

Outdoor Environmental Bi

Friday, September 15, 1972

Decisions Made On Desert

by Tom Bell

Coursing from north to south, generally along great mountainous chains, is a topographic feature known as the Continental Divide. In the mind's-eye of most people, the Divide is made up of great, soaring peaks the home of eagles and mountain goats.

But in south central Wyoming, the Continental Divide does a curious thing. It separates at a topographic feature known as Oregon Buttes. One branch of the Divide cuts

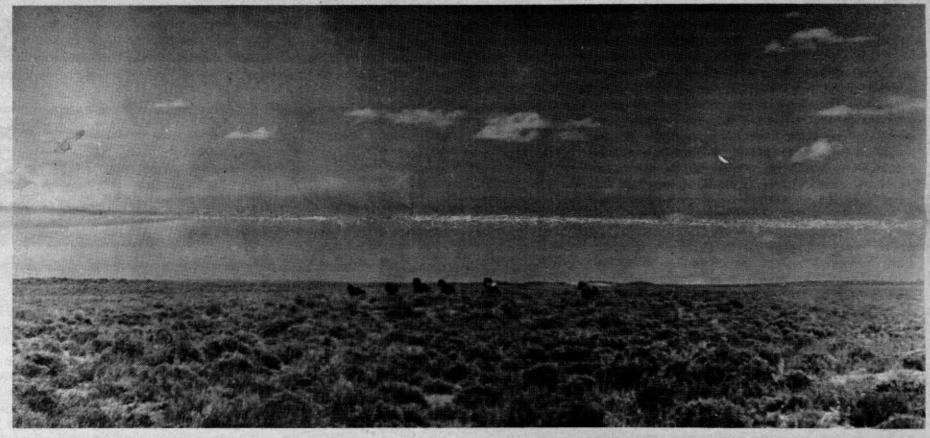
east, then south, then westerly. The other branch runs south, then easterly, to meet up once again and continue as a single Divide into Colorado.

The area surrounded by the Continental Divide is called the Great Divide Basin. Making up a portion of this great basin is a part called the Red Desert. As a result, many people refer to this whole area as the Red Desert, or simply, the Desert.

It is a desert in the true sense of the word, since most of it receives less than 10 inches

of rainfall a year and much of it as little as 4 to 6 inches. It is a high desert with average elevations about 7,000 feet above sea level. Oregon Buttes stand out at 8,612 feet while to the south along the Divide, Steamboat Mountain rises to 8,683 feet. On the east leg of the Divide, along the northern edge of the Great Divide Basin, Whiskey Peak soars to 9,225 feet.

The Great Divide Basin is the only fully closed drainage system known to exist be-(Continued on page 5)



With manes and tails flying, the beautiful wild horses of Wyoming's Red Desert disappeared over the horizon.

Our Thanks

Roger Slocum is one of those unique individuals who won't rest. Even though he is now retired, he goes tirelessly on in the service of his fellow man.

He came into the offices of High Country News one day, looked around, and plunged right into the work at the hand. Before he left, he paid for all the copies necessary to send a sample to each junior and senior high school in California. And that is his reason for the note shown here. He has no financial connection with the paper and no reason for his fine gesture except to advance the cause of conservation.

Roger Slocum, like many other people, wants young people to know what is happening to their world. And that is the place of High Country News. Through beautiful photos, we show what we have. The photos of destruction show what we humans are doing to planet Earth. The articles we print set out the issues and problems of our environment, and let you know not only what is happening but, often, what you can do about it.

High Country News is an important tool in keeping people informed. But we need many more readers. The reason is obvious - we do not take advertising and have to depend upon circulation, and we need to inform many more people so that they can make wise decisions.

We have a policy whereby we will send three copies of the paper to any school or university which takes a subscription. The school can then direct the paper to the library and other departments such as science or journalism. But you must inform us if you want the extra copies.

Our thanks goes to Roger Slocum for giving us the opportunity to send you this special school issue of the paper. We hope you like it and will ask to keep sending it.

An Open Letter

Unless we understand what is taking place by vested interests in the so-called DEVELOPMENT of our land, living in America by the year 2000 will not be a beautiful experience. It is HIGH NOON for you and your pupils today.

What do you actually know about the energy crisis, new housing developments, forest uses, mining exploration, or strip mining for coal? Do you have enough knowledge of these environmental factors to take an active part in an earnest discussion with one of your neighbors? If not, probably the reason is that so much misinformation is put out by those people standing to make a dollar from the downgrading of our land and environment.

It was midday (HIGH NOON) in the Red Desert of Wyoming. I was watching the last of over fifty wild horses disappear over the horizon. With manes and tails flying in the wind, they left in a streak of dust. Beautiful animals needing our protection if they are to remain a part of our Western Heritage.

I felt that if you teachers and pupils of California could have witnessed that thrilling sight with me, you would understand Tom Bell's determination to bring to the public a newspaper, reporting, with no advertising to tie his editorial hands, the environmental scene in a downto-earth way we can understand.

You and I both know that I can't transport you and your pupils to that High Desert Country - but I can and am paying for and sending you this issue of Tom Bell's wonderful conservation newspaper, High Country News.

Please read it and pass it on to others in your school who should know about it. If you subscribe to it, you'll not need to miss an issue.

Roger L. Slocum

Retired California Science Teacher

A boy walked past my backyard recently as I was working in it. He stopped for a moment, looked over the fence, and asked, "Why have you fixed it so fancy?"

Now, it isn't all that fancy. Some native, lichen-covered rocks, a clump of quaking aspen, and some flowers on a terraced slope transformed a bare backyard to a restful spot. Simply by walking into the foothills below our mountains, you could find the same kind of setting. But it would be even more "fancy" because it had been created by the Great Creator.

And so I was taken aback by the boy's question. His question raised several in my mind. Had he not seen the natural, rock-strewn gardens amongst our beautiful hills and mountains? And if he had not seen them, why not?

Surely, he had been there. He was obviously not blind, and he appeared not to be of that group of poor and disadvantaged who could not even afford a short trip to those beckoning mountains.

Somehow, somewhere this boy's education had fallen short. No one had ever taught him the beauty and feeling of simple things - those things which surround our lives day in and day out. No one had ever imparted to him an appreciation of those things free for the taking, such things as green leaves against a bold, blue sky; a little weed in bloom, wedged between concrete and blacktop; a mountain meadow in a gentle rain.

Our society seems to have come to a state of materialism that ignores the primal beauty and grace of the natural world around us. If we don't buy it, after having seen it on a TV commercial, it has no worth. Or, to carry the problem even further as some young people have done, there is not enough beauty or zing in our world, we have to smoke pot to enhance

For many young people in our crowded cities, there is no chance to experience a mountain rock-garden. For them, I am truly sorry. It should be a part of the experience and education of every young person to see more of our natural world.

And yet I have a feeling that even in cities, youngsters could be taught to appreciate trees and flowers in the park, a blooming plant in the classroom, and the wonders of nature in a small aquarium. Youngsters are naturally curious and filled with a questioning spirit. If only they could be led into the world with eyes wide open, to learn and to appreciate the simple and the ordinary which lies at their feet.

I have a certain kinship with those persons, young and old, who first walked the Three Senses Trail in Yellowstone last summer. As a young man of 20, I was temporarily blinded, with a prospect of permanency. Today, I only have one eye, and it partially impaired.

You have to be blind to fully appreciate the richness of your sighted world. But once having seen the world - fully seen it - the loss of sight would not be nearly so awful. Yet, I suspect that Helen Keller and those other blind persons of giant spirit came to appreciate their world far more than those disadvantaged persons who can see plainly but have never viewed the world around them.

There should be a braille trail, or Three Senses Trail, on every school ground. And for those sighted youngsters, with unseeing eyes, it should be experienced frequently - behind a blindfold. They should be made to appreciate the smoothness of a pebble, the chirp of a cricket, the inflections and sounds of another person's voice, the pungent odor of a crushed leaf, and a thousand other fulfilling sensations. It might be worth more than any other part of their education.

I suspect that much that is wrong with our environment today is a result of unseeing eyes and an unfeeling spirit. If the human spirit was created in the likeness of God, surely it was meant to appreciate the simple, the ordinary, the commonplace, and even the beautiful of the world He ereated around us galanso



A fellow has to concentrate on his fishing, as this young man is doing in Wyoming's Wind River Mountains.

Letters To The Editor





Editor:

I am a science and humanities teacher in Idaho Springs, Colo., and just ran across your fine newspaper recently. I keep a bulletin board at the high school with all kinds of ecological news clippings on it and your paper will be a fine source. Enclosed is a money order for \$10 for a years subscription. Thank you very much.

Dick Canby Idaho Springs, Colo.

Editor:

Will find enclosed ten dollars for my subscription renewal.

I am a school teacher in the southern part of the state and find your paper both educational and enjoyable. I bring in some of your articles in class work, especially the ones on protection of wildlife and the preservation of our great forest areas.

Sincerely, Hubert A. Pearson Leavenworth, Indiana

Editor:

High Country News is providing excellent coverage of environmental news in the Rocky Mountain states. We don't want to miss a single copy! Thanks for performing this very necessary service.

Sincerely, Mrs. Carolyn R. Johnson Denver, Colorado

se, is woich autmais are predators, which are not, and who makes Editor:

I have just moved to Denver and so need to have my mailing address changed so that remaining issues of the High Country News can be sent here.

I have enjoyed your paper so much. There are many environmental issues I have been made aware of because of it and I admire your dedication to the interests of the environment. High Country News really is the best paper on the environment that I know of.

Sincerely, **Edith Trimmer** A former pupil

Editor's note: Thanks for your kind remarks, Edie. Since I "graduated" from my years of school teaching, I have looked back with pleasure and pride on my "kids." I have been inspired as much by them as I hope they were by me, for after all they are what the future is all about.

HIGH COUNTRY NEWS

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EDITOR OFFICE MANAGER CIRCULATION MANAGER

Thomas A. Bell **Mary Margaret Davis** Marjorie Higley \$10.00 Subscription rate

Single copy rate 35€ Box K. Lander, Wyoming 82520 Inc., says America has turned to "brute force"

Guest Editorials

Reprinted from THE IDAHO STATESMAN, Boise, August 9, 1972.

What Are Sensitive Issues?

The Council on Environmental Quality was expected to report on energy and recycling, as well as pollution control. Why didn't it?

Sections on energy and recycling were eliminated after the report was reviewed by the Office of Management and Budget and by the White House, reported the Washington Post.

"The energy chapter, which discussed pricing of electricity and conservation of fuels, was said to raise sensitive political issues while the chapter on recycling was deleted because the administration has not yet determined if it will propose tax incentives and subsidies to encourage reuse of materials."

What are the sensitive political issues? Why are they so sensitive? Do they have any relationship to contributions to President Nixon's re-election campaign from oil or other energy industry sources?

With the present rates of increase of use, we are advised that known oil reserves will be exhausted in a relatively short time. Other energy sources are also in limited supply.

Present policies, by and large, are designed to encourage extraction and consumption. They are not designed to conserve energy. This is a question which deserves consideration.

Policies to encourage recycling should also be considered by the Congress. Present policies tend to discourage recycling. We grant a depletion allowance to encourage the extraction of minerals, but no similar subsidy to encourage the reuse of materials.

The professionals in solid waste management seem to be generally agreed on the necessity of recycling. Yet there are very few municipal recycling systems. Volunteer recycling centers represent a heroic effort

showing what ought to be done. But the volume they handle is a drop in the bucket.

The portions of the report that were released to the public indicated progress against air pollution, but an increase in water pollution. It also put a price tag of \$287 billion on pollution control — to meet current standards — during the next 10 years. This is a large amount but not out of line in relation to the gross national product — the nation's total output of goods and services. It amounts to about 2.2 per cent of the estimated GNP for the same years.

Idaho, like the rest of the nation, has a long way to go on the environmental front. We can see progress to control air pollution and with water pollution. Industry, the major source of water pollution, has spent heavily on improved treatment.

The Snake River and some other streams are still heavily polluted. We have so far done little about pollution from agricultural runoff (partly the result of an excess application of irrigation water in many areas). Our damaged watersheds send huge amounts of silt into the streams. Cattle feedlots along streams contribute a considerable amount of pollution. (Feedlot regulations are being drafted by the state pollution control agency, the Department of Environmental Protection and Health.)

Land use controls remain inadequate, particularly in popular recreation areas.

Concern for maintaining the "quality of life" that Idahoans enjoy is not shared by some state and federal agencies.

We can see progress, in Idaho and nationally. But some of our policies are still out of date. The nation is a long way from meeting environmental goals.

Reprinted from the CHRISTIAN SCIENCE MONITOR

Facing Up To The Problem

Thoreau felt rich on a small income because he kept his wants simple. Does America now feel energy-poor because its wants have become needlessly lavish?

This question permeates the discussion as the world's biggest energy-user faces up to a chronic and growing fuel shortage.

Federal Power Commissioner John Carver calls the energy pinch "endemic" and "incurable." Atomic Energy Commission Chairman James Schlesinger envisions electricity rationing, even as America now rations natural gas. Former presidential energy consultant S. David Freeman sees "the bottom of the (oil and gas) barrel."

Certainly a technological nation needs lots of energy. But something seems wrong when roughly 200 million Americans demand as much of it as the 500 million technologically advanced peoples of Britain, Japan, Germany and Russia combined. You have only to look about in America to see examples of needless luxury (the electric toothbrush) or outright waste (too much lighting).

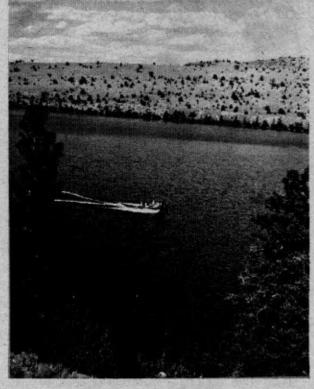
Architect Richard Stein notes that building lighting uses 40 per cent of America's electricity. He cites studies showing three to 10 footcandles provide sufficient light for reading while more than this can be tiring. Yet levels of 60 to 70 FC are common in schools, libraries, or offices. Some lighting salesmen even suggest 90 FC.

Add to this "waste," the constant air conditioning of windowless buildings and the growth of inefficient electric heating, and Mr. Stein sees room for impressive energy savings. He estimates that reasonable economies in these areas could reduce the energy needs of highrise buildings about three-fold.

Making a similar point, Ezra Ehrenkrantz, president of Building Systems Development, Inc., says America has turned to "brute force" energy-wasting methods of living comforts that sensible design could at least partially provide. He points to the absurdity of forcefully cooling glass-walled buildings heated by the sun. He notes neglect of even traditional insulation or shading in new homes for hot climates.

As the Congress explores America's energy shortage, it might remember Thoreau's quip that "The luxuriously rich are not simply kept comfortably warm, but unnaturally hot (or cold) . . ." And there's his added point, "Most of the luxuries, and many of the so-called comforts of life, are not only not indispensable, but positive hindrances to the elevation of mankind."

Somewhere between self-damaging scrimping and unnatural luxury, America should be able to find a sound energy policy. But until this mean is established, it's premature to panic over an energy "shortage" that is partly a reflection of carelessness and waste.





Reprinted from the DESERET NEWS, August 29, 1972.

Use or Misuse?

As the National Park System notes its centennial, considerable thought must be given to whether success has spoiled the national parks.

Traffic is often bumper-to-bumper. Some campgrounds are only city slums with an outdoor look. Confrontations between youths and the law are frequent.

There are other problems: Wilderness crime, damage from sonic booms, bear attacks.

The experience has prompted the Park Service to initiate some drastic changes and to contemplate others, like rationing of park use. Cars have been banned from Yosemite National Park and Michigan's Isle Royale, where one must travel by motorboat, canoe, or on foot to see the park.

The question of access versus excess is one that must be met head-on. In past years the Park Service has attempted to compensate for inadequate facilities by building more — only to see each new facility outmatched by increased use.

Even President Nixon was moved to warn last November that "We are beginning to understand that there are limits to the amount of use our parklands can withstand, and that as more and more people seek the great rewards of outdoor life, the experience can be somewhat diminished for each of them."

The problem is one of preserving America's "crown jewels," its priceless national park heritage, for future generations. As one park service official put it:

"It is not enough just to think about the next 10 years, or the next generation even. We have to be concerned about what the people in the 50th generation are going to see..."

Reprinted from the DESERET NEWS

Close That Loophole

After eagles were slaughtered by the score in Wyoming by hunters riding in airplanes, an indignant Congress outlawed aerial hunting of birds and animals.

But the law contains a loophole allowing states to grant permits for aerial hunting of predators.

Because of this loophole, gunmen in airplanes killed more than 20,000 foxes in South Dakota during the past hunting season.

The question, of course, is which animals are predators, which are not, and who makes

that decision?

To a Wyoming sheep rancher, an eagle is a predator — yet the slaughter of eagles brought on a national outcry. In South Dakota, the fox is considered a predator. Yet many farmers and conservationists think the fox does more good than harm by holding down the population of jackrabbits and rodents.

If a tighter definition of predators can't be drawn, Congress should close the loophole by banning aerial hunting entirely. He bloom only

A Neo-sociobioecological Study

by R. C. Burkholder

I always wanted to do one of those new-fangled scientific studies on something. So, the adventurous side of my psyche asked, "why not do the grizzly bear?"

"Good idea," the academic side of my psyche answered and so I set to work preparing myself.

First, I took a three-week crash course in Ursian, the language of the bears. Then I enrolled in a one-week correspondence course in Horribilian, the dialect of the grizzly. Finally, after a month of intensive preparation, I was ready to start my neo-sociobioecological study of Ursus horribilis, the grizzly bear. Except for a slight Utah/Idahoan accent, I felt fully competent to initiate Angle I, Aspect A, Approach (1) of the project a personal interview with a real grizzly bear to evaluate his cultural background, life style, family relationship, environmental influences, and things like that there.

Next, I bought a light-weight, down-filled snag-proof, orange naugahyde knapsack, with numerous pockets, into which I packed my reference materials, notebooks, pencils, battery-powered pencil sharpener, 10' x 12' occasionally, depending on the wind, could I hear the accordion music, singing, and screams of 65 mountain climbers from New Jersey dangling from the piton-scarred face of Mt. Desmond McGillicuddy. With a little effort, I could make as if I couldn't hear the garden hose flutes, tobacco can drums, and weird chanting emanating from Sally Valley where a combination hippie wedding ceremony and yippie fertility rite was being conducted in the innocent and understanding arms of mother nature.

After several frustrating failures at finding the right exit from the cloverleaf at the junction of the Degeneration Creek, Disintegration Canyon, and Devastation Basin trails, I finally reached Sludge Slough above the mud flat at the upper end of the Urbanville Reservoir, Diversion and Relaxation Area. My plan was to establish a base camp and field research station above the water intake facility for the East Urbanville Public Utility and Benevolent Association complex, but . . .

There, in my proposed camp area, diligently and fruitlessly hunting for the rare

"Cool it, bear!" I yelled down from the top of my tree. "All I want to do is interview you!"

The grizzly slobbered over his paws and daintily smoothed down his shaggy eyebrows.

"Are we on television?" he asked with a terrifying smile which almost turned my blood to water, not to mention my stomach.

"No, we're not!" I exclaimed, "so knockoff with the violence bit!"

"Darn!" the grizzly sulked, showing his displeasure by curling his upper lip back over his nose to his eyes.

"But I am prepared to take notes!" I hastened to add, removing a notebook and a handful of pencils from my knapsack.

"O.K." he agreed, glaring up at me with fully-committed hatred sparkling in his tiny black eyes. "What's on your human-type

"First of all," I said, making myself as comfortable as possible on a sharp limb 35 feet above the grizzly, "I need to know something about your family life, your social life, your environmental . . . '

"Yes, I am!" the grizzly broke in with a vicious swipe at the trunk of my tree with a ham-sized paw.

"Yes, you are what?" I asked, hanging on to my perch for dear life.

"A victim of your society!" he snarled.

"My society?"

"And depressed by your environment!" he growled.

"My environment?"

"Surely," he scoffed, "you don't think that the environment you passed through to get here is mine, do you?"

"No," I admitted thoughtfully, "I suppose not, but how does this . . . er . . . relate to your social and family life?"

"I ain't got none!" the grizzly grumbled. "Uncle Art was the last to go. He got run-over by an ore truck. Molybdenum. 0.001% pure."

"Ahhhhhhhh," I sympathized. "I'm sorry

to hear that." "Before that it was my cousin, Clarence. He made the mistake of raiding a retired grade-school teachers' camp over on Suicide Gulch and got beat to death by four little

old ladies . . ." "In tennis shoes?" I asked.

"Why, yes!" the grizzly answered with a look of surprise on his dished-out face. How . . .?"

"From Pasadena?"

"Yes!" he concurred. "But how you . . .?"

"Just a perspicacious guess," I commented modestly, "but, please, go on."

"Well, then there was my nephew, Wilton," the grizzly went on. "He didn't like what was going on around here and staged a one-bear protest march through the lobby of the Frontiersman Lodge and Day-Care Center."

"And?"

"Someone called in the authorities and a flight of F-111's strafed Wilton something terrible when he walked out of the back door."

"Ahhhhhhhh," I repeated, again, with sympathy.

Nine helicopters thumped overhead and the grizzly slithered into the brush until they had passed out of sight and hearing.

"Is someone looking for you?" I called down.

"Not that I know of," the grizzly answered, slinking out of his hiding place, "but a grizzly is a grizzly is a grizzly to you folks. And you look down your noses at stereotyping! Gross hypocrisy!"

"Now," I said, checking my notes and changing the subject, "don't you have a . . . a . . . er . . . mate?"

"I used to," the grizzly advised me, "but she split this scene the day after she was run down by a logging truck, two chartered buses, and a motorcycle on the Green Belt Community Scenic Loop. She high-tailed it (Continued on page 5)

and endangered Furtzlinger ground squirrel, wall tent, doublebed spring and mattress, was a grizzly bear! He looked up, he saw me,

typewriter, and 300 pounds of dehydrated groceries. Naturally, and very scientifically, I also armed myself with a gas-operated rifle and a goodly supply of projectile syringes containing a powerful tranquilizing muscle-relaxant drug.

Loaded down with study material and the necessities of life, I stumbled off into the beckoning beauty and desolation of the Oscar Wilde Area which, as you probably know, lies at the head of 2700 W 1350 E Street just south of US 90 and immediately north of the Mayhem-Gorey Freeway.

Dodging three bulldozers, by-passing five jackhammers, and barely avoiding twentysome explosive charges operated or detonated by a 36-man crew constructing a trail from Bosom Flat to Falsie Ridge, I inadvertently blundered into a youth camp on Jake Lake which, in a moment of youthful exuberance, the boys had recently drained and diverted through the camp leaders' sleeping area. Pausing only briefly to lecture the boys on the ecological inter-relationship and environmental relevancy of trees, soil, water, and camp leaders, I was soon being escorted out of the camp by 80 or more shouting. cheering young people on a 30-foot section of steel girder from a radar tower which used to overshadow their camp.

Later, after being trampled by 120 mounted members of a group known as the Cavalry of the Back-Country and their 480 head of pack horses and mules, I found myself in the lonely seclusion of Grizzlyland. Only

and he charged! The furious grizzly, 800 (plus or minus 300) pounds of him, roared down on me like a hairy locomotive!

BURKHOLDER

Knapsack and all, I retreated up the nearest tree with the grizzly snapping off both my hip pockets as he closed the gap, right behind me! Desperately, I fumbled through my knapsack, whipped out my Field Guide to the Mammals of the Whole World, thumbed through the pages until I found Bear (Grizzly) and then turned to face my attacker with an intellectual gleam of triumph in my eye.

"Hey!" I shouted down at him in my best Ursian-horribilian. "You can't do this!"

"Huh?" the grizzly grunted, his mouth looking for all the world like a red plastic bucket with teeth - dropped open with surprise.

"Grizzly bears can't climb trees!" I explained, holding out the book. "See? Chapter 8, page 34, paragraph 2, 4th sentence."

"Oh!" the grizzly replied and obligingly fell out of the tree accompanied by the swishing of branches, the crackling of limbs, and a torrent of cuss words.

He hit the ground with a crash and, losing what little temper he had left, immediately jumped to his feet and leveled two acres of lodgepole pines, uprooted an aspen patch, demolished the ladies half of an air-conditioned brick-and glass-paneled primitive sanitation facility, destroyed two neon-lighted directional signs, and ripped out the west approach to the 260-foot steel and concrete cantilever bridge across Sludge Slough before I could

also be filed. Request for copies of the report should be

mountains. The BLM says Green Mountain her significant deposits of uranium. The re-

mine for or persy mining, many vacuus or Kentucky, will head up a sizable delegation of epoiroumentalists. out of the country with a traveling wolverine from Canada and, from what I hear, they are doing real well robbing traplines out of Calgary."

"Children?"

"What's children?"

I wrote "None" after "Children" in my notebook, returned it to my knapsack, and shimmied down the tree. Once on the ground, I pulled out my rifle and loaded it with a tranquilizer projectile dart.

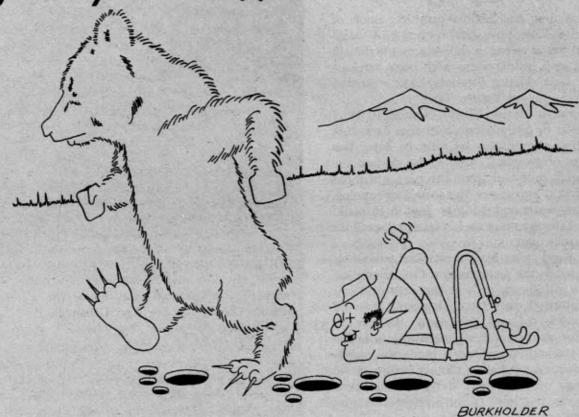
"What do you think you're going to do with that thing?" the grizzly asked, his hair rising from the tip of his nose, over the top of his head, and down his back to the end of his short, stubby tail.

"Well, this is Angle I, Aspect A, Approach (2) of my study," I explained honestly and forthrightly (which is the only way to communicate, you know!). "First, I'm going to tranquilize you, then I'm going to conduct a few physio-bio tests, and then . . ."

"Like heck you are!" the grizzly bellowed and charged me again!

This time he got me! The grizzly grabbed the barrel of my rifle and bent it double just as I pulled the trigger!

"Ooooooooooooo!" I remarked with feeling as I shot myself in the rump with 12 mg of succinylcholine chloride. The last thing I remember is that cranky, uncooperative, and over-sensitive grizzly scowling down at me as I toppled backward into a clump of



snowberry.

When I woke up I was sprawled out on the ground, neatly covered with an assortment of tin cans, three cardboard boxes, a broken fireplace grill, and the carcass of a moose. And do you know what? Darned if that grizzly hadn't weighed me, measured me,

pulled one of my teeth for cross-sectioning, collected a blood sample for analysis, tattooed a number on the inside of my upper lip, and tagged both of my ears!

So much for Angle I, Aspect A, Approaches (1) and (2) of my neo-sociobioecological study of that old grouch!

Decisions Made On Desert . . .

tween the Canadian Rockies and the Gulf of Mexico. It is a large area of about 3500 square miles (or approximately two and a quarter million acres).

To the north of the Great Divide Basin, the Oregon Trail and the route of the Pony Express lies within a few miles. And just north of the Oregon Buttes, the historic South Pass is located. So the area is rich in history of the Old West.

Along the northern part of the Great Divide Basin, most of the land is publicly owned. These public lands are administered by the Bureau of Land Management in the Department of Interior.

Recently, the Bureau of Land Management issued a report on future management policies for this great area. Following a number of public hearings, the BLM has made some decisions which will greatly protect many of the natural resources.

Conservationists are particularly pleased that two areas will be managed as primitive areas. These are areas in the top of Ferris Mountain and along the Sweetwater River. In addition, work will continue to get a section of the Sweetwater designated as a wild or scenic river.

The BLM has recommended the establishment of a protected recreation area enclosing Oregon Buttes and Continental Peak to the east. The area around Continental Peak will include an important geologic area known as the Honeycombs.

Further south, and outside of the Great Divide Basin, BLM will set aside about 13,000 acres as a Sand Dunes Natural Area. BLM seeks to protect the natural sand dune ecology.

Adjacent to the Sand Dunes Natural Area, the BLM recommends the establishment of a Steamboat Mountain Wildlife Protective Area. A small herd of elk, as well as mule deer, pronghorn antelope and wild horses would be given additional protection in this area.

South of the Sand Dunes Natural Area, the BLM proposes an area of approximately 2,000 acres for dune buggy and off-road vehicle use.

Numerous mining activities will be regulated as closely as possible. The 1892 Mining Act takes precedence over any regulations proposed by BLM. Uranium mining claims blanket most of the Red Desert and adjacent mountains. The BLM says Green Mountain has significant deposits of uranium. The re-

port says, "Projections are that about 100 million pounds of yellow cake, worth one billion dollars will be extracted (from Green Mountain) in the next 10 years." A small herd of elk which ranges on Green Mountain will be displaced as mining occurs.

Coal exploration and mining will be allowed along the southern portion of the area when the need for such coal is clearly demonstrated. Critical antelope winter ranges will be protected as much as possible from mining activities.

BLM has to work within the Wild Horse Act of 1971. Consequently, the wild horse herds, estimated to number about 2,000 head, will be given protection.

The government agency says it will also investigate the possibility of transplanting bison back into the Red Desert. This was the ancestral home for thousands of head of buffalo, elk, antelope and mule deer.

The BLM proposes to protect many known archeological and paleontological sites. Many important artifact and petroglyph sites are already located. Others will undoubtedly be discovered.

The Desert is also known for its profuse

diversity of petrified woods, fossil remains and semi-precious stones such as agate and jade. The BLM plans to establish and protect certain "rock-hunting" areas.

Grazing, which has always been important on the desert, will continue. However, the BLM has accepted some recommendations from conservationists in regard to fencing. A recent article in Colorado Magazine points up the problem of sheep-tight fencing in important antelope areas. The article said as few as 1,000 or as many as 6,000 antelope could have been lost on the Red Desert as a result of extreme weather conditions and fences which stopped their movements out of the storm. No one will ever know how many actually died from the deadly combination.

The Great Divide Basin (Red Desert), a national treasure in its own right, is soon to be recognized as such. The Wilderness Series of TIME-LIFE Books will feature the Continental Divide, and as a part of that Divide, the Great Divide Basin. Such publicity will undoubtedly increase the number of people using this great desert area. But with adequate protection, it should be able to accommodate more without destroying its values.

Endangered Species Reported

LINCOLN, Nebr. — A report on rare and endangered species in Nebraska has been completed and is now available from the Game and Parks Commission.

It includes information on the black-footed ferret, the swift fox, and the lake sturgeon, which were recently classified as endangered by the Commission. Also covered are the peregrine falcon and the whooping crane, both classified as endangered by federal authorities.

The endangered species report includes descriptions of the animal, its probable range, its habitat requirements, the factors leading to its decline, and suggested management techniques that might increase its numbers. It further contains a list of 24 Nebraska species classified as rare, but not yet endangered.

Species on the endangered list have full protection under Nebraska law, and anyone attempting to kill or capture one of these may face fines up to \$100 and/or a jail sentence of up to 30 days. In the case of whooping cranes and peregrine falcons, federal charges could also be filed.

Request for copies of the report should be

sent to Ross Lock, Game and Parks Commission, P.O. Box 30370, Lincoln, Nebr. 68503.

McGovern Speaks

Senator George McGovern will deliver a major policy address on natural resources at Billings, Montana, September 25. He will speak to the Western States Water and Power Consumers Conference. President Nixon declined an invitation to speak.

Focus of the conference is expected to be the development of energy resources in the three-state area. Participants and issues to be discussed point to the conference as one of the most important public forums to be held in the area.

Participants include Gov. William L. Guy of North Dakota; Sen. Lee Metcalf of Montana; Rep. James Abourezk of South Dakota; Rep. Mike McCormack of Washington, and Rep. John Melcher of Montana. In addition, long-time foe of strip mining, Harry Caudill of Kentucky, will head up a sizable delegation of environmentalists.

". . really great."

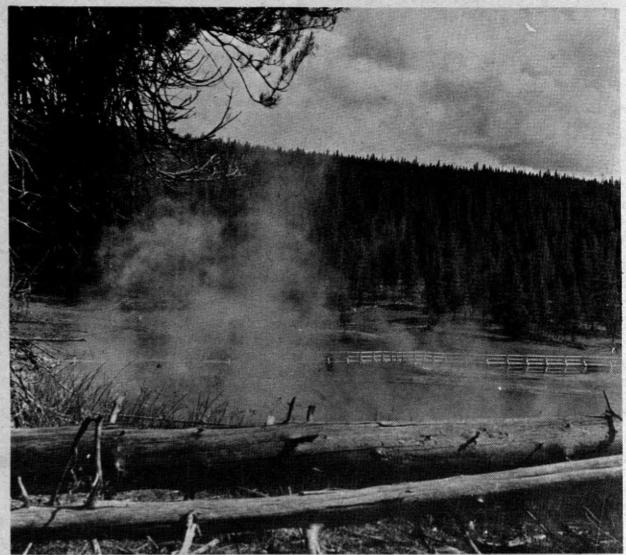
A winding trail amidst bubbling pools of steaming water, up a short incline past roughbarked trees, along a hillside marked with grasses and wildflowers, and back across a board walk skirting Firehole Lake — that is the Three Senses Nature Trail.

It was a dream of Bill Dunmire, chief naturalist in Yellowstone National Park, that the blind should also be able to enjoy this wonder of wonders. And so he devised the one-eighth mile trail. Here, the person without sight could experience the sound of running, bubbling water and stoop to feel it. He could feel the steamy vapor on his face and smell the sulphurous odor.

Or a girl who has known only darkness could touch the pine tree and feel its needles, smell a wildflower or hear the calls of a pair of bluebirds as they fed their young in an old snag beside the trail. And along the way are 17 stops marked with signs printed in braille and lettering. A guide-rope leads the person from station to station. Those who can see may also walk the trail. They, too, can close their eyes and learn to fully appreciate what Yellowstone is all about.

This first for a national park is located about eight miles north of Old Faithful on the Firehole Lake scenic drive.

The trail was dedicated July 7 by a group of more than 40 blind adults and children from Montana and Wyoming. Their experience was summed up by a woman who had once worked in Yellowstone but is now nearly blind. She said, "I never saw the park until



"It smells like rotten eggs." — "Hey, the water is warm!" — and "I think I can hear the baby birds." These were only a few of the comments that young and old alike made as they traveled the Three Senses Nature Trail in Yellowstone National Park. Located in the geyser basin near Firehole Lake, the trail takes blind or sighted alike along a short walk, up an incline, past rough and gnarled trees, an old snag containing a blue birds nest, through grass and wildflower meadow, and across an arm of the lake.



Two students from the Montana School for the Deaf and Blind learn a little bit more about the natural features and thermal phenomenon of Yellowstone Park through the Three Senses Nature Trail, dedicated this summer. The signs, printed in Braille, tell these young people about the sounds they hear and the smells coming from bubbling thermal pools. Along the way, they also touch tree trunks, evergreen needles and rocks. One young fellow was heard to say, "I'm passing a wildflower along for you to look at! It smells nice, too."

I was blind."

One ten-year-old boy remarked, "That was really great. I just wish there were more trails like this for us."

The trail is unique in that it requires participation. In that way, the sightless gain confidence and self-esteem. And it may well be that the sighted will also gain in having their eyes "opened" to all the wonders of Yellowstone.



".. Noted & Quoted .. "

"By current taxonomic standards, there are probably about 10 million species of organisms in the world, of which we have in the past 218 years described, at some level, 10 to 15 percent. For more than 99 percent of the described species, we know nothing more than a few morphological facts and one to several localities where they occur. The human population of the world, currently 3.7 billion, is growing at a rate which, if maintained, would lead to a doubling of the present size in 35 years. Yet it is far from certain that the world can support even present population levels indefinitely. Pollution on a world scale is increasing so rapidly that organisms are undoubtedly already becoming extinct at a high rate. For example, tens or even hundreds of thousands of kinds of new synthetic molecules are being dumped into the sea continuously; in almost all instances, their effects are unknown.

"In view of the available taxonomic manpower and the enormous rate of extinction that will characterize the next century, it is doubtful that even 5 percent more of the world's organisms can be added to our inventory before the remaining 80 percent becomes extinct."

Dr. Peter H. Raven, Director of the Missouri Botanical Garden,

Dr. Brent Berlin, Associate Professor of Anthropology at Univ. of Cal., and

Dr. Dennis E. Breedlove, Assostant Curator of Botany at Cal. Academy of Science.

Exerpted from "The Origins of Taxonomy," Science Magazine, Vol. 174, Dec. 17, 1971.

-lugh Country News









Thanks to teachers who are willing to go far beyond the call of duty, high school students at Casper, Wyoming, get an opportunity for an enriched education. During summer vacation, they go into the field with their instructors. There, they learn about their natural environment firsthand.

This summer, four instructors first took 19 students on a five-day bus tour which went as far south as Aspen, Colorado. There, they studied the aspen (below) and the Braille Trail. After viewing the trail, they decided they would try to get a similar one built near Casper. They came back through southeastern Wyoming, studying geology, plant life, and general environmental conditions in specific areas. One of those areas was the proposed Laramie Peak Wilderness, a virgin ponderosa pine area and an important ecological study area.

Some students expressed a desire to study a particular area in more depth. So the same four instructors took ten students to an isolated cabin near Glenrock, Wyoming. One of the students, Janet Becker of Casper, said, "Here, in rudimentary splendor, we had the opportunity to extract an education without cluttering our lives with TV and the outside world."

They studied the ecology of a streambed and of an aspen stand, and some ran a live-trapline for small mammals (next to bottom, left). Each team of two students had three projects to complete during the week. The first was to study and map a nearby biome. (There are five shown in the photo top, left — granite outcrop, aspen stand, grassland, a bog, and the streambed.) The second was to study a condition existing in the biome. A third was optional but included such studies as the existence of local poisonous plants.

Miss Becker says, "The atmosphere of Advanced Field Science is amazing: Ten teenagers living with four teachers for a week, in a cabin which had no plumbing or electricity. Each morning they were up at 6, and spent all day in the field, returning only for lunch. They spent most of the day wallowing in the bog or hopping rocks on the granite outcrop. At night, they spread out their materials on the big table, working by lantern until they could no longer get enough light to use their microscopes or identify their plants. They do this not for credit or for amusement, but because they want to know their world as it should be."

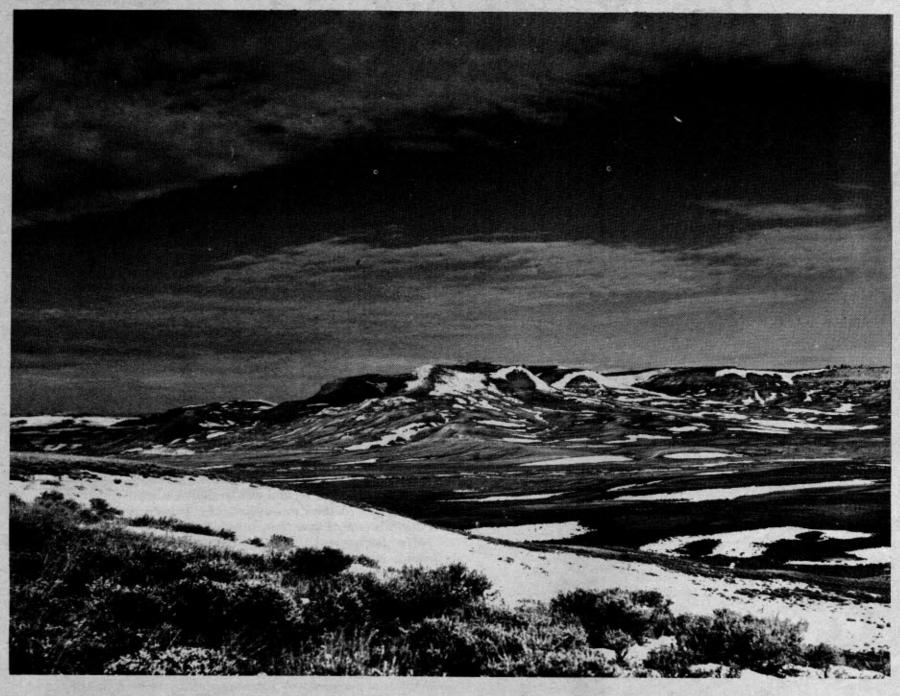
At the end of the week, the teams wrote a paper on each of their projects which will be used for future reference.



Photos by Dana Van Burgh, Jr.



8-High Country News O and I Friday, Sept. 15, 1972

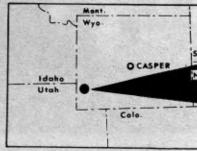


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ancestors no



Photos by Don



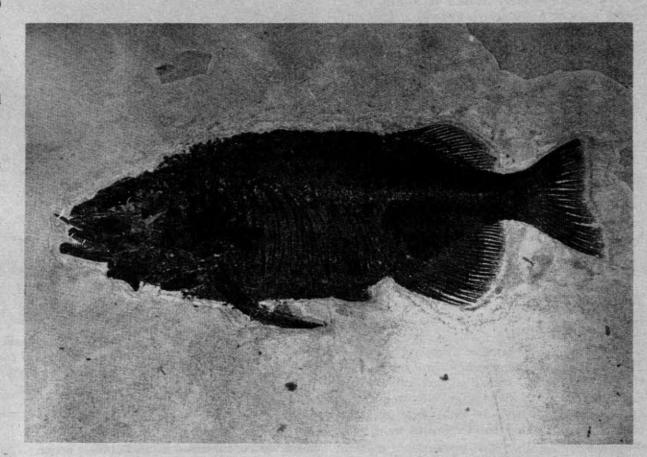
ROSSIE BUTTE

National Monument

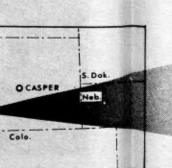
Fossil Butte is one of the nation's newest national monuments. About 10 miles west of Kemmerer, Wyoming, some 8,000 acres have been set aside to protect and preserve the rich fossil beds found here. The new national monument lies just north of U.S. Highway 30N and the Union Pacific Railroad (photo, left).

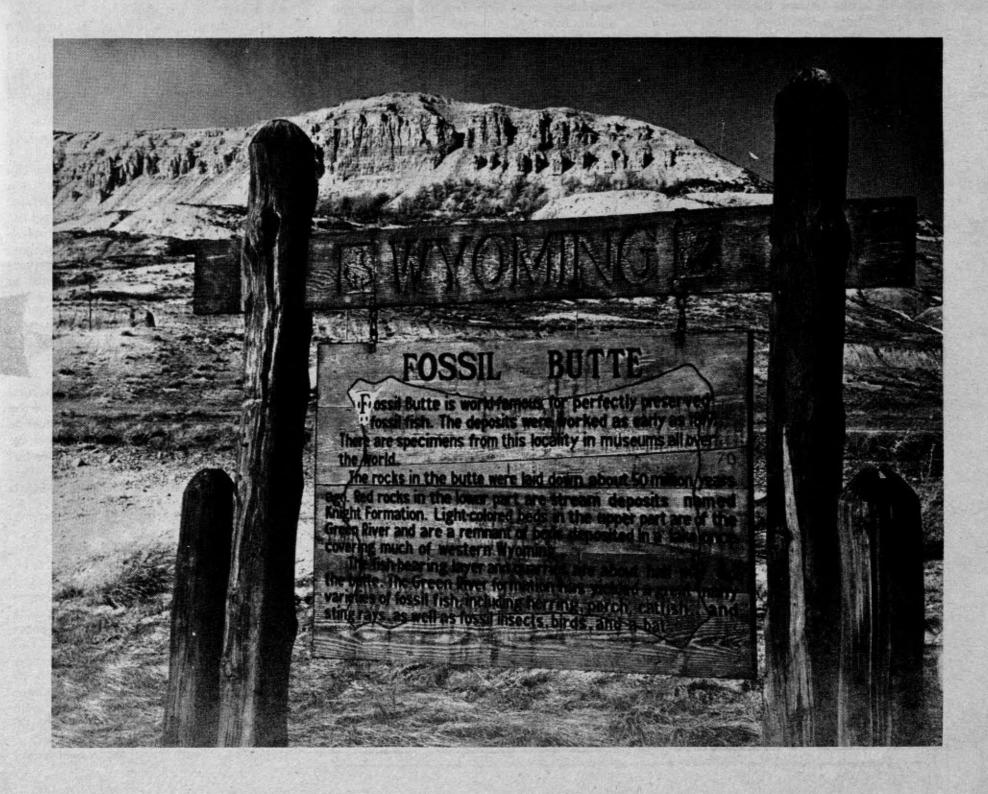
Fossil Butte and surrounding formations contain some of the world's outstanding fossil remains of freshwater fish. In addition, there are well preserved insect fossils, fragments of a few birds and bats, and many kinds of plant remains ranging from fossil palm and fern leaves to pollen. Other invertebrates include about a dozen species of snails, clams and ostracods.

Dating from the Eocene Age (some 40-50 million years ago), the fossils represent several varieties of perch and several kinds of herring whose ancestors now live in the sea. Also represented are such other fish as garpike, paddlefish, and a stingray.



tos by Don Hinton





Geysers Stir Anew

YELLOWSTONE NATIONAL PARK, Wyo. — Yellowstone National Park's Norris Geyser Basin, considered one of the world's most volatile geyser basins, has suddenly been showing changes in thermal activity as well as producing a few new features. It is only the second time since the 1959 Hebgen Lake Earthquake that changes have occurred on such a widescale.

National Park Service naturalists first noted the difference in thermal activity about August 10 in almost every feature at Norris. The latest activity is characterized by a change in water colors and an increase in bubbling action as well as the appearance of two new features that suddenly opened up overnight.

Whatever is bringing on the new activity has also caused several geysers to begin erupting almost constantly, said officials.

Waters of the more than 100 geysers, hot springs, mud pots and pools have changed from their "normal" colors to a murky gray, caused by a stirring-up of the underground sediment. Simultaneously, increased bubbling action has been noted in most hot waters, along with variations in many of the features' water levels.

After more than a week, the thermal features are still not back to "normal." Geologists do not know yet if the current changes are temporary or whether they will become a permanent part of Norris.

Among the most visible changes are at Little Whirligig and Arsenic Geysers, located near each other. They are now erupting continually. Previously, Arsenic played only twice a day and Little Whirligig had frequent periods of dormancy. As one park service naturalist said, "They don't seem to want to quit now."

The new thermal activity has also started eruptions at Pinto Geyser, which marked its first eruption in 11 months on August 8. It continues to erupt several times a day.

A two-foot mud pot at Congress Pool has appeared, giving persons the first chance to see a mud pot in the Norris visitor area. In



Recent thermal activity at Norris Geyser Basin in Yellowstone National Park has produced the first mud pots visible to visitors, located on an edge of Congress Pool. Two mud pots appeared overnight during the thermal activity that suddenly erupted during the second week of August throughout the geyser basin.

addition, the pool's water has changed from a cloudy, light blue to an almost white color and a vigorous increase in its bubbling action has been noted.

Another new feature is a hot spring pool that opened up overnight, adjacent to "Muddy Sneaker," produced during the 1971 thermal changes. The new pool most recently measured about eight feet in diameter and about five feet in depth.

Emerald Spring, named for its usual bright green water, is bubbling more vigorously and its water, turned to a murky gray for several days, is now showing a gradual return to the color that gave it its name.

Africa Geyser, named for its shape, is now either erupting or is in a steam phase almost continuously. Eruptions are being recorded about every 35 minutes.

About the only feature that has not shown any major change is Steamboat Geyser, once the highest in the world. Playing once as high as 400 feet — more than twice as high as Old Faithful — the geyser in recent years has shown only minor activity. Old Faithful, located about 30 miles from Norris, has not been disturbed by whatever changes are taking place beneath the earth.

Geologists have no explanation for the sudden changes at Norris, which sits on a body of molten core, close to the surface.

The 1959 Hebgen Lake Earthquake set off one of the most profound thermal fluctuations in Yellowstone Park's history, changing several of its natural features. Some geysers erupted to previously unknown heights or changed their intervals; a few became less active. The first heavy shock brought an avalanche of rock that dammed the Madison River to form Quake Lake. Some 28 persons camping along the Madison River — just outside the park — lost their lives.

While minor thermal changes are normal in Yellowstone, no extensive change since the 1959 earthquake occurred until September of 1971, followed two minor disturbances recorded on the park's seismograph earlier last week.

How long the current changes will last is anybody's guess.



THE WHITE HOUSE

National Park Centennial Year

By the President of the United States of America

A Proclamation

In John Colter's saga of adventure, we find the genesis of an idea which was to change man from nature's ancient adversary to its friend and preserver. In 1806, this guide and trapper for Lewis and Clark left the expedition on its return journey and set off on a series of exploits that brought him, alone and on foot, into an unknown wilderness of majestic splendor. He carried back tales which prompted scoffing disbelief, then awe, and finally an unending cavalcade to the headwaters of the Yellowstone River. Years later, on March 1, 1872, in an Act signed by President Grant, Colter's discovery was established as the first national park for the people of the Nation and of the world.

A century has come and gone, and in that time the National Park System has grown to include 280 areas embracing the most magnificent examples of America's natural and historical heritage. In every time and season, our parks give of their joys and beauties. They have enriched the citizens of this land beyond measure, and have inspired more than 100 nations to set aside over 1,200 national parks and reserves. Truly, "one touch of nature makes the whole world kin." And this past year, through the Legacy of the Parks, we have embarked on a new era of bringing parks to the people with the opening of vast new tracts of wilderness and recreation land, a fitting close to the first 100 years of our National Park System and a proper beginning for the next 100 years.

As directed by the Congress in a joint resolution of July 10, 1970 (84 Stat. 427), the Secretary of the Interior has requested me to issue a proclamation designating the year 1972 as National Park Centennial Year in recognition of the establishment in 1872 of Yellowstone National Park, the world's first national park.

NOW, THEREFORE, I, RICHARD NIXON, President of the United States of America, do hereby designate the year 1972 as National Parks Centennial Year.

I urge appropriate Federal, State, and local government officials to cooperate in the observance of that year with activities that will not only honor the past, but will provide a focus for understanding the increasing importance of the National Park System in the lives of all Americans, establish an atmosphere of cooperation among private citizens and local, State, and Federal governments regarding the national park concept, and encourage our citizens and our friends beyond our borders to participate in Centennial activities

IN WITNESS WHEREOF, I have hereunto set my hand this 5th day of January in the year of our Lord nineteen hundred seventy-two and of the Independence of the United States of America the one hundred ninety-sixth.

/s/ RICHARD NIXON

It takes hard work -

It takes hard work to maintain our environment. That was the guiding philosophy behind the Youth Conservation Corps camps throughout the country this past summer.

Illustrative of the new and innovative program to involve a cross-section of the nation's youth were the two camps in Wyoming's Jackson Hole. Twenty-five boys were chosen to attend a seven-week program on the Teton National Forest. At the Jackson Hole National Elk Refuge, eleven boys and twelve girls participated in an eight-week program.

How did they like it? Steve Niles of Riverton, Wyoming, said it was "A good deal. I learned a lot about the environment even though we mostly just built fence around the Refuge."

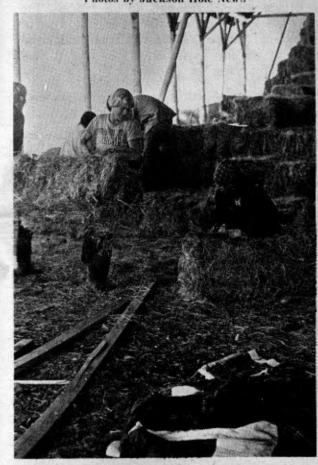
What stood out in his experience? "I got to climb the Middle Teton."

Would he apply again if he had the chance? "Yes, I sure would."

He said he thought his feelings were shared by most of those in his camp.

And so it was in the second year of a threeyear pilot program. Launched by a congressional effort to help the environment while helping youth, the YCC program was signed

Photos by Jackson Hole News



into law by President Nixon on August 13, 1970.

The YCC is administered by the Departments of Interior and Agriculture. In 1971, the two Departments employed 2,676 young men and women in 64 camps located in 37 states, the District of Columbia and Samoa. The 1972 program was operated with 96 camps, employing about 3,000 young men and women from all 50 states, the District of Columbia, and American Samoa.

Most of the 1972 camps were coeducational, a few were all female and some were all male. The young men and women at the Jackson Hole National Elk Refuge worked together in the development of an environmental study area for the Jackson school system (located on the Refuge). They prepared storage facilities for winter elk feeding (photo at left), built and repaired fence, cut poles, cleaned up areas, and each spent a week working at the Jackson National Fish Hatchery.

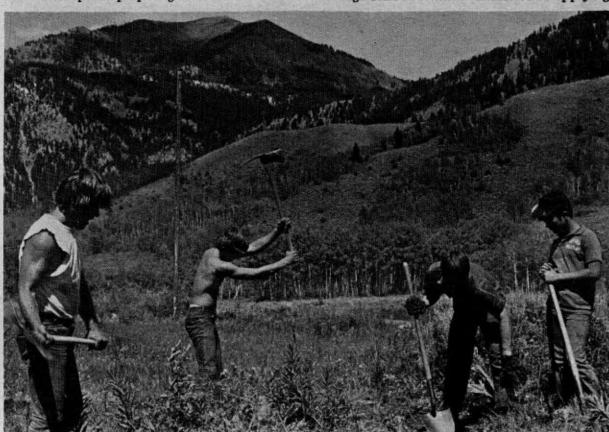
Coeducational camps are found to be popular. They are also successful from the standpoint of good camp administration and management. The coed camps were found to be no more difficult to supervise than schools. And when it comes to work, the girls are able to hold their own. The girls are generally found to be more concerned with environmental matters than the boys and tend to inspire the boys to greater efforts.

The all-male crew on the Teton National Forest lived at the Bryan Flat Ranger Station, south of Jackson. Their living quarters were in tents and trailers and they lived much as forest crews do when fighting fires.

Their work experience was geared to teach them the value of their work. Thus, when a group leader took them to thin a stard of lodgepole pine, they first discussed why the thinning was necessary.

The boys got to spend one week working trails in the Teton Wilderness Area. Another week was spent preparing fire lines for a between the ages of 15 and 19 will have a chance to help their country while helping themselves. Their pay is not high (\$300 and board and room for an eight-week session) but the incentive is great. They get worthwhile summer employment while accomplishing needed conservation work where it most needs to be done. And when they emerge, they will be environmentally aware of the country's great natural resources.

High school students interested in applying



Hard work along the trail or in the hay barns on the Jackson Hole National Elk Range, and the pause for mail from home — these are now all part of the memories of the young men and women who participated in Youth Conservation Corps Camps in Wyoming this summer. They were part of a national experiment to involve the nation's youth in worth-while conservation activities.



prescribed burn to be conducted by the Forest Service later. They built buck and pole fence and reseeded an overused grazing area.

As the Jackson Hole News observed, "The thread of continuity that runs through the program is the constant attempt to relate work done in the national forest to long-term environmental objectives. The crew cleaning up the Hoback Campground became more conscious of litter and the need to maintain such facilities."

The success of YCC is so marked that the future of the program seems secure. A Gallup poll in June, 1971, found that 67 percent of the American public backed the concept of a youth conservation corps. A similar poll now would undoubtedly reveal a much higher endorsement.

So it appears that young men and women for 1973 should contact their school principal or school counselor for particulars.

Conference Set

International leaders and conservationists are gathering at Yellowstone and Grand Teton National Parks for the Second World Conference on National Parks. The Conference will get underway on Tuesday, September 19 at Old Faithful.

A rededication of the national park concept will be held at Madison Junction that evening. The site will be that where the Washburn-Langford-Doane Expedition made their final campsite in 1870 after exploring the Yellowstone area. It was around that campfire that the men pledged their efforts to establish the region as a national park.

The conference will close at Grand Teton Park on September 27.

Augus County Wells Wells

NCPP Defined

The North Central Power Project proposed for northeast Wyoming and southeast Montana has been put into some perspective by scientists of the Environmental Defense Fund. The implications are staggering.

In a simultaneous release of a news article and a copy of a letter to the Bureau of Reclamation, EDF pinpointed the magnitude of the proposal and the concerns of environmentalists.

The New York based group of scientists and environmentally active attorneys says the Bureau of Reclamation has promoted NCPP without assessing the potential for environmental degradation. EDF says it feels "this element of 'boosterism' could endanger compliance with the National Environmental Policy Act."

EDF suggests that the Department of the Interior assume responsibility for overall balancing of environmental and economic factors in the planning and design of NCPP, and for preparing the required environmental impact statement. The Department should also establish a committee of experts drawn from government and the independent, scientific community, to make an unbiased evaluation of the environmental impact of the NCPP. Such a study should consider recent interpretations of the 1970 Clean Air Act Amendments and the formulation of a sensible national energy policy which, among other things, will be designed to dampen growth of demand for electricity and other forms of energy.

In a letter to Harold Aldrich, Regional Director of the Bureau of Reclamation at Billings, EDF says, "Our investigation of this proposed project indicates serious potential for large scale degradation of both human and natural environments: disruption of rural life patterns, strip mining, air, water and noise pollution, destruction of fish and wildlife habitat, soil erosion, diversion of major rivers, and explosive local population growth."

EDF points out that the proposed project would "generate substantially more electricity than is now produced either in Japan, Germany or Great Britain," and would be exceeded only by the present output of the United States or the Soviet Union.

Pointing out that the power would flow through thousands of miles of transmission lines, EDF says, "Even the power lost in transmission will be greater than the present peak demands of Manhattan."

EDF quotes from the Bureau's Aqueduct Report which says, "project water requirements show that about 2.6 million acre feet may be required annually to meet a development level that may be attained in less than 30 years." EDF then says, "Therefore, by the year 2000, the water requirements of NCPP will exceed by 80 percent the present municipal and industrial requirements of New York City (population 7,771,000)."

EDF notes other environmental impacts of similar magnitude:

— assuming a 9 percent ash content, an 85 percent load factor, and 99.5 percent ash removal, a 50,000 megawatt generating complex would produce 94,500 tons of fly ash a year. EDF says this is unrealistic and the figure is more likely to be 787,500 tons of fly ash a year.

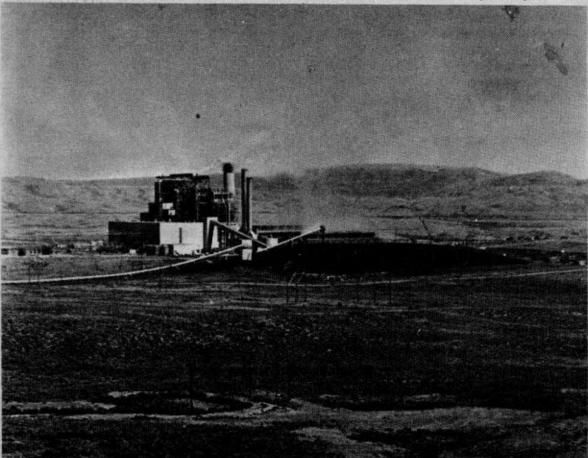
— under federal requirements, the NCPP would still pour out 2.1 million tons of sulfur dioxide a year. EDF says it is more likely to be in the order of 2.73 million tons.

— in terms of total air pollution, the fully developed project would produce "far more nitrogen oxides, sulfur dioxide and particulate matter than all sources in New York City and the Los Angeles Air Basin combined."

- strip mining for coal will cover an area "more than half the size of Rhode Island... Revegetation of strip mined areas in arid regions has rarely, if ever, been successful."

— power transmission lines would "require approximately 8,015 miles of right-of-way. If, as the study suggests, one-mile wide multiple use corridors are to be employed, the transmission network will require some 4,800 square miles — approximately the area of the State of Connecticut."

Photo by Laney Hicks



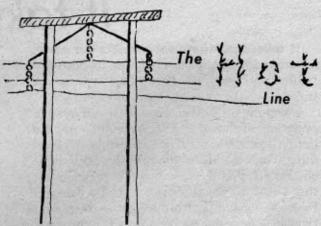
The demand for more energy will require more big powerplants such as this one in southwestern Wyoming. Impending oil shale developments, added to the air pollution coming from such plants, will seriously degrade the air over a wide area of Colorado, Utah and Wyoming.

Drilling Proposals Draw Concern

Proposals to drill for oil and gas under Great Salt Lake are being questioned for environmental soundness. At a recent hearing in Salt Lake City, concern was expressed that drilling might jeopardize operations to recover salt, that it might affect important waterfowl areas around the lake, and that drilling might actually result in increased lowering of the

lake level.

David C. Raskin, conservation chairman of the Uintah Chapter of the Sierra Club, summed up the concern of many. He said not enough is known about the lake and its basin, and that much more should be known before leases for drilling were allowed.



A pilot-plant project to produce quantities of "clean coal" is planned for construction near Wilsonville, Alabama. Edison Electric Institute and The Southern Company announced the joint project to demonstrate the feasibility of producing the fuel. To produce the fuel, coal is dissolved under pressure with a small quantity of hydrogen. The resulting liquid contains about 90 percent of the carbon in the original coal. Nearly 100 percent of the ash is removed along with 99.7 percent of the sulfur.

A research company, TRW, Inc., reports it has been experimenting with a water leach method to remove pyritic sulfur and iron from coal. The method is said to be 40-80 percent effective at a cost of less than \$1 per ton. In the process, the heat content of the coal is increased from one to five percent. The process uses standard industrial equipment already available. TRW says it will build a pilot plant in California.

Drivers in Denver found themselves with empty gas tanks and gasoline pumps without a resupply over the Labor Day weekend. The shortage of gasoline was not city-wide but pointed up a problem which ovservers say is going to get worse. More and bigger gas-eating automobiles are using more gasoline. Oil supplies cannot keep up with demand.

Ben Wake, Montana Director of Air Pollution Control, says \$125,000 is needed to determine how many coal-fired electric generating plants can be built in southeast Montana and northeast Wyoming. He said an air pollution "model" would provide information on the maximum number of plants that could be built without exceeding state and federal air standards. He thinks EPA should do the study but if the federal government will not do it, then the state should. The State of Wyoming is also concerned with such an air quality model.

A unique, first-ever study on a total environmental analysis of Colorado's oil shale development was recently announced. The State of Colorado, the Department of the Interior, and 12 oil industry firms are all contributing to the study in advance of development. To be considered in the study are land use planning, reclamation, water resources, and an ecological and wildlife inventory. It is to be completed in the spring of 1974.

Ohio's new strip mining act requires that a bond must be posted equal to the amount actually required to reclaim the land. As a consequence, miners are paying up to nine times what was formerly required. Highest bond posted so far is for \$2,800 per acre.

A 33-year old Montanan with a master's degree in earth science will head up the Montana Governor's Coal Task Force. Frank Culver has been named to coordinate the Task Force which was assigned by Governor Forrest Anderson to keep track of impending developments in eastern Montana.



Western..... Roundup

High Country News-13 Friday, Sept. 15, 1972

Photo by Jeff Clack

Law Upheld

Oregon's anti-littering law on beer and beverage containers has been ruled constitutional by a circuit judge. The ruling came on a suit by a group of 20 can and bottle manufacturers, brewers and soft drink makers.

The Oregon law which goes into effect October 1 requires a five-cent deposit on most beverage bottles and cans except for some standarized containers which will require a two-cent deposit. The law also outlaws the sale of "pull tab" opening devices on cans. The effect of the law is expected to be the elimination of cans for beer and soft drinks.

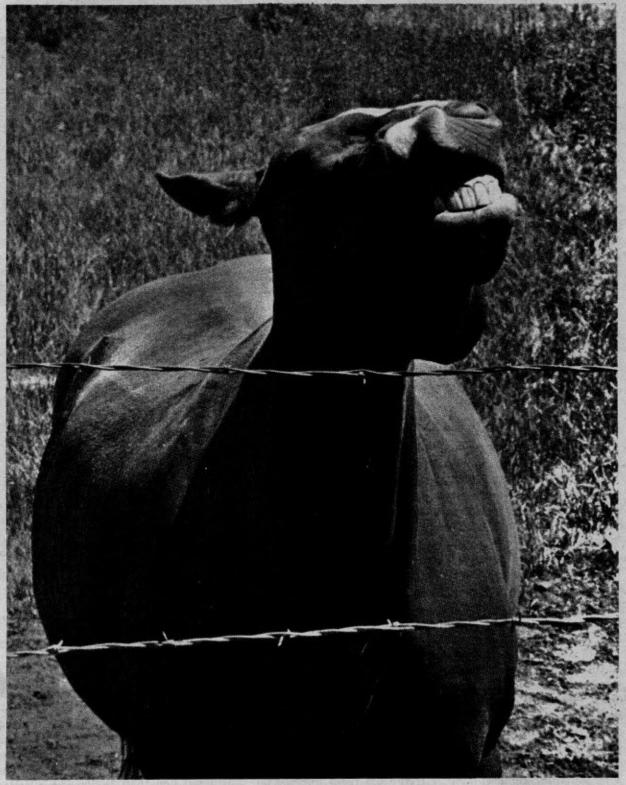
The suit said the law was unconstitutional because of its discrimination against beer and soft drink makers, and because it was an unreasonable interference in interstate commerce. It is expected to be appealed, possibly all the way to the U.S. Supreme Court.

President Signs

President Nixon has signed into law two bills of some environmental significance. Both are the culmination of years of effort.

In Idaho, the Sawtooth National Recreation Area will give protection to one of America's last great scenic areas. The final bill which was a compromise in many respects did incorporate the views of the Senate in banning any further mining. It also calls for a study of national park potential in the higher elevations of the several mountain ranges included in the NRA.

In Montana, the Lincoln Scapegoat Wilderness becomes a part of the wilderness system. This area, west of Great Falls and northwest of Helena, was brought into the system entirely through the efforts of private citizens. The area was not a designated primitive area and is therefore a first. The Forest Service fought the designation from its earliest inception in 1965. But the power of the Montana Congressional delegation, backed by concerted citizen action, was enough to prevail.



The photographer wasn't sure whether he was getting the horse laugh or a piece of lip from a dissatisfied customer. But it seems this horse was trying to convey something!

Oil Shale Could Have Profound Impact On Region

A fully developed oil shale industry could have a profound impact on Colorado, Utah and Wyoming according to the Interior Department. In a three-volume, 1,150-page draft environmental impact statement released last week, the report details the impact of mining, people, air pollution, and other effects on a vast region.

But, Interior says, in view of the need for energy sources, the region should brace itself. The demand for oil and the development of a prototype industry by 1981 will bring 47,000 new people, based on a 400,000 barrel per day operation. By 1985, it is expected that the operation will increase to 1 million barrels per day, with a total disturbed land area of 50,000 acres. The industry and supporting population would require from 80,000 to 125,000 acre-feet of water a year in the water-scarce Upper Colorado River Basin. And, in the words of the report, "The long-term effect of industrialization in the region would result in a decline in general air

Aspinall Defeated

The powerful chairman of the House Interior Committee, Colorado Representative Wayne Aspinall, was defeated for reelection. His defeat at the hands of a political newcomer was cause for celebration amongst environmentalists across the nation. Alan Merson, a law professor at the University of Denver and a land planning consultant, defeated Aspinall in Tuesday's primary election.

quality."

The voluminous report delves at length into the effects on society, air, water and land resources, fish and wildlife, aesthetics, agriculture, and the general economy. Although admitting that the impacts are generally adverse in all of these areas except the economy, Interior says the development is justified.

Criticisms have already come from several sources, including the Natural Resources Defense Council. All of them comment on alternatives as increasing the efficiency of energy utilization, and reducing the rate of growth of energy consumption.

Those wishing to comment on the oil shale impact statement will have until October 23, 1972. The comments should be

addressed to: Oil Shale Coordinator, Department of the Interior, Room 7000, Interior Building, Washington, D.C. 20240.

The draft statement may be purchased from the Map Information Service, Geological Survey, Department of the Interior, Washington, D.C. 20240, for \$7.00. Volume I costs \$3.00; Volume II, \$1.00, and Volume III, \$3.00. Volume I gives a good, overall review of the impacts. Volume II would be a handy reference for material on the whole energy picture. And Volume III goes into more detail on the selected sites and potential impacts.

Copies of the statement may be seen and reviewed at numerous public libraries in the region, at BLM district and state offices, and at Federal Office Buildings in the state capitols.

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High Country News

Thoughts
from the

Distaff Corner

By Marge Higley

When she was in the fourth or fifth grade, my now-grown-up daughter brought home a school paper which, for some reason, I have never quite forgotten. Her teacher had asked the class to compare the theory of evolution with the theory of divine creation. Martha's paper was brief — only five sentences — and I can quote it almost word for word. It went like this:

"The theory of divine creation is that God created man like he is. Most religious people believe this theory.

"The theory of evolution is that man came from a lower form of life. Most scientific people believe this theory.

"I don't know what I believe."

I guess the reason I remember this so clearly is the honest bewilderment of that last sentence. A child is faced with two opposing points of view, each backed up by approved authority. Which is she to believe?

I get a feeling very much akin to her perplexity as I read and hear about the energy crisis. Obviously, one must believe that the gas, coal and oil which supply most of our present energy, cannot last forever. These are finite resources, and we have been using them up as though we would never come to the bottom of the barrel. And our population is increasing by exponential leaps and bounds, so that the energy need grows ever greater. The problem is compounded by the fact that we are finally becoming aware that present methods of energy production have catastrophic effects upon our environment.

But there are puzzling aspects. For instance: Both Japan and Germany prohibit the stripmining of coal from unreclaimable steep-sloped areas, because they consider the environmental risk to be too great. In this country, the mining industry is fighting such restrictions on the grounds that the energy need is critical, and the cost of reclamation (where possible) is prohibitive. The puzzling element here is that coal from the steep unreclaimable slopes of the Appalachians is being profitably exported to Japan and Germany! Are we to believe that the mining industry is resisting more stringent mining laws because of the energy crisis? Or is it just possible that the crisis they fear is a lower margin of profit?

The case of the oil industry is similar. Approval of the trans-Alaska pipeline was hastily pushed through in spite of unanswered environmental questions. (And in spite of some that were answered!) The oil companies had already stocked huge piles of pipe along the anticipated line. To move it to a less detrimental route would cause delay, and the cost (of course!) would be prohibitive. Incidentally, some of that Alaskan oil is already earmarked for export to Japan. Are we to believe that the oil industry is concerned primarily with the energy crisis? Or is it a pocket-book crisis?

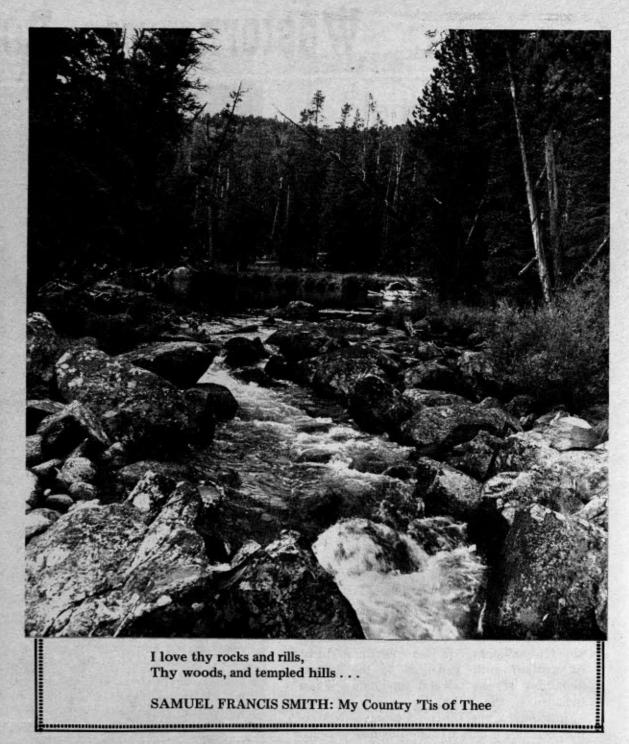
Even more of an enigma is that of the power companies. Producing electricity from coal is a rather dirty business, and the cost of cleaning it up is (you guessed!) prohibitive. So the power companies plead with us to forgive them their environmental trespasses while they try to catch up with the increasing demand for electricity. Front page newspaper stories of blackouts and brownouts seem to back them up. But turn to the advertising sections of the newspaper, and those same companies are coaxing us to buy more and more electrical gadgets! What are we to believe?

The question of evolution vs. divine creation is still a moot one. Valid arguments can be made for both sides. Credible arguments, because they are unbiased. After all, neither the "religious people" nor the "scientific people" stand to gain financially from their opinions and ex-

But is that true of the arguments we hear about meeting the demands of the energy crisis?

What do you believe?

hortations.



ECOLIZE!

by Annette Tussing

All too often our homes become insulated and isolated from ecological and environmental cycles. The Public Service company will tell you that electricity is "clean" and you should use it for all your appliances, heating and cooling. It is a clean source of power INSIDE your house. The house can be sealed shut, the internal environment controlled by dials, no dust gets in and there is no fallout from combustion as one would get with gas or coal or wood. Nice for inside, no? But outside, around a fossilfueled generating plant, it is not nice at all.

For another example, we bring home the groceries and a lot of "convenience" gadgets and things for cleaning; we use or consume only a small amount of the total and the rest goes out the back door into the garbage, (or out the car window into the environment?) ending up expensively and forever lost in the landfill. Sometimes up to 30% of the cost of an item YOU pay is for the raw materials, processing, marketing and distribution of the packaging which is promptly discarded.

"Ecolize" is a word just now coined from the words "ecology" and "equalize" to help citizens remember to think in an ecological manner and to adjust life styles to equalize the detrimental impact of the insulated home upon the environment. Ecological thinking involves considering the cycles within which everything operates. An article isn't "just there" when you buy it from a store shelf and it does not "just go away" when you are through with it. Generally, most things you consume go through a cycle something like this: Raw material from the earth to processing to manufacturing.

Using raw materials, of course, means leaving a scar on the earth, like strip mining or oil well spills. Processing and manufacturing mean coping with a lot of variables. Some pollution can be controlled; much, not.

At the marketing and packaging levels

we, the consumers, are most responsible. The consumer often misuses things and buys needlessly, spurred by private and government advertising campaigns which tell us we need them, make us feel insecure if we do not buy this or that wonderful product to artificially squelch our natural body functions, secretions and odors, or to remain in style or to patriotically keep the economy going—as if it were somehow unAmerican for the consumer to satisfy his needs with an operable, lasting, quality product that produces the least amount of pollution in its use.

thei Hundley, The former

At the close of the cycle, the return to earth, man's ingenuity, mis-use of technology and incredible quantity of stuff he burys, burns and dumps in the ocean is giving earth a case of indigestion. The ecological return is when earth and water can break down and absorb the wastes thrown off into it. Animal and human wastes, organic substances, paper, tin, eventually even glass will "bio-degrade," that is, bacteria will eventually reduce them to earth and elements of which they consisted will be "freed" to form deposits of more raw materials (taking a few million years in the process).

Some plastics, however, will hang around without being broken down and taking upearth space for that long a time or more. Aluminum is forever.

Because of the over exploitation of our natural resources and the increasing world-wide demand for them, plus our tendency to be wasteful of them, plus nature's replenishment process takes a long time, we add up the totals and we find we will run out of some raw materials in just a few years—in our own lifetimes.

As an exercize in ECOLIZING consider your automobile. Think it through the simple cycle mentioned above. Think of the raw materials it takes to make one and to use one. Include the rubber tires and highways, the gasoline and oil and spare parts. Consider the methods used to sell it to you. Compare its convenience with its cost and up-keep (Please turn to page 16)

Environmental Eavesdropper

LOONEY LIMERICKS

by Zane E. Cology

It's great that the young have joined forces
To help save our natural resources.
At camps, they are learning
To be aware and discerning.
(Some oldsters should take a few courses!)

Sulfur dioxide, one of the major components of air pollution from coal-burning power plants, can disrupt normal genetic mechanisms. That is the laboratory evidence suggested by two biochemists from New York University. The finding raises the possibility of long-range genetic damage.

Nitrogen supersaturation from water going over the spillway at Libby Dam in Montana is killing large numbers of mountain whitefish. The huge \$428-million dam is not to be operational for another four years.

Muskegon County, Michigan, is inviting water polluting industries to its area. The reason is a wastewater and sewage disposal system which will sprinkle irrigate some 6,000 acres of cropland. The response has been "overwhelming."

The Spanish Peaks Wilderness Area proposal by Senator Lee Metcalf in Montana is opposed by Chet Huntley. The former newscaster and now Big Sky Resort owner says the proposal is for too large an area. Huntley denied that he also opposed the wilderness because it would prevent building a road over the Madison Range. He said Big Sky did not need the road to survive economically.

The Montana Fish and Game Department has prepared environmental impact statements on the effects of upland game bird and big game hunting seasons. The statements were prepared in compliance with the Environmental Policy Act of 1972. They outline both the detrimental and beneficial effects of hunting on air, water, land, vegetation, animals and humans.

Appropriations to build the controversial Tocks Island Dam on the Delaware River have been withdrawn. The project would have created a 37-mile-long lake in one of the most beautiful river valleys on the East Coast.

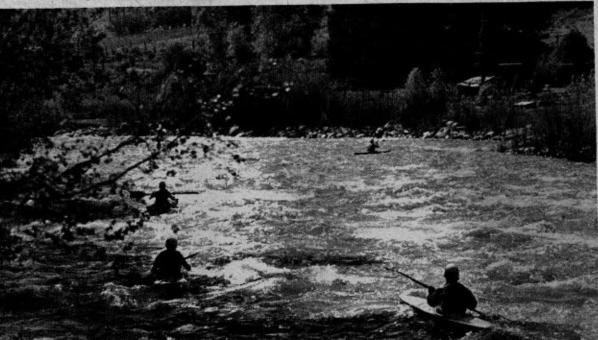
Endrin, a long-lived chlorinated hydrocarbon may have been the agent which killed thousands of fish in Colorado's St. Vrain River. The highly toxic pesticide has been banned for several years. Authorities believe a container of the material may have been dumped into a sewer system.

The Forest Service reports an almost complete failure in the pinon pine nut crop in Utah and Nevada. Usually, hundreds of people gather the nuts for personal use and enjoyment.



Piease turn to page 16)

Photo by Jeff Clack



In the white-water streams of the West, water pollution is not yet much of a problem. But water-based recreation such as this on the Roaring Fork River near Basalt, Colorado, depends upon clean water. It will be to the advantage of westerners to maintain water quality and not let it be degraded.

Will Water Standards Work?

by Gregory Paul Capito

With the tremendous influx of toxic pollutants into the nation's lakes, rivers and tidal estuaries, both the citizens and elected officials of the country's most contaminated areas are asking themselves the same question. Will water quality standards really work? The answer to this question has stymied the nation's best for years. For water pollution is a complex phenomenon, a product of this country's diverse economic activities, changing governmental policies and public apathy regarding pollution abatement and control.

To place this question in its right perspective, one must ask, what does the nation desire in terms of water quality standards? The answers to this question would reflect a wide variety of views ranging from the preservationist's pristine standards to the reasonable use theory espoused by the nation's industrial concerns. The "correct" answer lies somewhere in between. For what is required of a water quality standard is water suitable for the uses that are to be made of it. For example, a free flowing stream located in a wild, primitive section of the Pacific Northwest, which is to be included in the nation's scenic rivers system, would demand a high quality of water generally free of pollutants. By contrast, a stream located in the industrialized Northeast, whose primary function is to process steel would, by necessity, require water quality standards of a totally different nature. Thus, realistic water quality standards are primarily dependent upon the use for which the water is intended. A conflict of interest arises when two users wish to employ the same water for totally different purposes. This apparent conflict between public interest and private enterprise can be resolved. In 1965, Congress passed the Federal Water Pollution Control Act in order to augment state efforts in establishing realistic water quality standards.

In the past, pollution control has been the sole responsibility of the individual states. Local water resource agencies were funded by state revenues and had total control and jurisdiction over the waters in their respective states. While sound in theory, these agencies suffered from a myriad of problems. Most were hampered by a chronic shortage of funds for pollution research. Thus, the complex physical aspects of water pollution were never accurately defined. Secondly, these state agencies lacked realistic water quality standards and the authority needed for vigorous enforcement. Because of this breakdown in local pollution control efforts, the contamination of our nation's waterways has reached alarming proportions.

With the implementation of the Federal Water Pollution Control Act of 1965 and the Amendatory Clean Waters Restoration Act of 1966, many of the problems generally associated with state agencies have been eliminated.

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One of the primary features of these acts is to encourage water pollution research by providing grants to public and private agencies and fellowships to qualified individuals. Another feature of the Acts of 1965 and 1966 is increasing grants to those states which organize comprehensive water pollution control programs. This regional approach takes into account the peculiar causes and effects of pollution within a drainage basin. Thus, pollution abatement measures can be tailor-made to suit the needs of the affected area. In addition, these acts provide for the creation of water quality standards for all interstate waters following Federal guidelines. Under this provision, if the state in question does not initiate action within an alloted period of time, the Federal Water Pollution Control Administration is authorized to formulate water quality standards for that state.

In the critical area of enforcement, the Federal Water Pollution Control Administration is authorized to abate the pollution of interstate and navigable waters which endanger the health or welfare of any person. This provision is particularly effective in the Great Lakes basins where polluters are interstate as well as international.

Critics of the Federal program argue that the authority of the states has been usurped in the area of pollution abatement and control. However, a closer examination of the program reveals that rather than suppressing the role of the states, Federal involvement has acted as a catalyst by stimulating state governments into action. This involvement has not been prompted by the Federal bureaucracy itself, but rather due to the alarmed outcry of the public over the filth in the nation's waterways.

The effectiveness of the Federal Water Pollution Control program depends upon the cooperation of responsible local, state and national agencies. For it is only through a concerted effort that the nation's goal of clean water can be attained. Continued pressure by an aroused, informed citizenry can hasten the process and provide an answer to the question, will water quality standards really work?

YY

Bears No Longer Beggars

YELLOWSTONE NATIONAL PARK, Wyo.

— Both the bears and the people in Yellowstone National Park are beginning to break themselves of the "handfeeding habit."

And the eventual result of this, National Park Service officials predict, will be the return of the animal to his natural, wild environment, where he will survive without being a roadside beggar.

The change in feeding habits is coming from one phase of an ongoing bear management program aimed at educating both the bears and the visitors.

Since 1969 more efforts have been placed on the "roadside bear" phase of the program that is now reaping benefits for both the bear, the environment, and man, himself.

"There are just as many bears now in this park — if not more — than when white man first explored this area in the 1800's," explains Jack K. Anderson, superintendent of Yellowstone National Park. "But now, more and more bears are learning — and in some cases, re-learning — to live on a natural diet that will see them healthier, especially in the winter, as well as return them to their proper place in the ecological system."

Yellowstone Park's bear population currently stands at some 250 grizzly and 500 black bears.

The program focuses on ways to eliminate or remove the artificial sources of food the bears, particularly the black bears, have long become accustomed to.

Since 1969 park officials have successfully removed two prime sources of artificial food by eliminating the previous open garbage dumps and also installing "bear-proof" trashcans throughout the park.

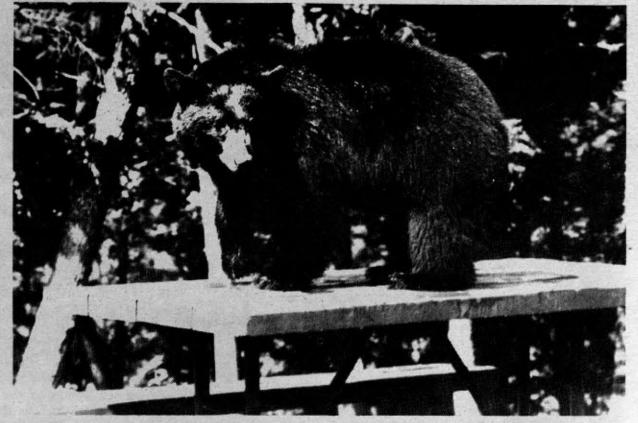
The third source comes from the visitors themselves, who supply the handouts of food to the roadside bears.

"Many people think a bear is begging because he is starving," said Anderson, "but the roadside is just one of many stops for the bear who may search for food all day."

Besides the many verbal and printed warnings about the dangers of bears given to the over two million visitors who come to Yellowstone annually, park officials have for the past three years been increasing their efforts to enforce the regulations that permit them by law to cite the offenders for handfeeding the bears or leaving food in the open, unprotected.

During 1969, some 89 persons were cited and fined \$10 each for violating the food regulation. By 1971, this number had dropped to 35 — a figure which indicates to officials that more people are now aware of the reasons for not feeding the bears. The current 1972 number of offenses stands at 33.

Photos by Wyoming Travel Commission



Black bears are some of the world's worst "panhandlers" when they find someone will feed them tidbits and scraps. But such actions have led to serious injuries of humans and the degradation of these wild animals. Park Service officials are trying to re-educate both the bears and their human admirers.

As park officials point out, "Bears are cute, but they are also wild." Because a black bear quickly adapts himself to a comparative life of ease, he may also become more dangerous to man. Once fed, the bear continues to expect food. Once he has the begging habit, he is also more prone to become belligerent in his demands for food. And what's more, he also teaches these begging habits to other bears, officials said.

The offenses a bear commits can pile up—injury to persons and damage to property—offenses that have relegated the bear from a majestic animal to a roadside beggar and primarily started by a willing handout by man.

The bear's natural homing instinct also adds to the problem. Just because he's been airlifted to a remote section of the park doesn't mean he won't make his way back to the roadside. Some 20-25 percent of the grizzlies do, said Anderson, with an even higher percentage of the black bears returning.

If a bear continues to return to the roadside, he might find himself in a zoo, where as the superintendent points out, is the place for people to feed the bear, not in a natural park.

Or, if a bear further spells trouble as a constant repeater and becomes marked as belligerent, antagonizing and downright mean, only then are more drastic steps taken in order to protect the human life that literally "fed him the habit" to begin with.

As Superintendent Anderson sums up the success of the program to date, he says, "It's working."

"With more people cooperating and fewer people offering food, the bears are less inclined to stand along the roadsides. The chances of seeing a bear are not as good as they once were, but those that are seen are likely to be wilder. And that's as they should be when they're in a natural environment."

ECOLIZE ..

and safety. Follow it through to its end. In a junk heap? Burned? Recycled? (Did you think about taxes and insurance?) Don't forget the air pollution from the engine, crankcase and evaporation exhaust. Lead in the gas, asbestos from the brake linings and rubber particles from the wear of tires contribute to air pollution, too. Now ponder the fact that every day there will be 8,000 more cars, trucks and buses on the road.

ECOLIZE! Think of ways to use your car less. Consider a less polluting alternative, like a bicycle for short trips, car pools for work. Keep it tuned. Don't buy two. Make your next car a smaller, economical and less polluting one. You can think of more.

You can do something else about it. Work with your local environmental group, Environmental Health Department, city planners and government officials to promote mass transit, traffic bans or restrictions, emission control devices for all cars or alternative engines to the internal combustion type. Write to Detroit car manufacturers and demand a better product. Write to the E.P.A., Washington, D.C. 20460, in support of the air quality emission standards for new cars. Ask them to enforce the deadlines.

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