

High Country

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Desert Study Is Released

by Tom Bell

Some strippable coal deposits would not be developed in Wyoming's Red Desert; a large mid-section (see Area C on map) would not be fenced, and a new Ferris Mountain Primitive Area would be established on the edge of the Desert. These are only part of the recommendations made by the Bureau of Land Management in regard to the 4.55 million acre public land area in central Wyoming.

The recommendations were made public in a report on preliminary management guidelines by the BLM. The guidelines are a culmination of study and review of recommendations made to the Bureau by the public, land users, and state and other federal agencies.

The BLM held a series of public meetings at various locations in Wyoming. The Federal Interior Bureau also solicited suggestions and recommendations for the future management guidelines.

Conservationists have hailed the guidelines as being generally responsive to environmental considerations. All resources and public interest areas are considered.

In an area which is already being faced with large strip mines for coal, as well as large coal-fired, steam generating plants, the BLM has courageously proposed that no coal development take place in the area north of the checkerboard lands. The report points out that there is about a half million acres underlain with coal, which is considered economically extractable under existing technology.

In the words of the report, "Less than 5 percent of known extractable coal in the study area lies in the blocked public lands north of the checkerboard. This represents less than 0.2 percent of the total extractable coal reserve in the State. Removal of this area from availability under the leasing laws will have no measurable effect on potential coal production in Wyoming. In the interest of maintaining a relatively untouched area, free of extensive surface development to meet general public desires for open space and aesthetics, coal leasing activities should be precluded at least until such time as national needs dictate exploration."

The guidelines would further restrict development on public lands within the checkerboard area. They would allow no coal development on public lands in scenic zones, wildlife crucial areas, fragile watershed areas, or antiquities sites.

The Red Desert is a treasure-house of historical, archeological, paleontological, and geologic sites and areas. The BLM proposes to protect these areas, and to restrict public access until adequate protection can be provided.

The historic Oregon-Mormon Trail winds its way across the northern section of the area. The BLM proposes to allow no uses that would disturb existing conditions near trails.

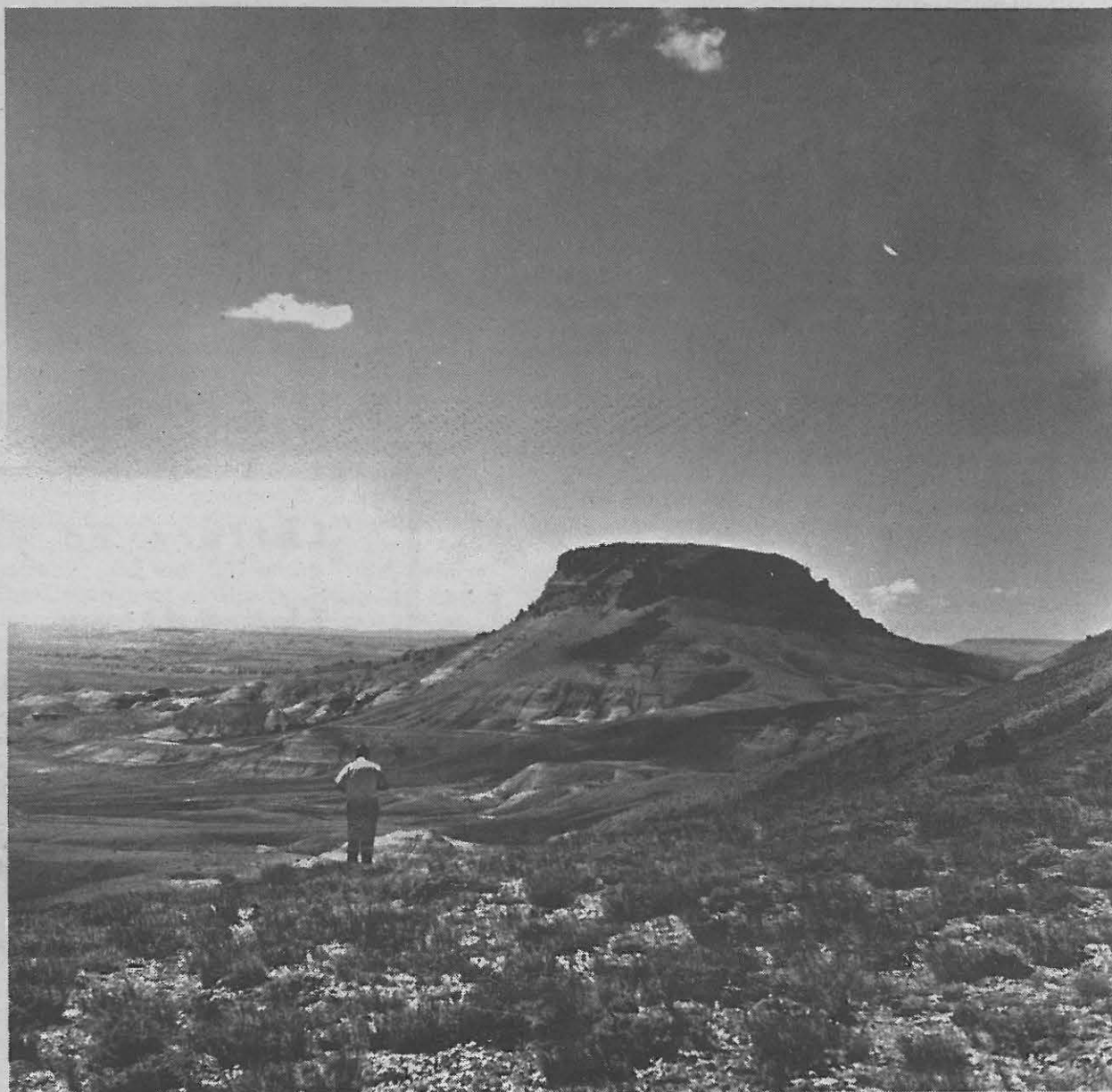
Probably one of the largest concentrations of remaining wild horses in the country is found in the Red Desert. The horses exist in scattered herds and bunches throughout much of the area. The BLM proposes to protect them and to identify locations suitable for a wild horse range.

Buffalo must have once existed in considerable numbers from the evidence left by ancient man. The BLM says if suitable habitat can be found, it might encourage the importation and transplant of some bison.

The BLM proposes that except where predator control can be shown to be necessary, all other control could be discontinued.

Conservationists proposed that Ferris Mountain and the Sweetwater Canyon be considered for primitive areas. The BLM accepted

(Continued on page 12.)



A time of decision is nearing on the public lands. The millions of acres of public domain which were too dry, too poor, too isolated, or too demanding of any man's time have now become valuable for other reasons. Legislation now pending would protect the public's interest in these lands. Here, a lone visitor to Wyoming's multi-million acre Red Desert surveys the vast emptiness of it all.

Politics and the Teton Dam

The controversial Lower Teton Dam in Idaho only received its go-ahead after President Nixon personally interceded. That was the word from Trout Unlimited, the Denver-based national organization which has filed suit against the Bureau of Reclamation to stop the dam.

R. P. Van Gytenbeek, executive director of TU, told HIGH COUNTRY NEWS that the attorney for the group had reached an agreement with the U. S. Attorney in Boise to withdraw its suit. The agreement was worked out after Secretary of the Interior Rogers Morton had reviewed the Lower Teton Dam and decided against it. His decision was concurred in by Russell Train, Chairman of the President's Council on Environmental Quality.

Only a few hours before the agreement between TU and the Bureau was to become effective, it was announced that the dam would be built. Bids were let on October 29 for \$39.4 million for the initial work on the dam. Estimates place the full and final costs of the dam and associated water works at \$68 million.

Senator Len Jordan of Idaho denied he had personally gone to President Nixon during a press conference held November 15. However, reliable sources say he talked with presidential aide John Erlichman who went directly to the President.

At a called press conference, Secretary Morton said the project had been evaluated and a decision made to build the dam. The Secretary did not state he had made the decision.

It is felt Nixon made the decision to proceed

with the dam in deference to the Republican senator from Idaho. TU said the President had a choice between environmental protection and political expediency - and he chose the latter.

The environmentally damaging reservoir was opposed by the Environmental Protection Agency. An adverse report was also filed by the Bureau of Sport Fisheries and Wildlife, a sister agency of the Bureau of Reclamation. The report pointed out that there would be a loss of 17 miles of high-quality, self-sustaining cutthroat trout fishing waters, and a loss of important big game winter range in the Teton River Canyon.

Environmental groups had also pointed to the economics of the dam and reclamation project. Congress authorized the project in September, 1964. In the intervening years, the feasibility of the project had come under increasing question. Idaho's State Department of Water Administration had even questioned the need of the project.

The Trout Unlimited suit against the Bureau of Reclamation is being tried in Boise as HCN goes to press. Senior U. S. District Judge Fred M. Taylor who is presiding said that evidence would be heard "assuming but not deciding the plaintiffs have standing in the case." His reference was to the standing of the Sierra Club which has joined in the suit with TU.

Judge Taylor is not expected to be sympathetic to the environmental interests. Before being appointed to the Federal bench he was a Republican wheel-horse who had often represented irrigation interests.

HIGH COUNTRY

By Tom Bell

In October, 1969, The Wall Street Journal ran a front page article entitled "The Lonesome Land." It went on to say, in so many words, what it had summed up in one sentence. Wyoming is made up of dying towns, disappearing ranches, and a state economy that, while booming in some areas, is stagnating in others.

It also documented the fact that while some of these allegations might possibly be true, there were a lot of Wyoming people who liked this lonesome land just as it was.

Last week I sallied forth across the lonesome land. And it is just that. Wyoming has tremendous areas of open space. It is being used but it isn't being crowded. That may soon be changing - for better or for worse, depending upon the point of view.

Shortly after The Wall Street Journal article, The Denver Post ran an editorial in regard to it. The editorial ended by saying, "So to those Wyomingites who read disaster into last week's article in The Wall Street Journal entitled, 'The Lonesome Land,' we'd say, 'Cheer Up.' You'll soon have more industrial suitors than a school marm in an oldtime Wyoming cowtown on Saturday night. It'll be a case of picking out the good-looking ones."

Within a year, the Post's prediction was coming true - but without benefit of being able to pick out "the good-looking ones." Wyoming's people have had no choice in the matter. And whether we like it or not, we are going to be stuck for a long time with some industries which many will come to hate.

The Journal article could more readily have characterized Wyoming as a great apathetic giant; an affable bear being amiably manipulated by the energy industry which has bled it of untold riches. And now having gotten the state into the uncompromising position of almost total dependence, we are to be taken entirely captive.

I wanted to see what was going on in the "Energy Capital of the World." So I journeyed to the Powder River Basin of Wyoming and Montana.

It's a vast land, and a beautiful land in its own way. The Sioux Indians loved the land for it was good to them. They fought courageously against the onslaught of white men - at Fort Phil Kearny, the Battle of the Wagon Box, the Battle of the Rosebud, and at the Little Big Horn.

They lost. And now it will be our turn.

The onslaught of the energy companies has begun. Phase I of a 13-state consortium involved in the North Central Power Study has ended. Phase II will involve the question of how much power everybody wants and where they want to take it. Phase III will be to build the plants to furnish the "clean" electricity.

And so I stood in the former lands of the Sioux and took one last look at how they appear in their natural state. At Decker, Montana, the lines are up delineating an open-pit three miles in diameter. The railroad spur is built and two huge storage bins are under construction.

I stood on a hill overlooking the newly-built railroad spur to a huge strip-mine site south of Gillette, Wyoming. Coal is supposed to be going east by January.

I looked down upon a ranch house on the banks of the Belle Fourche River - a lonely place in the lonesome land. And I looked back north to Montana, some 70 miles in the distance. Along my way I had seen herds of cattle, bands of antelope, sheep, and deer.

Standing there in a fresh, cool breeze, with storm clouds gathering along the Big Horn Range miles to the West, it was hard to believe that this lonesome land was destined to be the Ruhr Valley of North America.

You see, that is what the North Central Power Study is all about. It projects the probability of 200,000 megawatts of power being generated here and shipped east to power-hungry millions in the Midwest. By the year 2000 there may be as many as 13 10,000-megawatt steam-generating plants between Wright, Wyoming, and Camps Pass, Montana.

That kind of complex would dwarf any other comparable power generating concentration in the world. And when that comes to pass, the face of the lonesome land will never be the same again.



Eagles could have no better view than this. The beauty of a vast, winter landscape puts Man in touch with his Maker. This photo is from the bighorn sheep winter range above Dubois, Wyoming.

Letters To The Editor



Editor:

Enclosed is my check for a renewal subscription of High Country News. I am also enclosing another check for a subscription to be sent to the best all around outfitter in the State of Wyoming.

I have just returned from elk hunting in Jackson Hole and should any of your readers want to hunt or fish and have truly western hospitality, they should go to the Spotted Horse Ranch which is located on the Hoback River 17 miles south of Jackson. The owners are Dick and Dean Bess who are originally from Southern California but are truly representative of the warm and friendly attitude of western people.

I was born in Casper, Wyoming, so naturally your paper reaches a soft spot in me.

Rex Reno
Newport Beach, Calif.

Editor:

Enclosed please find my check to renew our subscription to High Country News. Since my husband and I first received your paper as a gift from Joe and Mary Back, we have enjoyed reading your articles and admired the fine photographs.

We are frequent visitors to the Dubois area but know very little, really, about the rest of western Wyoming. Often in your center spread, you have beautiful unidentified photographs of landscapes I cannot recognize. Couldn't you give

at least the general location for your out-of-state readers? I would certainly appreciate it.

Mrs. Sidney L. Courtney
Birmingham, Mich.

Editor's note: Please forgive me for my thoughtlessness. I will indeed try to identify every photo of a western landscape. I should have realized our readers would be interested in knowing. Thank you for calling it to my attention.



"..Noted & Quoted.."

"We can concede that urban sprawl is NOT the most efficient or economic arrangement from the narrow viewpoint of the planner alone - and admit that traffic movement is increased by spatial dispersion of housing and employment, but a clear majority of Americans prefer this lifestyle; and if that is the way we want to live in a democratic society, what is wrong with that? Isn't it one fundamental example of the opportunity to exercise an individual choice which makes us America? All indications are that urban sprawl is likely to become even more prevalent in the years ahead rather than less."

Francis Turner
Administrator of the Federal Highway Administration.

"As you ladies and gentlemen know so well, the name of the game in Washington and in every state and local community is to raise serious doubts about the credibility of the press. In large part, the aspersions cast upon us by the Vice President and other disgruntled public officials are calculated to make us unbelievable to the general public. We should, I think, accept such criticism philosophically while endeavoring to set the record straight at all times.

"An editor, who must or should take vigorous editorial positions on the great issues of the day, is not meant to be loved. If he seeks affection and popularity, he should be in public relations. Newspapermen who formulate policy must base their conclusions upon the facts at hand. The unvarnished truth is frequently unpleasant reading since it so often differs from the reader's preconceived notions of what the truth should be."

John S. Knight
Editorial chairman, Knight newspaper chain.

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A New Chicken and Egg Riddle

by James Bassett
Times Associate Editor

What do the slaughter of 77,000 chickens, the destruction of 75,000 eggs, and a worldwide buildup in the sea of a mysterious chemical called PCB have in common?

Environmental dangers.

The chicken-egg incident occurred in July and August.

But scientific concern over oceanic pollution by PCB (polychlorinated biphenyl) is just now coming to a head.

Chiefly, liquid PCB is used in industrial heat transfer systems. It is highly valued for its ability to withstand temperatures ranging as high as 1,600 degrees Fahrenheit. And because of its plasticity, it had been used as an additive for sealants, paints, printing ink and pesticides.

Incident in Japan

If the world's ecological-political community had had a workable early warning system, what happened to the chickens and eggs in 10 Southeastern states this summer might not have. In 1968, about 300 Japanese contracted a strange skin disease, and several died.

The deaths and illnesses were traced to an infusion of PCB into the human system, via a contaminated rice oil.

The chickens were poisoned by fish meal spoiled by PCB from a faulty pipe in the coolant machinery at the feed factory.

Then, on Aug. 18, the Food and Drug Administration revealed that 60,000 eggs containing toxic PCB eluded federal inspectors and reached Washington, D. C., grocery stores.

Meanwhile, alerted to the lethal problem, a special panel of the National Academy of Science, headed by Dr. Edward D. Goldberg, chemistry professor at Scripps Institution of Oceanography at La Jolla, has urged an all-out survey of the extent to which PCB has polluted the seas.

Percentage Rises

Goldberg told The Times that preliminary studies indicate that oceanic fish and plankton (which fish eat) now contain a higher percentage of PCB. Moreover, PCB molecules are more "persistent" (longer-lived) than DDT, whose effect on fish and birds is relatively well known.

Twenty-five per cent of all the DDT manufactured since its development in the 1940s remains in the world's seas and lakes. But DDT in itself is not harmful to human beings.

How much PCB has escaped into the seas through the atmosphere, rivers, sewers and dumping is not known, because its production is a trade secret. But Goldberg suspects that it is considerable.

"The more the problems are studied," his panel said, "the more unexpected effects are identified. In view of the findings of the past decade, our predictions of the potential hazards of chlorinated hydrocarbons in the marine environment may be vastly underestimated."

Thus the national academy recommended:
- Mounting a "massive national effort" to force an immediate, drastic cutback in the use of persistent toxicants into the environment, with the ultimate goal "virtual cessation" as soon as possible.

- Setting up programs to determine the entry rates of pollutants into the earth's waters, and find out where these pollutants finally end up: in sea life, marine plants, etc. "These should be followed by a program of monitoring long-term trends in order to record progress and to document possible disaster."

- Examine and probably revise laws governing the registration of chemical substances in view of "evidence of environmental deterioration caused by some of (them)."

That is the crux of the matter today.

Will Not Give Figures

Despite laboratory tests that show the deleterious effects of the PCB-type substances, the sole U. S. manufacturer of PCB substances, Monsanto Chemical Co., has declined to release its production figures, although scientists have long been requesting such data, according to the academy panel's report.

When The Times contacted a Monsanto official in St. Louis, it was learned that the firm has acknowledged the problem to the extent of confining PCB's use to closed electrical systems under what was termed "strict controls." No longer will it be employed as an additive for sealants, paints and other products.

Recently Monsanto allocated \$2 million to its environmental control division to tackle the PCB pollution problem. It has already banned "uncontrollable" PCB items in Great Britain, where Monsanto also is the sole manufacturer. "Two years ago," said one European company official, "the seagull problem was a joke in this building. Gradually, we stopped laughing."

Can Only Guess

But, asks Goldberg, how much has already been produced by Monsanto during the past four decades? Unless such institutions like Scripps obtain this information, they can only guess. From these foggy figures they can then try to determine the amount now contained in the oceans and what the future fallout may be.

There is some optimism, though, that a better notion of PCB's prevalence may soon be gained by a six-member federal task force, including representatives from such bodies as the Council on Environmental Quality, the Environmental Protection Agency, the Food and Drug Administration and the Agriculture Department.

The Department of Health, Education and Welfare earlier this month made a quiet announcement of the project, which specifically centers on the PCB issue.

Monsanto has said it will cooperate.

But Goldberg, while allowing that this is a move in the right direction, calls it "only a microstep." Some recognized, non-governmental scientific group should have the information, so that extensive and impartial tests can go forward, he said.

While his academy panel recognized the economic reason for trade secrecy, and a firm's proprietary interest in an exclusive product, it added:

"We also feel that there are times when it is not in the public interest for government to maintain as privileged data that are necessary for research into the state of our environment and for an assessment of its condition."

Single Laboratory

The academy therefore asked that the law be amended so that noninvolved scientists can overcome this "obstacle to effective environmental management." Especially, said the panel, as regards polychlorinated hydrocarbons (like PCB).

"By utilizing a single laboratory to manage the program," Goldberg and his colleagues noted, "difficulties in standardization and in sample preparation and handling can be minimized."

A group of Nobel scientists has joined in that plea with a message to the United Nations Conference on the Human Environment, to be held next spring:

"Some pollutants, especially (substances like DDT and PCB), and also lead are distributed globally via the atmosphere. Their concentrations may reach levels sufficient to damage ecosystems (a community of ecological and physical components taken as a unit) irreversibly on a worldwide scale before the damage is recognized."

Should Be Curtailed

The Nobel group, like Goldberg and the academy, want a thorough study of "their origins and ultimate sinks as well as their routes through the food webs and effects on the ecosystem, including man."

Their entry into the seas should be "curtailed to every practical extent, even if this requires restrictions on production and use," the Nobel group said.

Since PCB is also manufactured in Japan, Russia and several European countries, it would appear that the 1972 U.N. conference offers the best possible chance of attacking a difficult global problem globally.

Goldberg said that Japan turns out ap-

proximately 10,000 tons of PCB annually. Based on each country's gross national product, he added, that would mean that Monsanto could be making 50,000 tons a year. That, however, is only an educated guess, Goldberg admits.

The company neither confirms nor denies that figure.

In Science magazine, official publication of the American Assn. for the Advancement of Science, University of California research ecologist Robert Risebrough, an authority on PCB, declared this month that contaminants in PCB are "among the most poisonous compounds known."

Shrimp Died

Half of the shrimp exposed to one part per million of the chemical died during a recent Florida environmental agency test.

The same article reports that Monsanto technicians found "no adverse effects" when rats were given doses of PCB as high as 100 ppm.

Risebrough said that in "our throwaway society" PCBs will ultimately become wastes that drift into the environment - and eventually the food chain itself.

According to Science, the FDA has set an "interim guideline" of 5 ppm of PCB "as safe for human consumption of poultry."

But scientific nonbelievers rate the federal guideline as "unfounded and arbitrary."

Says Risebrough: "Five parts per million is just a number. I'm sure FDA pulled it out of the air."

In rebuttal, an FDA spokesman insisted the standard was determined from the "best scientific information possible." Whereas the data for "short-term exposure" is not complete, he concluded, the FDA must go on what information it possesses.

"We can't be held accountable for every damn chemical," he told Science.

So the schism exists - and grows - among the scientific community, government and private industry.

That is what spooks men like Goldberg and Risebrough. The Scripps marine chemist calls the potential PCB danger "frightening." He says "massive detective work" has to be done, soon, and the real clues aren't yet available.

Reprinted from THE BILLINGS
GAZETTE, December 1, 1971

Of Public Interest

Interests of the nation as a whole, not those of a particular segment or economic fragment, would appear to be of consideration in new mining laws proposed by the Secretary of the Interior.

Rogers C. B. Morton wants to update the Mining Law of 1872 and the Mineral Leasing Act of 1920.

Among the major changes in the law would be competitive bidding for mining commercially valuable public land and collection of royalties for the federal government and the states.

Those are the dollar factor changes, the increasing of governmental shares in the jointly owned mineral resources pie. Expect resistance for this reason if no other.

However, the secretary's reasoning seems sound. Public lands minerals belong to the nation as a whole not solely to the few who discover them or buy the rights.

Expect to hear strong arguments about the traditional way and all that. Facts remain, the U. S. and the states have come out on the short end of the stick in the past. That needs changing.

Likely to cause more uproar is the proposed provision that the federal agency managing the land would have to give permission before mining permits could be issued. This falls under the "higher use or protect or enhance the environment" sector.

And still less desired by the extractors would be the provision for administrative cancellation if lease and permit terms are violated. Now the decision is up to the courts, which means a lot of mining may go on while the legal processes are being determined.

It is a new look at the mining of public lands - and about time insofar as the overall public interest is concerned.

Canadians Also Concerned...

The following is The Royal Bank of Canada Monthly Letter, August, 1971. It was sent to us through the courtesy of one of our readers and is reprinted here in its entirety in the interests of all our readers.

MODERN MAN, doubling his population every fifty or sixty years and carrying his technology into all parts of the earth, is a menace to wildlife everywhere.

The expansion of cities, the ever-increasing demand for electric power dams, the use of poisonous chemicals in agriculture and industry, the harvesting of forests, and the increased leisure time that sends millions of people into wildlife territory seeking to enjoy nature: all these impose heavy pressure on wild animals.

Man's family album, if carried back just a few thousand years, would show him pictures of himself resembling the photographs we take of creatures we now call "wild". For ninety-nine per cent of his time on earth man was a food gatherer like the wild creatures of today, and only for one per cent has he been a producer.

Destruction of life is irreversible. The machines that men make are invented, contrived and built in a few weeks or months and if they are destroyed they can be replaced. Wild animals were millions of years in the making. The forces that shaped the earth moulded their form. They were sorted and discarded, modified and improved, until they reached the stage of adaptation that makes them fit for the age of the world in which they live.

Canada is in a special relationship with nature. She is known throughout the world for the wealth and variety of her wildlife. She has an estimated 100,000 different kinds of animals living in a state of nature. These include 193 species of mammals, 518 species of birds, 82 species of amphibians and reptiles, and 770 species of fish.

Extinct or vanishing

When conversation turns to destruction of wildlife we are likely to grieve over what is happening in far-away lands.

Jean Dorst, Curator of the Division of Mammals and Birds in the National Museum of Natural History, Paris, has written a book called *Before Nature Dies*, translated into English and published by Houghton Mifflin in 1970. He traces man's assault on nature by continents, revealing "the thoughtless pillage of a world exploited by men who were dazzled by wealth and foolish enough to consider it inexhaustible."

North America provides one of the most tragic examples. In addition to the changes made in the environment, to which wild creatures could not adapt, "there was also a will to destroy, to eradicate wildlife, which has no equivalent in European history." We have lost more species in the last hundred years than Europe has lost in a thousand years.

Pierre de Charlevoix, a great French-born historian, teacher and explorer, wrote in his *Journal* in 1663: "When we discovered this vast continent it was full of deer and beasts of the chase: but a handful of men have within a single age found means to make them almost entirely disappear, and there are some species of them entirely destroyed."

Three species of bird, the great auk, Labrador duck, and passenger pigeon are extinct, and the Eskimo curlew and the whooping crane have tottered on the brink of extinction for some years. The wild turkey, formerly found in southern Ontario, disappeared as its habitat was destroyed.

The most pitiful example is that of the passenger pigeon. Its numbers were so great that trees collapsed under the weight of perching birds. Now the ivorybilled woodpecker, last seen in Texas in 1967, appears to have joined the passenger pigeon in oblivion. When we say "extinct as the dodo" we should add: "which was a bird as defenceless as the baby seal. It was clubbed to death and disappeared about 1680."

Some mammals are rare or endangered, due mainly to a combination of destruction of their habitat and excessive hunting pressure. The Arctic hare has become rare in Newfoundland. The Northern kit fox is almost extinct; hunting and poisoning have made the Vancouver Island wolf rare, and the black-footed ferret is on the verge of extinction.

What is to blame?

In a parade protesting the killing of wild animals by pollution, a girl carried a banner reading: "We have met the enemy . . . and he is US."

Primitive man destroyed environment, it is true, but never with the irresponsible destructiveness that marked the settlement of North America and continues to this day. There is a passion abroad that reminds us of what Satan says in Milton's *Paradise Lost*: "Only in destroying I find ease to my relentless thoughts."

We bulldoze trees out of our way, divert streams and dam rivers; we irrigate thousands of acres and concurrently drain shallow wet lands; we take prime land out of production and upset the diverse natural system; we pile up wastes on land, dump sewage and noxious chemicals into rivers, and vent gases and soot into the air. All of this poisons the living system.

Misuse of our clever inventions adds to the disturbance. Wilful or accidental harassment by aircraft is having serious detrimental effects on moose in the far north. It increases the incidence of broken bones, and exhausts and disperses the herds, making them more susceptible to attack by wolves.

Forest and brush and grass fires, started by men to clear land or by careless use of matches are deadly enemies of wildlife. They reduce fawning space, destroy food plants, disturb

National Park Service Photo

nesting areas, interrupt breeding activities, and leach ashes into lakes and streams.

Even our curiosity to learn about nature can be pushed too far. Cavalcades of station wagons used to carry people into the Everglades wilderness to see the last remaining flocks of roseate spoonbills . . . but they frightened the birds into leaving their rookeries. The refuge has been closed to visitors.

Chemical eradication of weed and insect pests presents a serious threat to wild animals. The thought of an aboriginal hunter crouching near a water-hole with his bow and his poison-tipped arrows makes us shudder, but we accept without raising an eyebrow the airplane that sprays the landscape with poison, destroying mammals, birds, fish, and a host of useful insects while aiming at a few pests.

Rachel Carson said: "It is ironic to think that man may determine his own future by something so seemingly trivial as the choice of his insect spray."

Pesticides were developed in response to a practical need, and wisely used they have done much to improve agriculture, protect forests, and add comfort to our way of life. But too often an operation is done ahead of research.



All hawks, eagles and owls in Canada are in danger, said J. S. Tener in a report entitled "Vanishing Species in Canada". Being flesh eaters they acquire and accumulate the pesticide residues that are picked up by their prey. The eastern race of the peregrine falcon is now probably extinct.

The Government of Canada has taken note of the danger, and has restricted by ninety per cent the amount of DDT used in Canada. The National Research Council of Canada is probing pollution so as to establish standards to be set by the authorities charged with regulation of pollutants.

Merely an episode?

Is it permissible to accept today's destructiveness as only a punctuation mark, a comma or a semi-colon, in the story of man's advancement?

During the past centuries the human race has entered a new kind of life. It has developed through the hunting and agriculture-handicraft stages into one of machines and computers, just as the caterpillar turns into a chrysalis and then into a butterfly. The butterfly cannot be held responsible for what it did as a caterpillar, and punished retroactively, but let it look to it that it behaves well in its new role.

His cult of the machine has enabled man to reach a high standard of living, but an excess might prove fatal. There are found in the bogs of Ireland skeletons of the Irish elk, which developed antlers so large that it could not reach its food, and so became extinct.

Homo faber, which is the official name for man the maker of things, has become enamoured of his technology that he has become forgetful of his animal structure. Only a just balance with nature can assure his subsistence and the spiritual happiness to which in his better moments he aspires.

One of the difficulties about promoting the conservation of wildlife is that one cannot put a dollar sign in front of a bird song, the ballet-like grace of a Rocky Mountain big-horn on a cliff side, or the beauty of a rainbow trout lazing below a waterfall. Hopefully, the Canadian Wildlife Service, a branch of a Government department, says in one of its booklets: "Interest in wildlife for its beauty and grace and novelty alone is growing and is a factor that cannot be dismissed in any assessment of wildlife's value to our economy."

There are more than a million hunters in Canada who spend a hundred million dollars annually in pursuing their sport. Some of them do not always understand or appreciate the restrictions imposed by biologists who have studied the animals' ecological requirements. The sport can be a normal and legitimate ex-

(Continued on page 5)



Various forms of wildlife share this planet with Man. As a part of God's Creation, they have rights, too.

exploitation of a natural resource, but it needs to be regulated so as to exclude persons who are wantonly destructive.

Conservation starts at home

Most Canadians would like to play their part in conserving wildlife, and everyone has the opportunity. Conservation is not confined to the wide open spaces or the vast forests seen in television wildlife programmes. It starts in every suburban garden and in every farmer's field and in every stream. There are big and small wild creatures everywhere.

Here is a list of the wildlife population of Metropolitan Toronto given in the Ontario Fish and Wildlife Review. Among the mammals: mink, muskrat, squirrel, skunk, raccoon, white-tailed deer, coyote, groundhog, cottontail, European hare, flying squirrel, bat and weasel. Game birds include ring-necked pheasants, Canada geese and many species of ducks. There are song birds too numerous to list. Among the fish are pike, bass, smelts and suckers.

A lot of small conservation projects will supplement the national and provincial sanctuaries. All that is needed is to provide a combination of soil, water and plants where the wild creatures can live.

Fairy rings, supposed to be made by dancing fairies, left without disturbance by the plow, are havens for small animals in Ireland. Many farmers in Canada leave uncultivated strips along their fence lines and in the corners.

An interesting little booklet entitled *Wildlife Land Management*, written by Vernon P. Husek, has been issued by the Fish and Wildlife Branch of the Ontario Department of Lands and Forests, Toronto. In its 22 pages it describes and illustrates what can be done by land owners for the preservation of wildlife.

Hedges play an important part in the existence of small animals and birds, particularly if they include some fruit bushes. Trees and shrubs provide shelter and refuge and the privacy that wild creatures desire.

To take even a small part in providing for wildlife is to bring conservation down out of the clouds where it is so often obscured, and to help to make the world a better place for humans to live. Conservation is not merely preserving life for future generations, but something also for here and now. Every moment of every day we are affected by what is around us, and our lives become enriched when we pay attention to it.

Some people speak ill of the evangelistic ardour of conservationists, but missionary zeal is needed to offset the dismal history of wildlife destruction if man is to be saved from the results of his own folly. It is not desired to lock up and preserve all resources that are left, but to conserve, which means allowing the use of a renewable resource without impairing its ability to reproduce itself.

Canadian Wildlife Service

The Canadian Wildlife Service and the provincial agencies are the trustees of Canada's wildlife. They are moving in a positive way to preserve wildlife. Outside the national parks, wildlife, with the exception of migratory birds, is the legislative responsibility of the provincial and territorial governments.

Besides its work with migratory birds the Wildlife Service advises other federal agencies on wildlife in federal areas, and the territorial governments on wildlife in the Yukon and Northwest Territories. It offers research services to the provinces on request. In 1966 it began a programme of scholarships of \$1,200 each to assist graduate students in various fields of wildlife biology. Federal-provincial wildlife conferences are held annually.

If the governmental activities were participated in and supported by a union of the thousand and one private conservation organizations it would be a beneficial move. The Task Force on Ecological and Environmental Factors, Mid-Canada Foundation, has proposed that an agency be formed, with authority to oversee the implementation of environmental protection programmes and the responsibility for continuing public education.

Wildlife management

It is not enough to leave wild creatures to fend for themselves. Men are encroaching upon the places where they live, changing them beyond the power of wildlife to cope.

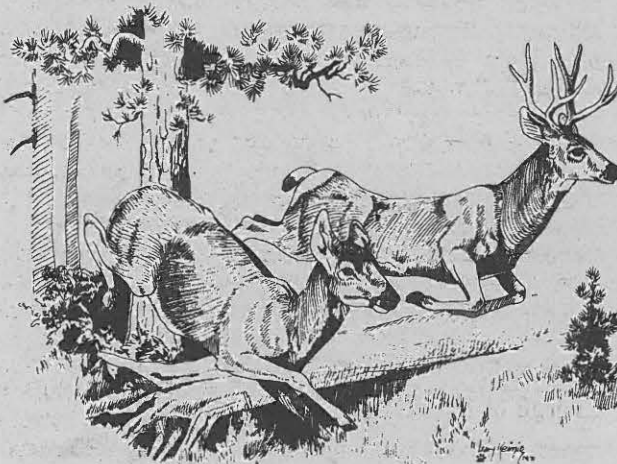
The main objective of Canadians concerned with the future of wildlife is that it should be

managed properly as a renewable natural resource. That management must be based upon sound biological principles.

Wildlife cannot continue to contribute to our way of living unless we set aside adequate living space for it. The alteration or destruction of habitat is more subtle than shooting, but just as deadly. When a plan to change the use of land or to build a road or a pipeline is in the making, a thought should be given to wildlife in its vicinity. A small modification in construction or location can perhaps ensure the future welfare of wildlife without appreciable economic loss.

Wild creatures do not ask us for much: a handful of essential foods, an assured water supply, and a safe refuge or cover.

In 1969 there came into being the Mid-Canada



Foundation, designed to establish a level of long-range planning to Canada's mid-north. Its policy and programme, like those of the Canadian Wildlife Service, are designed to translate national concern about wildlife into guidelines for co-ordinated action by Canada and the provinces.

Also under way is the Canada Land Inventory, a comprehensive survey of present land use and its capability for various purposes, including agriculture, forestry, recreation and wildlife. This is a co-operative federal-provincial operation. The vast amount of information obtained will be stored on computer tapes to become a working tool in resource planning and in rural development plans. Maps on land capability have been published and may be purchased from Information Canada.

Parks and sanctuaries

In 1887 a bird sanctuary, the first on the continent, was established at Last Mountain Lake in Saskatchewan. Today the Canadian Wildlife Service administers 94 migratory bird sanctuaries throughout Canada, and there are sanctuaries administered by Ducks Unlimited, the Jack Miner Foundation, and scores of other agencies.

To naturalists it is most important that reserves should be under effective control to prevent modification of the habitat or disturbance of the animals using them.

Canada has provincial parks and national parks. The provincial parks, totalling 76,051 square miles, are of five kinds: primitive, preserved from resource exploitation and sophisticated resort development; wild river parks, protected from incompatible land and water uses; natural environment parks, landscapes of outstanding aesthetic or historic significance, protected from resource use that would conflict with recreation and education; recreation parks, where the environment may be substantially modified for human use; and nature reserves for scientific and educational use, where public access is only permitted if it will not be detrimental.

An effort is being made to protect natural parks from human erosion. For example, some provinces prohibit or restrict the use of snowmobiles where there are fragile ecological or geological areas. The coursing of snowmobiles can easily break off the tops of young seedlings. Irresponsible drivers can damage water fowl habitat, and Ontario has documented examples of sadistic hunting in which animals have been run under the snowmobile tracks. Other all-terrain vehicles, dune buggies and motorcycles, are invading wilderness areas in increasing numbers.

"To preserve for all time"

Canada's twenty-four national parks add up to 30,000 square miles.

The purpose of a national park is to preserve for all time the most outstanding and unique natural features of Canada. They are dedicated

forever to one use -- to serve as sanctuaries of nature for rest, relaxation and enjoyment. No exploitation of resources for any other purpose is permitted.

Robert Scharff wrote in 'Canada's Mountain National Parks: "Most visitors to Canada's mountain parks have two main objectives: first, to view the magnificent scenery, and, second, to see the wildlife that animates the scenery." In most parks, the public has access to wildlife habitat under public control to watch, study or photograph the animals. Public appreciation of nature is encouraged through provision of nature trails and guides who are naturalists; nature museums, movie and slide shows, lectures, and other interpretative activities.

Those who administer parks, both national and provincial, are under constant pressure to open up parts of them for permanent and transient housing and for the establishment of commercial enterprises.

The government's policy statement of 1964 forbidding exploitation of parks that would lessen their scope as sanctuaries of nature provided the administrators with the armament needed to prevent the parks being turned into recreational honky-tonks as have been so many in other countries.

Wildlife has rights

Nature's children are all straightforward creatures with very simple intentions. There is nothing vulgar in nature. People, too, need to practice outdoor manners.

When primitive tribes hunted game to satisfy their basic wants, they almost always entertained beliefs that involved respect for the animals they sought. When today's people intrude into an environment belonging to the native animals they cannot do less than respect them. Courtesy is part of the Canadian creed, and it is a small thing to ask that it be extended to humble fellow-creatures.

Perhaps animals, as well as humans, deserve to have a Bill of Rights. Ernest Thompson Seton, Naturalist to the Government of Manitoba and author of many books, wrote in *Wild Animals I Have Known* (1898): "Since, then, the animals are creatures with wants and feelings differing in degree only from our own, they surely have their rights."

To see that they are given these rights is the obligation of human beings, the dominant species. The fact of our superiority imposes special responsibilities. Man was given "dominion over the fish, fowl, cattle and every creeping thing," and he was told to dress his Eden and to keep it.

Aside from the personal ethical reasons for discharging our stewardship of life with compassion, there are survival reasons against upsetting ecological balances deliberately or thoughtlessly. Nature is something existing in its own right, demanding our respect and attention; it is also something imperative to our enjoyment of life.

To carry out our responsibilities well we need an intellectual re-conditioning. Children should be brought up to enjoy the more primitive aspects of the out-of-doors, and their education should include appreciation of their place in nature.

Knowledge about their surroundings and knowledge that they are a part of all created things is the only way to prevent their accepting Disneyland's *Jungle Land* as a substitute for the wonder and beauty of the real world.

If misunderstanding of his place in nature should lead man to depreciate other animal life, and to transgress the characteristics which distinguish him as man, he would be turning back down the road he has climbed with such difficulty over the ages.

Arizona "Smust"

Arizona Senator Barry Goldwater has joined with environmentalists in calling for a halt to increasing air pollution in his home state. Goldwater blames the automobile for the "smust" which blots out the view from his home in Phoenix. But he also says there must be tighter control over the fumes from smelters and power plants.

Goldwater says, "I don't think we should ever build another hydro, steam or coal-fired generating plant. We should speed work on nuclear and fusion power generation and do far more with solar energy."

Arizona's air pollution laws are said to be some of the toughest in the nation, but as one state senator put it, only if they "can be enforced."

States Can Protect Eastern Wilderness

by Rupert Cutler

Rupert Cutler is a former assistant executive director of The Wilderness Society in Washington, D. C. His continuing interest in wilderness is reflected in the following article on potential wilderness areas in the eastern United States. He is presently working on an advanced degree at Michigan State University at East Lansing.

East of the Mississippi River are to be found 65 percent of the Nation's people and only one-half of one percent of its dedicated federal wilderness. As the Wilderness Act of 1964 is implemented and all qualifying federal lands are added to the wilderness system, this ratio will remain constant.

Some Easterners are lucky enough to live within a three or four hour drive of extensive wildlands under federal administration, such as the White Mountains, the West Virginia Highlands, the Smoky Mountains, Okefenokee Swamp and the Everglades, but most of us aren't so fortunate. Therefore, many wilderness recreationists, biology teachers, and scientists in the East are turning their attention to the state-owned lands that have more or less been taken for granted in the past.

The 26 states located east of the Mississippi administer over 16 million acres of public land. Two million acres are in the state parks, another four million are managed primarily for the benefit of hunters and fishermen, whose license fees and the earmarked ammunition, and fishing tackle cover most of the cost of these lands' acquisition and development. Over 10 million acres are administered as state forest for forest products production and recreation.

Every state in the East has thousands of acres of state-owned land suitable for wilderness or natural area review. Therefore, every state should consider having a statute which makes wilderness and natural area preservation on state lands an official state policy and goal. It should also provide a legal mechanism under which those lands can be dedicated by an administrative rule or a legislative act.

Many Pressures

Delay in pursuing such state-level programs is certain to result in the loss of state-owned wilderness because of the existence of many kinds of pressures and potential intrusions, most of which are legitimate activities in the proper place.

Conservationists have an opportunity to see that a proper balance is struck between the provisions of adequate public facilities and the protection of the attractive, undeveloped natural environment, without which the parks would be merely parking lots.

Similarly, it helps state park agencies combat the potential over-use of fragile areas by questioning the installation of unnecessary steel bridges and stairways, paved trails, dams and the use of horses where soil-erosion problems exist. It can also help win earmarked appropriations to permit these agencies to buy out tasteless concessioners and owners of private holdings.

When wilderness advocates approach the fish and game management areas administered by state wildlife conservation agencies, they had best do so with the recognition that these areas where bought and paid for by licensed sportsmen. Preservation of undeveloped lands within these areas should make sense to these sportsmen, for they realize that certain game species require wilderness to survive. Many are also seeking the "wilderness experience" as much as they seek a wildlife or fish trophy when they go afield.

Small Tracts

Within state wildlife areas may be both extensive wilderness wildlife habitat or smaller tracts of special botanical or other scientific interest which deserve natural area status. Approached constructively, many state fish and game biologists will come to share conservationists' enthusiasm for identifying and protecting such areas and be of great assistance in this project.

Wilderness and natural area-designation opportunities within the state forests offer the challenge of having to be able to demonstrate that the forest land proposed for such dedication will serve the public better as a wilderness area than as a managed tract where timber-harvesting, oil and gas production, and the use of

motorized recreational vehicles is permitted. The inclusion of particularly scenic valley, a mountain peak or the presence of an endangered wildlife species will help rally support for the preservation objective.

All state lands without special protection are subject to being condemned for new highways, powerlines, pipelines and defense projects. Sand dunes and other mineral deposits can be mined and natural streams channelized. Areas not specially dedicated are almost certain to feel the impact of snowmobiles, trail bikes, all-terrain vehicles, and four-wheel drive vehicles. While we watch, plant and animal species become rare or extinct, and places where man can experience solitude are becoming harder and harder to find, especially in the East.

Battles Won

Some battles have already been fought, and won, in these areas. Those that come to mind immediately are New York's Adirondack Forest Preserve, Michigan's Porcupine Mountains State Park, and Maine's Baxter State Park. There are these precedents, plus the effect of all the publicity associated with the passage of the federal wilderness law, to build on.

A goal could be 50 state wilderness and natural area systems based on state laws which complement the 1964 Wilderness Act and the federal agencies' administrative natural area-dedication procedures. We appear to be a long way from that goal today.

In Michigan there is considerable motivation to get on with the job of wilderness and natural area dedication on state land. The DNR now administers four-and-a-half million acres of public land, with a quarter million being in state parks, a half million in "game areas" and the rest in state forests.

But they are receiving tremendous pressure to provide more developed facilities for the hundreds of thousands of snowmobilers, motorboaters and travel trailer people. The tempo of oil and gas exploration is quickening. A second home on a lake "up north" is a goal being achieved by a growing number of southern Michiganders, while Chambers of Commerce instinctively seem to favor the construction of "lake-view drives" along all our Great Lakes' shores.

State Act

Fortunately the State has been blessed with some far-sighted leadership in this field during the last 20 years. During this time some 100,000 acres of natural areas have been dedicated. But what about the future?

A state "Wilderness Act of 1971," H. B. 4881, was recently introduced into the Michigan House

of Representatives by Raymond J. Smit of Ann Arbor. Since its introduction, it has undergone a number of hearings and revisions. A compromise bill, H. B. 4881, Sub. II, has finally emerged to the satisfaction of almost everyone concerned.



This perfected piece of legislation combines the features of the original bill and the Michigan Natural Areas Council's recommendations for natural area reserves. In summary, the "Wilderness and Natural Areas Act of 1971" does the following:

1. It defines three kinds of areas to be established on state land - wilderness, wild and natural areas.

2. It provides for the creation of a Wilderness and Natural Areas Advisory Board to make recommendations to the DNR for the dedication and administration of these areas.

3. It gives the DNR staff six months to do an initial inventory of its lands, to find all areas suitable for inclusion in the three categories and to propose such dedications to the Natural Resources Commission. It must conduct a similar review annually thereafter.

4. It stipulates that all such proposals must be acted upon within 90 days.

5. It provides that the Commission shall dedicate a wilderness, wild or natural area, or alter or withdraw the dedication according to rules of the Administrative Procedures Act, which requires advance notice and public hearings.

6. It rules out vegetative alterations except for that needed to provide appropriate access, to preserve or restore a plant or wildlife species, or to document scientific values. Also prohibited are condemnation of dedicated lands, the granting of an easement over such lands, exploration for or extraction of minerals, commercial enterprises, utilities and permanent roads. Also outlawed are the landing of aircraft, use of motor vehicles, motorboats or other forms of mechanical transportation, or any structure or installation.

This bill, in its present form, is supported by conservation groups and the DNR. Industry also believes that it can live with it.

So the outlook is relatively bright regarding future of state wilderness legislation in Michigan. It remains only for a coalition of conservation organizations to dedicate themselves to this project until it is successfully completed. Much hard work lies ahead.

Photo by South Dakota Travel Division



Many states east of the Rockies have smaller de facto wilderness areas which could be protected by state legislation. State parks such as this one in South Dakota often represent the last remnants of a once continent-spanning wilderness.

Increasing Attention on Public Lands

High Country News—7
Friday, Dec. 10, 1971

The public lands of the West are drawing more and more attention as criticism continues to mount against clearcutting of timber, indiscriminate mining ventures in national beauty spots, predator poisoning, and a gamut of other problems. In response to concern and criticism, Congress has taken up a number of bills relating to the public lands and their management.

Against a background of special interests and their pressures, it should be remembered that the overriding interest must be with the general public. No better expression of that public interest has been set out than the points enumerated in a resolution from the International Association of Game, Fish and Conservation Commissioners. They said:

1. Public lands should serve the needs of all people. They should not be dedicated to any "dominant" commodity use.

2. The total acreage of public lands now held in trust for the benefit and use of the people should not be diminished.

3. The management of public lands should not be unduly weighted toward "maximum economic efficiency."

4. Public domain lands should be covered by a permanent organic act based upon the multiple use-sustained yield doctrines.

5. The Mining Law of 1872 should be repealed and all exploration and extraction of minerals and oil from public lands be placed under a mineral leasing system.

6. There should be no special funding or separate corporation procedures for timber sales or for timber production on the National Forests or the public domain. If ear-marked funds are provided, they should be for all uses and public benefits.

7. Grazing permittees on public lands should pay a fair market value for grazing privileges and federal authorities should return immediately to the fee increase schedule designed to achieve this goal.

The bills now being considered by Congress should be tested against the criteria of overall public interest. Many of the bills deal only in a piecemeal way with some of the problem areas. Others have a broader concept.

Conservationists generally believe that one of the best of the broader-based bills is S.921, introduced by Senator Henry Jackson of Washington. The House version, H. R. 9911, has been introduced by Representative John P. Saylor of Pennsylvania. Both Jackson and Saylor were members of the Public Land Law Review Commission.

In hearings before the Senate Interior and Insular Affairs Committee, Charles H. Callison, executive vice president of the National Audubon Society, stated, "It is necessary, in our view, not only to prescribe policy which reflects the public interest but also to establish an efficient and responsive administrative organization and vest it with enough authority to implement policy. For this reason we enthusiastically endorse Title I of S.921 because it does spell out policy that reflects the fact that all Americans have a stake in these lands that they own. Further, it embodies the principle that in management, disposal, and/or use of these lands, long-term resource values and environmental quality are more important than exploitation for short-term gain. Furthermore, and equally important, it provides the long-needed organic act or vestment of authority, for the Bureau of Land Management.

"With equal enthusiasm and a feeling of even more urgency, we endorse the provisions of Title II of S.921, except that we urge the exemption from prospecting and mining accorded the national parks be extended to the national wildlife refuges, to units of the National Wilderness Preservation System, to the National Wild and Scenic Rivers System, and also to units of the national forests and national resource lands classified as primitive, roadless, natural, or scenic areas."

When Senator Jackson's Public Domain Lands Organic Act of 1971 was introduced in February, the National Wildlife Federation's Conservation Report said, "Title I of the bill directs that these national resource lands shall be administered on the principles of multiple use and sustained yield. Title II of the bill changes the provisions of law relating to the management of federally-owned mineral values. It places the so-called 'hard rock' minerals on a leasable basis which has been the method of disposal of oil and gas values since 1920."

Interior Secretary Rogers Morton has recently proposed major changes in the mining and leasing laws. An administration bill submitted by the Interior Secretary would replace the 1872 Mining Law and the 1920 Mineral Leasing Act. Some provisions parallel those proposed by Senator Jackson.

A bill to implement many features of the PLLRC Report (H. R. 7211) was introduced by Congressman Wayne Aspinall who served as chairman of the Public Land Law Review Commission. A similar Senate bill (S. 2450) has been introduced by Senators Gordon Allot of Colorado and Len Jordan of Idaho.

Callison, in commenting on the latter bill,

says, "This bill, in my opinion, would paralyze administration of the public lands by creating a hodgepodge of overlapping advisory boards, commissions, and 'coordinating committees'."

In forthcoming issues, HIGH COUNTRY NEWS will comment on current legislation and reprint pertinent information for the benefit of our readers.



Public lands are supposed to maintain a number of different, and often conflicting, activities under the multiple-use concept. Clearcut timbering, as practiced on the Bridger National Forest in Wyoming, conflicts with wildlife use. Sagebrush (in the foreground) may be sprayed to increase forage for domestic stock but diminish or destroy wildlife habitat. Both clearcutting and spraying may have an effect on water run-off and water quality. Whatever Man does on the public lands must be done carefully and only after careful consideration of all other values.

Logging Practices Condemned

The powerful Sierra Club has thrown its weight into the struggle of the Quinault Indian tribe against poor logging practices on their reservation. In a letter to President Nixon, the Northwest Representative of the 140,000 member national conservation organization, Brock Evans of Seattle, urged the President to come to the aid of the embattled Indian tribe, which has been attempting to halt logging operations inside the reservation until the timber companies involved can institute better logging practices.

"The physical damage which has been caused by irresponsible logging operations under present procedures in the Quinault Reservation is indeed appalling, and is visible to anyone who drives on U. S. Highway 101 adjacent to the reservation boundary. There are numerous documented instances of ruined fishing streams, of erosion and waste and siltation, and of logging practices so poor that it is almost impossible to achieve any kind of regrowth of the timber resource", Evans said. "We urge that you take immediate remedial action to insure that poorly executed logging operations such as these do not destroy tribal traditions or their means of earning a livelihood."

Evans pointed out that the situation on the Quinault Reservation is not unusual, but in fact, typical of logging operations being conducted by private industries and other public agencies elsewhere on the Peninsula, throughout western Washington, and western Oregon. He cited the example of the massive siltation of Stequaleho Creek, a major tributary of the famous Clearwater River on the western side of the Peninsula. "Because of sloppy logging operations and planning, the famous Clearwater

River now runs brown," Evans stated.

In his call for a full-scale Presidential investigation of poor logging practices in the Pacific Northwest, Evans stressed that "the issue is not whether or not there should be logging, but rather that the logging that is done is performed in such a way that we will continue to have productive forests. That is not the kind of logging we are getting in the Northwest today."

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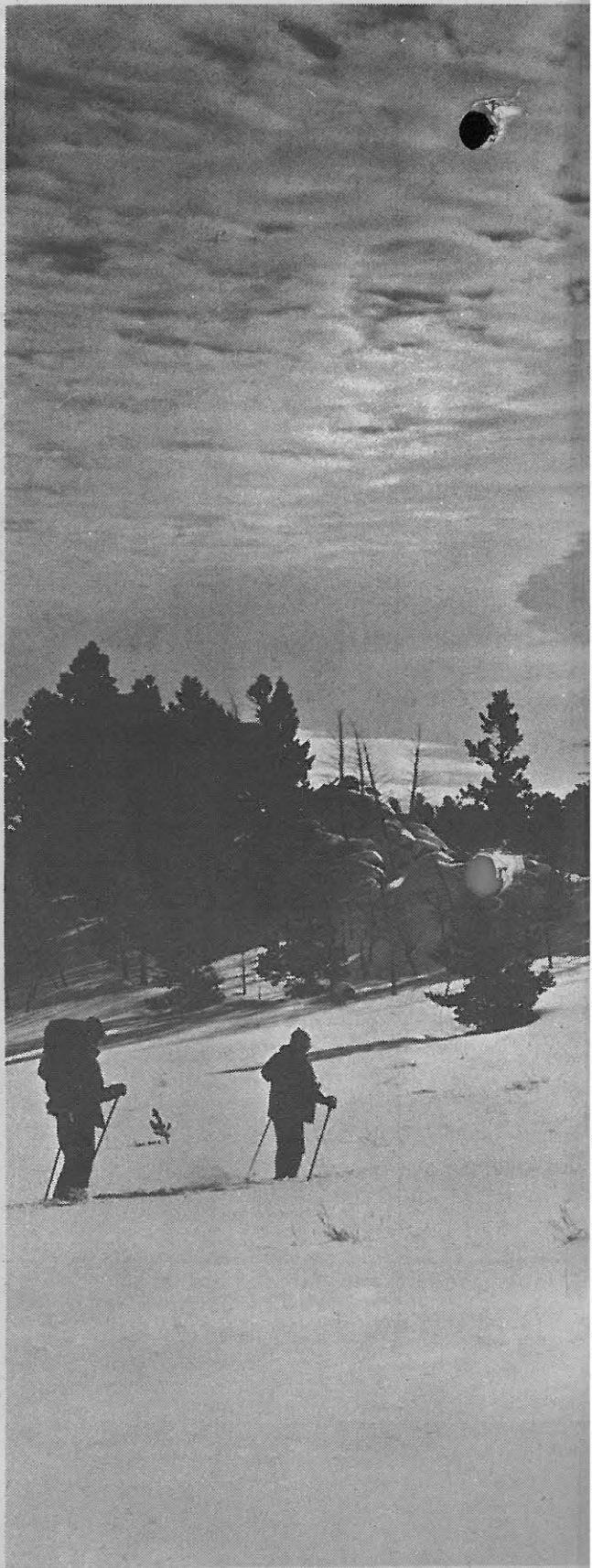
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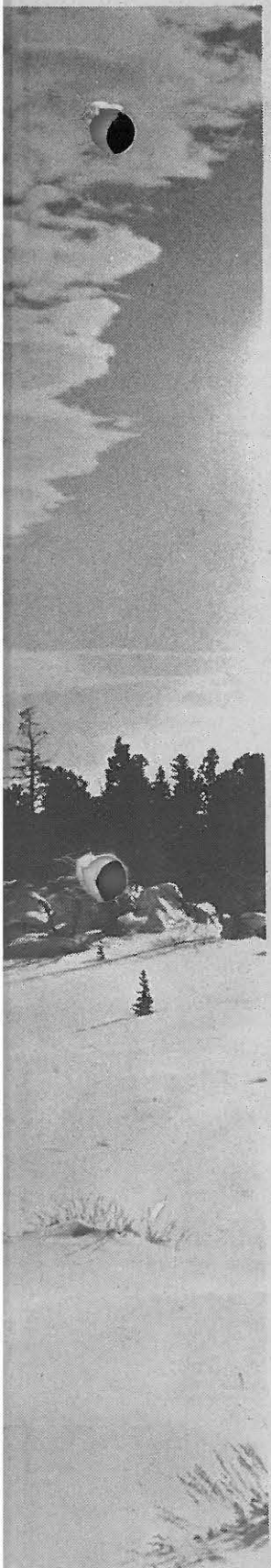
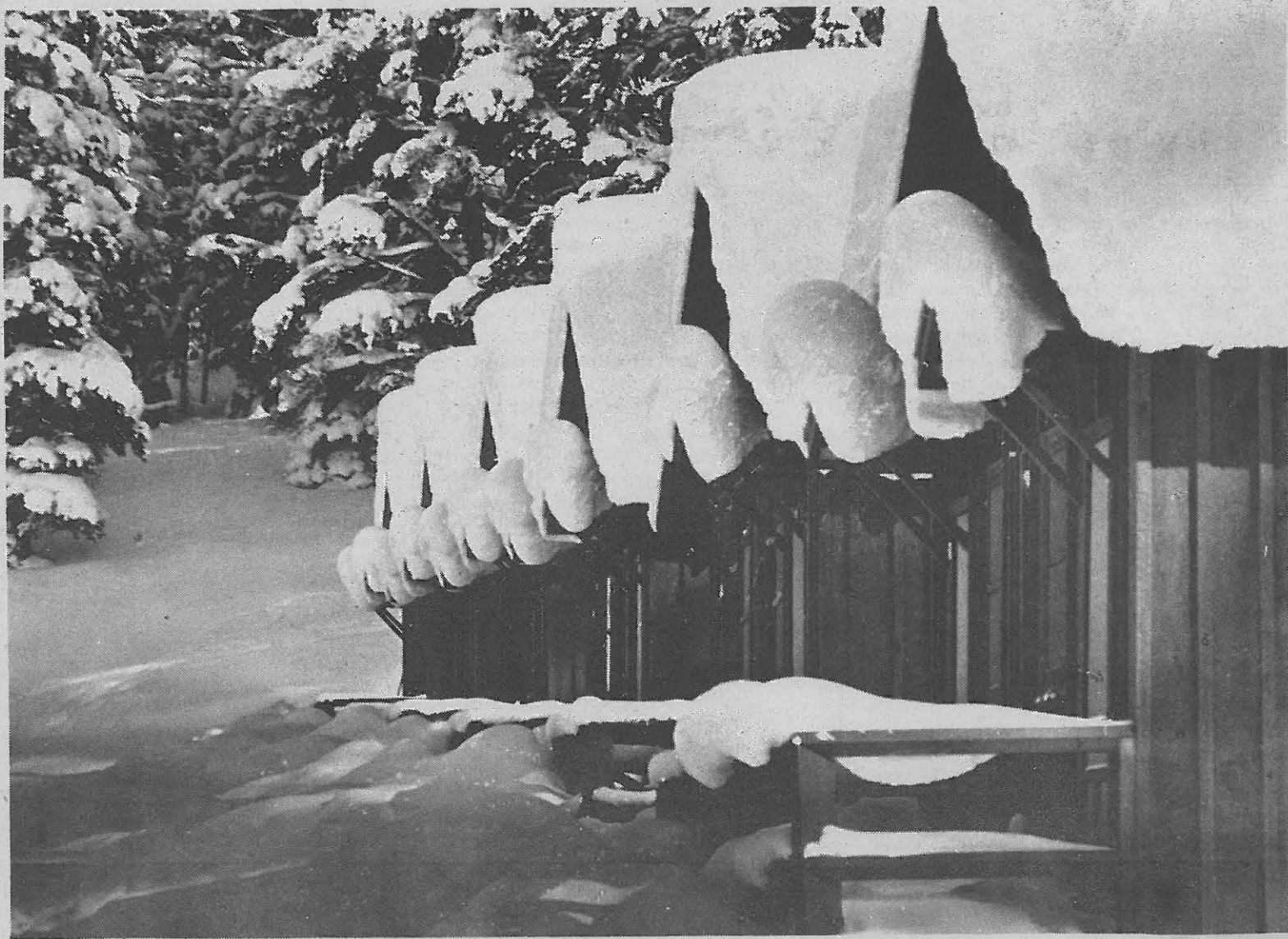


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The Man-Made Power Crisis

An electric power crisis stalks the land. Before the summer is out, it is likely that much of the eastern seaboard will be blacked out or browned out as electric power fails to meet the demand. Yet there is no power shortage. The U. S. has a power surplus, in fact --27% above the peak demand, according to the chairman of the Federal Power Commission. The problem is that the power is not where the peak is. The crisis is man-made. Its purpose is to bilk the public of billions of dollars. Indeed, it is already succeeding. The plan is this: Buy up the sources of energy -- oil, gas, and coal. Launch a propaganda campaign to make electricity indispensable. Isolate the centers of population from the sources. Raise prices. Cry "socialism" if anybody objects or tries to get the power where it is needed. It is as simple as that.

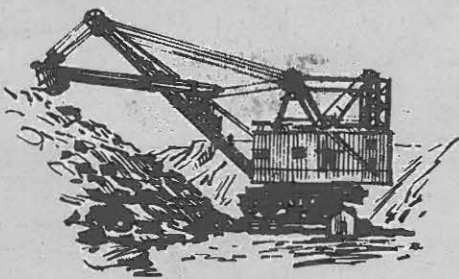
The energy comes mostly from coal, oil, and gas. Eighty-two percent of the electric power comes from these sources (16% from water, 2% from nuclear fission). The oil companies own the natural gas, because gas is a by-product of oil. In the past 5 years, 8 of the 10 largest coal-mining companies, which produce half the coal in the U. S. have been purchased by oil companies, mineral companies, or other large energy corporations. The oil companies control 45% of the known U.S. uranium reserves. Clearly, this is a virtual monopoly on energy.

The propaganda campaign about a natural gas shortage is pure invention. Senator Philip Hart (Mich.) says officials in Louisiana alone "have found 1,110 gas wells shut in, mostly waiting for higher prices." And higher prices are evidently on the way - that will yield an extra \$4 billion a year! The estimated 1,500 trillion cubic feet of natural gas in underground reserves will be worth an additional \$15 billion if the price of natural gas is increased only 1¢ per cubic foot. But that's peanuts to the gas industry. It is talking of an increase of 20¢ to 25¢ per cubic foot - a \$300 to \$400 billion take from the American people. Another invention is the propaganda campaign about the fuel oil shortage. But it has succeeded in raising the price as much as 275% in the past year to some users. The same is true for coal - with increases of as much as 100% in the past year. Electric power plants have a rough time getting enough coal. The railroads say there is a coal car shortage. (Railroads and coal companies are often controlled by the same people.) In one case, a trainload of coal was re-routed (through a computer error, it was said) and went back where it started.

Through all the myth and propaganda manufactured by the power companies emerges one real concern. It is the environment. The skyline of every major smogblighted population center in the nation is dominated by the same outline - the giant smokestacks of electric utility generating facilities pouring pollutants into the air. When the electric companies talk of building more generating facilities it brings the environmentalists out in droves. And rightly so. But the power companies aren't worried. They say, "Wait till the blackout."

The fact to hang onto is this: There is no overall power shortage at present. There is only a shortage of power transmission lines. When New York City blacked out a couple of summers ago, Basin Electric Co-op in North Dakota had plenty of power. So did TVA. But there was no way to get enough of it to New York City. Well, why not build power lines? Ay, there's the rub. A national power grid has been discussed since the 1930's. But the power lobby has managed to keep it from being built. They like power shortages. It makes it easier to increase the price of electricity.

Meanwhile, fueled by high-powered advertising, the need for electricity is growing - much faster than the facilities to make it. Also growing is concern over the environmental damage such facilities cause. But research on



clean methods of generating electricity is lagging. It is already being suggested that research be paid for by a tax on consumers.

We need: More competition in the energy field. More public ownership of power generating facilities. A national publicly owned power grid. More research into such "clean" generating processes as geothermal steam and nuclear fusion - paid for by public funds, not by a tax on consumers. But all of this is "socialism," says the private power industry. The future is predictable: Either we will control electric power, or electric power interests will control us.

River Guides Concerned

by Verne Huser

Meeting in Salt Lake City earlier this month, the Western River Guides Association's autumn conference opened with a bomb-burst as president Bill Belknap read a letter from the U. S. Coast Guard voicing that agency's intent to regulate float trips on western rivers, many of which are of questionable navigability.

Before float trip operators on the Snake, Salmon, Green, Colorado and other rivers begin floating in 1972, the letter suggested, they must be inspected and certified by the Coast Guard if they carry more than six passengers. Guides must have 90 days experience on the river they run and must have conducted a minimum of 12 trips on the stretch of river they intend to float. Guides must pass a written examination, and all inflatable boats must have at least six air-tight chambers.

Immediate indignation was voiced by numerous professional river guides. (Membership in the organization is based in part upon having run at least five thousand miles of river.) Martin Litton, who runs hard boats through Grand Canyon, said that it looked like a case of people who knew nothing about running rivers trying to regulate those who know something. "It has reached the point of harassment," he said. "Regulation is necessary and desirable, but this is ridiculous."

Park Service officials, many of whom attended the meeting, have been tightening regulations for floating in Grand Canyon, Canyonlands, and Grand Teton National Parks and in Dinosaur National Monument during the past few years. The Western River Guides Association has worked closely with the Park Service in developing workable and reasonable regulations.

Neither Park Service officials nor the Coast Guard official stationed in Salt Lake, who attended the meeting, seemed to know much about the coming regulations. But several had heard rumors that the Coast Guard was extending its

jurisdiction -- or at least beginning to exercise it.

Officials from Canyonlands, Dinosaur, Grand Canyon, and Lake Mead outlined the Park Service regulations for the coming floating season: basically river use has been frozen at the 1971 level, and Grand Canyon float trips are going on a concession basis for the 1972 season. Canyonlands has asked -- but not required -- floaters not to use motors for float trips in Cataract Canyon, and Dinosaur will continue to impose the campground permit regulation that requires a floater to have advanced campground reservations before launching. Canyonlands National Park is limiting campsites along the river to 50 people, and Grand Canyon is again requiring all floaters to carry portable toilets.

Some discussion centered around Martin Litton's proposal to blast a channel through Crystal Rapid. It is the worst in the Grand Canyon and a man-made rapid because it was formed after Glen Canyon Dam was built, preventing the natural river from washing out the rock debris from a major flash flood down a side canyon. And there was talk of minimal flows. (Grand Canyon has dangerously low water levels due to weekend power cut-backs.) Bureau of Reclamation representatives participated in the discussion and reported that Lake Powell will be raised an additional 15 feet this year, a move that would drown out the lower part of the best rapid series in Cataract Canyon, the infamous Big Drop.

Three resolutions were passed by the assembled river guides: 1) support Senator Bob Packwood's (S. 717) bill to establish a Hells Canyon-Snake National River, 2) propose wild river status for the Colorado River between Lee's Ferry and mile 240 since the Park Service has not included the river in the Wilderness Plan for Grand Canyon National Park, and 3) oppose the raising of Lake Powell above the 1971 high-water level, using Lake Mead for the necessary additional storage of Colorado River water.

In an attempt to develop better coordination

PACIFIC NORTHWEST NEWS

By Harvey Manning

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Tillamook County, Going, Going . . .

The same story, with variations, could be told about virtually every city and county in America, and that alone gives it national significance. But further, we only have, per capita, a very little ocean coastline, and each inch is precious, and what happens in Tillamook County (Oregon) thus matters -- and matters a lot -- in Pocatello and Omaha.

Recently the Tillamook County Planning Commission provisionally approved a motel on sand dunes at Twin Rocks, on the incomparably beautiful Oregon coast, despite the negative recommendation by the county's Planning Director, backed by testimony from geologists familiar with the fragility of dunes. The Commission couldn't absolutely ignore the experts, and therefore asked the motel promoter to counter their arguments. So he hired an engineering consultant, who (surprise! surprise!) reported the motel would fit into the dunes like magic, no damage, no bother, no fuss or muss.

Duly reassured, at its August 26 meeting the Commission approved the project -- and to finish the session with a flourish, recommended dismissal of the Planning Director -- who, in the words of the Oregon Environmental Council, "has been working extremely hard to protect the natural resources of Tillamook County from thoughtless destruction."

It's the old story, familiar across the land: a majority of the Commissioners are either in the real estate or development construction business.

Didn't Aesop have a fable on this theme?

Rangers to the Rescue?

The U. S. Forest Service is having a rough ride, and it's giving away no secrets to predict some hard jolts before the path smooths out.

(I'm haunted by a fragment of the refrain from a ballad I used to hear around campfires, long ago. All I remember is:

"And now the ranger,
Is in great danger . . .")

If any reader can supply the complete words and music I'd be most grateful.)

However, while the Forest Service is suffering slings and arrows on account of its cosiness with the loggers, here and there it is earning praise from gutsy opposition to another group of exploiters -- the miners.

As example, a partially-completed Forest Service study of the White Clouds area of Idaho, where American Smelting and Refining Company seeks to open-pit several mountains and valleys consisting not only of superb scenery but of low-grade molybdenum ore, contains a legal opinion that the Service might be able to deny ASARCO permission to develop its claims on the grounds of intolerable damage to the environment.

Whatever the final Forest Service official decision, its study provides support for the recourse to courts that inevitably will come if the miners manage to browbeat and cow the upper echelons of the Service.



at the local level, the Western River Guides Association decided to try functioning at the state-wide level with state coordinators appointed for five most active states: 1) Ted Hatch, Utah; 2) Jerry Sanderson, Arizona; 3) Jim Campbell, Idaho; 4) Dick Barker, Wyoming; and 5) Verne Huser, Oregon. A California representative will soon be selected and possibly one from Colorado.

Representatives from the Sierra Club, from several colleges and universities, from the Utah Division of Parks and from the Utah Travel Council also participated. Members of the Utah Travel Council showed a 15-minute film on floating Utah rivers ("Discovering Utah's River Wilderness"), a prize-winning color feature. Sierra Club River Trip Chairman Cap Agee announced the Sierra Club Board of Directors' decision to use no motors on Sierra Club-sponsored trips during 1972.

Mining Exposed As Serious Problem

High Country News—11
Friday, Dec. 10, 1971

Hearings on strip mining are being conducted by both the U. S. Senate and the House. The bills under consideration range from providing for total bans on strip mining to all variations of control. The issue is one of vital importance to the western states where strip mining is in its virtual infancy. The eastern and southeastern states have not been so fortunate. There thousands of acres of farm lands, hardwood forests and other valuable lands have been devastated for generations to come.

States in the Four Corners region as well as Montana and Wyoming have much to lose if strip mining is not banned or adequately controlled. Yet, some of our politicians display either child-like naivety or callous disregard of their native state's land resources. Wyoming Senator Clifford P. Hansen alluded to Wyoming's Open Cut Reclamation Act during recent hearings, saying in effect that Wyoming's law was adequate and that any federal legislation should be patterned after it. For those who are well conversant with Wyoming's law, such allusion is tantamount to demagoguery and can only be viewed as pure hypocrisy.

As one example, Wyoming's law makes no mention of high walls and the fact that these should be reduced to reasonable slopes. There are already a number of dangerous, vertical walls left from uranium and coal mining operations. The report of the North Central Power study states that, "the Kemmerer Coal Co. has started an open pit that would be 1 mile square with a high wall of 1,100 feet." Much of the strippable coal in Wyoming lies at depths to 125 feet and some multiple beds will allow mining to 200 feet and beyond, as at the Kemmerer site above.

Most westerners do not realize the seriousness of the problem of strip mining. It remains for people who have lived in areas where strip mining has left its devastation to appreciate the social, economic and environmental impact. The West Virginia Legislature has banned the strip mining of coal in 22 counties. Ohio's House of Representatives has recently passed the toughest strip mine act ever. It came only after too much of Ohio's beautiful countryside had been devastated.

Recently, Norman Williams, a former Deputy Director of West Virginia's Department of Natural Resources, testified before the Senate Subcommittee on Minerals, Materials and Fuels. Last February, he went before the West Virginia Legislature and advocated the abolition of strip mining. His remarks before the subcommittee are illuminating. What follows is his testimony:

"... As I understand the bills now before you, with one exception all are predication upon the assumption that stricter regulation is feasible. I wish to challenge this easy assumption, for my own experience indicates that the surface mining industry in Appalachia is not amenable to social control. This reluctant conclusion is based upon five year's observation within a state agency charged with enforcing a reclamation law until recently regarded as the strictest in the Nation. In my opinion the surface mining of coal in Appalachia cannot be regulated so as to eliminate those environmental and social costs being foisted upon a region already handicapped by a legacy of industrial exploitation...

"... I am referring to landslides, to rivers of mud and rocks, to gashes in mountainsides from slipping spoil banks, to miles of streams ruined by acid drainage and sedimentation, to homes, roads, water supplies and scenery damaged, often beyond redemption. These side-effects are more often than not the trade-marks of the industry. Far from diminishing under strict regulation, the evils associated with strip mining increased as operators rushed to take advantage of the unprecedented demand for coal. People living in narrow flood-plains downstream were frequently obliged to put up with a degraded living environment, all in the name of stricter regulation.

"... From the governor down to the reclamation inspector, the entire regulatory apparatus of the state (of West Virginia) is geared to protect the surface mine operator's profits as against protecting the environment and downstream residents.

"Ironically, the 1967 statute empowers the Natural Resources Director to accomplish just the reverse, that is, to fully protect the environment from damage caused by the operator. Section Eleven enumerates environmental costs of strip mining and authorizes the director to guard against them by the expedient of prohibiting surface mining operations wherever in his judgement such costs do or might occur. I fail to see how the legislative intent could have been spelled out more clearly.

"Yet in the four-year life span of the law, this discretionary authority was employed only to

safeguard state-owned property, near the homes and communities of private citizens. Under this double standard, what is quite acceptable for the hapless residents of Pond Fork, Cabin Creek or Coal River is clearly not acceptable for tourists visiting Grandview State Park, Gaudineer Knob

Senator Chided

James T. Noble, a Pinedale Rancher and president of the Wyoming Wildlife Federation, has taken issue with Senator Clifford P. Hansen over Wyoming's Open Cut Reclamation Act.

In a statement before a Senate subcommittee, Hansen had said Wyoming's statute was a model act which should be adopted by other states.

Noble replies, "This statement is rather amusing, especially when the so-called experts say that Kentucky, West Virginia and Pennsylvania have the toughest laws in the nation."

A resolution recently adopted by the Federation opposes strip mining in Wyoming.

virtual impotence. I would also hope that the Congress, in this matter will explicitly recognize the right of each state to adopt its own restrictions on the expansion of surface mining. Where proper environmental protection can be accomplished only by eliminating surface mining as a method of removing coal, the option should remain for state legislatures to exercise, whether by outright abolition, or county - by - county, or by moratorium, or whatever.

"A profound skepticism about the effectiveness of federal controls as applied to the coal mining industry and its booming surface mining segment, suggests to me the urgency of reducing opportunities for closed-door negotiations...

"... Bureaucratic secrecy, special interest lobbying and administrative discretion have long since conspired to open our representative form of government to special influence while holding at arm's length citizens who are worried about environmental protection.

"... It occurs to me that there may be some



Strip mining of vast, western coal beds has only begun. This open-pit mine near Sheridan, Wyoming, is the first of many which will stretch across Montana and Wyoming. Only a few miles away, behind the hills in the background, another area is being readied for mining near Decker, Montana. That open-pit will be about three miles in diameter.

or Cooper's Rock State Forest. In many mountain communities, people whose protests prompted enactment of the 1967 reclamation law were being victimized by "strictly regulated" strip mines disturbing contiguous or headwater areas...

"... If the operator were required to fully protect the environment by restoring all high-walls to original contour, mulching all spoil banks soon after disturbance, stockpiling all top-soil, separating all acid-bearing overburden, installing complete drainage systems with properly designed settling ponds, sealing all breakthroughs permanently, treating all acid water discharges in perpetuity, and so on, the economic incentive would be effectively removed from surface mining in Appalachia.

"What makes surface mining so attractive is the fact that the State does NOT require the carrying out of these measures. Actually, the profit of the surface mine operator is in direct proportion to the environmental costs he is allowed by the State to pass along to the community...

"... If federal control, per se, can hardly be viewed as a panacea, at least it offers escape from the depressing game of economic blackmail which has so frequently reduced state legislatures and state regulatory bodies to

legal provisions which could help bring about greater participation on the part of concerned individuals in the decision-making process. First, reclamation should be defined as 'restoration of the disturbed area to a level of environmental quality at or near that of its original undisturbed condition'. In other words, if we're talking about Appalachian hardwood forests, the law should require restoration to a condition wherein existing species can be re-established in full vigor.

"Second, the surface mine operator should be required to advertise all information relating to his application for a permit, in a general circulating newspaper nearest to the prospective strip minesite. This is to alert interested residents of the area, allowing them sufficient time to undertake investigation and protest if they so desire.

"Third, the operator should be required to prepare a pre-plan showing how he will mine and reclaim the area under permit and the agency should be required to circulate his pre-plan among various other agencies dealing with water, air, noise, forestry, recreation, scenic and land use values. The contribution of these disciplines should be joined in a comprehensive environmental impact statement.

(Please turn to page 12)

Booklet Revised

The Grand Teton Natural History Association has brought out a completely revised "Teton Trails" booklet as part of its preparations for the National Park Centennial, according to the Association's Executive Secretary Charles McCurdy. This is the first major revision of the popular guide in ten years. Jenny Lake Sub-district Ranger Dunbar Susong and Assistant Chief Naturalist Victor L. Jackson up-dated trail information and elevations to correspond with the new U. S. Geological Survey topographic map of the Park. Local artist Grant (Tiny) Hagen did a completely new map of the trails in the Phelps Lake area to include recently developed trails from the top of Rendezvous Mountain into Granite Canyon and back to Teton Village. The booklet is available daily all year at the Moose Visitor Center and is sold through the non-profit Association.

McCurdy said that the demand for the booklet has soared with the increased use of the Park's back country. The 1970 hiking use jumped 37%. 116,000 visitors travelled the trails. The figures for 1971 have not been totaled, but another high use season was noted by back country patrol rangers.

Proposals Endorsed

A Colorado legislative committee has endorsed three proposals of the Colorado Environmental Commission and has recommended that the 1972 General Assembly adopt them.

The proposals would provide for an Environmental Policy Act, provide for a state population policy to guide the growth of the state, and provide for a committee of rural revitalization which would implement the population policy and encourage stabilization rather than growth.

Desert Report...

those proposals. In addition, the Bureau proposes to protect and actively manage extensive recreation areas, natural areas, and rockhound areas. Areas in the sand dunes will be specifically managed for dune buggies and all-terrain vehicles, and other areas will be managed for snowmobiling.

Wildlife inhabits almost all of the area. Thousands of deer and antelope, and even a few elk are dependent upon unrestricted travel and undisturbed natural conditions for their welfare. The Steamboat Mountain elk herd is considered to be unique in the country in being the only resident animals in a sand dune habitat. The BLM proposes to set aside an area around Steamboat Mountain, in conjunction with a Boars Tusk Natural Area, for the elk and for scientific study of a sand dunes ecosystem.

Pronghorn antelope must move from northern sections of their ancestral ranges to less

Mining Problems Exposed...

"Fourth, the environmental impact statement should be made available to the public. A specified number of residents of the affected county should then have the right, after studying the statement, to demand a public hearing to be held in the affected county prior to issuance of the permit. The agency must appear and show cause why the permit should be issued, if that is its decision.

"Fifth, any citizen should have the right to bring suit against the administration of the regulatory agency for failure to perform a mandatory duty, and data drawn from the hearing should be considered valid evidence if introduced in a court of law.

"Sixth, all water quality reports required by the agency should be published periodically by the operator in a newspaper of general circulation nearest the permit area.

"Seventh, citizens should be encouraged to monitor implementation of the law through receiving one half of the fine imposed upon a violator, in return for information leading to the conviction.

"Eighth, any employee of an operator or any employee of the agency should be fully protected against discrimination or reprisal as a result of providing information leading to the prosecution of a violator or to a citizen suit against the administrator.

"Ninth, A Reclamation Trust Fund should be established, based on a per-ton tax of all coal mined, the money to be devoted exclusively to purchasing and restoring lands inadequately reclaimed from surface mining or deep mining of coal, and also for funding workshops and other organized efforts to train citizens in monitoring techniques.

"Tenth, any person thrown out of work by abolition or by a moratorium on surface mining of coal should have ready access to federally-funded retraining programs and should receive a limited hardship allowance. Such persons should get first consideration for re-employment in

reclamation programs established under the Reclamation Trust Fund . . ."

Lions Hunted

Four mountain lions have been taken in Montana since the cats became the state's latest official big game animal last July. A male and female were taken in Lincoln County, a male from Teton County, and a female from Flathead County, according to Orville Lewis, chief of law enforcement for the fish and game department.

Mountain lions, locally called cougars, panthers and catamounts, became game animals July 1, 1971. The fish and game commission declared a season on them and required lion hunters to have a license.

Lions are legal game to license holders through April 30 of 1972. Residents who have a conservation license and non-residents who hold a \$151.00 license may apply to the fish and game department office in Helena for a free lion license.

Lions are the only big game animals in Montana that may be hunted with dogs. A license holder may take only one adult lion during a license year.

Commission regulations require that neither female lions accompanied by offsprings nor juveniles with body spots shall be killed. If a lactating female is taken, hunters are required to backtrack her in an effort to locate kittens. Kittens must be given live to the fish and game department.

Hunters who take a mountain lion must present the skin and skull to a game warden or to a fish and game office within ten days after the kill. The hide will be tagged and returned to the hunter. The skull will be cleaned by fish and game personnel and certain information will be gained by its examination. The skull too will eventually be returned to the license holder who took the lion.

snow covered winter ranges in the south. At the present time, severe winter conditions have pushed the antelope up against and even through existing sheep-tight fences in the checkerboard area. Wyoming Game and Fish Department field men estimate that as many as 1,000 head of antelope may already have perished. Antelope are piled against fences and those which try to get through them are sometimes so badly injured that they die or are easily killed by predators.

The BLM proposes to leave one large central area completely unfenced (Area C). However, livestock operators in Area B have long desired fences for their individual allotments. The BLM says if the operators will go to rest-rotation management plans that it will allow more fences there. In an area which is predominantly federal land (except for the Eden Valley Reclamation Project), conservationists will violently oppose

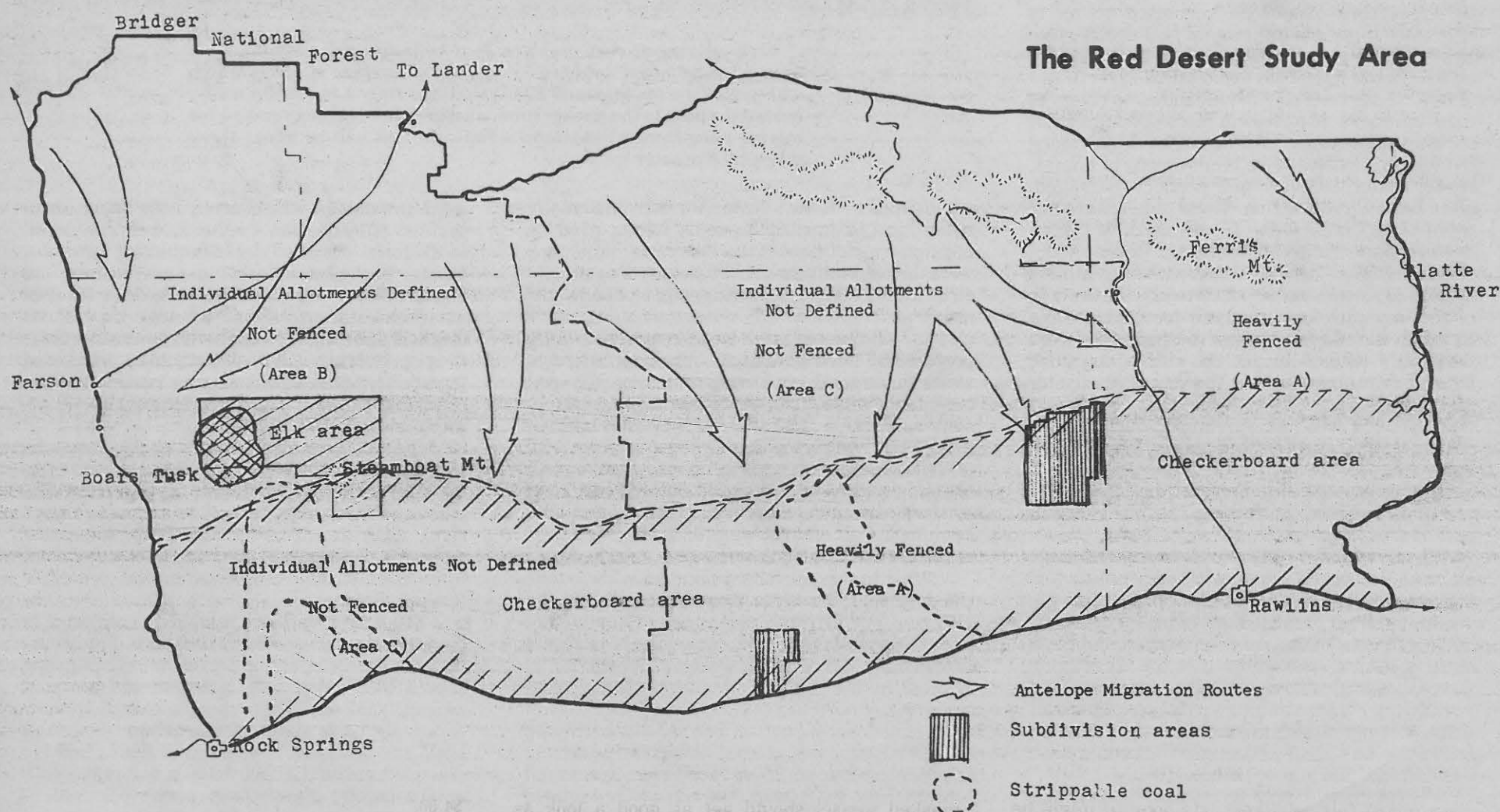
any more fencing and may ask for some fencing to be removed or modified.

The BLM also proposes to recognize the values of non-game birds and small animals as a part of the desert biota.

Taking the suggestion of conservationists, the BLM will not allow any more road construction in the area and will close out jeep roads and other trails deemed unnecessary.

Copies of the 122-page report are available for review at all Wyoming BLM offices and at libraries in Rawlins, Lander, Rock Springs, Casper, Laramie, and Cheyenne.

BLM State Director Dan Baker said, "This is a review document . . . We will evaluate the public's response to this report and expect to finalize the management guides after the first of the year. (We) hope to begin developing specific action plans for the various resources soon after."



THE WILD WORLD

by Verne Huser

Long Peak (14,256) is the highest mountain in Rocky Mountain National Park, a 410-square-mile area in northcentral Colorado that contains 18 peaks over 13,000 feet high. I climbed Longs Peak one Sunday; it was a grand experience.

As one of three seasonal rangers stationed at Longs Peak Ranger Station, I helped patrol the peak and kept tab on the several hundred park visitors who climb the peak every month. On weekends we may have had as many as 150 climbers a day; one of us usually went up as far as the top of the Boulderfield (13,000) to count the climbers down off the summit.

This particular Sunday I was to replace the summit register: I had to climb the peak myself. There really isn't much to the climb, not since the cables were placed on the granite slabs above Chasm View. It is a long uphill hike to the Boulderfield, a scramble up to Chasm View (13,600), then a moderate climb to the summit with the cables to help you over the only difficult pitch.

Since solo climbing is prohibited on Longs Peak—as it is on most peaks in the national parks (and with good reason)—I looked for a climbing partner. An Austrian accountant now living in Chicago, an outdoorsman who was camping at Longs Peak Campground, was also looking for a climbing partner. We joined forces and planned to leave at 5 a.m. next morning.

It was still dark as we headed up the trail but the eastern sky was lightening over Twin Sisters. An hour up the trail we stopped for a drink where the trail crossed Alpine Brook. A little later we left treeline at Jim's Grove and following the telephone line, began climbing through the open tundra (there is an emergency telephone at Jim's Grove, another at the top of the Boulderfield).

Just below Granite Pass (12,080) we saw a hen ptarmigan with five chicks; as we started up the switchbacks to the Boulderfield we saw a doe deer sleeping in the meadow—our passing didn't disturb her. It was full daylight by now, and the sun was climbing to heat. We shed our parkas.

By 8 a.m. we had reached the end of the trail, 7 miles from the Ranger Station. Here the climb began, a scramble over huge boulders, then a stiff climb up loose scree, finally a few pitches of granite slabs. At Chasm View we stopped to look down the east face of Longs, two-thousand feet to Chasm Lake.

We negotiated another down-sloping slab to the foot of the lower cable, a 160-foot steel safety line that helps hikers up the wet 45-degree slabs. Pausing frequently for breath, we worked our way up the cable, found the shorter upper cable, and climbed on to the 14,000-foot level.

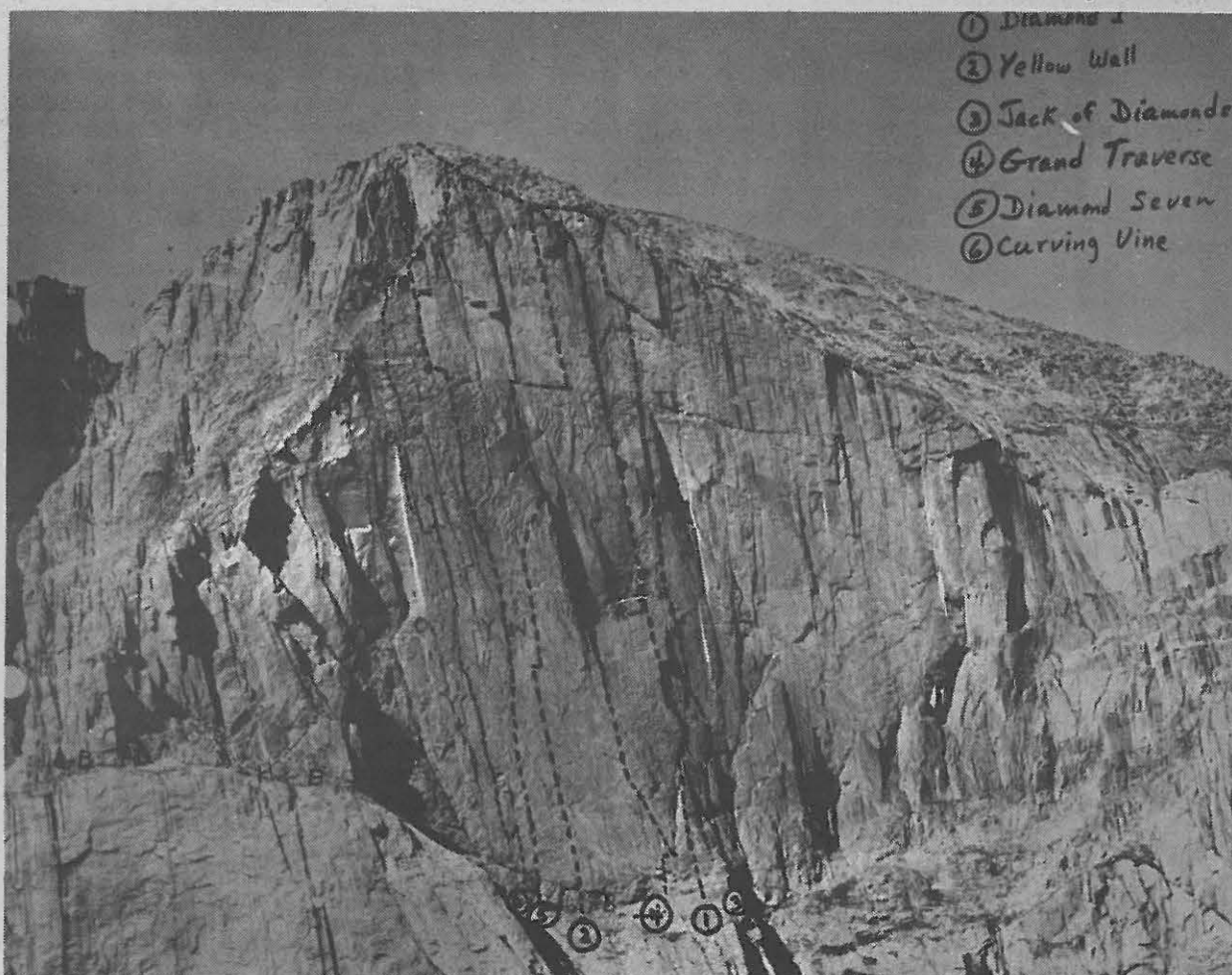
After a brief rest we began climbing again, now working our way to the left above the precipitous east face. We gained altitude gradually as we traversed, moving upward a few feet between lateral moves. At 9:47, we reached the summit, a flat area of several acres strewn with huge boulders. Near the summit cairn was the metal cylinder for the summit register. We signed in and had a look around.

Far to the southeast was the snow-dome of Pikes Peak, a hundred miles away (and a hundred feet lower). At our feet but more to the south were the lakes and canyons of Wild Basin. To the southwest the Continental Divide drew nearer and nearer in such peaks as Isolation, Tanimia, Alice, and Chief's Head. At Chief's Head the divide turned sharply toward the northwest in 13,000-footers: McHenry's, Powell, Taylors.

Nearly a hundred miles to the northwest, the Medicine Bow Mountains of Wyoming lifted a snowy back, and miles of alpine tundra softened the distance. A dozen lakes nestled into the shelves and canyons of the nearer mountains, and clouds were already building on the western horizon.

The afternoon thunderstorms began before we had reached the Boulderfield. We hurried off the ridge at the Keyhole and headed for the relatively low area of the declivity—huge boulders rose everywhere, sharp points begging for a lightning strike, and beneath the Boulderfield snow-melt water gurgled everywhere we went. There seemed no safe place.

But the sudden storm was blowing over. We joined several other Sunday strollers, ate a lunch of cheese and crackers and sardines, and watched the play of light on the scene about us as the clouds passed by heading east. We talked to other would-be climbers, some heading for the summit at this relatively late hour (it might be



The face of Longs Peak in Rocky Mountain National Park presents a real challenge to any climber.

dark before they got down: they had no lights and were hardly dressed for an evening above treeline), and others discouraged by the weather that continued to suggest thunderstorm activity.

We started down just as a new dark cloud threatened. As we reached the lip of the bowl that is the Boulderfield, the fireworks began: lightning and thunder. We rushed down to Granite Pass, not wanting to be caught on the open ridge in the electric storm. Once below Granite Pass, we slowed the pace only slightly as the rain began pelting us heavily.

Soaking wet by the time we reached Jim's Grove, we welcomed the sun that broke through the scattering clouds. The storm rumbled its way

on down the canyon. The white-crowned sparrows and robins and pipits greeted us with song, perched on the dripping boughs of the stunted alpine trees. A rainbow appeared as we dropped down into heavier timber along Alpine Brook.

And too soon we reached the ranger station where civilization burst upon us with its paved parking lot and Sunday strollers, littering the trail and the parking lot and filling the garbage cans with their plastics and disposable paper products.

But parks are for people, the climbers as well as the picnickers who don't like to get more than twenty feet from their luxury automobile.

Search For Ferrets On

A search has been launched in Nebraska by the Game and Parks Commission for information on the black-footed ferret, a small prairie predator that is listed as an endangered species by the U. S. Fish and Wildlife Service.

An immediate goal of the Game Commission project is to determine the approximate number of these animals in the state. Once this is learned, the ferrets will be studied to discover possible ways of saving them from extinction.

At one time, wildlife experts thought that as few as 20 black-footed ferrets remained in their natural range, which included parts of 11 states. This estimate may have been a bit pessimistic, but biologists agree that the species is extremely rare. About 80 confirmed sightings were reported in South Dakota over the past few years, and 7 fairly reliable observations have been made in Nebraska during about the same period.

Anyone seeing one of these ferrets should report it to a Game Commission office in Bassett, Norfolk, North Platte, Alliance, or Lincoln. The information may also be relayed to a conservation officer, or to Ross Lock, Non-game Specialist, Game and Parks Commission, Box 30370, Lincoln, Nebr., 68503.

Since manpower for the ferret study is limited, observers should be relatively certain of the sighting before reporting it. Running down a large number of false leads could hamper Commission personnel working on the project.

The black-footed ferret is a member of the weasel family and has the lithe, slinky appearance that is characteristic of the group. Thus, two of his close relatives common in Nebraska, the mink and the long-tailed weasel, could possibly be mistaken for the ferret.

Most distinctive feature of the black-footed ferret is his face marking, a black mask across the eyes similar to that of a raccoon. Another clue to the ferret's identity is his overall yellow-buff coloration, considerably lighter than the deep chestnut of the mink and weasel. An adult ferret is about 22 inches long, approximately the same size as a mink. His tail accounts for about one-fourth of his overall length.

Anyone spotting an animal resembling this masked weasel should get as good a look as

possible, checking for as many of these identifying characteristics as he can. Reports to the Commission on any ferret sighting should include exact location and notes on what the animal was doing at the time. Recovery of a dead ferret should also be reported.

Areas of Nebraska most likely to harbor black-footed ferrets include the Panhandle, southwest, and south-central portions of the state.

Prairie dogs are thought to be the mainstay of the ferret's diet, and he is most commonly found in or near a prairie dog town. Elimination of his food supply through poisoning programs aimed at the prairie dog has undoubtedly played a big part in the ferret's decline, say wildlife biologists.



Fish Book Out

A book that includes all the fishes known to inhabit Montana waters along with information on their life history, breeding and feeding habits is now available to fishermen, according to H. Max Stone, chief of information for the fish and game department. The book, *Fishes of Montana*, was written by Doctor C. J. D. Brown, Professor of Zoology at Montana State University, after years of extensive collecting and research.

Stone said that 52 native species and 28 introduced species are included in the 200 page book. Identification keys and illustrations will help fishermen to identify various fish that are unfamiliar to them.

Paperback editions are being distributed to book sellers and sporting goods stores. Persons who are unable to buy the books locally can obtain them from Big Sky Books, Montana State University, Bozeman, Montana.

The cost of a paperback book to individuals is \$4.50.

Who's Watching Whom?

by Thomas M. Baugh

Most of us have heard the story of the psychologist, studying primate behavior, who was interested in knowing what a chimpanzee would do when placed in a room full of toys. The psychologist obtained a young chimp and placed him in the prepared room. Eagerly he left the room, shut the door and bent over to peer through the keyhole; lo and behold there on the other side of the keyhole was the glistening eye of the chimp.

In the past several years of animal study and wildlife photography, I have found myself seriously questioning who was studying whom.

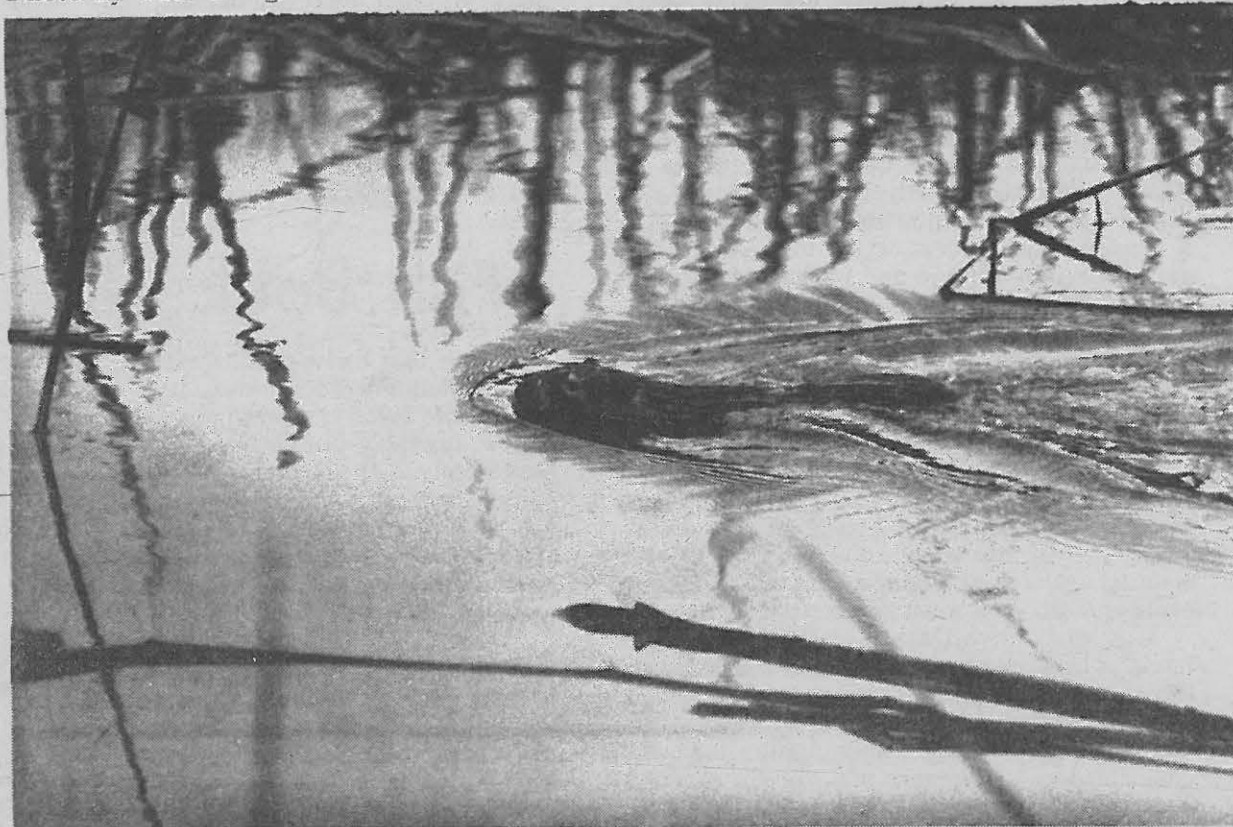
Recently I've been engaged in preparing a series of slides concerning the muskrat. Many hours spent perched on top of levees or crouched in stream-side brush has convinced me that I'm not the only one doing the watching.

On one occasion I was lying prone on the top of a levee, watching a muskrat swim across a pond in front of and below me. As soon as the animal was close enough, I opened fire with my trusty 35mm. At the sound of the shutter the rat dove with a noisy splash. Having had this same thing happen many times, I put the camera down on the bank, sat up and lit a cigarette. Usually it took the animals about fifteen minutes to get over the initial fright and to decide to resurface and check out the strange noise. On this occasion I was contentedly puffing away when I noticed a crunching noise to the right of me that sounded fairly close. Slowly I turned my head and there, not five feet away, sat a plump furry muskrat munching on tender alfalfa stalks while giving me the once over.

I've learned quite a bit about curiosity and animals by observing muskrats. For instance, I've noticed that after I've worked at a particular pond for a period of time, the rats appear to lose their initial fear of both my presence and the sound of the shutter closing. Instead of diving when I press the shutter release, they'll swim closer and closer all of the time looking up at my position as if to say, "what the devil are you doing up there?" And if I'm particularly fortunate in being able to work consistently in one area, the animals eventually take little or no notice of my presence. That's a little hard on the ego, but good for the photography.

One morning I was driving along a dirt road just before sunrise. The headlights picked out an apparently disembodied spirit floating in the road just ahead. Cautiously I slowed down and rolled almost to a halt just behind a large roly-poly skunk. At about five miles-per hour the skunk and I continued down the road, the skunk apparently unconcerned by the huge, white van close on its tail. This early morning walk-and-roll situation continued for about fifty yards, when the skunk left the roadway and entered the brush along its side. I rolled up, stopped and shut off the noisy engine and called out the window, "hey, come back." Imagine my surprise when that white striped snout poked out of the brush to be followed by the rest of the animal. What do you do in a situation like this? You do what I did, "Good morning," I said. The skunk peered up at the source of my voice and then stood up on its hind legs. I'm afraid that the failure of communication was on my part. I didn't know what to say next, or perhaps the skunk was tired after a night's hunting. With a

Photo by Tom Baugh



Once accustomed to a stranger in their midst, animals will often go about their business, while keeping a wary eye on the intruder.

long searching look it dropped back down on all fours and ambled into the bushes.

Another time, while sitting in the open side door of my van, I noticed movement in the tules at the edge of the stream. A Wilson's Snipe was busily probing in the mud with its long pointed beak. It would probe a little, then look at me, move forward and jab at the mud again. The little bird kept this up until it was only about six feet away, at which time I introduced it to the ear shattering sound of a focal-plane shutter.



Not too long ago, I was sitting concealed in some brush watching ground squirrels. I had been in this position for about thirty minutes, when suddenly I became aware of that eerie feeling which says "something is watching me." Turning slowly, I found myself almost eyeball to eyeball with a most inquisitive-looking coyote. I have a feeling that he was even more interested in the ground squirrels than I was.

The curiosity of animals has often been their undoing. Consider the moose who come to a skillfully manipulated call or for that matter the number of wild animals that respond to animal call devices. One of the more reliable standbys of the elk hunter is the curiosity which the elk exhibit to the sound of a hunter passing through the forest; that is until the elk identifies the nature of the sound.

The curiosity of wild animals can thus be utilized to the advantage of the photographer. Predator and animal calls are within the general reach of most people. They range in price from the relatively inexpensive and uncomplicated, such as the Wheems-All-Call, to the more expensive and sophisticated electronic devices.

It is not necessary, however, to use a call of any sort. Often, all that is required is patience and the ability to sit quietly. This writer has often sat within full view of pronghorn while they pranced up and down, moving closer and closer while trying to decide what that thing sitting there really was.

Many anecdotes could be added to the situations described above and I imagine that most of us who are interested in the out-of-doors have had similar experiences. Just remember, the next time you are sitting in the woods, poised with trusty camera in hand, slowly turn around. Who knows who's watching the watchers. You may be eyeball to eyeball with your friendly neighborhood coyote.

Environmental Eavesdropper

LOONEY LIMERICKS

by Zane E. Cology

One fellow has found a great way
To cut auto pollution, per se.
Though he goes far and near,
'Tis just once a year--
And he travels by reindeer-drawn sleigh!

A group calling itself the Emergency Conference for New Voters has embarked on a "dump Nixon" campaign. The bipartisan group says the newly enfranchised young people will not vote for Nixon because of poor leadership, ecological problems, a high defense budget, "lack of honesty" to the American public, and the Vietnam war. The group hopes to activate the approximately 25 million voters in the 18 to 24 year-old bracket.

High school student leaders from across the country said they believed political change could be brought about within the system. Some 76 percent of 23,000 young people polled by Merit Publishing Co. said so. They also indicated they would vote overwhelmingly for Senator Edmund Muskie over President Nixon. Their top priorities were to end the Vietnam War, eliminate pollution, and continue the war on poverty.

Dr. Robert van den Bosch, chairman of the Division of Biological Science and professor of entomology at the University of California at Berkeley, says the continued heavy use of pesticides in cotton fields has "created an entomological nightmare, bringing in its wake economic ruin, human illness and death, and gross environmental pollution." He said pesticides kill off harmless as well as harmful insect pests and create "ecological chaos."

Experts believe the Rhine River in Europe may be near extinction as a biological entity. The lowest river flows in 150 years combined with high concentrations of pollutants is said to be killing all forms of life.

The Federal Power Commission is studying the problem of using stored water in hydroelectric reservoirs for flushing pollution down stream channels. Conservationists contend that such a practice would deal a severe blow to continued efforts to clean up the streams. They say industries should be forced to purify waste waters rather than rely on rivers to dilute the wastes.

A newly enacted California law will protect mountain lions from hunters for the next four years. Purpose of the moratorium is to give state game biologists time to determine if the native lion is to be permanently protected as an endangered species. A hunting season now underway will end Feb. 29 or when 50 lions have been taken.

A utilities company study says environmentalists have circulated a "popular myth" that power plants in the Four Corners area emitted more air pollution than New York City and Los Angeles combined. The study purportedly shows the two cities top the power plants "4.4 to one" in fly ash and particulates, more than a third again as much sulfur dioxides, and that total pollution of the metropolitan areas in "8.6 times greater than that of the power plants."

STOP THEIR POLLUTION
STOP THEIR POLLUTION

By Norma R. Hentges

Tainted Are The Winds

How much do you weigh? Multiply that figure by eight and you will have the amount of trash, in pounds, you deposit annually. Shocking isn't it?

Try this thought: man lets most living things multiply only so far. He places population controls on nearly every species . . . except himself!

When you turn on the water faucet and all that nice clean water runs out and down the drain, did you ever stop to think that water is a natural resource and as such has an end?

We learn of Gross National Product in elementary school. Yet, we are not taught at the same time that all of our Gross National Product comes from the earth in the form of raw resources.

Ever stop to figure where your city will dispose of refuse it collects in the next five years if we don't make re-cycling a household word?

Had a good steak lately? Next time you take that first juicy bite, remember it takes six times more land to feed us on a steak diet than it would on a cereal one.

How's that new four lane highway coming in your part of the country? Great for high speed travel; too bad it took up to 50 acres of land per mile to install that slab of concrete.

It will soon be tax time, but we as Americans really have no complaint for we spend more than one-half of our after tax dollar for luxuries. In America luxury supersedes economic necessity.

Is there justification in defacement of a mighty river so we can run our electrical gadgets?

These questions and statements are meant to stir your mind. For the winds that blow over this land are tainted winds. Our timbers are clear cut, the rivers harnessed, and we've drained the swamps. The plow ate into our grasslands, we killed the wildlife until many species are extinct. The very land we called "America the Beautiful" lies raped by strip mining.

Our way of life confirms we are losing our dignity; it is vanishing with this once beautiful land. Soon, even our pride will go if we continue to seek only bigger, better and more. We will be left to wade in our waste.

We must all educate ourselves to all of the pressing issues at hand. NOW is the time.

Help preserve and restore "America the Beautiful" before we become the wastelands of America.

Forbidden Fruit

What happens when an animal listed on the endangered species list and protected by state law is killed?

In Arizona, Pima County Superior Court Judge Lee Garrett, presiding in place of Santa Cruz County Superior Judge Robert Farley, ordered the Arizona Fish and Game Dept. to present the hide of a jaguar to the two youths accused of illegally killing it.

On October 16, Robert Farley, 14, son of Judge Farley, and Tom Cartier, 13, shot the spotted cat when they found it in a cave near a water hole while they were duck hunting near Nogales. The boys said the animal made threatening noises and advanced toward them. They killed the jaguar with two shots from a 12-gauge shotgun.

Judge Lee Garrett dismissed the charges and awarded the boys the trophy hide. They were the first violators of the year-old Arizona law protecting the jaguar.

The judge must have set a precedent in awarding the hide of an animal supposedly protected by state law.

German Deer Thrive

Hunters in the Federal Republic of Germany pay about \$76.5 million a year in fees to enjoy their sport, the Wildlife Management Institute reports. During the 1969-70 season, however, hunters in that country earned about \$19 million from selling game they harvested.

Republic of Germany sportsmen bag up to 540,000 deer each year on a sustained yield basis. This is 50 percent more than was taken during pre-war times. An additional 60,000 deer are killed yearly by automobiles. This 600,000 deer are surplus taken from a population contained in a country about the size of Oregon.

Book Review**Diet for a Small Planet**

Reviewed by Bill Corr

Diet for a Small Planet. Frances Moore Lappe. A Friends of the Earth/Ballentine Book Publication. Paperback. \$1.25

Frances Lappe's book presents a major challenge to the meat eaters of the United States. Her thesis is that the American high protein diet based on meat is indefensible on any grounds, whether ethical, ecological, health or financial.

This meat diet claims the feed crops planted on one half the harvested lands in the U.S. 78% of all our grains goes to animals. On top of this we drain the undeveloped world of its protein resources - Peru and Chile, for instance, exported to the U.S. 700,000 tons of high quality protein in 1968. For the most part, this was fed to livestock and pets.

The process is, in general, irreversible. The grain leaves the fields to be converted into beef at a ratio of perhaps 21.1 - that is, it takes twenty-one pounds of vegetable protein to make one pound of beef. The overall ratio for all livestock is maybe ten to one, with poultry and milk production on top ecologically with a ratio of about 4.5 to 1.

This conversion process takes place in the great feed lots of the middle west. The by-products, which should go back to rebuild the soil, are sluiced into the rivers, making them sewers.

Further, it takes eight times as much water to make one pound of beef protein as it would to make one pound of vegetable protein. This is wasteful and unnecessary, says Lappe. The Russians have about the same protein in their diet, yet the overwhelming bulk of it is gotten directly from vegetable sources.

A significant part of the high protein animal diet is used to build prime meat, i.e. marbled and covered with fat (63% fat at the retail level). This brings the highest price and is the fastest to produce. Unfortunately, in addition to the other arguments against a high fat diet, we now know that animal fat is the repository of most of the poisons (DDT, mercury, etc.) that have built up along the food chain.

Thus the quip that the vegetarians will inherit the earth.

This whole process moves us further and further away from the age old pattern of livestock converting humanly inedible grasses and roughage into animal protein. In the natural state the buffalo herds were the best example. The more specialized antelope and sage hens were able to utilize the high protein content of sage. The caribou herds of the north are a good contemporary example. Domestic cattle do not need a high protein diet. They can convert materials like cellulose, urea, and ammonium salts into quality protein with no additional protein in their diet.

Unlike the oil, and auto and highway sickness for which no breakthrough is yet in sight, Lappe thinks that we can reverse this criminal waste of our resources by an intelligent use of vegetable protein. The middle section of the book develops the theory of complementary proteins. This entails the proper combining of grains, legumes and roots to obtain the maximum level of protein - that is, combining the critical amino acid content of foods to complement each other in order to create the full or complete protein. This explanation of the complementary theory of proteins gives us new insight into the old standby dishes of many peasant cultures: the sour milk or buttermilk and potatoes of the Irish, the corn and beans of the Mexicans, the succatash of the Indians and pioneers, the fish and rice of the far east, the hard cheese and macaroni of the Italians. There are over a hundred pages of recipes covering the complementary protein uses of rice, wheat, cornmeal, beans, soy, peanuts, sesame, and potatoes. Potatoes, by the way, shape up as a very fine food. Among other values, they have the best rating when it comes to pesticide residues.

The book ends with about fifteen pages of tables covering such subjects as protein costs, pesticide residues, calorie-protein comparisons, etc.

People moving towards a simplified counter culture will be especially happy with Lappe's Diet for a Small Planet. To repeat, meat turns out to be the most expensive and the most wasteful of the quality proteins. Its production now squanders resources needed by us and proteins desperately needed in a protein starved world. This book has given me the boost I've needed to further change my own practices in this area. I believe that it is going to have the same effect on many other people. In fact, I believe that it will in time take its place with Uncle Tom's Cabin, Silent Spring, and The Fire Next Time.



F. W. Bob Jackson

New Staffers

F. W. Bob Jackson (above) and Colleen Cabot (below) have joined the staff of the Wyoming Outdoor Coordinating Council. In a recent announcement, the Council said, "Rapidly growing threats to the Wyoming environment and 'Wyoming lifestyle' have necessitated filling two additional staff positions."

Jackson served for 22 years with the Wyoming Game and Fish Department. He was Area Fisheries Biologist at Pinedale and had served as Wyoming representative on the Technical Committee of the Colorado River Wildlife Council. He holds an M. S. degree in bio-engineering with considerable expertise in water quality, water management, research, and administration. In voluntarily leaving the Department, Jackson said he wanted to devote more time to environmental concerns without being politically restricted by the restraints of state employment.

Miss Cabot has withdrawn from undergraduate studies at the University of Wyoming. She, too, wishes to involve herself full-time in what she considers to be 'crucial' and 'relevant' issues. She will continue to participate in the highly effective Environmental Action Group, a University organization which she helped to found and which she served as president. She formerly served as a director of the Outdoor Council.



Colleen Cabot



The green of summer is long past, and the golden leaves of autumn now lay quietly beneath the white mantle; the quaking aspen still are beautiful in all their starkness.

Questions Raised on Teton Dam and Project

by Franklin Jones
Idaho Wildlife Federation

A Federal environmental watchdog was gored last month when he barked at a sacred cow in eastern Idaho — the Teton Dam project.

According to newspaper accounts, Mr. Hurlon Ray of the Portland office, Environmental Protection Agency, criticized the Bureau of Reclamation's environmental impact statement on this project. Senator Len Jordan publicly pronounced Mr. Ray as being "dead wrong" in his analysis.

Under the Environmental Policy Act of 1969, Federal agencies must write an environmental impact statement about any major action that they propose to take which may have significant effects on the human environment. These draft statements are reviewed by appropriate Federal, State, and local agencies. The final statements, with all comments, are then made available to the President, the Council on Environmental Quality, and the public.

Although the Teton project is already authorized for construction, it is subject to this law. The Bureau of Reclamation apparently overlooked the requirement because they started building the access road in the construction site last year prior to release of their impact statement. The dam will impound one of Idaho's better trout streams — the Teton River in Madison and Fremont Counties. The Bureau obtained gravel for the road from the bed of this stream and generally tore up the landscape in an indiscriminate manner.

Since that time, the project has been the target for an increasing amount of fire from conservation groups and agencies. Irrigation farmers, elected officials, and local businessmen who have an interest in the project have become alarmed. The Fremont-Madison Irrigation District organized a meeting and tour May 17 that included Governor Cecil Andrus and was dominated by project proponents. Senators Jordan and Church and Representative Orval Hansen have pronounced their unswerving support for this project.

Teton Dam will form a fairly small reservoir, only 2,700 surface acres, but it will flood a deep narrow canyon and store 200,000 acre-feet of usable water. The water will be used for irrigation and hydro-electric power. It also is supposed to have some flood control benefits. It is estimated that it will cost about \$40 million,

but the total probably will surpass \$50 million when all the work is done. No major construction work has yet been accomplished but about \$10-1/2 million have been included in the President's budget for possible appropriation in fiscal year 1972.

We are concerned by the fact that Senator Jordan disagreed so strongly with Mr. Ray's analysis. Mr. Ray pointed out that the project will flood 17 miles of good fish and wildlife habitat, will remove 6,000 feet of natural streambed below the dam, and will provide irrigation waters which will be of reduced quality when they return. Is that dead wrong? We think it would have shown greater wisdom for the good Senator to have acknowledged that those things could happen but that in his judgment the overall benefits outweigh the damages. Should the civil servants who are charged with the job of setting and enforcing environmental standards in this country be brow-beaten by the members of Congress who gave them the responsibility.

Mr. Ray also raised questions concerning the economic justification for the project. It is often said that government project costs are underestimated and that benefits are inflated. Thus the benefit: cost ratios presented to Congress are not true. The farmers who receive the major benefits do not really repay their full share of an irrigation project — project costs are subsidized by power revenues and public funds. We understand that the dam builders have already run into foundation problems at the Teton site. Extensive fractures in the base rock will require costly grouting to seal the leaks. How much additional public money will this problem add to the original estimated cost?

Perhaps the economic questions reveal why the proponents of the Teton Project have reacted so strenuously and unlimbered such heavy artillery. Otherwise they need not be concerned. EPA has no veto power—all they can do is comment. Perhaps this project should be reappraised.

Irrigation projects have nurtured the growth of many thriving communities in Idaho. However, we believe the law of diminishing returns applies to this type of development. We do not believe that irrigation development should be maximized at the expense of all other interest. With proper management, good streams can be preserved for all time. Although the immediate economic impact is not as spec-

tacular for the existing streams as for a project that destroys it, it is like comparing a bank account earning compound interest with a highly speculative stock investment in a short-lived industry.

A reservoir will not last forever; it eventually will fill with silt. An example is Black Canyon Reservoir, which is rapidly becoming useless. Many of the larger reservoirs in Idaho will function adequately for many years to come but their days are numbered also.

The fact that reservoirs are mortal may be of little concern to many of us today because we shall reap the benefits in terms of kilowatts and crops during our lifetimes. It will be of serious concern to those who follow us. That is why some of us believe that it may be wiser in the long run to leave a legacy of live streams rather than impoundments. It may be better to emphasize alternate forms of power production and to place public funds into improved conservation of our dwindling soil mantle rather than into building more dams. We should consider the use of the Snake Plains aquifer for water storage rather than flooding stream valleys. We should consider recycling water for irrigation systems rather than dumping polluted return flows back into streams.

The Idaho Wildlife Federation, as a matter of official policy, endorses the preservation of certain Idaho streams, and the Teton River is one of them. The Federation also advocates the review of water development projects by an independent "board of analysis." This board has not yet been formed; however, we hope that the President's Council on Environmental Quality will review the Teton project with careful regard for the long-term environmental problems involved.



Satellite Research

Two earth-orbiting spacecraft will collect data on the agricultural, mineral, forestry and water resources of states in the Rocky Mountain region during the next two years. An unmanned satellite called ERTS (earth resources technology satellite) and a manned Skylab will conduct experiments for a group of scientists in Colorado and Wyoming.