

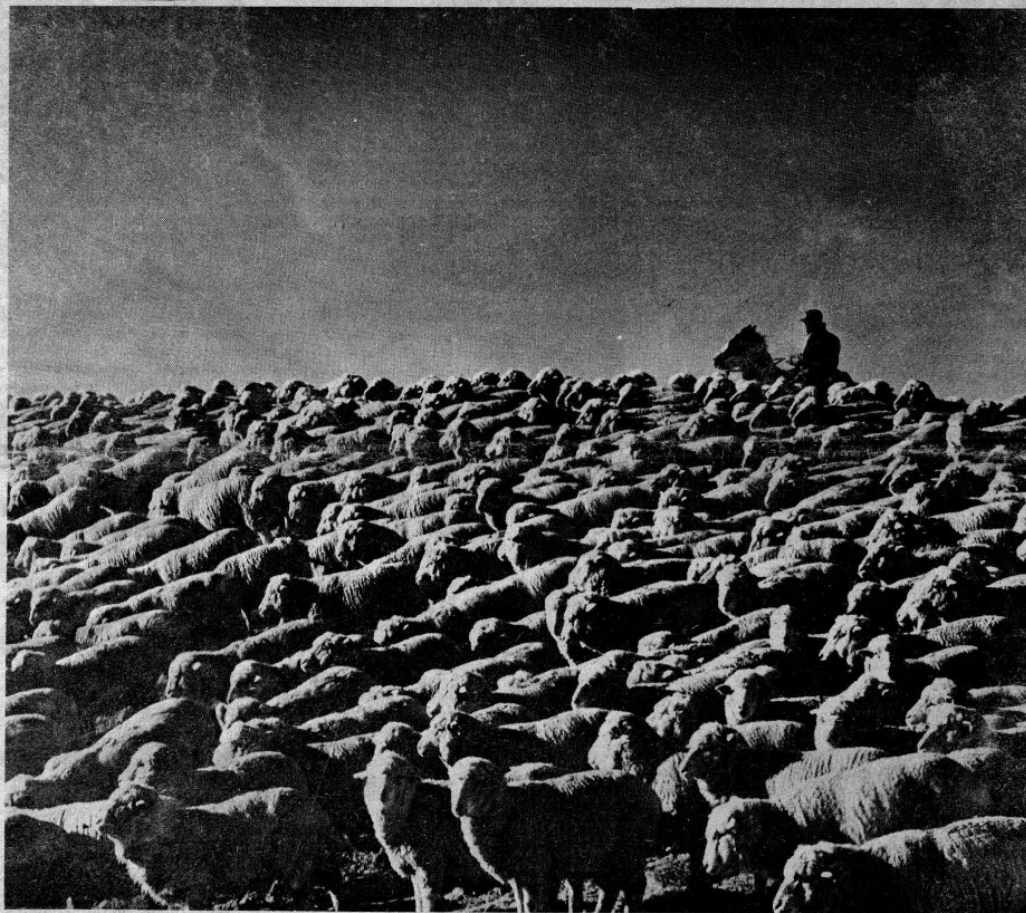


High Country News 75¢

Vol. 12 No. 8

Lander, Wyoming

Friday, April 18, 1980



SOLITUDE, PREJUDICE, AND WOOL ALL AROUND.

4

Photo by Michael McClure

That's what a sheepherder lives with, 365 days a year. The life requires a special kind of person, and there are fewer of them around. The sheep industry, too, is beset by special problems.

A CLARION FOR TRUMPETERS.

6

The regal birds aren't reproducing well, and a researcher studying swans' eggs has found radioactive traces — probably from natural sources — that may be the cause.

BUSINESS COLLECTS ITS CLOUT.

10

With the West facing important choices in the midst of its energy boom, big business has decided to organize. The result: The Western Regional Council.

In
the
News

WATCH OUT FOR VINEGAR RAIN.

6

Lakes are dying and buildings are crumbling as acids from power plant stacks ride the clouds and then rain down on the Northeast. Now signs of acid rain are turning up in the west.

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Opinion



Severance taxes and recession: Easy money attracts the uneasy

In a move that should surprise no one, the Wyoming Home Builders Association has asked for a piece of the Wyoming severance tax pie. Like a child ogling a gooey pastry, the construction industry is saying "Just this once" and stern old Gov. Ed Herschler is shaking his head no.

Officials of the association say that current high interest rates will cut construction of residential housing by 60 percent this year, putting carpenters out of work, families in trailers and the state's economy on ice. Low interest loans from the state's Permanent Mineral Trust Fund, which has about \$165 million sitting around in money-market certificates, are the answer, says the association.

As difficult as it is to keep money in the bank while people suffer, Herschler's decision is the right one. Mineral severance taxes should be spent to mitigate the impacts of energy development, not to bandage the economic wound of the hour.

The reasons for this are threefold.

First, it doesn't help the economy in the long run to create economic dependencies on the fund. Use severance taxes to subsidize a public service — be it housing or commuting costs or the governor's salary — and the subsidy is likely to become an addiction. Then the minerals run out, the tax revenues dry up, and those who were getting the subsidy need help more than ever. Who will pay the price for economic methadone clinics?

Second, Wyoming has been slow to wake up to the real costs of its energy boom. There are expenses down the road that will eat up all of the present surplus and

probably more. There are people who will be out of work when the coal mines close, towns that will be unable to afford sewer systems when the gasification plant opens, and environmental expenses that will continue long after the boom is a fading echo.

Last, if the state is saving for the post-boom future it must invest wisely, and low interest loans are a poor investment. With today's inflation, even the money markets represent a net loss; what the homebuilders are suggesting would be much worse. States that make bad investments simply to keep the money within their borders are allowing provincial autism to interfere with good management. They would be better off leaving the coal in the ground — it will be worth more in the future than money they loan out at nine percent today.

When there is easy money in an uneasy time, expect people to ask for it. Look at Alaska, where the state has billion-dollar budget surpluses from its oil tax revenues, and citizens are calling for cheap gasoline, state-built ski resorts and hundreds of other projects as foolhardy as they are imaginative. But needs and problems unrelated to energy development should not be salved with energy tax funds.

Herschler is to be congratulated for saying no to the child at the pastry counter. The home builders may be forgiven for asking, given their unhappy situation; but hands off those severance tax sweets.

— GOG

Federal spending: there may be pork in eco programs, too

President Carter, in an election year move to make budgetary ends meet, has asked Congress to cut some \$17 billion from the fiscal year 1981 budget he sent to Capitol Hill earlier this year.

While discontinuing Saturday mail service is getting the most media attention, also among the victims of Carter's effort to balance the budget are environmental programs. Hardest hit are federal funds for solar energy and conservation, mass transit, urban parks, and programs to acquire and manage recreational lands and wildlife habitat.

The reaction from environmentalists has been pointedly defensive. In hearings this month before the congressional budget panels, conservationists called the cuts "outrageous," angrily noting that federal spending on many other programs, including environmentally-damaging water projects, would continue with hardly a pause.

To be sure, when compared with the shockingly plush treatment the Defense Department has gotten from the program executioners, the cuts in the environmental sector are inequitable. But unnecessary spending is a waste no matter where it occurs and should be nipped in the administrative bud.

There is some evidence that at least one of the proposed environmental budget cuts — federal money for acquiring private lands — is legitimate.

The Land and Water Conservation Fund was established in 1965 to initiate a large-scale, concentrated federal program of land acquisition for outdoor recreation activities. The fund is divided among state and federal programs and is administered by the National Park, Forest, and Fish and Wildlife Services, as well as the Bureau of Land Management.

Under Carter's proposal, which covers budgets for both this fiscal year and next, one-half of the \$202 million 1980 budget for the fund's federal programs is to be cut; two-thirds of next year's appropriation would be slashed. Similarly, the fund's state program budget, originally to be \$300 million this year, would be cut in half to \$150 million. And next year's budget of \$320 million would be reduced to \$150 million.

Supporters of the fund were quick to protest. Todd Bacon of the Public Lands Institute in Denver said the cuts were extremely unfair, a notion shared by David Morine of the Nature Conservancy. And Rep. Phil Burton (D-Calif.), head of the House parks panel and a strong parklands supporter, said the cuts made no sense over the long run in light of ever increasing land prices.

But according to a December 1979 report by the General Accounting Office, the investigative arm of Congress, federal agencies have been unnecessarily wasteful in acquiring private lands. Those agencies have been "acquiring as much private land as possible regardless of need, alternative land control methods, and impacts on private landowners," the study found. The GAO report, which, incidentally, was solicited by Rep. Burton, recommends that a greater emphasis be placed on less costly alternatives such as easements, zoning and federal controls.

It may seem foolish and politically naive to suggest that environmentalists support budget cuts in their own programs. The environmental agenda has traditionally been underfunded. And in this particular case, bureaucratic politics have ensured that when budgets are cut, the worthwhile program muscle is the first to go, while administrative fat remains untouched. (According to George Kyle of the Heritage Conservation and Recreation Service, which administers the Land and Water Conservation Fund, no cuts were made in administration staffing, just the acquisition funding.)

But how often and eloquently environmentalists have extolled the virtues of "less costly alternatives." And how much longer can uncontrolled spending of any nature go on?

There is so much waste in federal spending that even a cursory examination will root out a plethora of squanderings. It would seem admirable if environmentalists could find, acknowledge and cut their own wasteful federal programs, as they so heatedly encourage others to do. That kind of introspection could start a national trend.

— MM

Rocky Mtns. take sharp land budget cuts

The Santa Monica Mountains National Recreation Area in California would take the biggest cut under the Carter Administration's proposed curtailments in the Land and Water Conservation Fund. Land purchases for the area would be reduced by \$14 million this year, and \$19 million in 1981.

Most of the other big cuts in National Park Service areas were also in California, but throughout the West, areas managed by the federal land agencies would be heavily cut. Here is a sample:

Arapaho NRA, Colo., \$3 million in 1981; Great Sand Dunes, Colo., \$260,000 in 1981; Hells Canyon NRA, Idaho, \$5 million in 1980; Middle Fork of the Salmon, Idaho, \$3 million in 1981; Sawtooth NRA, Idaho,

\$1.5 million in 1981; Flathead NRA, Mont., \$2 million in 1980; Bear Valley, Ore., \$1.5 million in 1981; Flaming Gorge NRA, Utah and Wyo., \$2 million in 1981. Percentages of the cuts range from 30 percent to 100 percent of the original funding levels.

Less costly alternatives to outright land purchases may be substituted in many cases. But it should be noted that the cuts do not appear to follow the recommendations in the General Accounting Office report. For example, land acquisitions and management in the Sawtooth NRA were praised by the GAO, while the program for the Rogue River area, Ore., was sharply criticized. Both areas, however, are slated for heavy budget cuts.



April 18, 1980 — High Country News-3



THE GRIZ PHILOSOPHY

Dear HCN,

Survival of the grizzly is not a scientific problem (see HCN 3-21-80). Survival of the grizzly, like designation of wilderness, is a philosophical problem. It is unfortunate that we must spend so much money, harass so many bears and engage in monotonous numerical conversations to cover our ignorance and evasion of the real issue.

The grizzly is the quintessence of wildness. Without him we don't have wilderness areas; we have large inaccessible city parks full of mechanical Sunday strollers that shout "sue the bastards" every time they stub their toe on a rock the trail crew didn't remove.

In these times wilderness functions best as an educational tool. We learn in its halls humility (as opposed to hubris), individual responsibility and the notion of stewardship.



The grizzly symbolizes each of those qualities. He can teach them directly through the fear and respect he de-

Dear Friends,

Taking a longer-than-usual run recently out Tweed Lane past Geoff and Berthenia's home on the bluffs, one of our staff trotters brought home a most peculiar suntan — a 12-inch forearm beauty neatly cut off by upturned sleeves and gloved hands.

The asphalt country roads, still edged by snow-covered fields, are softening under the sun's glare. It makes for loose-limbed, track-like running.

And running, with the High Country News Fourth Annual Five Mile Footrace fast approaching, is the talk of the office these days.

Organizing the footrace is a collective effort. Jazmyne is in charge of getting the beer. Sarah is ordering the rib-

bons. Hannah's doing the posters. Joan is marking the course (almost daily with her dusty running shoes). Michael is in charge of stringing up the finish line, or the finishers, whichever comes first. And Will, whose affection for young ones rivals even that of W.C., doesn't know it yet, but he's in charge of the kiddies race.

We've left winning the whole thing, and upholding the paper's healthy image, to Geoff. (He says he hasn't got a snowball's chance, but under pressure we've seen him fly on the typewriter — why not the track?)

Needless to say, you are all invited. The day is June 14. The time 6 p.m. or thereabouts. The course hilly and 99 percent pavement (depending on how many corners you cut). The weather, well...warm.

—the staff

mands or indirectly through the knowledge that he still roams somewhere. He humbles even the man with a rifle; an encounter with him is that of two free roaming intelligent beings responsible unto themselves.

If we want the grizzly around then we want wilderness, and we want coexistence on this planet with more than ourselves, the myriad creations of our tinkering, and those natural things that don't get in our way. On certain large tracts of land, the grizzly, not us, will be sovereign. If we don't like it we will have to tremble or leave.

Woody Barmore
Burris, Wyo.

Other principal sponsors included the Northern Plains Resource Council, the Montana Farmers Union and The Youth Project.

David Alberwerth
Western Organization
of Resource Councils

THE GOAT

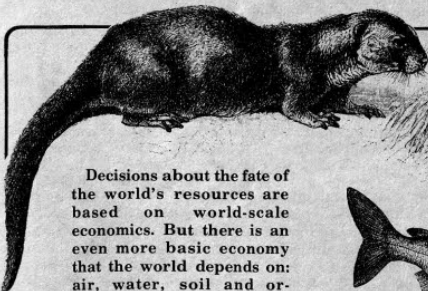
After reading about the critter in the centerfold and its differences from sheep, I was reminded of Peter Matthiessen's detailed observations and reports in *The Snow Leopard*. He made them fascinating but hard to love...unless you're another goat, of course. But there is a sort of obdurate stubbornness about them which HCN shares.

Dick McCutcheon
Columbus, Ohio

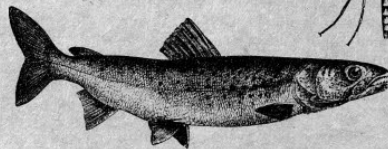
CONFERENCE SPONSORS

Dear HCN,

Your March 7 issue reported that the Feb. 8 and 9 severance tax conference in Billings was sponsored by the Conference on Alternative and Local Policies and Montana state Sen. Tom Towe.



food chain



Decisions about the fate of the world's resources are based on world-scale economics. But there is an even more basic economy that the world depends on: air, water, soil and organisms — the biosphere. In the West, right now, these two economies are meeting head on. High Country News reports on what is at stake to make sure all voices are heard when the decisions are made.

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A sheepherder's life:

©1980 by Gretel Ehrlich

A sheepherder in southeast Wyoming, used to his solitary days and nights, got a rude awakening when 150 masked men attacked him, scattered his sheep, then went on to do the same at 15 other sheep camps in the area.

This was 1902.

There were hundreds of incidents like this. Cattlemen fought the coming of sheep into this country from the first band that was trailed across the state line. But by 1909, at the height of the cattle boom, there were also 6,000,000 sheep in the state.

The prejudice against sheep is a strangely American phenomenon. Claims that sheep "tear up the range," "stink," and so forth are probably less important than the fact that the cattlemen, who were in the state first, simply wanted all the public grazing land for themselves.

Though the range wars are over, there are different kinds of wars being fought within the sheep industry, and it seems, so far, no one is winning. In the last five years sheep ranching has been in turmoil. Outfits that ran 20,000 head of sheep now run 8,000 or 9,000.

Moreover, the old time sheepherders who often worked on a family ranch for 40 or 50 years are dying off, with no replacements.

Ranchers say they can't find herders because no one these days wants to work. Herders say they're not paid enough. Government trappers claim they can't control predators properly with the new regulations handed down from the Department of the Interior. And the Forest Service and Bureau of Land Management are battling overgrazing.

To understand these problems, it helps to know what makes a sheep ranch tick.

Raising sheep is different from a cattle operation mainly because of that in-



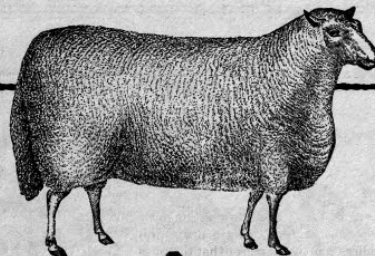
Like caring for a small child, the sheep are always on your mind.

termediary figure, the sheepherder. Sheep need constant protection and supervision, and this means a sheepherder's job is seven days a week, 365 days a year.

In late June or whenever the snows have gone, each herder on an outfit trails his band of 2,000 sheep to summer range, usually in the high mountains. On the ranch where I lived, this was a 60 mile trek taking five days.

July and August are a herder's vacation: alpine terrain with plenty of feed and water. By September the snows begin. Lambs are shipped to market from the mountain, then the ewes are trailed to lower elevations and bred again. Around here sheep winter on benchlands during those difficult months; they're fed hay and minerals and legged out of snowdrifts during bad storms.

In March, lambing begins. All the sheep are trailed into the lambing sheds and held in drop corrals. Usually the herders work in the sheds, picking drop, suckling, branding, shifting and making up the spring bands. In April, the ewes and new lambs are trailed to spring range, and in June, the cycle starts again.



Sheepherders live alone, isolated and immobilized in traditional sheep-wagons out on the range, with only a working dog and a horse for company. The day begins before dawn, riding to the sheep on their bedground to protect them from coyotes and other early morning predators. Throughout the day, depending on the season and weather, a herder checks boundaries, takes the sheep to water, puts out salt, and rotates them three or four times within the range allotment to avoid overgrazing. Except for the battering effects of weather, it's not strenuous work, just time consuming. Like caring for a small child, the sheep are always on your mind.

It takes an unusual person to herd sheep. The uninterrupted solitude is both invigorating and grim. Days and nights with only the company of a dog and horse. No distractions or entertainments. The world becomes both vivid and monotonous. Because this kind of aloneness is rarely just plain fun, it's not difficult to become susceptible to all sorts of mental concoctions. Whenever I've started acting goofy, friends will say, "You're acting like a damned sheepherder again."

A sheepherder is regarded as a



AN ABANDONED SHEEPWAGON quickly decays in the harsh, isolated environment of the high country. For most of the year, sheepherders call their wagons home, with only an occasional visit from a camp tender, bringing food, medicine, mail and conversation.

Photo by Michael McClure

A working dog, a horse, solitude, prejudice and 2,000 small children

second-class citizen. It's a hangover from the original, cattle boom prejudices, and it's no secret that the job is notorious for attracting outcasts and misfits: alcoholics, war veterans, eccentrics, loners, migrant workers or anyone on the lam. It's a one-way ticket out of the conventions of society: marriage, family, town life, the bars, the law.

As if transfixed by the stigma, a shepherd often regards him or herself with the same low opinion. At the same time, I also know plenty of herders who are keen-minded, reliable, and take pride in their work.

This second-class status is a state of mind that everyone has embraced, and it's also an economic fact. A shepherd is paid less than anyone else on a ranch. The present going rate varies from \$285 to \$500 a month, plus room and board. If you don't go to town, it adds up to more than one might think. Still, it is meager enough to keep a person from being economically mobile.

If it takes a unique person to herd sheep, then it takes an equally patient and persevering person to tend a shepherd's camp. Much more than a simple delivery of groceries every four or five days, the relationship between campender and herder is vital to keeping the whole operation going.

Living away from the bumps and consolations of society, a shepherd



A coyote is an opportunist who will eat anything from stinkbugs to elk.

will quit if he doesn't receive the attention he thinks due him. A campender who's good at the job will not only bring food, mail, medicine, gossip and gunshells, but also will take the time to listen, console and humor the person to whom the livestock is entrusted.

One of the controversial parts of sheep ranching these days is predator control. These ranchers don't want to exterminate bobcats, mountain lions, bears, eagles and coyotes, but they do want to come out of a season with a good percentage of the ewes and lambs they started with.

Coyotes, of course, are at the center of the debate. It's easy to look at a photograph of a coyote pup and want to save him, but anyone who's had the responsibility of 2,000 sheep automatically gains a different perspective.

A coyote is an opportunist who will eat anything from stinkbugs to elk. Being prolific and having no natural

enemy except man, it's easy to understand how coyotes can expand their population, upsetting not only sheep and lambs, but wildlife as well.

In 1978, a committee was formed under the guidance of the Department of the Interior to investigate animal damage control, that is, the work that government trappers do. They came out with a whopping 2,500 page report and a handful of new regulations protecting the coyote from already restricted trapping practices.

Many of the ranchers and trappers predict that under these new protective measures, the coyote population will double or triple, endangering the sheep industry and wildlife of all sorts. Some ranchers are selling all their sheep for fear the coyotes will finish them off. I suspect they may be tired of the herder shortage as well.

To add to the headaches, there's the very real problem of overgrazing. All ranchers have bankers on their backs, and overgrazing is often a result more of economic necessity than disrespect for the land. It's possible that, like the Navajos whose herd size the white man reduced drastically to prevent a Saharan-type disaster in the Southwest, someone will have to come along and tell us to get our stock off the range and let the grasses grow back for a few seasons.

The days of the paternalistic rancher are fading, when a herder wasn't paid much but was taken care of for the rest of his life. The job a shepherd performs is less hair-raising than a cowboy's but no less heroic or picturesque.

A shepherd has the privilege of living in some of the most beautiful places in the world. One has to know animals, be resourceful and be willing to tough out a good share of the brutal physical and psychological realities of living in desolate areas. If more dignity were given to the very important job herders do, and a better salary, competent people might be attracted to the job.

A friend, who is the most dedicated sheep rancher I've known, and who, according to another old time rancher, "savvy sheep and herders better than anyone in the country," rises at 4:00 a.m., works 14 hours a day, looks older than his age, but has never wanted to do anything but raise sheep. When asked why sheep ranching was going out, he said, "No one wants to work this hard anymore." And laughed an ironic, sad laugh.

Gretel Ehrlich is a freelance writer and sometime shepherd who lives in Shell, Wyo.

Solitary milk vetch hides in desert sagebrush

by Michael Hamilton

Interstate 95 stretches from Nampa, Idaho, through southeast Oregon to Winnemucca, Nev., in 300 odd miles. This is sagebrush country — arid mountain peaks, an occasional intermittent creek, and miles and miles of sagebrush.

The cattlegrowers look upon this land as mediocre range, good enough for a few head as long as they are fattened up at a feedlot before they go to slaughter. The truckers might wish they were making better time up the long hot grades. The tourists are bored stiff as they whisk their way to the glitter and lights of Reno. And when the most recent visitors, the uranium prospectors, look upon this land, they see riches.

But unknown to the farmer, the prospector or the passing motorist, this land is also the last holdout of a very tenacious, secretive and rather clever member of the plant kingdom.

We all have seen or heard of the locoweed — a noxious herb which grows in overgrazed range, and which when eaten by unknowing cattle has an intoxicating effect, often followed by death. The locoweed is not in danger of extinction, but many of its cousins are, for the genus *Astragalus* contains hundreds of species.

One species in particular trouble is the solitary milk vetch (*Astragalus*

solitarius). Its range, known from only a dozen or so verified observations, is restricted to the southeast corner of Oregon and adjacent northern Nevada.

It all started with the single-minded determination of our domestic livestock to eat as much as feasible while moving as little as possible. The quarry was our native plants.

The tastiest morsels went first, those plants that were the most succulent and lacked the bitter tasting alkaloids so common to many xeric or dry-adapted species. It didn't help much when a host of introduced exotic plants arrived, many as unseen stowaways within the dirt ballast brought to the west by Spanish galleons.

These European weeds, well adapted to our arid, Western environment,

spread fast and out-competed many of our native plants. Then settlers began converting sagebrush to fields of alfalfa, cotton and potatoes. And when the U.S. Bureau of Land Management got into the act, converting native range to grassland (the "crested wheat syndrome"), many of our native species perished.

Certainly the ubiquitous *Artemisia*, our big sage, is here to stay. But many species of native great basin flora have either succumbed or are teetering on the verge of extinction.

HIDING IN SAGEBRUSH

The milk vetch was first described during a botanical collecting trip in the 1940s. Since then relatively few observations and collections have been made. This is partly the result of this plant's unusual distribution and growth habits.

The milk vetch apparently avoids predation by growing in the inedible tangle of mature sagebrush. Its roots weave their way along those of its host, and the stems and minute leaves rarely protrude from the sagebrush's protective sphere. The milk vetch's inconspicuous color and secretive habit tend to limit its detection by man and beast alike.

Grazing pressure, mining activity and rangeland conversions are systematically removing or degrading the

scattered few populations of this unusual herb.

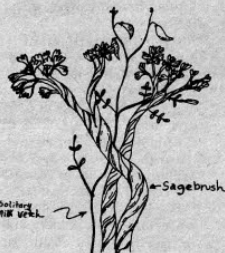
The milk vetch's cousin in Utah, *Astragalus perinausm*, is on the federal Office of Endangered Species' official threatened list — a status that insulates it or its critical habitat from any threatening federal project or program.

But the milk vetch is far down the administrative ladder. It has been proposed as a candidate for listing, but according to Irene Storks, critical habitat biologist with the Office of Endangered Species, before placing the milk vetch on the list there must be information gathering, environmental and perhaps economic assessments and public meetings.

Getting a species listed these days also requires considerable grassroots political support. The office is far behind schedule. Frustrated by administrative red tape, some native plant enthusiasts have turned to other methods of protecting endangered species, such as privately acquiring critical habitat.

Michael Hamilton is a graduate student in natural resources at Cornell University in Ithaca, N.Y. He recently worked for a consulting firm doing botanical surveys and impact studies in the Western states.

Research for this article was paid for in part by the HCN Research Fund.



drawing by Michael Hamilton

6-High Country News — April 18, 1980

Trumpeter's woes may be linked to radioactivity

by Philip White

April offers few signs of spring in the high plateau country of Yellowstone National Park. The lakes remain frozen and snow depths are still increasing.

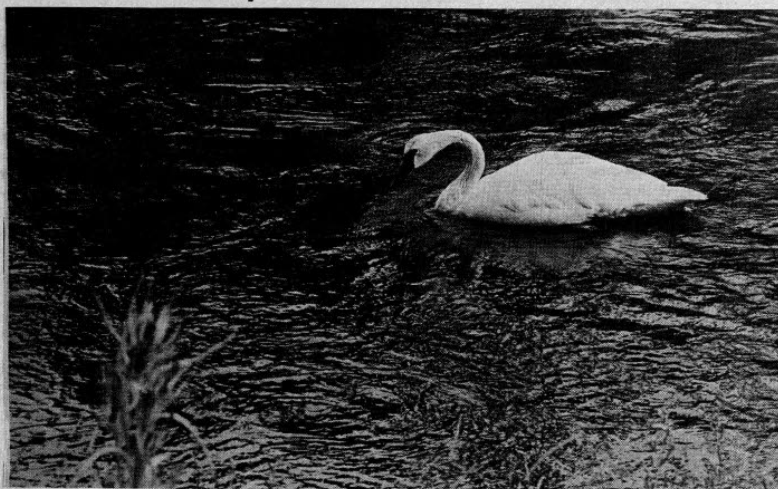
But on the ice of Cygnet Lake, Tern Lake and White Lake sit heralds of nature's renaissance: the majestic trumpeter swans. They are the world's largest waterfowl and the most statuesque of the world's seven species of swans.

Already, in April, they are protecting their territories with loud calls and aggressive evictions of intruders. In May, the cob (male) and pen (female) will display and mate. The pen will pile vegetation into a mound, pluck down from her breast for nest lining and lay four or five eggs. After a month's incubation, two or three will hatch.

Nonetheless, when ice forces the swans off the lakes again in September, these pairs will probably take no offspring with them. Many of the other 85 pairs of trumpeters that nest in the mountainous three-corner area of Idaho, Montana and Wyoming will fail also.

The total number of young swans (called cygnets) fledged by the Yellowstone area's 27 breeding pairs in the past four seasons is less than 25. The 45 pairs at the Red Rocks National Wildlife Refuge west of West Yellowstone, Mont., are similarly plagued with high cygnet mortality. The story is the same in the Grand Teton National Park vicinity near Jackson, Wyo.

Until recently, swan defenders had been "grasping at straws" trying to settle on the cause of the problem, according to biologist David Weaver of the



THE SWAN'S LONG NECK gives it access to its preferred food: aquatic vegetation in water two to four feet deep. With 25 vertebrae in its neck and a total of 60 vertebrae, the swan is the giraffe of the bird world. In fact, the swan has more vertebrae than any other animal, even a giraffe.

Trumpeter Swan Society in Maple Plain, Minn.

Now some troubling new information has come forward.

Ruth Shea, district biologist for the Sawtooth National Forest at Fairfield, Idaho, has closely monitored the tri-state trumpeter population for four years. In her master's thesis completed in early 1979, Shea said human disturbance and the shortness of the ice-free

season were contributing, but not major, causes of the problem.

Shea said that the abnormal number of infertile eggs and weak, deformed and undersized cygnets she found at Yellowstone area nests indicated that certain pairs "seem chronically weakened" from an unknown, but more basic, cause. Shea speculated that accumulation of blood parasites or trace elements in swan tissue might be the culprit.

Recent analysis of 13 clutches of swan eggs suggests that Shea may be correct. The results have implications for the entire Yellowstone ecosystem.

"Laboratory analysis of the eggs showed high levels of alpha-emitting radioactive substances," Shea says.

The radioactive elements "are probably from natural sources, such as the rhyolite rock of the area, and build up in the food chain," Shea says. "It's too early to draw any conclusions, but I would bet each bird's individual radiation level has a direct link to survivability."

Shea says the eggs were collected in Yellowstone and in adjoining national forests. The egg with the highest radioactive level was from Red Rocks National Wildlife Refuge.

AFTER MANY A SUMMER

Swans are among the oldest of birds, having graced earth's waters for 30 million years.

Before the settlement of North America, trumpeter swans nested from arctic Canada and coastal Alaska southward into Alberta and the northwest U.S. eastward to Minnesota and Iowa. They wintered in British Columbia, the northwest states, through the northern Rockies and Midwest to the lower Mississippi and the central Atlantic states.

But as with grizzly bears, buffalo and whooping cranes, settlers and hunters in the 19th century left only small swan populations in the remotest areas. Mig-

rating trumpeters were shot for market and subsistence. Their feathers were used for powderpuffs, coverlets and drawing pens. Between 1823 and 1880, the Hudson's Bay Company sold 108,000 swanskins in London, most of them trumpeters.

Although killing trumpeters was outlawed by the migratory bird treaties of 1916, Massachusetts ornithologist Edward Howe Forbush predicted it was too late. The trumpeter swan, he said, "is a vanishing race. In most parts of North America it is a bird of the past."

When a 1931 survey found only 50 trumpeters in the U.S., concern mounted quickly. The regal, white birds became the first symbol of endangered species preservation in America.

Yellowstone Park was established to protect the geysers, the canyon and the lake. But its creation in 1872 also served to protect wildlife, including swans.

Those trumpeter swans that nest in the Grande Prairie region of northwest Alberta and migrate to Yellowstone Lake during the fall were saved from the depopulation that occurred during duck-hunting season in settled areas.

Most trumpeters that nested in the Yellowstone area and migrated to lower altitudes for winter had been eliminated. But vestigial groups of their non-migratory cousins that wintered on the hot spring waters of the tri-state area had escaped.

In the 1930s, the National Park Service put a high priority on protecting both remnant groups. Recognition of Montana's Centennial Valley west of the park as prime trumpeter breeding ground led to the creation of Red Rocks Refuge in 1935. The 26 swans there in 1932 multiplied to 332 by 1956.

In 1938, Red Rocks cygnets were transplanted to the National Elk Refuge at Jackson, Wyo., and soon swans were breeding again in Grand Teton National Park.

The mid-continental population grew by 10 percent a year from 1934-54. That

Cygnets reclaim Dakota swamp

With a little help from man, trumpeter swans have reclaimed a part of the Midwest as their own.

In 1960, 20 trumpeter cygnets were transferred from the Red Rocks National Wildlife Refuge in Montana to the Lacreek NWR in south-central South Dakota near here. They were placed in a fenced pond and their wings were clipped.

Most of the cygnets were allowed to grow wing feathers and become free-flying the next year. They began investigating their 10,000-acre home, half of which is water and marsh.

In the summer of 1963, two pairs nesting on the refuge produced the first cygnets known to have been hatched in the Midwest since 1895. They again nested successfully in 1964 and 1965.

Soon, the 37 other cygnets brought to Lacreek from Montana in 1961 and 1962 were also nesting. Pairs had scattered up to 200 miles from the refuge to nest.

In the winter, they bring their young back to Lacreek where they are fed cracked corn and barley.

The Lacreek population has grown by 20 percent a year and now numbers 200. This is cause for jubilation for trumpeter devotees like Harold

Burgess, vice-president of the Trumpeter Swan Society and a former refuge manager for the U.S. Fish and Wildlife Service at Lacreek.

"The Nebraska sandhills area near Lacreek was historically one of the greatest swan nesting areas," Burgess says. "In fact, I don't doubt the claim of a Sheridan County rancher who says the trumpeters were never totally extirpated from his area, which is quite inaccessible."

Burgess says the limiting factor on the Lacreek population is suitable wintering habitat. The swans haven't yet regained the instinct of their forebears to go south for winter. "But the birds are doing some scouting," he says. "Two years ago, six of them showed up in northern Missouri. Unfortunately, three were shot."

Burgess says his society would like to restore a trumpeter population that winters in the Mississippi Valley, where John James Audubon "saw thousands of swans come in to land on the river above Cairo in 1810."

Burgess says much of the river "is channelized but there are a few oxbows in Missouri and Tennessee which would work."

The trumpeter society also hopes to establish three new swan flocks in eastern North America.

April 18, 1980 — High Country News-7

While Northeast frets, acid rain wets the West

by Maureen Dempsey

TALLER STACKS

success, plus the discovery that the 4,000 swans that breed in southern Alaska and winter along the coast to Oregon were trumpeters instead of whistling swans eased concern about the birds' survival. (The more numerous whistlers, which breed in northern and western Alaska, are smaller but difficult to distinguish from trumpeters.)

By 1968, the tri-state population had grown to about 800, with 600 year-round swans and 200 Alberta breeders. The trumpeter was removed from the rare list of the U.S. Fish and Wildlife Service's Red Book and, on the surface, everything looked rosy.

Monitoring in the 1960s was showing, however, that the mid-continental population had ceased to grow. The adult population declined by 22 percent between 1964-68. Cygnet production was very low.

Shea's study revealed that breeding pairs in the Yellowstone area would require 22 years to replace themselves at the 1977-78 rate of fledged cygnets. The average post-1968 rate in the tri-state population would require 8.8 years for a pair to replace itself. "Even at this rate," Shea wrote, "the population will continue to decline."

WINTERING WOES

Prior to Shea's egg analysis, biologists could only point to inadequate wintering areas as the cause of the problem.

When ice forces the Yellowstone families and the migrating Alberta swans out of Yellowstone in December, most of them fly to a 10-mile stretch of the Henry's Fork River in Harriman State Park near Last Chance, Idaho. When sufficient water is released from the Island Park Dam upstream, the Henry's Fork remains ice-free during the coldest months.

Six hundred trumpeters congregate along the Henry's Fork some winters, with another 300 gathering at Red Rocks. These concentrations worry Shea and other swan advocates.

"It is important to disperse the wintering swans to reduce their vulnerability to disease, competition and habitat destruction," Shea says. A swan management committee is now studying possible sites for new wintering areas.

The Idaho Parks Department spared the wintering swans further stress in 1978 when, after objection by Shea and others, it reconsidered a decision to open the state park to motorized and non-motorized winter recreation. The park is now an October-to-April swan refuge.

Shea feels that the "future of trumpeters outside of Alaska rests on the protection of the non-refuge migratory swans" and she finds "a lack of local awareness regarding their rareness, the importance of their migratory patterns and their vulnerability."

Swan biologists are not calling for putting the trumpeters back on the threatened list. But David Weaver, secretary of the Trumpeter Swan Society, says, "We certainly feel that the trumpeter should be on the 'keep watch' list with close attention paid to its habitat and welfare."

Weaver says the radioactivity study is the "first real lead" on causes of reproductive failures by tri-state swans. He says the Society is hoping to arrange funding for further studies of the problem.

In the meantime, the numens of Yellowstone's wilds have returned for another try at making more of their kind.

Southeast of Rocky Mountain National Park and north of Denver, where the Continental Divide curves along the country's backbone, acid precipitation has increased seven-fold since 1975.

The phenomenon, known as acid rain and previously thought to be restricted in North America to the Midwestern and Northeastern United States and Canada, is spreading its environmental ills to the Rocky Mountains and the West.

Tests for acid rain were conducted over five years at the Como Creek watershed, 9,500 feet above sea level in an area covered with conifers, aspen and alpine vegetation. Nestled in the Indian Peaks Wilderness Area, the watershed lies 30 miles north of Denver, 10 miles from Boulder. State Highway 72 passes within a few miles of the area, allowing easy access in good weather.

While the area was logged 50 years ago, the area has since been exposed to little human activity, say University of Colorado biologists Michael Grant and William Lewis, and they cannot pinpoint the source of acid in the Como Creek watershed.

But it is clear that while public attention is focused on lakes made barren by acid rain in the Northeast, the problem has found its way to the Rockies, too.

AUTOS, POWER PLANTS

The source of acid rain, like its effects, is a matter of some controversy. Sulfur and nitrogen oxides from power plants, factories, and automobiles combine with moisture in the atmosphere, and the acid clouds are then carried by prevailing winds hundreds and even thousands of miles from their source. When an acid cloud drops its load, it can endanger lakes, vegetation and man-made structures.

Efforts have been made to curb oxide emissions. But acid rain has increased during the past 20 years due to a rise in the burning of fossil fuels, especially coal.

It is expected that sulfur dioxide emissions will increase with the present tilt toward coal as an energy source. The Department of Energy's "oil-blackout plan" calls for a shift from oil to coal at 100 or more major power plants around the country.

The National Energy Plan proposes to double coal production by 1985, so that by 1990 an estimated 19 to 23 million tons per year of SO₂ pollution will be generated.

Lewis and Grant speculate that the acid rain at Como Creek may be coming from auto exhaust along Colorado's Front Range. But the pollution could be coming from urban areas further west — in Utah or California.

"Climatic factors argue against the Front Range urban corridor being the whole explanation," write Lewis and Grant. "The general movement of air masses is from the west and northwest across the Continental Divide. If the urban corridor is the main source, powerful air currents must be working against prevailing winds to transport the oxides."

Scientists now believe taller stacks built in the last 10 years, in an effort to clean up city air, have transferred an urban problem to the countryside.

The stacks rise 400-1,200 feet above power plants and smelters, allowing the pollution to travel farther from the source. Midwestern factories have been blamed for the acid rain occurring in the East and Canada, just as the East has been accused of blowing its air pollution out to sea toward Norway and Sweden.

Areas downwind of urban or industrial centers are particularly vulnerable to acid precipitation. If the area is mountainous, rain and snow constantly remove acids from passing masses of air, eventually filling mountain lakes with their poisons.

On the other hand, studies by scientists in desert areas near power plants have indicated that plant emissions are sometimes helpful. In 1974, a geologist with the U.S. Geological Survey reported after eight years of study that fly ash from the Four Corners power plant in New Mexico was actually enriching the soil in arid desertlands miles from the plant. Limited amounts of acid rain may help to balance alkaline soil, defenders of power plants say.

And the Sulphur Institute, an international association of sulfur producers, says that not enough sulfur is being emitted under present clean air standards, resulting in a decline in necessary sulfur in croplands.

But lakes in "hardrock" areas, where the bedrock is granite, gneiss, quartzite or quartz sandstone, are more sensitive to the effects of acid rain than other areas. The Rockies and Adirondack Mountains in New York fit into this category.

The overlying soil is relatively thin and already acid. Hence, the watershed is affected more quickly by an added load.

Intensive studies by scientists in the Adirondack Mountains have

Fish, vegetation and even buildings are susceptible to acid rain. Fish stop reproducing, conifer needles are stunted, and limestone and marble can be eaten away.

documented the impact of acid rain on lakes and creeks. About 100 or more lakes at higher elevations are now devoid of the trout, perch and other fish that flourished in the waters 20 years ago. Over the years, the fish became stunted, deformed, and eventually died. Reproduction stopped, and restocking the lakes proved fruitless.

ACID SHOCK

Acid builds up over the winter in snowfall. Spring thaws occur at about the same time as the spawning season of fish, and the effect is devastating. "Acid shock" can kill hundreds of fish in one thaw as snow runs into the lakes and streams.

Grant believes the fish in the Como Creek area may be in danger if the trend of increasing acidity continues. The lakes are chemically similar to

those on the East Coast but the problem has not yet become as severe, he says.

Less certain is the effect of acid rain on soil, vegetation and human health.

Researchers have discovered in laboratory experiments that nutrients are leached out of soil showered with simulated acid rain. But it is difficult to determine the precise impact on agriculture and forests, because so many factors can affect plant growth.

A research summary on acid rain published by the Environmental Protection Agency in October 1979 states: "Preliminary research indicates that the yield from agriculture crops can be reduced as a result of both the direct effects of acids on foliage and the indi-

In the East, some of the rain now falling is as acidic as tomato juice or even vinegar.

rect effects resulting from the leaching of minerals from soils." The report suggests that forest productivity may be affected in the same manner.

Clancy Gordon, a biologist at the University of Montana, has been studying the effects of acid rain on conifers since 1969. At that time, according to Gordon, "the Christmas tree syndrome" was occurring on the East Coast, causing erratic needle growth. Insects were initially blamed for the damage, but in laboratory experiments conducted at the University of Montana, acid solutions had the same effect.

Gordon explained, "The conifer needle has an Achilles heel — a sensitive circular cup at the base of the needles. When acids get into this cup, photosynthesis is reduced, causing the needle damage."

The Montana biologists have tested conifers in 25 sites around the country and found similar acid damage in Montana, Washington and California, among other states.

According to a film report prepared by NBC, acid rain can leach heavy met-

als from the air and earth and deposit them in lakes and streams.

A Swedish scientist, Arne Jernelov, has done studies on the correlation between the acid level of lakes and the mercury levels found in fish. He has found that the higher the acidity in the water, the higher the mercury in the fish's system.

Man-made monuments and buildings may not be immune to the acids either. Limestone, marble and some metals can be eaten away by acids.

WESTERN RESEARCH

Acid rain has been dubbed the "environmental peril of the '80s," but research is still in its infancy, particularly in the West.

The University of Wyoming hopes to (continued on page 12)

8-High Country News — April 18, 1980

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Bob Anderson

POWDER RIVER BASIN, Wyo. — Those few geographers who have bothered to look at northeast Wyoming's Powder River Basin traditionally have defined it by its margins rather than its interior. They point out that it lies between the Bighorn Mountains on the west and the Black Hills on the east. Some may mention the Laramie Range to the south, but the northern border remains nebulous, somewhere up there in Montana. Devils Tower is usually mentioned — as a national monument and a top rock climbing challenge, and sometimes as the backdrop for the movie *Close Encounters of the Third Kind*.

Close to the geographic center of the U.S., the Powder River Basin is as far, on the average, as one can get from an ocean. There is, indeed, a paucity of water. Three largish lakes exist, all of them along the borders of the basin, but only one, Lake DeSmet, is natural.

Some modern geographers have gone beyond the borders and the movie sets to identify the Powder River Basin with its massive coal deposits. That at least reveals the basin's geological gut: Coal. Coal in places more than 100 feet thick. The Wyodak-Anderson seam, the Felix seams, the Healy seam and more.

While a relatively new factor in the basin's economy, coal has defined the physical landscape for years. The hills one drives through near Gillette on the east and near Sheridan on the west are clinker hills — manifestations of a process that involves burning seams of coal exposed to air. For perhaps a million years these seams have burned sporadically, baking the nondescript sandstones and shales above them to a bright red, yellow, purple or maroon. Baked rock becomes harder; it clinks to the blow of a hammer. It's so tough it

resists erosion, and protects layers far beneath it from the wind and rain. So the clinker stands high in the land, capping hills and little plateaus above what used to be coal.

But a clinker deposit is not uniform. Some areas are harder than others, having been baked to differing degrees by the fire beneath, which is sometimes roaring, other times gasping for breath through cracks leading to the surface. The rocks around these cracks, called fracture-vents or chimneys, are baked at the hottest temperatures, sometimes to the point of melting or "fusing." So the chimneys are the toughest, and stick around the landscape the longest, buttressing the more resistant of the clinker hills.

What has made the coal burn in the first place? Some say lightning or prairie fires ignite the coal. But geologists lately seem to have settled upon the somewhat undramatic conclusion that the coal self-ignites. The volatile chemical make-up of this particular set of coal seams allows the normal oxidation process to accelerate. So once a coal seam is exposed to the air in an outcrop and is sufficiently clear of the ground water system, it is susceptible to spontaneous combustion.

When the members of the Federal Writer's Program were researching material for the Wyoming edition of the American Guide Series in the late '30s, they described the Gillette area as follows:

"Gillette, (4,544 alt., 1,340 pop.), seat of Campbell County, has a flour mill and oil refinery. In the region around it are more than 30 burning coal mines, apparently ignited by lightning, by campers' fires, or by spontaneous combustion. Indians and trappers who visited the country in the early 1800's reported one deposit burning then. Some of the larger ones glow distinctly at night. Wide crevices open above the burning coal; it is said that a man on horseback once rode into one near the narrows on Little Thunder Creek, about 50 miles

south of Gillette. Animals often walk into the fissures."

Though I think there must have been some confusion between mines and simple outcrops, 30 fires is still quite a few. The place must have looked downright volcanic. I have heard, though I have not seen it in print, that some of the WPA crews in the Powder River Basin were assigned to put out these fires. That would not have been an easy task.

The tenacious fires in abandoned underground mines north of Sheridan, Wyo., may be attributed to the same cause — spontaneous combustion when coal is constantly exposed to air through shafts and cracks in the overburden. (This is a surprisingly large problem in the West, where in 1972 some 270 abandoned mines were reported to have been burning out of control.) Suggested techniques for subduing such fires — beyond the traditional chemical fire retardants — include the construction of strip mine fire breaks, which cut off access to fuel.

But back to the clinker hills.

The wanderer or the worker in this landscape can scarcely avoid them. Antelope, Red, Indian, Saddlehorse, Sasaki, Eagle, Sharp — their names dominate the map. Others are named as groups: the Yellowhammer Buttes, the Latigo Hills and the most prominent of them all, the Rochelle Hills. These last represent the burning of the Wyodak-Anderson seam which, despite attrition by fire, still feeds all the big mines of the basin's east side.

I was asking a local ranch hand about the hills south of Gillette. He said, "We mostly like to call them the lava hills on account of the jagged lava rock on top." I admitted the resemblance of the hills to the cinder cones produced by volcanoes, but I mentioned the newer theories on the topic. He allowed as how coal could be implicated and said, "Well, to tell the truth, all I really know is these here rocks got burnt."

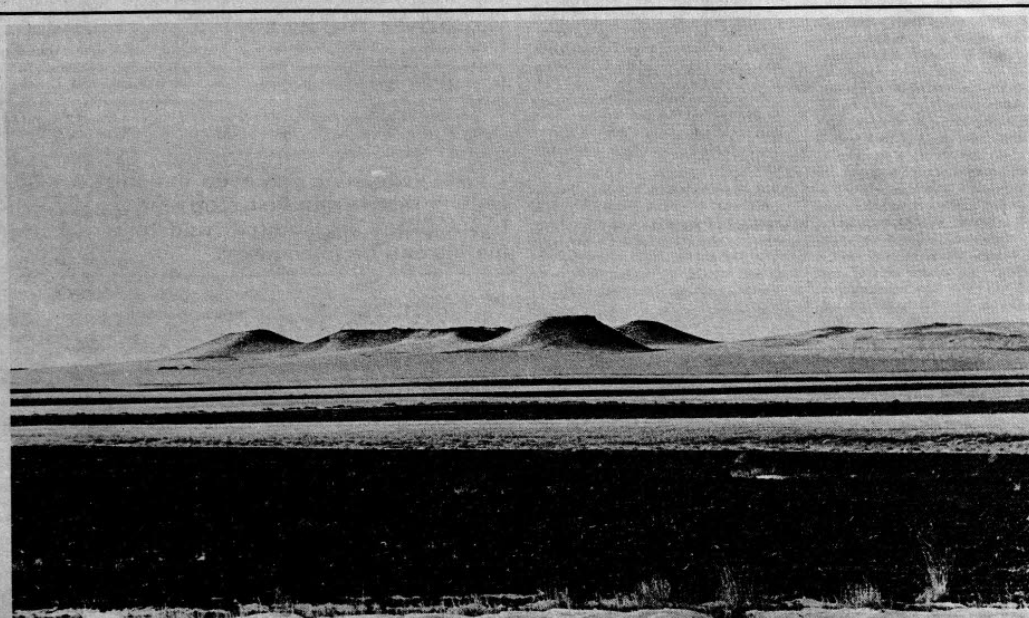
AT RIGHT: Man patterns the surface with plows, but the horizons are nature's own.

Photos and text by Bob Anderson

And that is about all you need to know, really. Call it clinker, or call it scoria, lava rock, sintered shale, red dog, porcellanite, buchite; it is all about the same thing — burnt rock. Here old mother Nature has cooked up a mighty fine landscape.

Bob Anderson, writer, photographer and geologist, is working on the Colorado Department of Natural Resources' Abandoned Mines Project. He studied Wyoming's clinker hills while working as a ranch hand near Gillette, Wyo., last summer and has served as a consulting geologist for the Powder River Basin Resource Council. He has a master's degree in geology from Stanford University.

Inside the Powder River THE COAL-FIRE



A CLINKER PLATEAU northeast of Wright, Wyo., broken in places into distinctly conical buttes.

ns the surface with
re nature's own.

Bob Anderson



AT RIGHT: A clinker mound
southeast of Gillette, Wyo.

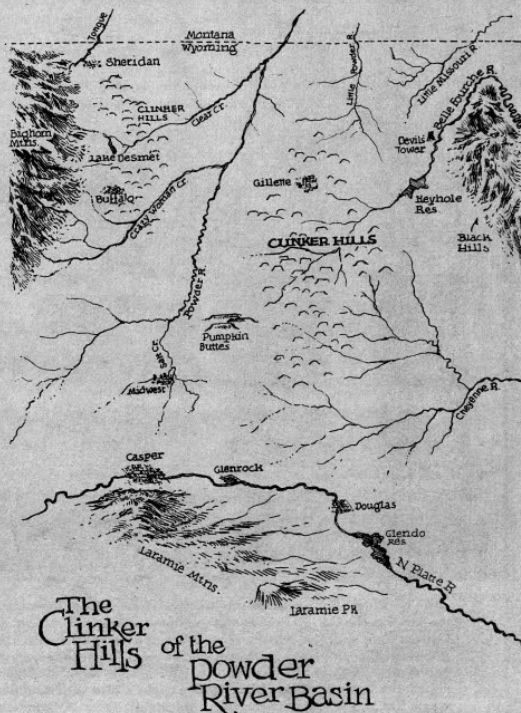
Powder River Basin

AL-FIRED HILLS OF CLINKER



ABOVE: The buffalo of Durham Ranch in the Powder River Basin
roam through the clinker hills.

BELOW: A string of buffalo head around a heap of clinker en route to
the feed truck.



10-High Country News—April 18, 1980

ENERGY

Platte oil splat coats birds, beaver with crude

by David Crosson

GLENROCK, Wyo. — A Marathon Oil pipeline running along the North Platte River in Wyoming broke the night of April 8. The breach wasn't discovered until morning, and by the time the valves were shut, 8,500 barrels of crude — more than 350,000 gallons — had oozed past Glenrock's sewage treatment plant into the North Platte.

Two men were badly burned when recovered oil exploded while being transferred from a truck to a storage tank. It is feared that the beaver and muskrat populations along a 50-mile stretch of river have been wiped out by the slick. Perhaps the most serious ramification of the incident is the plight of oil-soaked birds in the area.

The North Platte is a resting area on a major North American waterfowl flyway. The river also is a significant nesting area. With the bird population in the area now at its annual high, the oil spill could not have occurred at a worse time.

Strong winds have made slicks on the river particularly attractive places for birds to set down. Worse yet, during the first week after the spill, oil-coated birds were subject daily to wet snow showers, and oil renders a bird's insulation utterly ineffective.

Already, more than 200 bird deaths have been recorded. Little hope is held out for countless others, oiled but still on the wing.

RESCUE EFFORT

Thirteen oil collection booms are now in place on the river. Over half of the oil reportedly has been recovered.

To date, more than 400 people have been involved in catching and caring for the oil-soaked birds, 125 of which are still alive with good prospects for recovery. The list of invalids includes Canada geese, mallards, mergansers, pintails, widgeons, gadwalls, teal, goldeneye, a kingfisher, a great blue heron, a red-tailed hawk, and a great horned owl.

Walt Mersch, president of the Murie Audubon Chapter in Casper, and a Gulf Oil employee, revealed in the volunteers, calling them a "mindboggling hodgepodge."

With a note from home, students at Glenrock High School have been allowed to tramp the river's edge for birds. A hundred laborers involved in firing the boilers at Pacific Power and Light's Dave Johnston plant regularly have been stopping by to help warm, wash and feed the birds.

A key organizer has been Alice Beckner, for nine years the executive director of the Bird Rescue Research Center of Berkeley, Calif. Beckner was flown in by the Wyoming Game and Fish Department. She says she is "staggered by the phenomenal response" to calls for help.

MORE TROUBLE AHEAD?

But the crisis may not be over.

The North Platte water level was reduced after the pipe break, leaving a lot of crude high and drying. Now, upstream, the Alcova and Pathfinder reservoirs are filling fast with spring runoff. When that water is released, no one is certain that it will adequately flush the crude. Experts say the oil may have lost too many of its volatiles to lift off and float down to the collecting booms.

Nor is anyone yet sure what the impact of the oil spill will be on plankton and other life in the river that support fish, as well as birds and beaver.

Several observers say the spill demonstrated the need for more rigorous contingency plans to cope with spills. Said Mersch: "When this thing happened, everyone was there — Fish and Wildlife, Game and Fish, EPA, the Coast Guard, Marathon — but no one was really in gear to do anything."



—Company

by Bob Gottlieb
and Peter Wiley

One by one they came to the Biltmore in Phoenix in December to pay their respects. A governor, two senators, two congressmen, a high official from the Department of the Interior, an administrator from the Department of Energy who implored his hosts to "use me," a high-level energy official of the Canadian government and even a slightly befuddled presidential contender from Massachusetts, all of them appearing before the third annual meeting of the Western Regional Council.

The WRC is an increasingly powerful but still relatively obscure organization comprising the top executives from the very largest banks, utilities and corporations (particularly energy corporations) in the intermountain West.

The WRC is designed to give Western business leaders a voice in public affairs commensurate with the growing importance of the vast store of mineral wealth locked in the mountains and deserts of the region. According to one speaker at the conference, WRC members are looking for a "new Western identity." Central to WRC's success and a new identity is resource development and the future of the West as a major producer of coal, oil shale, uranium, oil and natural gas.

The group originated three years ago in Salt Lake City in the wake of the epic fight over coal development on the Kaiparowits Plateau in southern Utah and the conflict between Kennecott Copper and the Environmental Protection Agency over clean air regulations. B.Z. (Bud) Kastler of the Mountain Fuel Supply Company; Calvin Rampton, former governor of Utah and perhaps the wildest power broker in the entire mountain region; and top executives from Kennecott initially put together a coalition of corporate executives primarily from Utah to take on the EPA on the clean air issue.

Simultaneously in Denver, Bruce Rockwell, chairman of Colorado National Bank, was approached by Gov. Richard Lamm of Colorado. Lamm wanted Rockwell to organize a "private sector" group to parallel the newly created Western Governors Policy Office (WESTPO), an organization of governors from the 10 states spanning the Rocky Mountains and the Southwest. Phil Burgess, staff director for WESTPO, was wary of the newly formed Western Regional Council and hoped, through Lamm's contact via Rockwell, to create a private-sector group more in tune with Burgess' hopes for WESTPO. But Rockwell dropped his effort as soon as the WRC expanded its base beyond Utah and began to approach several of the largest intermountain banks and corporations, including the energy giants which have adopted Denver as their latest base of operations.

Today, the WRC has established it-



Photo by David J. Spear

250 PROTESTERS, upset over a proposal to set off explosives in the Bob Marshall Wilderness, marched to the U.S. Forest Service regional office in Missoula, Mont., last week. Consolidated Georex Geophysics of Denver plans to set off over 5,000 charges along a 200-mile route in the Bob Marshall, Lincoln-Sagegoat, and Great Bear wilderness areas, attempting to locate natural gas reservoirs. CGG would then sell its information to oil and gas companies. A Forest Service representative said the regional office could make a decision on CGG's plan as early as next week, but added that there were "problems with the environmental assessment and legal questions that haven't been brought out yet," which might delay a resolution.

NRC DELAYS LICENSE. Pressured by environmentalists and Wyoming Gov. Ed Herschler (D), the Nuclear Regulatory Commission postponed relicensing Western Nuclear, Inc.'s Split Rock uranium mill near Jeffrey City, Wyo. The NRC had tentatively planned to renew the mill's license this month. But the Wyoming Outdoor Council con-

tended that the mill's tailings pond is seeping dangerous radioactive materials into the aquifer. WOC and state officials fear the radioactive seepage, which is taking place at the rate of 1,300 gallons a minute, may reach the Sweetwater River. An NRC representative said the agency would review Western Nuclear's environmental report to the state Department of En-

vironmental Quality before making a decision, probably in May.

POWDER RIVER LEASING. The state of Wyoming has signed an agreement to have representatives on a Regional Coal Team with the federal Bureau of Land Management that will make decisions on federal coal leasing

in the Powder River Basin. At the same time, the BLM has begun soliciting coal company interest in Powder River tracts. The area, with estimated reserves of 23 billion tons, is said to have the richest coal seams in the country. 151,540 acres of federal land are rated as having "leasing potential" in the area.

chiefs court West's energy development

self as the dominant voice of corporate power in the region. Rockwell calls it "a no-nonsense group" with none of "the Chamber of Commerce-type crap." The members are the top men in their companies: either the chief executive or, as in the case of the energy giants headquartered outside the area, the senior vice president in charge of the company's regional office.

The WRC has been guided from the outset by Bonneville Associates, a consulting firm of young, ambitious, policy-oriented professionals which is based in Salt Lake City. Bonneville does the leg work for the group, researching and monitoring legislation, setting up lobbying sessions such as the recent WRC meeting with 18 Western senators and another with top White House aides, and taking care of the logistics of the organization.

"FAST-BLOOMING ROMANCE"

The Western Regional Council focuses its main efforts on three groups: the Western governors and most particularly those belonging to WESTPO; congressional delegates from the eight Western states; and various officials of the federal government, most particularly those in the departments of the Interior and of Energy.

Gov. Scott Matheson of Utah, the new chairman of WESTPO, described WESTPO's relationship with WRC as "a fast-blooming romance." He spoke of a coalition of governors, congressmen, administrators, WESTPO and the WRC business community as the key to a prodevelopment coalition for the '80s.

The WRC has succeeded in developing friendly relations with nearly all congressional delegates from the Western states. The attitude of Representative Gunn MacKay (D-Utah) is indicative. When MacKay heard that the WRC was organizing the Phoenix meeting and had invited a number of prominent speakers, he contacted the group and asked to be included. "He fell all over himself trying to get in," recalled one staff member. At the meeting, MacKay, who is an unabashed advocate of resource development, combined deference ("You are the people who have succeeded, who know how to do things") with an exhortation to "go out and get 'em." The 1980s will be the decade of the West," MacKay exclaimed before his hosts, echoing a theme constantly evoked during the two-day gathering.

Representative Morris Udall, a Democrat from Tucson, evoked a somewhat different response, however. Udall, as chairman of the House Interior Committee, is the most powerful congressman dealing with Western affairs, but he is considered an adversary because of his support for strip-mine reclamation and protection of Alaskan wilderness, and his authorship of legislation restricting the control which major oil companies may exert over other energy resources. During a rela-

tively polite session, he was confronted with only one sharp question referring to his "stinker of a bill" on divestiture. In a hallway encounter after his speech, however, Udall was bitterly reproved by two representatives of Burlington Northern Inc. for his support of slurry pipelines in the fight with railroads over coal transportation.

Special attention was given at the meeting to the play for resources on Indian reservations and in Mexico. Most corporate leaders recognize that the era of convincing Indian tribes to sign contracts that provide exorbitant profits for the producers and meager royalties for the tribes is at an end. At the same time they are cautiously probing the nature of Mexican nationalism.

The energy producers, through the lease-negotiating process with the tribes, are trying to figure out just how the new demands for Indian sovereignty coincide with industry's growing need for Indian resources. Such demands include better leases, reclamation of the land and recognition of tribal authority to levy taxes.

One group within the WRC sees the need to adjust to the new terms while attempting to salvage some degree of corporate control. "We have to realize," one energy executive told his WRC cohorts, "that in order to survive we can't treat these situations as a 100-percent profit orientation because we also need to develop our reputation. It's like dealing with a foreign government; they have to feel they made a good deal."

FAVORITE ISSUES

To implement overall policies, the day-to-day work of the WRC is carried out by a series of ad hoc committees created to deal with particular issues such as the Clean Air Act. The group has an issues committee that reviews requests to create such committees and helps allocate funds. The \$300,000 annual budget is raised by imposing a membership fee of \$5,000 per company as well as special assessments for meetings, seminars and other gatherings.

Through 1979 and into early 1980 eight of these ad hoc committees were functioning. The topics being addressed indicate the scope of the role the WRC hopes to play in public affairs:

— Clean Air: to influence implementation of the Clean Air Act as well as to challenge its general approach;

— Coal: to influence new leasing regulations for publicly owned coal;

— Divestiture: to oppose Sen. Edward Kennedy's bill which prohibits the 16 top oil companies from acquiring any other firm with more than \$100 million in assets, and Udall's bill barring the eight largest oil companies from obtaining mineral leases on federal lands;

— Energy: to influence the implementation of President Carter's energy proposals such as the Energy Mobilization Board, the synfuels prog-

ram and the Energy Securities Corporation;

— Regulatory reform: to bring about the inclusion of a "regional variation provision" in regulatory legislation that might exempt or make exception for the region because of extant peculiarities;

— Transportation: working for the adoption of a multistate-highway agreement;

— Water: to influence federal water policy and to participate in a suit against the Sierra Club concerning instream values in southern Utah and northern Arizona;

— Wilderness: to focus on the RARE II regulations that will designate wilderness areas and thereby preclude mining, drilling, and other development.

The emergence in recent years of new state and regional business organizations like the Western Regional Council is part of a general business offensive that is particularly directed at environmental legislation passed in the early '70s. To a great extent environmentalists have replaced labor unions, new leftists and civil rights groups as the chief bugaboo of the business elite. Gunn MacKay warned the WRC: "Unless you get together, the activists will rule the country." And WRC member Keith Turley, head of Arizona Public Service, coined the term "social disrupters" in a recent speech about the need for progrowth leadership in Arizona.

Attitudes among WRC members are by no means monolithic: They range from the "Neanderthal" approach, which sees a dangerous environmentalist lurking behind every pinon tree and cactus, to the smoother, more contemporary approach of practiced politicians such as Robert Anderson and Ralph Cox of Arco and Anaconda. Anderson and Cox talk about adapting to circumstances rather than riding roughshod over adversaries and partners. But both the "contemporaries" and the "Neanderthals" still work well together when it comes to figuring out how to modify environmental laws or to scrap them if and when such a possibility might arise.

All the WRC members recognize the increasingly vital role the vast resources of the West will play in the future. The very speed with which coal, shale and uranium have been grabbed up and brought either into production or to the edge of production — like the speed with which Denver has become a major energy capital — has created a power vacuum. The old elite has been overwhelmed by bigger and more powerful players headed by the major oil companies. Through the WRC, these players are looking for a regional alliance to achieve a balance between the biggies and the locals and to create what they call "a new Western consciousness."

Nonetheless, the WRC is a peculiar alliance. Its province is the West

excluding California, and the Pacific Northwest. In Salt Lake City the WRC is represented by older companies such as Kennecott, Mountain Fuel and Utah Power & Light (all three of which are interlocked with the Mormon Church through their boards and stock ownership), as well as the giant pipeline outfit Northwest Energy Company.

Phoenix is represented by the Valley National Bank (the key financial institution in Arizona), Arizona Public Service Company and a couple of mining companies and their lawyers. The major utility groups from New Mexico, Idaho, Nevada and Montana all play a role, with Jerry Geist, chairman of Public Service of New Mexico, serving as the 1980 chairman of the group.

From Denver, there are local banks and utilities and a number of major oil companies such as Standard Oil Company of Indiana (Amoco), Arco and Oc-



"You are the people who have succeeded, who know how to do things."

— Rep. Gunn MacKay (D-Utah), speaking to the WRC.

cidental, which are headquartered outside the area. These giants represent a new linkup between the big boys — who hail from what John Love, former governor of Colorado and a WRC member, calls the money centers (New York, Chicago, California) — and the smaller local concerns that are riding on the shittails of the energy boom.

At stake is the West's last great jackpot: millions of tons of uranium, billions of tons of coal and trillions of barrels of oil from shale. WRC members are angling for control of this huge mineral hoard. Western resource development is approaching this last great American frontier, but the final scenario is yet to be written.

A longer version of this article appeared originally in *Straight Creek Journal*.

12-High Country News — April 18, 1980



by Lonnie Rosenwald

BOISE, Idaho — Environmental issues — ranging from water quality standards to radiation control — often occupied center stage during the 85-day 1980 Idaho legislative session that ended March 31. But this session produced more bark than bite, as the lawmakers killed most attempts either to protect or exploit the state's natural resources.

The chief environmental victory of the session was the legislature's vote to protect the famed Silver Creek trout stream from further stream flow depletion. Idaho Fish and Game Department officials hailed the measure as a boost for spawning and migration in one of the nation's best brown trout fisheries.

A house conservation committee first rejected the measure, but a campaign spurred by the state Fish and Game Department produced 385 letters for protection. Testimony before the state

Water Resources Board ran 30-5 in favor of saving the stream, highlighted when Jack Hemingway, son of novelist Ernest, pleaded for the creek. The final vote by the legislature was unanimous for protection.

Fish in the Snake River did not fare as well. After a battle that took three mornings of committee hearings and two and a half hours of floor debate, the Senate narrowly approved a bill to lower dissolved oxygen standards below dams throughout the state. U.S. Environmental Protection Agency officials immediately threatened to overrule the measure, which made Idaho oxygen standards the lowest in the Northwest.

The lower standard was sought by the Idaho Power Company, whose spokesmen said the utility is unable to meet the existing oxygen standard below the American Falls Dam on the Snake River without adding economically-prohibitive pollution control equipment. However, an environmentalist-funded study found that the cost of the equipment, if passed on to consumers, would add less than 50 cents a year to the average home water bill.

Other environmental efforts took a legislative beating. A vehicle inspection and maintenance program lost despite the backing of urban developers afraid of losing federal transportation funds. A proposal to set up a six-member staff to monitor nuclear research at the federal National Engineering Laboratory at Idaho Falls was cut back to a two-member team.

While environmental proposals were dying on the legislative vine, attempts to dismantle existing programs fared no better. Most "Sagebrush Rebellion" measures, aimed at transferring federal lands and responsibilities to states,

floundered. The legislature passed only a watered-down measure calling for a congressional study of the impact of federal laws on land use.

A proposal to make land use planning a local option passed both chambers, but was vetoed by Gov. John Evans (D).

In the hardrock mining realm, the South Fork of the Coeur d'Alene River in North Idaho was exempted from anti-degradation laws after a representative from a mining district said protection posed problems for the silver-producing industry. At the same time, legislators approved tighter controls on

small dredge mine operators. Five applications have been filed to dredge the Salmon River, and are being held by the state Land Board pending a study of mining laws.

Gov. Evans on April 14 said he has called a special session of the legislature next month to clear up several unresolved issues, including the status of the state Office of Energy.

Lonnie Rosenwald is a reporter for the *Idaho Statesman*.

Trackings

followups on previous stories

Urvan

(see HCN 3-7-80 for previous story)

Operators at Union Carbide Corp.'s Urvan uranium mill are rapidly filling a temporary tailings pond, and soon may find themselves without an approved dumpsite for their radioactive wastes.

About nine million tons of uranium tailings are impounded in two ponds atop a mesa 350 feet above Urvan, a company-owned town of 600 south of Grand Junction, Colo. Faced with a potential disaster after impoundment dams leaked across wide areas last year, the Colorado Health Department ordered ponds number 2 and 3 closed early in January. Carbide's operation was briefly shut down, but reopened after health officials approved temporary dumping in the unused pond number 1 located away from the mesa cliff.

The company plans to buttress its dams with a rock berm and drainage system in a two-phase operation to be completed Nov. 1. But the health department has authorized use of pond number 1 only until mid-May, and Carbide officials want a quick go-ahead on one phase of the buttressing project so they can discharge tailings into pond number 3 until all the safety work is completed next fall.

A possible hangup is a report issued March 21 by the U.S. Nuclear Regulatory Commission. After reviewing dam safety factors, NRC inspectors concluded that both phases of the buttressing effort are necessary to protect the town. "We recommend," an NRC official wrote, "that these ponds not be used for the impoundment of additional mill effluent before the completion and approval of the Phase II stabilization program."

Carbide has since developed a modified plan for improving dam safety by May 15 while continuing operations. State engineers and geologists began evaluating the modified plan this week, but even if it is approved quickly, Carbide may be hardpressed to complete the necessary work on time and could face another shutdown.

Before it can obtain a license renewal at Urvan, Carbide must also comply with several other government regulations, including new radiation standards and requirements for longterm tailings management.

Some state officials believe the com-

pany will have a tough time complying and may have to move the town, the mill, the tailings or all three to new, less dangerous locations. A decision on these matters is expected sometime this summer. Meanwhile, 1300 tons of radioactive wastes are being produced daily while the mill is operating.

— TL

Snowy Range Road

(see HCN 12-28-79 for previous story)

Despite organized opposition in Laramie, the Federal Highway Administration has decided to go ahead with a \$6.5 million plan to upgrade Wyoming's Snowy Range Road.

The FHA plans to widen the road, build shoulders, eliminate switchbacks and construct turn-outs and parking areas along a 13-mile stretch of the road at the top of the Snowy Range.

Opposition to the plan has centered on the increased traffic it would bring to an area of delicate alpine tundra. University of Wyoming historian Robert Righter, head of "Save Our Snowies," said the road-building plan would pave the way for "gas-devouring recreational vehicles." The road runs east-west from Laramie to Saratoga, crossing the stunning 10,840-foot Snowy Range Pass.

The project announced by FHA Regional Environmental Program Manager Fred Hemple could be under way in two to three years, using federal funds given to the state under the Forest Highway System. Using all the funds allocated for forest highways in Wyoming, Hemple estimates it will take 10 years to complete the work.

In what was described as a concession to project opponents, the proposed new road width was reduced from 32 to 30 feet. In addition, Hemple told the *Casper Star-Tribune* that over 90 percent of the new road would follow the path of the present road.

"Save Our Snowies" originally wanted the road kept to its present 18-to-20 foot width but later said they would accept a 20-to-24 foot road with some shoulders.

Sen. Malcom Wallop (R) and Rep. Richard Cheney (R) protested the FHA decision, but a Wallop aide said there were no plans to try to block the project.

Righter said recently that the SOS group may ask the Sierra Club Legal Defense Fund to take the road-builders to court.

— GOG

Acid rain...

(continued from page 7)

begin testing water samples from the Snowy Range in southern Wyoming this summer, if funding can be found.

The University of Montana, in research funded by the Energy Department and the EPA, has been studying acid rain in the Colstrip area, before and after construction of the Colstrip I and II power plants in southeastern Montana. At testing areas in the Custer National Forest, downwind from the power plants, readings show rain 35 times more acidic than normal. While this is considerably less acidic than the worst rain in the East, it has caused concern among researchers.

The federal government has allotted \$100 million for research on acid rain. An assessment program is to be carried out over the next decade, supervised jointly by the EPA and the Department of Agriculture.

In the past, the EPA has been accused of dragging its feet on the acid rain problem by not setting tough standards for sulfur oxide emissions from industrial and utility sources. Under the Clean Air Act amendments of 1977, Congress requires the use of the "best available technology" for controlling emissions, but the regulatory battle over what is the "best" form of pollution control continues. The EPA now re-

quires all new coal-fired power plants to remove 85 percent of SO₂ emissions.

The Energy Department's oil-blackout proposals were made with little consideration of the acid rain problem. "We don't know enough about it," says the department's general counsel Lynn Coleman, "and the subject is too controversial to get through Congress."

The EPA isn't sure it has jurisdiction over acid rain problems related to the oil-blackout plan. David Hawkins, an EPA assistant administrator, says the agency is studying the question, and that if it finds EPA is powerless, "We may ask for (power) from Congress."

What the EPA would do, however, remains in question. There is no firm plan for rejuvenating the dead lakes in the Northeast or stifling suspected sources of acid rain in the Midwest. In the Rockies, where the impact of acid rain still awaits thorough research and attention, the wait for action may be even longer.

Maureen Dempsey, a former intern at HCN, is now a free-lance writer in Lander, Wyo.

Research for this article was paid for in part by the HCN Research Fund.

April 18, 1980
— High Country News-13

Western Roundup

House OKs Idaho wilderness bill

In a vote that one observer described as "more exciting than the Olympic hockey games," the House of Representatives this week passed a bill designating a 2.2 million acre River-of-No-Return Wilderness Area in Idaho. Over 100,000 acres will also be added to the existing Selway-Bitterroot Wilderness under the bill.

The legislation now goes to conference, where differences with last year's Senate-passed version will be hammered out.

The vote on final passage was 301 to 93. But the critical showdown between wilderness supporters and opponents came on a substitute bill offered by Rep. Steve Symms (R-Idaho).

The Symms bill would have reduced both the acreage and degree of protection for the River-of-No-Return wilderness, and was narrowly defeated, 179 to 214.

The voting was largely along party lines, however, with only conservative democrats from the West and South crossing over to support Symms. Along the bill's legislative path, voting has been heavily influenced by the fall elections, in which Symms is challenging Frank Church (D-Idaho) for his Senate seat. Church sponsored the Senate-passed River-of-No-Return Wilderness bill, from which the final House version was patterned.

Earlier in the evening, conservationists lost on an amendment by Rep. Peter Kostmayer (D-Penn.) to add a 59-mile segment of the Salmon River to the wild and scenic river system. There were less than two dozen representatives on the floor at the time,

and the show of hands was roughly 5 in favor and 12 opposed.

As a result, there are three versions of protection for the Salmon River being considered: The administration wants a full 237 miles included in the system; the House bill calls for 178 miles; and the Senate version would designate 125 miles.



Conservationists were also unable to muster the votes to pass an amendment putting the West Panther Creek area back in the River-of-No-Return wilderness area.

West Panther, a prime bighorn sheep habitat, had been cut from the bill's boundaries in committee because of suspected valuable cobalt deposits. The

Senate bill designates the area as wilderness.

"We were disappointed at not being able to overcome the staunch Republican block on these issues," said Dave Conrad of the American Rivers Conservation Council. "But overall, the legislation is pleasing, and takes a refreshing approach to designating wilderness boundaries by watersheds."

Bill Fay, legislative aide to Symms, acknowledged that the representative was not pleased with the final outcome. "But we're going to go into conference fairly confident of having Udall's (Rep. Morris Udall, D-Ariz., chairman of the House Interior Committee) support on the cobalt issue," he said.

"Congress is realizing that we need mineral production in this country," he said, "and wilderness protection needs to consider this need."

Contaminated eggs leave hidden trail

Up to 6,000 eggs suspected of being contaminated with the highly toxic pesticide chlordane entered the marketplace in Idaho and Utah this spring.

But weeks after the contamination was discovered, public health officials have yet to track all the eggs down or predict what health effects their consumption might have.

"Distribution just goes 18 directions at once," said Mike Williams, an investigator with the U.S. Food and Drug Administration.

Most of the eggs were sold to a distribution company in Logan, Utah, which in turn sold them to local bakeries, including Pepperidge Farms, Inc. Chlordane levels as high as 1.16 parts per million were found in the eggs, but none has been traced to the bakery products.

Other batches of eggs were sold to smaller distributors and area residents, thus far unidentified.

This level of contamination does not pose any immediate health threat, Williams said. But he added that the FDA does not know how dangerous the eggs are over the long-term and is considering asking the Center for Disease Control to test persons who ate the eggs, if they can be found. The contamination occurred on a small poultry farm in southern Idaho. Adding a macabre twist to the case, the farmer, for reasons unknown, is believed to have been trying to kill his flock by adding chlordane to its drinking water. The birds have survived long enough to produce at least 12,000 contaminated eggs. Chlordane is a chlorinated hydrocarbon that has been shown to cause cancer in animals.

Use of the substance was restricted to termite and fire ant control in 1974, and federal regulations prohibit sales of food containing any amount of chlordane.

Controlling contamination incidents is nearly impossible, says Jackie

Warren, an attorney with the Environmental Defense Fund. "Once you set up the regulatory framework, which with chlordane is a virtual ban, there's very little you can do to stop occasional contaminations from illegal use or accidents."

Nevada declines 'Rebel' court duel

The State of Nevada has declined an invitation from the U.S. Department of Interior to fight out the Sagebrush Rebellion issue in court.

Interior Secretary Cecil Andrus had asked for a legal showdown last February, inviting the state to litigate the land-ownership issue as part of a pending lawsuit brought by the state against Interior over ownership of wild horses on public lands. Observers had given low odds to Nevada's chances of winning such a contest.

The state, in rejecting Andrus' proposal, argued that the wild horses suit, and the U.S. District Court where it is being heard, are not the proper legal vehicles for arguing the Sagebrush Rebellion issue.

Andrus expressed regrets at the state's rejection and says he will "call on them again to join the issue in court and prove their case."

"We think their legal claim to ownership of BLM lands is flimsy," Andrus said. "Until they persuade the Supreme Court they are right, we will continue as custodian and manager of the lands."

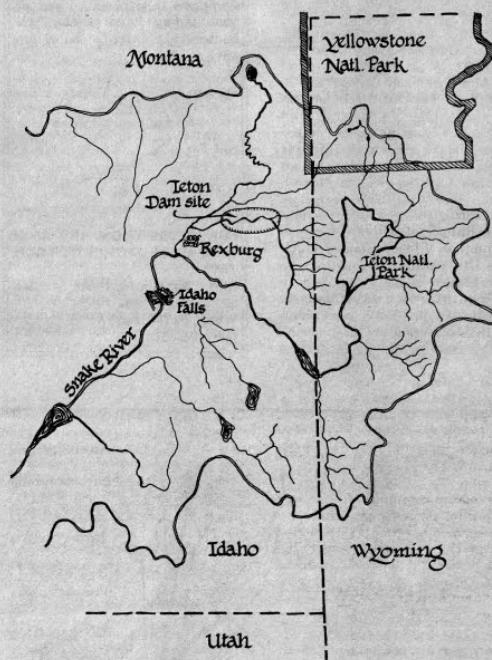
Water users want Teton Dam back

Four years after the Teton Dam collapse, which killed 11 Idaho residents and caused a billion dollars in damage, area water users are asking that the dam be rebuilt.

Idaho Water District No. 1, which covers the Upper Snake River Valley area, adopted a resolution at its annual

meeting last month urging the Department of Interior to begin immediate reconstruction.

Board members said it would be "embarrassing" to allow the dam to stand "unreconstructed and abandoned." They said the people who live in the flooded area want the dam rebuilt, and that the water is badly needed.



IN AN EDITORIAL four days after the June 1976 Teton disaster, the Idaho Statesman questioned whether the dam should have been constructed in the first place. "Teton was never worth building. Its construction was a classic example of the pork-barrel public works system. And it could never have been built except for the deception used by the bureau to show a favorable ratio of benefits to costs."

14-High Country News — April 18, 1980

Japanese, Indians share views on dangers of radiation

by Marjane Ambler

ALBUQUERQUE, N.M. — Victims of radiation-related illnesses met here this month with a delegation of Japanese atomic bomb victims now touring the United States to gain support for nuclear disarmament.

The meeting was a stop on the way to non-governmental hearings this week in Washington, D.C., on the health effects of radiation.

The U.S. radiation victims, among them Indian uranium miners from the Southwest, were told by an interpreter for the Japanese delegation that the Hiroshima and Nagasaki victims "feel angry at the present situation," referring to the plight of people exposed to low-level radiation in this country. "We should know the effects of radiation now," said Yumiko Miyazaki, the interpreter.

Mitsuo Katano, president of the Chiba Prefecture A-Bomb Survivors Association, said that after the atomic bomb was dropped and radiation sickened victims followed the burned victims to the hospitals several days after the explosion, they were quarantined because doctors thought they had a contagious disease.

Today the 750,000 certified A-bomb victims in Japan are experts on the strange new disease — radiation sickness. They still suffer from psychological and physical damage, Katano said. "We feel this experience should not be shared by anyone on this earth," he said, "and we are astounded to know that many Native Americans are suffering from the same symptoms we suffer from."

The Mobilization for Survival, a U.S. Group, and the American Indian Environmental Council, an Albuquerque-based group, cooperated with others to arrange the historic meeting of the Japanese and the Indian radiation victims. Several Navajo uranium miners, who have lung cancer they claim is work-related, some miners' widows and children and two non-Indian fallout victims gathered in Albuquerque before travelling to Washington.

The two groups are related by more than just their illnesses. Japan relies on the United States for most of the uranium used to fuel its 28 nuclear

power plants, and eight of the plants were manufactured by U.S. companies.

The thousands of Japanese A-bomb victims in several different organizations have campaigned for nuclear disarmament, and their country has not built nor does it possess any nuclear weapons, the delegation said. However, the groups have not reached a consensus on nuclear power yet. Hiroshi Enari, another member of the delegation, said most of his organization's members oppose nuclear power, and a formal policy on the question is expected soon.

Two U.S. fallout victims going to Washington, D.C., said their experiences with radiation led them to oppose uranium mining. "No one should go through what I did," said Jose L. Roybal, who says he contracted radiation sickness as a result of working on the U.S. military cleanup crew in Hiroshima for three months after the bomb was dropped in 1945. He was paid \$11 for compensation by the U.S. government.

Paul Hutchins said he and his seven children are suffering as the result of his exposure during 18 nuclear tests in

1958, which the government always claimed would not endanger him. Now he opposes the nuclear waste storage project planned near his home in southern New Mexico and "anything else that involves radiation in any way. They've lied to us too damn many times."

Roybal, Hutchins and the Navajo group hope their testimony in Washington, D.C., will somehow speed efforts to gain compensation.

Stewart Udall, former Interior secretary, has filed a suit against the federal government and, in the case of the miners, against several uranium mining companies on their behalf. Legislation has been introduced in Congress

that, if successful, would provide some money to the lung cancer victims and their survivors.

Pearl Nahkai, the widow of a Navajo uranium miner, said through an interpreter that she is glad the Japanese government is offering compensation to radiation victims there and said, "We want it, too. We're human beings, like everybody else."

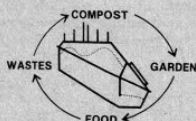
Marjane Ambler, former managing editor of HCN, is an Alicia Patterson fellow researching Indian energy development.

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Bulletin Board



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WOOD POWER?

A Decisionmaker's Guide to Wood Fuel for Small Industrial Energy Users, a 127-page book published by the Solar Energy Research Institute, is available for \$8 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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NUCLEAR FREE FUTURE

The Foothills Alliance for a nuclear free future has published a four-page newsletter on the dangers of nuclear power and weapons production in Colorado. Articles on the Rocky Flats Nuclear Weapons facility, the Ft. St. Vrain nuclear power plant, energy conservation and energy alternatives are included. For a free copy, write: Foothills Alliance, Box 1013, Ft. Collins, Colo. 80522. The Alliance has meetings at 7:30 p.m. on Wednesdays at the UCM House, 629 S. Howes, Ft. Collins, Colo.

ROCK ART

Ute, Basketmaker, Fremont, Pueblo and other ancient Indian rock artists will be studied in a two day field course in the canyonlands. The course is taught by La Van Martineau, author of *The Rocks Begin to Speak*, May 31-June 1. Write: Dr. Tuck Forsythe, CEEC Outdoor Education, Box 177, Moab, Utah 84532.

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UTAH REJUVENATION

A rendezvous for Utah wilderness supporters will feature a speech by Utah Sen. Jake Garn (R) on forthcoming Utah wilderness legislation. The meeting, April 26 at the Hotel Newhouse in Salt Lake City, is sponsored by the newly formed Utah Wilderness Association. UWA Director Dick Carter, rancher Cecil Garland and state Sen. Frances Farley (D) are also scheduled to speak. The day will finish with "a rejuvenation of spirits," including "stomping, romping, storytelling, yarnspinning and music." For more information, contact the group at 523 Judge Building, Salt Lake City, Utah 84111 (801) 359-1337.

OUTDOOR WRITING WORKSHOP

Author Curtis Casewit and Audubon Executive Editor Gary Souci will lead workshops in Grand Teton and Yellowstone national parks for writers interested in improving their skills and in learning how to sell their work, especially nonfiction outdoor writing. "There are certain consistent patterns of errors," Souci says. "The biggest failing seems to be that people send us articles that read like encyclopedia entries." The workshops, to be held in August and September, are sponsored by the University of the Wilderness, P.O. Box 1687, Evergreen, Colo. 80439 (303) 674-9724.

TRAIL GUIDE

Over 500 miles of the Continental Divide Trail in Montana and Idaho is described in a book written by Jim Wolf and published by the Continental Divide Trail Society. The hike starts at Rogers Pass in Montana and ends at Macks Inn, Idaho, just outside Yellowstone National Park. The route traverses the Anaconda-Pintler Wilderness and the Beaverhead and Centennial Mountains. The guide, \$8.95 plus 50 cents per book for postage and handling, is available from the Continental Divide Trail Society, PO Box 30002, Washington, D.C. 20014.

LOVINS IN CASPER

Energy expert Amory Lovins will be featured at a conference at the Ramada Inn in Casper, Wyo., May 23-24. The conference theme, "Energy in the '80s — which way for Wyoming?" will be discussed through speeches and panel discussions on utility rate structures, energy and agriculture, water and energy development, synthetic fuels and local energy planning. Workshops on alternative technologies are also slated. For more information, contact the Wyoming Outdoor Council, PO Box 1184, Cheyenne, Wyo. 82001.

LIFE VISION FAIRS

Two Life Vision Environmental Fairs will be held in Colorado on the weekend following Earth Day, which is April 22 — one in Montrose and the other in Denver. For more information, contact Teresa Erickson, Uncompahgre Resource Council, P.O. Box 781, Montrose, Colo. 81401.

COAL MINE REGS

The Interior Department's Office of Surface Mining has published its final guidelines for reclaiming abandoned coal mines. OSM published draft regulations last November and says the new rules are only slightly modified. A final environmental impact statement on the rules will be issued shortly.

POPULATION AND ECONOMY

"We Can Have Both: Zero Population Growth and a Healthy Economy" is the title of an eight-page publication by Zero Population Growth. The paper traces the economics of population growth from Malthus to the present, and explores its relationship to employment, investment, government spending and other subjects. Copies are available for 25 cents and a stamped, self-addressed envelope, from ZPG, 1346 Connecticut Ave. NW, Washington D.C. 20036.

REPORTERS' ENERGY TRIP

The Energy Field Institute is offering a Western energy field trip for reporters, editors and editorial writers June 4-7. A 3½ day tour of Colorado mining towns and discussions with community officials, mine officials and technical experts will be included. For more information contact the institute at the Colorado School of Mines, Golden, Colo. 80401. (303) 279-0300, extension 2900.

MISSOURI RIVER PLAN

A plan to manage 59 miles of the Missouri as a recreational river has been released by the Department of Interior. The river segment, between Gavin's Point Dam, S.D., and Ponca State Park, Neb., is to be managed jointly by the Department of Interior and the U.S. Corps of Engineers.

The plan, now subject to congressional and public review, will become effective the end of June. Copies are available from the Heritage Conservation and Recreation Service Regional Office, Denver Federal Center, PO Box 25387, Denver, Colo. 80225.

HYDRO LOANS

Loans for small-scale hydroelectric projects in amounts of up to \$50,000 are available from the Department of Energy. For an Applicants' Information Kit, contact A.E. Hymer, Hydroelectric Loan Program, Department of Energy, 550 Second St., Idaho Falls, Idaho 83401 (208) 526-9180.

DISRUPTION MONEY

Where federal pollution control efforts cause economic disruption, the government offers money to soften the jolt. **Federal Financial Assistance for Pollution Prevention and Control** describes funds available under such circumstances from the Small Business Administration, the Economic Development Administration, the Farmers Home Administration, the Department of Housing and Urban Development and the Agricultural Stabilization and Conservation Service. Copies of the free, 28-page booklet are available from regional offices of the Environmental Protection Agency or from the agency's Office of Analysis and Evaluation, Room 743-B East Tower (WH 586), 401 M St., S.W., Washington, D.C. 20460.

MOBILE BIOGAS

Bio Gas of Colorado, Inc., is accepting invitations to visit county and state fairs, schools and universities, and various events with its mobile bio-conversion demonstration unit. The staff will exhibit the unit, show how the methane is made and used, distribute literature and give slide shows. The unit is a 500-gallon digester, with solar panels for heating, mounted on a 16-foot trailer. To invite them, contact Susan Schellenbach, Bio-Gas of Colo., 5611 Kendall Court, Arvada, Colo. 80002.

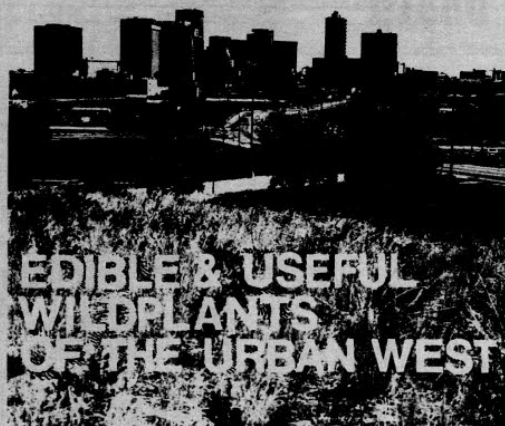
SHALE COURSE

Mesa College is sponsoring a three-day, \$295 intensive course that will cover the history, current activities and future of the oil shale industry. The faculty includes John S. Hutchins of Energy Development Consultants, Ed Piper of the Paraho Oil Shale Project and Hunter Swanson of the Colorado School of Mines. Courses are offered May 7-9 and June 16-18. Contact the Director of Continuing Education, Mesa College, P.O. Box 2647, Grand Junction, Colo. 81502.

INSIDER'S LAND GUIDE

Five strategies for cutting losses from land deals based on fraudulent claims are detailed in *The Insider's Guide to Owning Land in Subdivisions: How to Buy, Appraise and Get Rid of Your Lot*. Patricia Simko, an attorney for a research organization called INFORM, wrote the book after four years of research into the land sales industry. The guide is available for \$2.50 from INFORM, 25 Broad St., New York, N.Y. 10004.

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by Alan and Sue McPherson, Pruett Publishing Co., 3235 Prairie Ave., Boulder, Colo. 1979. \$7.95, paper, 330 pages. Photographs and drawings.

Review by Peter Wild

Some people, no doubt, view gatherings of wild plants as eccentrics. They

course through swamps and over peaks in monomaniacal searches for berries to put on their breakfast foods, roots to put in their salads. It's a nice enough pastime for those who can afford to be wilderness freaks — but hardly worth the trouble for urbanites, who can select vegetables from yards of displays in supermarkets.

Alan and Sue McPherson's new book

should go a long way to change the idea that wild plants are for country folk. As it turns out, city dwellers can vary their diets or dye their T-shirts with a wealth of native plants flourishing close at hand. The authors concentrate on the wild plants within the limits of Denver, but the weedy riches they write about may be found throughout much of the Rocky Mountains and the adjacent high plains. In fact, one often can find more plant diversity in vacant lots and along city streams than in the surrounding countryside, where agriculture has replaced much of the original vegetation.

The McPhersons cover both native and introduced species. Let's take for example one of the most widely condemned of pests, the Russian thistle. Praised in song but not often applauded elsewhere, the tumbleweed made its way to the American West about 100 years ago in a load of flax seed. Yet those who despair at eliminating the noxious import can take some heart. The McPhersons give recipes for "thistle mignon" and "thistle-noodle casserole" — the latter described as an "unbeatable main dish that pleases nearly everyone."

Books



Ragweed's genus name, Ambrosia, means "food of the gods." But no one here on earth seems to eat it.

Ragweed can be used as a tea, as a green manure and to make rope. Though its genus name, *Ambrosia*, means "food of the gods," no one here on earth seems to eat it. However, all parts of the plant aboveground may be processed into dyes of gold, green and rust. All of which may or may not be of comfort to hay-fever sufferers.

Lastly here's a recipe for pigweed, a member of the amaranth family high in vitamins and minerals. "Make amaranthus biscuits by combining 2 cups flour (unbleached or whole wheat), ¾ cup amaranthus meal, 1 tablespoon baking powder, ½ teaspoon soda, and 1 teaspoon salt. Cut in ½ cup butter and add 1 cup buttermilk. Knead lightly 20 to 25 times, roll ½ inch thick and cut biscuits. Bake in a preheated 450 degree oven for 10 to 15 minutes until nicely browned. These flakey, coarse-textured biscuits are best served warm."

Nearly as tempting as pigweed biscuits is the price of this substantial volume, \$7.95.



by Hannah Hinchman

TORREY VALLEY, Wyo. — Thoreau went on at length about his delight in rehearsing the Eastern bluebird's call each year. He thought it was precisely the right sound for early spring, that the air would "cleave into" its notes. The mountain bluebirds' understated call sounds equally rich and sunny. They returned to Torrey Valley

recently with the passing of our last spring blizzard.

The road up the valley is still drifted, so we walk in overland, frustrated by the billows of snow and the glare, but delighted when a golden eagle swings low over us weighted by prey in its talons. The southern slope above Trail Lake Ranch, dry and quavering with heat waves, is covered with bighorn sheep grazing and relaxing. We stop for lunch under a big limber pine, and the leader of a band grazing near us lies down, our silence "contained in his silence" as Wendell Berry said. The sheep concentration on the hillside may account for the teeming population of ticks that keep appearing on our knees and shirtsleeves.

Ice shelves along Torrey Creek are melting, adding a drip percussion to the creek's voice. Willows are flushed with new growth even though severely pruned by moose.



Across the state in the lonely ponderosa pine hills north of Glenrock, Wyo., I see the sky that foretells the new season: a sudden hissing storm of pellet snow, then as the squall moves away, a fleet of sunlit cumuli on the

CLASSIFIEDS

POSITION: The Powder River Basin Resource Council, an agricultural-conservation group working on energy development issues in eastern Wyoming, seeks a staff coordinator and field organizer. Self-motivated, dedicated, and enthusiastic individuals desired. Send resume immediately to PRBRC, 48 N. Main, Sheridan, WY 82801; (307) 672-5809.

JOB OPENING. Production manager, half or full time. Half-time position includes proofreading, designing and pasting-up pages and ads, choosing photos and illustrations, supervising paste-up crew and printing process. Full-time position includes above plus some typesetting and circulation. Candidates should be familiar with graphic design, able to work under deadlines and interested in life in a small Wyoming town. Salary \$260 or \$333 per month. Health insurance provided. Applications must be received by May 2nd for consideration. Send resumes to High Country News, Box K, Lander WY 82520.

INTERNSHIPS. Applications are now being considered for summer and fall internships at HCN. Applicants should have some experience in either journalism or the environmental-energy field. The position is unpaid, and provides experience in writing, production and research.

IN MEMORIAM

CUMQUAT (1979-1980). Will be remembered by friends as one who always had a hot cup of nettle tea and a Visigoth fable to tell over an illegal fire of crackling Joshua tree. Fell into a vat of salt water taffy on the Monterey wharf — divers found only the mauve toe tassels. Blackie has skipped the try-out with the Minnesota Twins to bury the tassels in Dull, Wyo., Cumquat's birthplace.

southern horizon. We sometimes see a storm approaching in the distance with only a slender column of snow falling from it. Does anyone know why the cloud would release its snow in such a selective way?

Classified ads cost 10 cents a word. They must be prepaid.

FOURTH FOOTRACE. The Fourth Annual High Country News 5-mile Citizens Footrace will begin June 14 at 6 p.m. in City Park in Lander. The route hasn't changed, but we've added more classes this year. Ribbons will be awarded to the first three men and the first three women finishers in each of following age categories: 18 and under, 19-29, 30-39, 40-49, 50 and over. There will also be an open walkers class. Entry fee is one dollar. Registration for the race will begin in the Park at 5:15 p.m. A potluck picnic will follow.

"WIND RIVER TRAILS" by Finis Mitchell. Backpacking and fishing guide to the Wind River Mountains of Wyoming. Wilderness area of peaks, glaciers, forests, and lakes. \$3.50 postpaid. Wasatch Publishers, 4647 Idlewild Road, Salt Lake City, Utah 84117.

TRAIL FOODS. Wide selection. Good eating. Meal packs. Breakfast - lunch - supper. Fruits - vegetables - soups - main dishes - snacks - specialties - spreads - baking mixes - desserts - beverages. Servings for 2 - 4 - 6. **SAMPLER \$11.50. BIG DISCOUNTS** to schools, churches, organizations. For catalog, send self-addressed, stamped, No. 10 return envelope to: **CHUCK WAGON FOODS**, 908 Howard Ave, Billings, Montana, 59102.

HAWAII VACATION: Kona Coast, Old Hawaiian rural resort, health resort, Bed-Bkfst, \$88-134. wk., sl-db, 415-221-2121 1588 Fell St., Ca 94117.

WILD HORIZONS EXPEDITIONS. Box 2348-H, Jackson, WY 83001 (307) 733-5343. Guided backpacking, mountaineering, ski touring, field seminars in conservation. Emphasis on all aspects of conservation and wilderness education. Custom and family trips, small groups, free brochure.