"

sons on public lands. A third committee in 1978 said the ADC program was unjustified.

"Coyotes in North America have been hunted, exploited and killed since European times," says renowned predator researcher Maurice Hornocker, who served on the 1971 committee. "It's all been a waste of money and animals. In many cases, the best control is no control at all. They will limit their own numbers if you leave them alone."

But despite such advice, the Reagan administration gave ADC more latitude. Poisons were reinstated by executive order in 1981, and Interior Secretary James Watt reinstated the practice of denning —

ed," reasons Stan Flitner, vice president of the Wyoming Stockgrowers Association. "We're better off if we have a little bit of help than if we try to do our own thing. That could kill a lot more."

But government figures show that ADC programs, exempted from game laws in most Western states, already kill far more coyotes than the sheep or other livestock killed by predators. In Montana, for instance, the 1989 ADC budget was \$1.25 million, about enough to buy every household in Bozeman a new color television. That is more than five times the \$235,567 value of 3,066 lambs, calves or other lost livestock (as well as trees damaged by beavers) reported to

reported losses than are actually caused by predators," said biologist James R. Tigner, who headed the study.

It is to the advantage of sheep owners, already heavily subsidized by low public land grazing fees and federal wool price supports, to report as many predator-caused losses as possible, because this assures them attention from ADC. Likewise, it is to ADC's advantage to tally high livestock damage and coyote kills. Proceeds from the sale of coyote pelts are turned over to the agency, and the kills justify the agency's existence.

ADC literature, for example, claims that sheep and goat owners suffer \$60 million in predator damage each year. But that's far in excess of what agency records show. A General Accounting Office review put nationwide sheep damage at only \$18 million. U.S. goat production is low and not even listed in national ADC reports.

"We're not interested in killing," insists ADC Assistant Regional Director Tom Nichols. He explained that average sheep producers expect a yearly loss of five percent of their flock to predators, but that this could grow to 20 percent without active predator control. Several studies have shown, however, that predators kill on average just one to two percent of a properly tended flock.

Savvy ADC managers consistently speak of emphasizing non-lethal methods, and say that when they have to kill they aim only at problem coyotes in areas of repeated livestock loss. An ADC "Fact Sheet" distributed to members of Congress last fall said putting predator control "in the hands of professional wildlife biologists means that responses to damage will be economically efficient and biologically sound." The fact sheet showed a coyote with a dead chicken in its jaws and described "removing specific animals" according to "strict guidelines of safety, selectivity and effectiveness."

But reality presents a different picture. While some high-level managers are trained biologists, few field trappers are. All that is required for such a job is a high school education and

"In many cases, the best control is no control at all. Coyotes will limit their own numbers if you leave them alone."

— predator researcher Maurice Hornocker

gassing coyote pups in their dens or digging them out and shooting them. In 1986, Congress transferred ADC back to the Agriculture Department, more closely linked than Interior to livestock interests, and the agency's budgets began rising steadily — from \$19 million in 1986 to \$29.4 million this year.

Many ranchers — they contribute about a third of the money available for predator control through levies on their livestock — say that ADC work is essential to their survival. While conservationists argue that predators have an equal right to exist on public land, agriculture interests contend that the government has a responsibility to protect their profitability.

If no government control were available, stockgrowers say, they might be forced to kill predators with crude, now illegal poisons. Wildlife agents today occasionally find dead coyotes, eagles and other animals around illegal baits tainted by toxic Prestone antifreeze or Warbex, a livestock dewormer. "If you're going to take away some of our tools, maybe there is some subsidy need-

ADC agents. Records show the Montana program spent an average of \$215.20 each to kill 5,830 animals — coyotes, foxes, bears and others — shot, trapped or poisoned by its agents.

ADC officials contend that their reports of livestock losses are incomplete, since some animals are dragged off by predators and ranchers fail to report some losses. The Agriculture Department estimated a 1989 dollar loss of livestock to predators at \$2.07 million, which was based on a mail-in survey of Wyoming ranchers last spring. Of that, some \$1.5 million was attributed to coyotes.

But a U.S. Fish and Wildlife Service study of sheep losses at five southern Wyoming ranches from 1973 to 1975 showed that predators were regularly blamed for killing sheep that had died of starvation or exposure, or had simply gotten lost because of poor herding practices. This means losses blamed on predators could be more than double their true amount, which then casts doubt on all government damage estimates. "There's no doubt that there are more

"an interest in the livestock industry or wildlife," says ADC Associate Deputy Administrator Gary Larson. While ADC regulations require trappers to verify livestock losses before going after predators, the trappers often do not. More than half of the losses Wyoming ADC trappers responded to in 1989 were unconfirmed reports from stockgrowers, according to agency records.

The more popular coyote and fox control methods used by ADC are shooting, denning, snaring and trapping with leghold traps. Spring-loaded M-44 devices, which inject sodium cyanide into the mouths of coyotes that pull on scented baits, are used frequently. There is growing use of a sheep collar containing Compound 1080, a poison so toxic that one pound can kill a million pounds of animal life. The collar releases the toxin when punctured by a coyote's teeth. But most coyotes — 3,399 of the 7,474 killed in Wyoming in 1989 — are shot from airplanes or helicopters, where little distinction can be made between those animals that disturb livestock and those that do not.

"When you're up in the air, there is no way to tell one coyote from another. You fly wherever you want to and shoot anything that moves," says former ADC trapper Dick Randall, who set a record in 1971 in Wyoming by shooting 46 coyotes in six hours. "The body count is what matters."

Killing is ADC's preferred first line of defense against predators, although many other non-lethal methods — from guard dogs to portable electric fences — have proven useful. ADC literature says such methods are employed first before more deadly ways. But a review by the General Accounting Office, Congress's investigative arm, found last year that "although the ADC policy manual states that non-lethal methods will be given first consideration when practical... little evidence exists of state ADC program personnel employing such methods... Killing offending animals was used predominantly to control predation." Although Utah ADC officials told investigators they conducted aerial gunning only on Forest Service lands where there had been recent predation problems, the GAO review found that there had been no sheep killed in 60 percent of the grazing allotments where gunning took place.

The GAO found in Texas and New Mexico that ADC actually carries out the "campaigns for destruction" referred to in its authorizing legislation by trying "to kill all coyotes in and around some local livestock producing areas." This is not unusual in other states, either. "We've cleared out areas now," Wyoming ADC trapper Ken Deromedi said early last year, "but next spring we'll have to go in and do it again once more coyotes move in there." In Arizona, where blatant predator control has sparked a public outcry, state wildlife officials are concerned that a significant decline in one county's black bear population is the result of ADC killings. State game wardens there often have had to shoot bears that became badly dehydrated after being left for several days in unchecked ADC traps.

Acting Assistant Secretary of Agriculture John E. Frydenlund says that killing is the most "immediate and cost-effective" way to halt predation, and that non-lethal methods are best implemented by livestock owners themselves. But only 15 percent of the agency's multi-million-dollar research budget is used to examine non-lethal control possibilities; most of the rest goes to maintain the registrations for anti-predator and rodent poisons. A National Animal Damage Control Advisory Committee, dominated

by ranchers and representatives of the agriculture industry, voted last year to avoid the term "non-lethal" in letters to the Secretary of Agriculture.

The ADC, backed by a powerful agricultural lobby and shrouded from public view, operates virtually unchecked. Only one Environmental Protection Agency official examines ADC records on the use of poisons in Wyoming, and then only once a year. In 1988, a BLM biologist's recommendation against the use of the cyanide M-44s was first approved by local superiors, and then rescinded after ADC managers appealed to state-level BLM officials. In another BLM district, ADC agents refused to reveal where they were placing M-44s until BLM managers finally threatened to ban all control activities.

"No one really knows what's going on," said Janet Johnson, a former assistant district ranger at Montana's Beaverhead National Forest, where ADC agents killed six black bears without telling forest biologists until months later. "It's best for them not to be well-publicized because of what they're doing."

Nobody suggests that wild coyotes could be wiped out by predator control, and many more coyotes are killed by sport hunting and trapping than ADC actions. But many biologists now suggest that ADC programs have backfired biologically. Growing research indicates that ADC's body-count philosophy has turned the scrappy coyote, still a romantic figure of the American West, into nothing less than a "superpredator," a more wary, wily and crafty animal than existed before. And by throwing coyote populations into disarray, trappers may cause more predation than would otherwise occur.

Over many decades of confronting poisoned sheep carcasses, smart coyotes have learned to kill and eat only fresh meat, often sheep. Ironically, that practice has eliminated the genes of those coyotes that primarily scavenged for food and were the least likely to attack sheep. Control agents acknowledge that many coyotes hide when they hear airplanes flying overhead, and that trapping has taught them to avoid traps.

"Think about what you're doing," says biologist John Grandy, vice president of the Humane Society of the United States and a member of the National ADC Advisory Committee. "You're helping coyotes evolve into a better predator, to evade whatever control method you're using and make it more expensive to kill them. If you set out to make coyotes resistant to control, this is how you'd do it."

Coyotes, more than most other wildlife, mold themselves to their environment. Those populations subject to large-scale killing breed at a younger age and produce more pups to take up the slack for those shot. Biologist Crabtree is one of the few people to study unexploited coyote populations. He led one such research project on the protected Hanford Nuclear Reservation in Washington and heads another now in Yellowstone National Park.

Both studies show that coyotes with stable populations produce small litters of roughly three pups each, of which an average of 1.6 survive. In areas subject to predator control, however, litters of eight pups are common, while dens with nine or even 10 pups are not unusual — all to replace brethren killed by ADC trappers. Those in exploited areas also begin breeding at less than a year old and continue for several years, while most Yellowstone coyotes do not breed until they are two to four years old and stop reproducing after about three litters.

A U.S. Fish and Wildlife Service



Dick Randall

One ADC-killed coyote's stomach held 19 mice and a kangaroo rat

study conducted in southern Wyoming in 1980 and 1981 proved that coyotes kill the most sheep in the spring when they hunt to feed their newborn pups. When researchers removed pups from dens but left the adults, predation on sheep dropped by more than 90 percent. Crabtree reasons that by killing coyotes, anti-predator officials increase the production of pups and create more predation exactly where they are trying to stop it.

"It's a proven fact: The faster you reduce coyote populations, the better and faster they reproduce," said Eastern Montana College biology professor Jay F. Kirkpatrick, who also serves on the ADC Advisory Committee. "You want to control the offending animal, not wipe out every one. But these people would use nuclear weapons to kill coyotes if they were allowed to."

Even with sheep around, many coyotes depend mostly on rodents and insects for food. Also, older coyotes kill few, if any, livestock because they have no pups to feed. Those animals may be ranchers' best defense against predation. But indiscriminate killing eliminates these coyotes, spurring an influx of more animals to occupy the territory. The result is more sheep and calf losses.

"I've nearly wiped out all the coyotes in a district," says ADC trapper Austin. "But no matter how many you kill, they still kill sheep, maybe even more than you started out with, because you just make room for more coyotes. You can have 10 coyotes in a township and none of them killing sheep. Those are the last ones you want to shoot."

ADC biologist Michael Fall, chief of the agency's Denver Wildlife Research Center, notes that "the available data" support those who criticize ADC policy. But he says there is not enough information comparing unexploited coyote communities to those undergoing control to tell whether predation differs. If it does not, however, he agrees that the rationale for the whole ADC program would collapse. But ADC has never funded a study of unexploited coyote populations to find out, and many wildlife researchers — who rarely perform a study without an unaffected, control group for comparison — call this the agency's fatal flaw.

Continued on page 14



Michael Milstein

**Shepherd Trisha Tidemann at her Ten Sleep, Wyoming, camp
How Sy keeps the coyotes away**

TEN SLEEP, Wyo. — Two summers ago, Trisha Tidemann, a Worland, Wyo., shepherd, led some 1,400 sheep up into the higher reaches of Wyoming's Bighorn Mountains. In the dense forest there it was hard to keep watch over all the sheep, and predators — coyotes, but maybe black bears and mountain lions, too — killed close to 60.

Last summer Tidemann took about 900 sheep to graze in the same place. She did not lose any. The difference was Sy, a giant, dirty-white Great Pyrenees dog. Standing as tall as a man's waist, he's one example of effective, non-lethal tools being used more and more by sheepherders around the West.

Watchful herding practices are considered among the most important ways of protecting sheep from native predators. With sheep ranchers facing a lack of qualified herders who will accept the trade's low pay and rugged conditions, many Western flocks are left untended. Some ranchers, though, are turning to other methods of livestock protection, from

guard dogs to electric fencing. If used properly, these can reduce the need for government-funded predator control and poisons on public lands.

Usually raised with a sheep flock, guard dogs tend to adopt their charges and stay alert for threats, especially at night when predators are active. "Every night he goes out and checks things out," Tidemann says. "You'll hear the coyotes howling, then you can hear Sy barking, and pretty soon those coyotes disappear."

"They've really done some good for us," says Brigham City, Utah, sheep rancher Malcolm Young, who uses two Great Pyrenees. He grazes sheep in the Wasatch-Cache National Forest's Mt. Naomi Wilderness Area, where a three-year trial program will allow government aerial coyote gunning only if predator-caused losses exceed a certain threshold where guard dogs are used. So far, there have been no coyote killings.

— M.M.

Coyote slaughter ...

(Continued from page 13)

"You should always have a comparison group to see what effects your actions have. Every kid learns that in grade school," says Brigham Young



Dick Randall

Pup coyote with a ground squirrel

University biology professor H. Duane Smith, an officer of the American Society of Mammalogists. "Not even considering what would happen if you didn't kill coyotes undermines any scientific foundation for this program."

Montana's Kirkpatrick has led pioneering research on controlling populations of wild horses on Maryland's Assateague Island National Seashore by giving them temporary chemical contraceptives, and he advocates doing the same with coyotes. That would preserve predators' crucial ecological role by allowing adults to maintain their territories, while reducing their motivation to attack sheep in order to feed pups. Australia has invested heavily in contraceptive methods, with the support of the public and conservation groups.

Some worry that ADC would abuse the strong chemosterilants, which could spell the end of the coyote by hurting its reproductive ability. But others like Kirkpatrick and Crabtree say that contraception, if handled properly, could be a viable control tool that might bring an end to unchecked killing.

"The idea may not be real pleasant to some people," Kirkpatrick says. "But for the coyote, it sure beats the hell out

of getting trapped or shot."

Aside from one botched attempt in the 1960s to deliver a chemosterilant to coyotes in southern Colorado (testers used tallow baits, which coyotes do not favor), ADC has ignored their potential. This is largely the result of the agricultural politics that dominate the agency. Although there is growing public disapproval of poisoning and shooting, stock-growers do not want to invest research money in something that may jeopardize outright coyote killing.

"The only pill to give a coyote is one that will kill 'em deader than hell," says Meeker, Colo., sheep owner Nick Theos, also a member of the National ADC Advisory Committee. "Since when are we worried about the coyotes screwing our sheep? I thought we were worried about them eating our sheep."

Successful predator control, however, does not have to emphasize killing, and does not have to be expensive. There are no ADC trappers working in Kansas; one state extension agent with an annual budget of \$75,000 handles all predator problems. He will teach ranchers how to trap or kill coyotes if they request it, but he also encourages them to herd the sheep carefully and pen them up at night.

A Kansas study proved that penning sheep under lights at night reduces predation by 90 percent. If Kansas stock-growers insist on deadly coyote control, they pay for it themselves.

"If they want to kill coyotes, we can show them how to do it, but we tell them you're going to get tired of this and you might want to think about how to prevent your problem," said Bob Henderson, Kansas's extension specialist. "We tell them it's probably throwing money down a rathole. If it isn't their money, they don't care."

For several years, California's Sen. Alan Cranston has proposed a bill that, in establishing a national predator policy, would simply require that any predator control be done while "protecting and maintaining the indispensable relationship between predator and prey species and the ecosystem." So far, the bill has never gotten a hearing. But with ADC continuing on its obsolete course, the need for such an action is growing. Perhaps it will become as compelling as the call of the coyote on the Western range.

Michael Milstein reports for the *Billings Gazette Journal* from Cody, Wyoming.

BULLETIN BOARD

ADOPT-A-STREAM

Idaho's Adopt-A-Stream Program directly involves the public in protecting and improving water quality of lakes and streams and surrounding riparian areas. Idaho's Division of Environmental Quality, which established the program, will give small grants to citizens' groups or educational institutions for projects such as stream cleanups, bank stabilization and water quality monitoring. The division will accept project applications in February to be put into action this spring and summer. To get involved in the Adopt-A-Stream program, contact the Division of Environmental Quality in Boise, Coeur d'Alene, Lewiston, Twin Falls or Pocatello.

NEW BUT OLD VERDICT ON BLM

Our largest public lands manager is not doing its job. According to the Office of the Inspector General, Bureau of Land Management practices in two Western states are seriously flawed. Audits of BLM agencies in New Mexico and Oregon showed them to be operating with inadequate management plans. The two reports, which include recommendations to improve BLM management practices, conclude that overall disregard and a lack of funding also spawned problems. The audit of the Oregon BLM said that a failure to perform thinning, fertilization and other maintenance of second- and third-generation forests resulted in annual losses for the government and 18 Oregon counties in excess of \$21 million. New Mexico's audit found that improper management of mining reclamation, grazing allotments and cultural resources resulted in severe soil erosion and a loss of Native American pottery valued at over \$1 million.

For copies of the reports write to the Office of Inspector General, Washington, D.C. 20240, or call 202/208-4252.

WATER RIGHTS AND CONFLICTS

Water is a resource as valuable as gold in the arid West. In *Understanding Water Rights and Conflicts in Colorado*, Herbert C. Young introduces readers to this complex and controversial topic that is crucial to the livelihood of Colorado and all states downstream. Graphics, tables and maps simplify the issues of water supply, demand, use and distribution, river basins and diversions. Legal rights, river compacts between Colorado and adjoining states, and current and proposed water projects are all summarized.

Network Publications, 8370 Warhawk Road, Conifer, CO 80433. Paper: \$14.95 plus \$3.00 shipping. 106 pages. Illustrated with maps, tables and graphs.

DIRTY DOZEN

Farmers, environmentalists and consumers should be interested in the *Global Pesticide Campaigner*, the newsletter of the North American Regional Center of the Pesticide Action Network. The *Campaigner* is a merger of the *Dirty Dozen Campaigner* and the *Global Pesticide Monitor*. If Alar-tainted apples surprised you, then this newsletter, which focuses on the dozen most dangerous pesticides, will shock you. Articles expose the unnecessary use and misuse of pesticides and their negative impact on humans and the environment. Issues — pesticide residues, for instance — are examined in an international context to emphasize the harmful effects of the free-market system and the increasing concentration of economic resources on worker safety and the environment.

To subscribe write to PAN NA RC, 965 Mission St., #514, San Francisco, CA 94103, or call 415/541-9140.



SUSTAINABLE FARMING

The Center for Science in the Public Interest will hold its Third National Conference on Organic and Sustainable Agriculture Policies Feb. 15 and 16 in Washington, D.C. This year's gathering will focus on the recently enacted 1990 Farm Bill, whose provisions include record funding for sustainable-agriculture research and education, national standards for organic food, and incentives for soil-building and crop rotation. The conference features a number of talks and panel sessions, an organic luncheon and evening reception, and opportunities for information-sharing and networking. Registration fees for the two-day event range from \$75 to \$125 for individuals and \$185 to \$225 for businesses and organizations. Anyone interested is welcome to participate by contacting CSPI/Organic Conference, 1921 Florida Ave. NW, P.O. Box 53061, Washington, D.C. 20009; 202/332-1990.

AMERICAN BUFFALO FOUNDATION

The American Buffalo Foundation will hold its initial public meeting and fundraiser on Feb. 12 at 7:30 p.m. at the Montana State University student union building. A five-member panel will discuss various issues related to bison management past and present. The group was formed last November in Bozeman, and believes that wild herds should be perpetuated for the aesthetic, scientific and educational enjoyment of future generations. The organization emphasizes the need for long-term planning to ensure that adequate range and habitat are available to free-ranging, genetically viable herds. For more information contact the American Buffalo Foundation, P.O. Box 781, Bozeman, MT 59771, or call 406/587-2406 or 406/587-3242.

LOGAN CANYON DEIS

The Utah Department of Transportation and the Federal Highway Administration have released a Draft Environmental Impact Statement concerning potential improvements to U.S. Highway 89 through Logan Canyon in northern Utah. The road passes through the Wasatch-Cache National Forest and provides access to significant scenic and recreational resources, including the Mt. Naomi Wilderness Area. The Draft EIS presents eight project alternatives; a preferred alternative will be selected in the final EIS. A pamphlet discussing the impacts of this project can be obtained from Citizens for the Protection of Logan Canyon, P.O. Box 3501, Logan, UT 84321. Copies of the DEIS may be obtained from the Utah Department of Transportation, 4501 S. 2700 W., Salt Lake City, UT 84119 (801/965-4160). Comments are due by Feb. 15.

SWIP PLANNING WORKSHOPS

Four public planning workshops for the Southwest Intertie Project will be held next month. SWIP is a 500-kilovolt electric transmission line, proposed by the Idaho Power Company, affecting portions of Idaho, Nevada and Utah. Of particular concern are potential impacts on threatened and endangered species, wetland and riparian areas, cultural sites and national park areas. The meetings will be held in Ely, Nev. (Feb. 13), Delta, Utah (Feb. 14), Las Vegas (Feb. 20) and Caliente, Nev. (Feb. 21). Further information can be obtained from the Bureau of Land Management's Burley, Idaho, district office, 208/678-5514, or the Environmental Studies Project Manager in Boise, 208/344-6140.



WOLVES IN THE SPOTLIGHT

A major exhibit about the endangered wolf is taking place at the New Mexico Museum of Natural History. *Wolves and Humans: Coexistence, Competition, Conflict* will be on display through April 14, accompanied by a full calendar of related special events. The exhibit features displays on wolf biology, social behavior, folklore, history and controversy, including an opportunity for visitors to vote on whether wolves should be reintroduced into New Mexico. Special activities include a storytelling series, live theater, lectures, and a Feb. 9 symposium on the reintroduction of the Mexican gray wolf. After its visit to the Natural History Museum, *Wolves and Humans* will become a permanent installation at the new International Wolf Center in Ely, Minn. For information, contact the New Mexico Museum of Natural History, P.O. Box 7010, Albuquerque, NM 87194; 505/841-8837.



REPORTER'S NOTEBOOK

Nevada Test Site protesters hear it in Kazakh

by Jon Christensen

LAS VEGAS — When 2,500 anti-nuclear protesters came here to vex the Nevada Test Site early in January, probably the last thing they expected was a lecture on democracy from their Soviet counterparts in the peace movement.

The protest and a conference on "Uniting Nations for a Nuclear Test Ban" were timed to influence a United Nations meeting that convened recently to consider amending the 1963 Limited Test Ban Treaty. Some 118 countries, including the Soviet Union, have pledged to support the move for a Comprehensive Test Ban. The U.S. and British governments have vowed to veto the amendment. Both countries test atomic weapons at the Nevada Test Site, 65 miles north of Las Vegas.

As activists met at the Sahara casino on "the strip" downtown to discuss strategies, the urgency of the issue seemed almost lost in the ethereal nature of the gathering. But while some headed to the nearby Department of Energy headquarters to try to levitate the building, Olzhas Suleimenov, the founder of a successful Soviet anti-nuclear movement and a member of the Congress of People's Deputies of the Supreme Soviet, gave a surprise lecture to American activists at the casino on making democracy work for their movement.

A popular poet in the eastern Soviet republic of Kazakhstan, Suleimenov founded the Nevada-Semipalatinsk Movement in 1989. Named for the American and Soviet atomic weapons test sites, the movement exploded after a botched test released radiation near Semipalatinsk, a city of 320,000 in remote Kazakhstan. When powerful miners' unions downwind joined massive public protests and threatened to strike, the Soviet government agreed to shut down the test site.

The movement owed its success, Suleimenov said, to its deep roots among the people of the region directly affected

by the testing. But when he asked his listeners for a show of hands of those who came from Nevada, only one person raised his hand.

Suleimenov acknowledged that it might be "quite difficult to ask that casino workers go on strike," but said the movement could not succeed if it remained out of touch with the region.

He also urged the group to go beyond symbolic protests and adopt a more hard-hitting political strategy. The crowd listened attentively. But when two Californians proposed phone and letter-writing campaigns to support the Comprehensive Test Ban, their suggestions were gently shot down by the meeting's facilitator, Rebecca Johnson. "This is not a conference of resolutions," she advised. "Trust in yourself. These ideas are in you."

That evening, the Grand Ballroom of the Sahara overflowed with long-haired drummers and loose-limbed dancers. Outside in the hallways, vendors hawked tie-dyed T-shirts, incense and buttons. Gray-haired activists mixed comfortably with the new generation of college-age protesters in Sixties-era garb. Standing somewhat apart were the more somber forty-something leaders of Greenpeace, who set up the meeting, and the Soviets, clad in three-piece suits.

Although Greenpeace leaders had predicted the "largest mobilization at a test site anywhere" the next day, the final count was 2,500 protesters and 750 arrests, roughly half the 5,000 demonstrators that turned out at the site in 1987, when 2,000 were arrested. The Soviets noted that more than 8,000 had gathered at after-work demonstrations at the Semipalatinsk site in Kazakhstan.

A Western Shoshone medicine man shared a peace pipe with Suleimenov to open the protest, and a carnival atmosphere continued. "We want a hug of war, not a tug of war," announced an organizer before the "civil disobedience" began.

"Why have these protests?" Junior Bridge asked the crowd. "Let's just levitate the test site out of existence."

"It's amazing the Kazakhs stopped testing and we can't," wondered Cassandra Cromwell, 21, one of three college students down from Salem, Oregon.

"They're willing to do more and go much further," said Dierdre Atkinson. "We go to rallies, which is nice, and dance to drums, which is fun. But Americans don't take enough risks. We don't understand the risks. Until a community understands what's at risk, I don't think they'll act."

"In Las Vegas, they only think about risking money," concluded Lisa Johnson, as she and her friends prepared to be arrested.

While drummers with painted faces kept up a frenzied beat, protesters sat down on a cattle guard to block the gate to the test site and were promptly handcuffed with plastic bands and escorted to a holding pen. Others jumped the fence and fanned out between creosote bushes and Joshua trees until they were chased down by officers in dune buggies.

"Everything is sort of symbolic here," commented Anvar Mustafin, a filmmaker from Kazakhstan, as he watched the arrests. "In Semipalatinsk, we didn't have symbolic protests. And we didn't have symbolic policemen — they carried machine guns. There it was not a question of symbolism," Mustafin said. "It was a question of life and death. We understood that either we close down the test site or we lie down and die."

Dr. Maira Zhangelova, a researcher at the Semipalatinsk medical institute, rattled off the diseases that have ravaged the population of 2.5 million around the Soviet site, including genetic birth defects, immune deficiencies, leukemia, brain tumors and other cancers.

While protests in Kazakhstan succeeded in closing down the Semipalatinsk site, in October the Soviet military exploded an underground device at Novaya Zemlya, a pair of uninhabited Arctic islands. Suleimenov and several other members of the Supreme Soviet charged that the test was a political provocation designed to embarrass President Gorbachev and assert



Kit Miller

Suleimenov smokes a peace pipe the power of the military.

Nonetheless, the politician-poet remained optimistic during the Nevada protests. Suleimenov vowed that the grassroots "people power" unleashed in the Soviet Union will not be turned back. The Kazakh people will not allow any more testing in their territory, he said, and can now help to stop tests elsewhere.

"We have a young democracy," Suleimenov said, clenching his fist. "You have an old democracy. This is a paradox of a world in progress. But we can learn from your experience as you can learn from our energy and actions."

"Poligon goilsin!" the Soviets chanted in Kazakh at the rally.

"Close down the test site," the Americans answered in kind, "twinkling" enthusiasm by waving their fingers in the air instead of clapping.

CLASSIFIED

HIGH COUNTRY NEWS classified ads cost 30 cents per word, \$5 minimum. Display ads 4 column inches or less are \$10/col inch if camera-ready; \$15/col. inch if we make up. Larger display ads are \$30 or \$35/col. inch. We reserve the right to screen all ads. Send your ad with payment to: HCN, Box 1090, Paonia, CO 81428 or call 303/527-4898 for more information.

CREW LEADER. The Student Conservation Association needs youth leaders to supervise high school volunteers on trail construction/maintenance projects in national parks and forests. Month-long summer projects require supervisors with significant wilderness travel experience and first aid skills/certificate. Construction experience and skills helpful. Training available. For application call 603/826-4301 or write SCA, P.O. Box 550, Charlestown, NH 03603. (4x24b)

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HOME IN THE GILA — Ten-year-old 3-bedroom, 2-bath house in Silver City, NM. City water, natural gas heat, fireplace, 2-car garage, all appliances. On 1.4 acres 3 miles from Gila National Forest boundary. Guest house, great views. \$89,500. Owner 615/890-0229. (2x25pp)

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NEW WATER PUBLICATION: An Introduction to Water Rights and Conflicts with emphasis on Colorado. For information please write: Network Marketing, 8370 Warhawk Rd., Dept. HC, Conifer, CO 80433, or call 303/674-7105. (12x16p)

"**OUTDOOR PEOPLE**" lists 50-word descriptions of active, outdoor-oriented Singles and Trip companions nationwide. \$2/copy, \$10/ad. **OUTDOOR PEOPLE-HCN**, PO Box 600, Gaston, SC 29053. (6x15pd)

STRING BAGS — Large string bags knit in USA using seine twine. Cotton webbing handles — long enough to fit over your shoulder. Take shopping, on boat cruises, or use to separate things in your pack. Lightweight enough to be shoved in your pocket. Very strong when filled. \$12 includes shipping. Send orders to: 117 E. Louisa Street #140, Seattle, WA 98102.(6x25p)

JOB OPPORTUNITIES. Wanted! Major donor coordinator and community organizers for grassroots citizens' organization. For more information contact Kevin Williams, Director, Western Colorado Congress, Box 472, Montrose, CO 81402. (303/249-1978).

FIELD SEMINAR STAFF ASSISTANTS for Crow Canyon Archaeological Center in Cortez, Colo., April 29-Nov. 8, 1991. Energetic, outgoing individuals willing to travel. Must enjoy working with people and have good driving record. Assist with maintaining vehicles, food purchasing, food preparation, and transporting equipment. Assist guests with luggage, familiarity with northern Southwest desirable. Send resume by Feb. 8 to: Ms. Siste O'Malia, 975 U.S. Hwy 64, Farmington, NM 87401. NO PHONE INQUIRIES, PLEASE. (1x1p)

ENVIRONMENTAL LAWYER, DEVELOPMENT DIRECTOR, OFFICE MANAGER WANTED FOR U.S. OFFICE OF ENVIRONMENTAL LAW ALLIANCE WORLDWIDE (E-LAW), Eugene, Oregon. Newly funded, the E-LAW network will open approximately 10 offices worldwide in 1991 to serve grassroots, public interest environmental attorneys, particularly in the Southern Hemisphere. Applications accepted until February 1, 1991. For further information, write E-LAW, 975 Oak St., Suite 1050, Eugene, OR 97401. (1x1p)

STUDENT INTERNSHIPS: Would you like to live on the edge of Glacier National Park, Montana, for a season and help run an outdoor education program? The Glacier Institute offers outdoor classes for all ages and interests, including 1-5 day residential environmental programs for 1st-9th grade students. 3 interns Spring, 2 Summer, 2 Fall. Write: Glacier Institute, Box 1457, Kalispell, MT 59903. (4x1p)

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LETTERS

ANIMAS-LA PLATA

Dear HCN,

Congratulations on your feature story about the Animas-La Plata project (HCN, 12/17/90). While much of the popular media has seemed able to grasp only the U.S. Fish and Wildlife Service ruling on the endangered squawfish or unsubstantiated assertions that the project is meant to benefit the Utes, *High Country News* has shown its readers that 1) Animas-La Plata probably won't help the Utes and that many of them strongly oppose it and 2) by all definitions the project will be horrendously costly.

By the admission of project proponents, Animas-La Plata may cost not the \$570 million quoted in the story, but more probably in excess of one billion dollars. In fact, if it goes as far over budget as the nearby Dolores project (750 percent), it will cost upwards of *four billion dollars!*

Project proponents have recently admitted what opponents have asserted for years: The real reason for Animas-La

Plata is to take water to coal fields near Mesa Verde National Park so that energy companies can develop coal resources, either through strip mines and mine-mouth power plants, or for coal gasification or petrochemicals development.

Animas-La Plata will be an energy hog beyond all comprehension, using roughly the equivalent of one-quarter of the electricity currently generated at the Navajo generation station at Lake Powell. Combine that with the enormous amounts of salinity and reduced stream flows that the project will cause on the Colorado River system, and one is left looking at a project that exemplifies why the environment is in crisis and the U.S. budget deficit is out of control.

Even if problems associated with the squawfish are resolved, one can only remain baffled as to why this project enjoys the support of Colorado's supposedly more environmentally aware members of Congress. Perhaps they are simply afraid to buck Colorado's all-powerful unelected water lobby, knowing that to oppose any water project, no matter how outlandish and harmful, would be political suicide.

Regrettable, since if there was ever a project that deserved to die for the good of the nation, Animas-La Plata is it.

Kathleene Parker
Denver, Colorado

MOUNT GRAHAM

Dear HCN,

Arizonans enjoyed your coverage of Mount Graham (HCN, 9/24/90). University of Arizona lawyers on behalf of Ohio State, Harvard-Smithsonian and a consortium of other astronomers recently argued in court that Congress meant to totally exempt their Mount Graham telescopes from the act. Previously, the consortium had always claimed their 1988 Congressional rider never weakened the Endangered Species Act. Would "great" universities now teach their students public lying?

Sens. McCain and DeConcini share in this deceit. Sen. Burdick in October 1988 asked DeConcini, "Am I correct that this legislation requires the project to comply fully with the requirements of the Endangered Species Act?" DeConcini

replied, "My colleague from North Dakota is correct."

McCain at the 1989 National Audubon convention said: "I want to emphatically state that it is not the intent of this law to ... diminish the provisions of the Endangered Species Act."

General Accounting Office investigators uncovered a bleeding trail of browbeaten officials trying to perform their public trust responsibilities. McCain, besides threatening the job of a forester standing in the project's path, negotiated a secret deal with the head of the Forest Service to exempt the project from all environmental and safeguards.

A pre-Keating-gate DeConcini boasted of intimidating agencies trying to protect endangered species. On Safford radio in 1987 he bragged of "convincing" the Forest Service to switch "under expedited procedure" from High Peak to the even more environmentally sensitive Emerald Peak squirrel habitat.

These senators' behind-the-scenes intimidations make a mockery of their public statements.

Gene Anne Parker
Phoenix, Arizona

afield

JANUARY



Stephen Jones

It starts in January, in that long stretch during which there are no holidays because there is nothing left to celebrate. I have marked the winter solstice and celebrated Christmas and the coming of the New Year, but January makes those holidays distant and dreamlike: I see the warmth of the season, but nothing else, because January is a pebbled glass window in front of me.

In January, the cold tries to creep into buildings during the day and snow is a barrier. It is no longer a comforter pulled snugly over the sleeping earth; it is a lock separating men from the earth, and so live things in winter are an intrusion — a half-hearted attempt at picking the lock. January pastures undulate, but people moving through them are awkward.

Being more protected, the world under the snow must be more patient than us who are above. Under snow grass is content to wait out the longer cycle, until snow

melts and the days grow gentler. I'm not so content. I grow tired of my jail long before the lock is opened. On the last evening of the month that promised it would never end, I put on my coat and mittens and escape.

The sun is half an hour from setting when I walk down the ditchbank, then cut across the field between my back yard and a horse pasture. The knee-deep snow is crusted over, and when I flounder through, it sounds as though I am breaking dry bread.

The sun is almost behind the mountain now. I turn back, hungry for the lentil soup warming on my stove. Close to my back yard, I stop to listen to my sniffs rasping the silence. I kneel, take off my mitten, and run my fingers over the snow's sandpaper crust, then tap it like a telegrapher sending a message.

— Nancy Banks

Nancy Banks lives in Hyde Park, Utah.