

High Country News

Vol. 4, No. 3

Lander, Wyoming

Friday, Feb. 4, 1972

Game Herds Threatened

by Tom Bell

Big game herds throughout the West continue to decline. Most biologists and observers attribute decreasing numbers to several factors. Foremost amongst these is a continuing but steady shrinkage of winter range.

The severe winter of 1971-1972 may also go down in the records as a contributing factor in the decimation of many big game herds. Because of loss of range and other factors such as fencing and spraying, those herds which recover may be far fewer in numbers.

Deep snows, severe winds, and prolonged cold have forced big game animals into unfamiliar and inhospitable areas. Some animals have returned to former winter ranges only to find them no longer available.

The clearest example of the latter situation exists at the site of the Dworshak Dam and Reservoir near Orofino, Idaho. (See guest editorials, page 3.) There, both deer and elk have been denied the use of former winter range in the valley of the Clearwater River.

The Idaho Fish and Game Department reports about 1,300 deer on the ice of the reservoir. Rising water levels have covered the winter range of whitetail deer migrating down out of deep snows. The tops of inundated cedar trees, poking through unstable ice, provide death traps for the starving deer. They move up to a tree to feed and fall through the ice. Many have fallen through thin spots. More than 100 deer were estimated to have been lost by Christmas.

Because of the concentration of deer in a weakened condition and in an unnatural situation, there has been an unnatural buildup of coyotes. Packs of coyotes, up to six in number, have found a field day amongst the herd.

Robert G. Thomas, president of the Idaho Wildlife Federation from Coeur d'Alene, has written Idaho Governor Cecil Andrus on the problem. He told the Governor that the situation "concerning loss of big game and habitat problems in the Dworshak pool area is a forerunner of more serious problems."

He continued, "We suggest that you, as our Governor, take the initiative and call a joint meeting of the State Land Department, State Fish & Game Department, Corps of Engineers, and a cross section of conservation-oriented organizations and remain in session until an amicable program of wildlife habitat is properly mitigated for and a workable management program is adopted.

"It appears that unless all departments involved in the Dworshak problem get together at the same time, the old 'buck-passing' situation will continue. In the meantime, a crisis habitat management problem is on our doorstep and no time to solve it."

Arguments and statements by the Army Corps of Engineers in support of the Dworshak (then



Bruces Eddy) Dam in 1958 are in stark contrast to what is now happening. In a statement dated July 23, 1958, Maj. Gen. E.C. Itschner, then corps chief from Washington, D.C. said he was encouraged by the progress of efforts to counter arguments that the dam would harmfully affect fish and wildlife.

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POSTED
NO HUNTING
OR TRESPASSING

No. 176

SORRY

NO HUNTING

**YOUR GAME -
OUR LAND**

Our Common Problem:
Coyotes Killing Game and Livestock

Solution:
Together Let's Insist on Reasonable
Predator Management.

Call or write your Colorado
Game & Fish Commission

STAND UP AND HOWL

A sign of the times. As pressures of more people increase and demands for recreational outlets grow, conflict becomes more evident. Adding fuels to the fire are changing concepts. Predators are no longer viewed by all people as useless vermin. Rather they are viewed as necessary parts in the web of life. Public lands are no longer viewed as the private domain of ranchers, miners and loggers.

Dunkle Runs For Governor

Frank Dunkle has resigned his post as Montana Fish and Game Director to run for governor. He filed as a Republican candidate on Feb. 1. He is the first to file although another Republican has announced he will run, as well as Lt. Gov. Thomas L. Judge, a Democrat. Governor Forrest Anderson has announced he will not seek re-election.

Dunkle's resignation was effective Jan. 20. In a letter of resignation, he had asked to remain on duty until Feb. 21. However, the Fish and Game Commission took the opportunity to dismiss him "with all deliberate speed."

Dunkle has long been at odds with Democratic Governor Anderson. Their differences stemmed from Dunkle's firm stand against industrial pollution which threatened fish and wildlife

resources.

Anderson's attempts to get Dunkle fired finally resulted in the mass resignation of the entire commission last summer. However, state government reorganization will now make the Fish and Game director subject to the appointment of the governor when the new governor takes office.

In a statement at the time of his filing, Dunkle said Montana must become "unshackled from the vested interests and withered ideas which have failed us in the past."

He said Montanans want the state "to be a good, clean place to live and they want the jobs which will enable them to live here. This want has not been wildly proclaimed, but they have

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Friday, Feb. 4, 1972

HIGH COUNTRY

By Tom Bell

Never before has another man's writing appeared beneath my column head. But in this time of groping for a better understanding of where our world is heading in the decades ahead, it is often illuminating to take a look at things through another man's eyes.

John Cole is editor of MAINE TIMES at Topsham, Maine. He writes John's Column in somewhat the same vein as I do High Country, although more informally. I have been perusing his newspaper now for several months - and reading his column. And what is so striking to me is that two men sitting nearly across the country are engaged in somewhat parallel thinking. We have even used the same choice of words on occasion. (Note want not-waste not concept expressed in the following.)

I would have to admit that Cole's thinking is ahead of mine. (Ours is yet a less industrial state than Maine.) His is more bold and innovative than mine has yet progressed to. But I think we are both haltingly feeling our way along the same path, and reaching the same conclusions.

He writes of post-industrial Maine. I am not sure Wyoming can avoid moving into a more industrial age before we can turn our people's thinking around. But maybe we can and I will certainly do my part to make it happen.

Herewith, John's Column for January 7, 1972.

At this symbolic time of the year for reassessment and planning, I'm at the stage where I have to put down some of the things I want this column to do in 1972; and once again, it may well be more for my benefit than yours. I do it, however, because some rather important changes are taking place in my ideas as well as my work routines, and I think you should know about them.

My revised, rather vague and sometime, new ideas have been spilling into other sections of MAINE TIMES over the past three months or so. They involve what I see as the necessary shape of things to come in what I call "post-industrial Maine"; and I see the changes as essential if man is indeed going to live a fulfilling life on an earth that keeps its natural balances intact. Or, put another way, I see a continuation of our present growth-oriented, consumption-keyed economy as the path to inevitable and unavoidable destruction of the earth's life-support systems as we know them. This is not a new thought, nor mine alone. It is one of the logical and reasonable extensions of the same kind of thinking that sparked the so-called environmental movement that began about the same time this paper did three years ago. Barry Commoner, for example, in his latest book, THE CLOSING CIRCLE, writes most compellingly about the need to change our "system" if the earth is indeed to be saved.

What I have done, that could not be done as easily in other quarters, is to reduce this second-stage of the environmental movement (if you want to call it that) to Maine realities. I see Maine entering the post-industrial era more easily and in more significant ways than almost any other state; primarily because it never entered the industrial age as thoroughly as most other states and therefore has less of the industrial structure to tear down before it can begin again.

As I have said before, and say again in this week's editorial, the waste not-want not concept must be one of the underlying concepts upon which the new, post-industrial value system is built.

What you must try to understand is what has happened to me since I began thinking about these ideas. I have, in effect, become the disciple of my own thoughts. I want to become a personal part of the theories I am advocating. I think it is wasteful to merely write about them in the abstract and not to test them in the Maine reality; and, using the same concept, it is also wasteful not to use this column to communicate the ideas, the results, the successes, the failures and the non-conclusives.

So, in advance of the first significant step into this matter of testing post-industrial concepts in the reality of a somewhat industrial Maine, I am telling you about it in advance, which is just what my friend once advised me I should not do. And, I am doing it again as much to commit myself - in the best tradition of New Year's resolutions - as I am to keep you informed.

But keeping you informed is a very important part, because even in the short space of time that it has taken to outline the ideas thus far described, a great many letters have come to the office, and a surprising number of fine people with equally fine ideas have taken the time to stop by here to tell they have had similar thoughts and are in the process of trying to convert them to positive and beneficial actions in Maine. Some of the plans have to do with alternate, non-wasteful plans for public transportation; alternate, non-wasteful plans for public education, medical care, new jobs, land use, sewage disposal and community government.

I want to write about these trial runs; and, even more, I want to become involved with them. That is where we - you and I - are going to go a good many times in this column in 1972. I look forward to the journey. I hope many of you do also. I want you to write me (as many of you already have), stop by, or telephone . . . communicate, because from the reaction thus far I can tell there is an entire, splendid community of people out there ready to help turn things

(Continued on page 13.)



A trophy shot! For an explanation of this unusual photo, see letter below.

Letters To The Editor



Editor:

Please find enclosed a photo of a five point elk that I bagged this past October in the Greybull area hunting with Outfitter, Mr. Stewart Armstrong.

Please notice in the background the fine mule deer buck that happened to come out of the timber in the same exact location as the elk had. Here I am with my camera in hand, my gun in the elk horns.

I had not realized that I had taken the picture with the mule deer until I had returned home and had the pictures developed and looked at them on the slide projector screen. Please observe very carefully the rump of the buck, and you will notice that he has no tail and that you can see red on his rump.

Not realizing that I had snapped this picture, I just threw the camera, and found it about 15 feet from where I was standing after everything was over with, whirled around for my gun, which I thought was behind me and then had to run forward the 10 or 12 feet and grab my gun and you will notice in the picture, the scope covers are still on it and it was snowing slightly. I looked through the scope and the buck was about 150 feet off by this time. I could hardly see anything but did snap a shot off, missed him and then the buck cut to the left going down hill which was fairly open. I ran forward taking the scope covers off and chambering another round into firing position. Then the bottom ejection for the magazine tripped and I lost the other three rounds, and knew that there was no way I could find him in the snow or get to the other rounds on my belt because of all the clothes I had on. I just watched the buck disappear down hill with his rump blood red.

I tracked the buck, first examining the tracks and saw no evidence that he had been hit-



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blood marks--and continued down hill for approximately 1-1/2 miles. By this time he had then reduced his stride to just a steady walk, no evidence of any stumbling and then the tracks disappeared way down hill into a draw and by this time it was snowing much heavier and I decided I would never see him again this day and turned back for camp.

The picture answers my concern about the blood on his rump which must have occurred either from an encounter with some other animal or having been shot off by a hunter.

I hope to return to this area in the 1972 hunting season and hope that I will again meet up with my tailless mule deer.

Yours truly,
Harry Hebert
Lafayette, La.

Editor's note: Thanks, Harry, for a most unusual photo and interesting account of a never-to-be-forgotten hunting trip to Wyoming. Your letter was most timely in that I had already planned this rather special issue on big game and the problems which western states are having in maintaining the herds.

Editor:

Enclosed is a tribute to High Country News and its editor, Tom Bell, which appeared in the editorial pages of the Living Wilderness (the publication of the Wilderness Society).

Since all of the readership of High Country News may not have seen this editorial, I am taking this opportunity to see that it is brought to the attention of this group. It eloquently expresses the feelings of most of us. Congratulations, Tom.

Sincerely,
Ed Lonsdale
Laramie, Wyoming

From the LIVING WILDERNESS, official publication of The Wilderness Society, 729 Fifteenth Street, Washington, D.C. Autumn, 1971:

Country journalism used to be a great tradition in this country. We grew up admiring perhaps the greatest country editor of all - William Allen White of the Emporia GAZETTE.

We're delighted to report that the tradition is still alive, and there is a new hero for the young to emulate. He is Tom Bell, editor and publisher of the HIGH COUNTRY NEWS in Lander, Wyoming. It's a joy to read, a trail-blazer, filled with up-to-the-minute news and comment about the great environmental and other issues of the Rocky Mountain region.

We recommend it highly. A subscription costs (Please turn to page 12)



Reprinted from THE IDAHO STATESMAN, Boise, Dec. 16, 1971.

No Place For An Elk

If you're an elk and you live on the North Fork Clearwater drainage, you've got problems. Dworshak Dam is flooding thousands of acres of your winter range and efforts to offset that loss are being delayed by governmental inaction.

To try to offset the loss of this critical winter range, the Idaho Fish and Game Department developed a plan. The idea is for the department to acquire other land in that area and manage it so it will produce a maximum amount of elk feed.

Elk feed is most abundant on land where trees aren't too thick or too high - areas of old timber fires. Part of the Game Department strategy is to limit timber growth on the elk range-land.

The U. S. Army Corps of Engineers, which built Dworshak, agreed to purchase land and give it to the Fish and Game Department to help the elk. Part of the land the department wants is a 4,000 acre tract owned by the state of Idaho and administered by the State Land Board.

Since the state owns the land, it shouldn't be hard to help a hungry elk. But it is. This is "endowment land." Under the laws, including the act of Congress by which Idaho became a state, endowment land is supposed to produce money for the schools and state institutions.

The State Land Board's position is that it

must manage endowment land to feed the endowment funds, not to feed an elk. So the board voted Monday to refuse to let the Game Department manage the land for elk range. It wouldn't give up an estimated \$18,000 a year in timber cutting income.

This the Fish and Game Department had expected. The department told the Corps of Engineers this would happen. But the Corps reasoned that there was no sense in buying land from one state agency to give to another.

Now the Fish and Game Department can again ask the Corps to buy or lease the land. This is what the Corps should do.

The basic problem is with the law. Idaho should be able to consider a hungry elk when it manages its endowment land. Idaho should be able to recognize the fact that Dworshak can be a disaster for the elk, and the people who hunt him.

But the law is the law and changing it will be a difficult, involved process. It should be changed, but that could take a long time. It may never happen. The Corps is responsible for mitigating the damage now, on the basis of the present situation. That hungry elk on the Clearwater can't wait forever.

Reprinted from the Idaho Falls POST-REGISTER, Jan., 1972.

A Problem of Range

Don Brooks, sports columnist with the Salt Lake Tribune, cornered an issue in Utah in a recent column which has its counterpart in Idaho.

Wrote Don Brooks:

"The deer are gone," screams the disgruntled hunter as he returns from the hills empty-handed during the season. 'I didn't even see a track.'

"Then the season is over and the snow blows and the temperature drops and all those deer that no one ever saw are down in the valleys feeding in the backyards.

"Then the property owners scream. 'Get those deer out of my yard.'

"Well, where were all those problem deer during the hunting season? The disgruntled hunter's first reaction is to blame somebody, usually the state fish and game agency, charging mismanagement. He neglects to consider two factors.

"One is the intelligence and elusiveness of the deer. The other is the possibility that he may not be quite the mighty hunter he thinks he is."

Brooks went on to describe an experiment in Michigan where biologists fenced off a square mile area in which they placed 39 deer, consisting of seven bucks, 14 does and 18 fawns. Six experienced hunters were turned loose in the area. It was four days before one of them spotted a buck. During a subsequent four year test period the shortest time it took a hunter to get within shooting distance of a deer, including fawns, was 15 hours. The best time for seeing a buck was 51 hours.

Brooks also told of another test in South Dakota with a buck deer with a radio transmitter attached to his ears. Five experienced hunters were set loose in the same area of the buck. In seven days of searching they failed to find the buck. Three of the five were sent to the exact area where the transmitter showed the buck to be hiding, but the three drew another blank in an all day search. Finally directed to the precise point where the buck was, one came upon the "holed-up" buck by accident - hidden in the underbrush.

This happens in Idaho, too, but the course of Idaho's hunter problems have taken somewhat of a singular course the past two years.

Dissatisfaction was recently expressed in a meeting in Lemhi County with legislators of the two deer hunt in Morgan creek. The fear of decimating the herd in that area was expressed. Cooperating with the Bureau of Land Management and the Forest Service in a cooperative range restoration project in that area, the Idaho Fish and Game Department is attempting to reduce the deer herd significantly in order to install a rest-rotation range program.

Livestockmen are cooperating in the project as well.

In this instance, at Morgan Creek, the feed has been allowed to deteriorate to the point that

competing bighorn sheep, deer, and livestock have made a special mission necessary in that area. Gus Hormay, the progenitor of the rest-rotation thesis of range restoration, says that after a few years of rest-rotation management there will be enough feed for wildlife and livestock. Rest rotation has done wonderful things - but enough feed for all? What is all, really?

The range restoration program, at Morgan Creek, first of all, demands deer reduction because they are the biggest burden on that range as this program is getting under way. But this newspaper thinks it is an over-simplification to assume that a few years of rest rotation and we will have the numbers of bighorn sheep, and deer, that this area once had and which it is capable of sustaining. The reality is that over-grazing years ago, plus neglect by the Bureau of Land Management since, has created a critical



range problem. There are many such over the west but the Bureau of Land Management has not had the funds and personnel plus the Congressional mandate in appropriations, to address itself meaningfully to these problems. The Bureau, too, has been reluctant to cut livestock numbers back in some areas where wildlife were taking the critical hindmost. Gus Hormay contends that merely taking livestock off the range, without a rest rotation plan, does not answer the problem.

And the Idaho Fish and Game department will have to apply a more energetic winter range acquisition and development program as an alternative to mere herd reduction. There will always be two deer hunts in some ranges because the deer, for example, grow too large. But the key question is: how large a herd can we sustain, if we do a better job of solving our winter range needs. The deer reduction, undoubtedly, would not be as severe as it sometimes is . . . and this is one place that the complaining sportsmen and ranchers interested in sustaining wildlife have a major point.

The other special Idaho problem of late is sheer numbers of out of state hunters. The Idaho hunter complained so intensely about this that the Legislature was forced to apply a non-resident quota system.

Reprinted from THE IDAHO STATESMAN,
Boise, Jan. 11, 1972.

Deer On Ice

Deer have fallen through the ice and died in the waters of the new reservoir behind Dworshak Dam in Northern Idaho. In Eastern Idaho, a count shows 1,100 deer in the canyon to be flooded by the Teton project.

Dams and reservoirs are harmful to big game. When the snow gets too deep for them to find food at higher elevations, the game move down into the canyon.

Hundreds of deer moving down into the Dworshak Reservoir area found conditions changed. Some have fallen through the ice and drowned. Others were crippled when they fell and became easy prey for coyotes.

Photos of holes in the ice where deer have fallen in, thrashed around and tried vainly to get out tell the story.

In planning for dam projects, too little attention has been given to the impact on big game. Usually there is talk of "mitigation" but there is no real substitute for critical canyon areas.

When Dworshak Dam was authorized, the agreement called for the designation of 50,000 acres in the area for intensive game management. Most of that acreage has not been secured. The State Land Board has refused to designate a 4,000 acre tract of state land for game management, on grounds that the law requires the maximum earnings from the land. This means managing it for timber, not for game.

If sufficient land could be designated for game management, higher up on the drainage, the Fish and Game Department hopes to hold the animals there, rather than having them move down along the reservoir.

If the Teton dam is built, the reservoir will fill much of the canyon. Fish and Game officials say there is no other large canyon in the area which the deer can use. No real mitigation of the loss is possible.

When the inflated "benefit" figures for the Teton project were calculated, nothing was subtracted for the loss of big game habitat. A fictional assumption was made that some money spent for "mitigation" would take care of the deer.

Under the outdated water planning practices now in use, the planners can only see benefits. They tend to ignore or play down what is lost. They don't care much for big game.

But deer and elk are important to the people of Idaho. As the winter habitat goes, the herds decline. And who gets the blame? Not the dam builders. It's always the fault of the Fish and Game Department.

The department warned about what would happen with Dworshak. It has earlier said that about 1,000 deer winter in the area to be flooded by the Teton project.

If the department is at fault, it's for not speaking loud enough. Its governing board, the Idaho Fish and Game Commission should be speaking out on behalf of the big game. The commission seems to be restrained by the power of the political forces which support the dams, but it shouldn't be.

The commission is responsible for big game in Idaho. It ought to be a strong advocate, stronger than it has been when projects like Teton are at issue.

Reprinted from UTAH FISH and GAME,
Sept.-Oct., 1966.

It's A Science

WILDLIFE MANAGEMENT has slowly evolved from a program of total protection to one based on use and management through scientific know-how. Through the years of this evolution, wildlife management has become sophisticated and refined to a state where it is now considered to be one of the world's better professions. Like many other professions, sophistication did not come without its critics who sniped at, bombarded, and shelled from almost every quarter. Some of the fiery criticism has been legitimate, proving beneficial to the interest of the wildlife movement. Too much, however, has been malicious, petty, unwarranted, and totally lacking in acceptable facts to lend any significance to the caustic attacks.

(Please turn to page 11.)

Population Growth...

The Commission on Population Growth and the American Future is about to issue its second and final report (due March 16). In this second part of an abridged text of the interim report, the Commission addresses itself to some of the overriding questions which must be asked and, if possible, answered, before we can formulate a National Population Policy.

* * *

Given a likely population of 300 million sooner or later, the questions before us are: Is it in the national interest to reach that level later rather than sooner? What demands are implied by the growth that is to be expected? And, what difference will it make whether we grow to 400 million after that?

Much discussion these days implies that population growth is bad, just as not very long ago one heard, from a different point of view, that it was good. No such simple judgments can be made. To consider population growth or concentration as the root cause of our Nation's social and environmental ills is clearly simplistic. Such an interpretation confuses how things are done with how many people are doing them. For example, rapidly rising levels of per capita consumption, and technological mismanagement, appear to contribute more to environmental pollution than does a gradual rise in total population.

More importantly, population growth matters not in its own right but because of its potential impact on many values that Americans hold about our environment and resources, our economy, our government and our social order. The question is: What does population growth have to do with such values and with the systems necessary for their achievement?

Resources and the Environment

There is little reason to believe that population growth will cause food shortages in the United States, but serious questions have been raised about the effects of continued population growth on our own and the world's resources, and in the pollution of our land, air and water. Even though population growth is not the primary cause of environmental deterioration, it may well magnify problems arising from the way we use our resources and technology.

At our present level of consumption, a continually growing population makes demands upon many resources, some of which are in scarce supply. There is a question whether continued growth will cause us to exhaust some important resources, or whether the market system, with a dynamic economy, can develop substitutes for resources in short supply. For some resources, such as wilderness, there are no substitutes. Economists and ecologists have been enlisted by the Commission to determine the effects on the environment of population growth, of technological change and of changes in demand resulting from greater affluence.

To the extent that environmental problems are aggravated by population growth, it is important to determine the environmental implications of the way in which our population is distributed - the effects of local population concentration as well as national growth.

Some contend that the country could easily accommodate more people if our population were spread more evenly. It is not how many people we have, they say, but how they are distributed across the Nation. This is only a partial answer. Clearly, some of our urban problems are due to high concentrations and poor planning. On the other hand, people consume resources wherever they live. Whether in New York City or a small town in the midwest, they still drive an automobile fabricated of steel produced in Pittsburgh using coal mined in West Virginia. In the process, the air of Pittsburgh is polluted by smoke and the scenery of West Virginia by strip mining. Wherever Americans live, they make huge demands on the Nation's and the world's resources and ecological systems.

People in small towns can despoil their rivers and air just as people in New York have done. A large city might actually be better able to afford ecologically sound solutions to many environmental problems. So simply redistributing the population might not solve many of the population-related problems we face.

Moreover a large population such as ours might not be able to live at its present standard of consumption without high concentrations of

people and economic activity. We could not drastically alter distribution patterns without radically altering our way of life. Even so, it may be desirable to slow or stop the growth of very large metropolitan areas. And as we have said, it would be very difficult to do this without slowing the growth of the total population.

The Economy

There are several points of view on how different rates of population growth might affect the economy of this country. In the past, some predicted that declining population growth would cause economic stagnation, unemployment, and a lower standard of living. Some contemporary observers maintain that a slower rate of population growth would increase the Nation's prosperity while reducing the costs associated with growth. Still others note that our economy is flexible and has shown many times that it can adjust to changes in demand. They suggest that with proper economic policies the rate of population growth is largely irrelevant to national economic prosperity.

Regardless of the effects of population change on the total economy, it is clear that some industries and businesses will gain and others will suffer as a result of changing growth rates and shifts in age composition.

In addition to affecting the demands for different products, population growth also affects production in other ways. Most importantly, the number of births ultimately affects the size of the labor force and its age composition.

The effect of population growth on various private and public sectors of the economy is being investigated. Some industries with important components in the public sector such as education, health, housing and transportation, are strongly affected by population growth and redistribution. The public expenditures that will be required to accommodate expected growth in the next 30 years are being assessed. Changes in population growth rates can seriously affect certain private sectors of the economy whose

markets are geared to particular age groups. Some industries, such as those in children's markets, would be affected very quickly by reduced rates of growth; others would be affected more slowly.

Continued population increase has implications for the delivery of certain social services beyond simply their pocketbook costs. In some fields, further growth may require considerable changes in methods of delivery just to maintain adequate service levels.

For example, even if money were no problem, various constraints affect health care. It is difficult to increase the rate at which doctors are produced. The training is long, difficult, and expensive. Good medical schools require costly equipment and highly skilled faculties commanding top salaries. Because of long training and internship requirements, decisions that will affect the future supply of physicians must be made years in advance. It may also be difficult to expand adequately the supply of nurses and trained technicians. Higher rates of population growth magnify burdens on personnel in short supply, which could lead to further depersonalization of medical care. If health care has deteriorated because of inadequate facilities and overworked personnel, higher rates of population growth can make these problems more difficult to solve.

Government

What are the governmental and political implications of population growth, over and above the costs of public services? Our analysis is concentrated on the possible impact of population growth on the quality of government in the United States in the coming decades, and upon the individual's participation as a citizen.

At the local level, the influence of population growth upon the quality of government seems clear. The quality of metropolitan government is likely to depend on the rapidity of population growth and on the number of different governments attempting to meet public service needs.

(Continued on page 5)



The Commission on Population Growth and the American Future says, "We regard population growth, however, as an intensifier or multiplier of many problems impairing the quality of life in the United States." Backpackers into the Bridger Wilderness of Wyoming, such as these shown here at Green River Lake, are going to be restricted. The restriction imposed by the U. S. Forest Service is felt necessary in order to maintain the quality of the wilderness experience.

For example, where court dockets are heavily crowded, justice is not likely to flow in the same fashion as where they are not.

Much of our research effort on the implications of population growth for local government concerns metropolitan areas, where most of our people now live. We are considering the increasing complexity and layering of local government generally found in such areas, the differences between cities and suburbs with regard to public service needs and the resources to meet them, and the problems of governmental response to future expansion of metropolitan areas.

In studying the effects of population growth on Federal and State government there is less to rely on than at the local level. We hope to open several new areas of inquiry, such as the effects of growth on the role of legislators, on the output of State legislatures, and on the ability of the Nation to unite around a national issue.

There is also a range of questions about the effects of population growth and movement on how individuals participate as citizens. The political attitudes of those who migrate from areas of rural poverty to urban ghettos are not likely to remain the same, nor are their expectations of governmental services. The same is likely to be true of those who move to the suburbs. Place of residence - and hence the relative growth of different areas - may make a profound difference in political attitudes and behavior.

Society

The Commission is examining the future of the family in the United States as reproduction comes increasingly under voluntary control. In what ways will the family of the future differ from the family of today? What are the implications for the health and development of children if family size diminishes?

Changes in family size will have far-reaching significance for a variety of social processes, not the least of which is the role of women in our society. Reductions in family size imply that men will spend less time in childbearing and child rearing activities and thus have more time available for work on other interests. Basically, the effect of such a change would be to increase the options available to women; one such option would be to devote more time to fewer children, perhaps improving the quality of parenthood. We are examining the effects of changing birth rates on the size of the female labor force, opportunities for women to have careers, and greater equality and participation of women in the affairs of the society. And, we are looking at the other side of the coin, the extent to which current levels of childbearing - wanted as well as unwanted births - result from the relatively limited range of roles many women occupy.

Some of the implications of the cessation of population growth for society are being explored. A few other nations that have come close to stabilizing population might serve as models of the future, although cultural differences make such inferences precarious. Certainly one demographic consequence of the decline of the birth rate is the aging of the population. In a population where births equal deaths, at the low levels of mortality prevailing in the United States, the proportion of people over 60 would be the same as that under 15 and the average age of the population would be 37 rather than 28 as at present. The implications of such a difference for rates of social change and opportunities for advancement must be considered.

In sum, what are commonly referred to as population problems can be viewed more profitably as environmental, economic, political and social problems that are aggravated by population growth and density. The closest thing to a "population problem" in the pure sense is the speculation that increases in the sheer density of numbers have undesirable effects on social behavior. **WE REGARD POPULATION GROWTH, HOWEVER, AS AN INTENSIFIER OR MULTIPLIER OF MANY PROBLEMS IMPAIRING THE QUALITY OF LIFE IN THE UNITED STATES.** (Emphasis added.)

Policy Issues

The Commission is devoting its second year to a detailed examination of the probable course of population growth and distribution and their environmental, economic, political and social implications. The aim is to determine what population prospects inevitably must be accommodated in the short run, and what kind of national population policy is desirable now for the

long run. The concerns of overriding importance are whether population stabilization and redistribution of the population are desirable.

The Commission views population policy not as an end in itself but as a means to facilitate the achievement of other social goals desirable in their own right. Such goals would include improvements in the status of women, in the socioeconomic conditions of disadvantaged minorities, and in the health and opportunities of children born because they were wanted, as well as the easing of pressures on our resources and physical environment, health and educational facilities, and the problems of our cities.

Freely to Choose

A key consideration for population policy is the current level of unwanted childbearing. This information is necessary to determine how much movement toward the cessation of population growth might ultimately result simply from preventing unwanted births. The sum of individuals' real preferences may in fact coincide with the welfare of society as a whole. There is some evidence (from the 1965 National Fertility Study) that the elimination of unwanted births would result in fertility levels ultimately commensurate with near-zero growth. If this conclusion is valid for 1970 (the 1970 National Fertility Study now underway will provide the basis for such a judgment), the policy implications can hardly be overestimated because the national objective could be attained by enabling individuals to achieve their own preferences.

Estimates made in 1965, based on married women's own reports about their childbearing experience, indicated that one-third of the married couples who did not intend to have any more children already had at least one unwanted child. In the period 1960-65 nearly 20 percent of all live births were reported as unwanted by their parents. Only one-fourth of all parents claimed to have been completely successful in preventing both unwanted and unplanned pregnancies.

The 20 percent of births reported as unwanted by their parents represent nearly five million children born between 1960 and 1965 who theoretically would never have been born if their parents' desires had prevailed. Fortunately, many of these unwanted pregnancies and births become wanted children. But many do not.

Over and above the demographic significance of current levels of unwanted births, are the serious costs for both individuals and society. For many, it means poor prospects for employment and limited opportunities for themselves and their children. For others, the costs are measured in increased family stress and unhappiness, altered life plans, and less time and attention for each child. Unwanted pregnancy sets off a chain of events which acutely forecloses the life-chances of some young people; it leads to dropping out of school, precipitous marriage or an out-of-wedlock birth. Unwanted childbearing is associated with serious health consequences such as increased incidence of prematurity, mental retardation, infant and maternal mortality, and physical and emotional neglect and abuse.

While the incidence - and the consequences - of unwanted births are especially acute among low-income couples, it would be erroneous to regard the problem as one associated only with poverty. Couples in all socioeconomic groups have unwanted pregnancies and experience its costs.

STOP HEIR POLLUTION



Fortunately, unwanted childbearing is a problem we can do something about. Voluntary family planning has become a prevailing pattern in American life, practiced in some fashion at some time by almost all couples, regardless of income, class, religion, or color. Whether Americans are able freely to choose if and when to have children depends largely on the priority which we as a society are willing to devote to policies, and research and educational programs, to reduce unwanted pregnancy.

In 1970, the Congress, by overwhelming majorities of both House and Senate, adopted the Family Planning Services and Population Research Act of 1970 (P.L. 91-572), a measure signed into law by President Nixon this past December. The Act encourages the birth of wanted children and assists couples in preventing unwanted conception. The Commission endorses this significant advance toward

the reduction of unwanted childbearing, and believes that this policy should be implemented promptly.

Not an Easy Task

If it turns out that the prevention of unwanted births should be the main target of a growth policy, the goal would be to maximize popular information and understanding about how to control fertility, and to accelerate the development of more effective techniques and facilities for limiting childbearing. This will involve the Commission in further considerations of family planning services and education, contraceptive technology, adoption and abortion. These all pose moral and ethical complexities which the Commission is considering.

On the other hand, if population stabilization is desirable and its achievement would require more than eliminating unwanted childbearing, then additional measures can be considered, such as changes in tax laws, the elimination of pro-natalist laws and programs, and educational programs. Some of the policy issues that would then be involved are much more difficult and potentially more controversial than those related to the prevention of unwanted childbearing. It would not be an easy task to develop acceptable measures that would lead to a slowing and eventual end of population growth. The best kind of national population policy would be one that serves the general welfare by promoting informed individual choice.

One obvious and fundamental change desirable in its own right, quite aside from its demographic impact, is to increase the opportunities for women to pursue activities other than exclusively domestic and childbearing roles. As the experience of other countries indicates, when women are able to work, birth rates decline.

As we have seen, population growth is also affected significantly by immigration. Should the volume of immigration be reduced? The historical role played by immigration in the growth of this country and our tradition as an open society make this question especially disturbing.

The issues with regard to the distribution of the population arise from the transition of the United States from an agrarian to an industrial and service economy and from a rural to a metropolitan way of life. The Commission seeks to identify the major stress points in this transition - stresses generated in the process of regional redistribution, metropolitan growth, the rapid expansion of suburbs and the depopulation of large areas of the country.

If it appears desirable to redirect growth, it will be important to know how this might be done. The Commission is studying internal migration and the characteristics of migrants, to find out at what stages in their career and life-cycle people might be responsive to incentives to move or stay.

A principal question is the role that Federal and State governments play in population affairs. Although the Federal government does not have an explicit, comprehensive population distribution policy, many of its policies, programs and statutes seem to have an impact on population distribution incidental to their main objectives. This inadvertent impact may be seen, for example, not only in the Federal Interstate Highway System, but also in the Federal Housing Administration program and federal procurement policies. Others, such as the Economic Development Administration, New Communities Act, and the urban renewal program are designed in part to redirect growth.

We also have many laws directly or indirectly affecting the growth of population, such as those governing immigration, marriage, divorce, contraception and abortion, which require examination.

Basic to all population policy questions are the underlying legal, ethical and political issues. Constitutionality does not guarantee ethical acceptability and Americans support a broad variety of ethical views that must be taken into account in any formulation of policy.

This, then, is the way the Commission views its task. We do not take future population trends as inevitable. We believe that there are short-run population trends already in process that simply must be accommodated, but that the longer-run future hangs in the balance. And it is not simply population growth itself that is the issue, but rather the quality of life that can be influenced so fundamentally by population. We have the challenge, and indeed the responsibility, to prepare for the future of coming generations of Americans.

"Where have the deer gone?"

by Verne Huser

As early as November the most frequently-heard question in much of Oregon was "Where have all the deer gone?" Hunter success was relatively low this year, a trend that began four years ago. But there is nothing unusual about that trend, according to the Oregon State Game Commission: "A downward trend in mule deer numbers is apparent throughout the west." (from an OSGC report dated November 1971).

A recent HIGH COUNTRY NEWS item extends the trend to the East Coast where the Governor of Maine closed the deer season early this fall because the state was running out of deer. What seems to be the problem? Several state game and fish commissions are currently trying to explain; they have initiated various study projects and they've examined their past statistics. They usually come up with an answer similar to Oregon's: "A combination of circumstances—" including hunting pressure, lack of winter range, low fawn productivity (why?), winter kill, lack of sufficient harvest, predators, man's intrusion upon the wildlife habitat.

Let's have a look at the situation in Eastern Oregon, where the deer problem has become critical because of the early and heavy and continual snows this year. Perhaps this one specific example can serve to illustrate the problems in other areas.

Several sportsmen groups in Eastern Oregon have been putting pressure upon the Oregon Game Commission to end the doe season, feeling that the killing of does is the key to the problem. Actually the doe tags were cut to a third their 1970 number for the 1971 season, but the Game Commission stands pat upon its statement that "excessive antlerless harvest cannot be blamed for poor hunting success."

Photo by Roy Willett



A big buck the hunters missed winters in the deep snow of Pine Valley, Baker County, Oregon.

So concerned had Oregon citizens become that an interim legislative commission held public hearings throughout the state, a fact-finding commission that learned from the sheep ranchers that it was the coyotes that were causing the reduced deer herds; learned from the all-terrain-vehicle-users that it was the closing of roads on national forest land that was causing the lower hunting success; learned from the sportsmen that it was the doe season; learned from the Game Commission that it was the lack of winter range, and so on and on.

But where lies the truth? Hunters couldn't find the deer during the season, but now that the snows have driven them down out of the hills, the ranchers complain that the deer are eating them

out of house and home—there are hundreds of deer in the valleys, often concentrated near roads and highways where dozens are killed by cars. And local ranchers and residents are crying for hay and money to buy hay for the poor starving creatures. The Game Commission simply isn't budgeted to handle the situation that the severe winter has precipitated, and they fall back on the "critical winter range" concept.

The facts? Hunter success has dropped in the whole state of Oregon from 50% in 1968 to 36% in 1969 to 34% in 1970, the lowest level since 1951. Doe kills have been traditionally low, usually less than a quarter of the total kill and in 1970, only 15% of the total. Winter range has become critical, especially in hard winters like this one and like the one two years ago that seems to have started the downward trend of deer herds. Those herds had built tremendously in the late 40's due to heavy timber harvests, say the timber cutters, that opened up the forests for better forage. Even the Game Commission says, in essence, that Oregon won't have great deer herds again "until the next generation of logging again removes the overstory on the more productive low-elevation western Oregon ranges." But what about eastern Oregon? Obviously the situation does vary from one area to another, even within a state, and certainly from year to year. There are no easy answers.

How critical is coyote or cougar predation? Throughout the West, heads of game commissions have, in the past few years, almost invariably come out with statements to the effect that predator control doesn't make sense as a tool of game management. The predator is vital to the health and vigor of the herd, and no predator absolutely controls its prey species. Rather, it is the availability of prey that controls the numbers and condition of the predators. One fact stands out: persecuted predator populations are usually healthier because they have more to eat since their numbers have been reduced. And the fact remains, that no predator species can overpopulate for long since they are dependent upon the availability of prey.

How critical is habitat? Extremely critical say nearly all of the Game Commissions, and throughout the West they are spending fortunes in public funds to buy up critically needed winter range areas. What has caused the reduction of winter range, and why is it so critical? To answer the second question first, there is plenty of summer range, even though it is shared with domestic livestock, but the winter range is critical because there is so little of it. And the wintering animals are so concentrated upon it by snow that they tend to overuse it, extending their overuse into the spring as they follow the receding snowline.

Winter range has been limited by man's exploitation of the wild world. Colorado's elk season was short this fall because, the Game Commission said, man had taken for his own consumptive use too much of what was once wildlife habitat—there simply wasn't enough left for the wildlife. Man does this by expanding his domain through agricultural development, through roading once-wild areas (timber cutting may open up the forest for better deer production, but the roads let in so many hunters that too few animals are left to reproduce the species), through his power-and-recreation-development dams.

The Snake River flows north through Hells Canyon, forming the Idaho-Oregon state line. Its elevation drops from roughly 2000 feet to less than a thousand in Hells Canyon, forming a relatively warm-weather area known locally as the BANANA BELT. This "banana belt" used to winter thousands of deer and elk from both Oregon and Idaho. But a hundred miles of that terrain has been inundated by the trio of reservoirs in upper Hells Canyon, which not only drowned out hundreds of acres of vital winter feed for the wild ungulate herds but also forced them to higher elevations. Even while three feet of snow lay at 2500-foot elevations, Hells Canyon below the lower of those three dams was free of snow at an elevation of 1500 feet. The dams have destroyed winter habitat for a hundred miles along the river. Where do the deer have left to go?

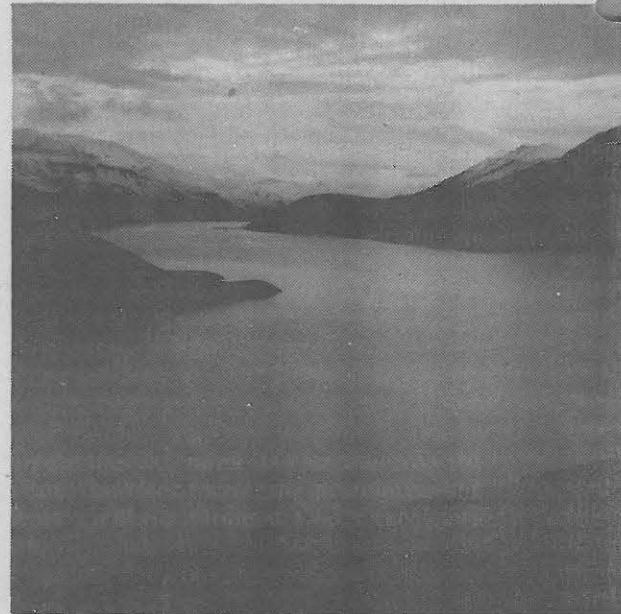
Oregon hunting pressure on deer has increased from 45,000 hunters in 1923 to 101,000 in 1941 (more than double in 18 years) to 303,000 in 1968 (triple in 27 years). With the increase in basic population—not to mention the increase in leisure time for the average American, the greater accessibility of the wild world, the more convenient the outdoor life from a camper with tote goat—hunting pressure can only increase as the wildlife habitat continues to diminish. How can state game commissions provide more deer for more hunters on less land, especially the

critical winter range?

Citizen groups in Eastern Oregon are down on the Game Commission for allowing a doe season at all, and now that the hard winter they've been fearing has finally arrived, they're down on the Game Commission for not feeding the deer. (At one local level, the Game Commission last week delivered 500 pounds of cubes to help feed the hundreds of deer in Pine Valley, and the same day, new snows drove 40 head of elk down into the valley.)

The Baker County Chapter of the Oregon Game and Fish Council, roughly equivalent to the Wyoming Wildlife Federation though not affiliated with the National Wildlife Federation, has been feeding wintering deer for nearly a

Photo by Verne Huser



Snowline at the Brownlee Reservoir doesn't leave much winter range for deer in Northeast Oregon. Three Hells Canyon Reservoirs have destroyed a hundred miles of winter range along the Snake River.

decade with no help from the Game Commission directly. They accept contributions of hay and of money to buy hay, from concerned sportsmen and conservationists all over the state, but the heavy winter of 1971-72 has drained their barns and their budget. (It has snowed heavily every week since Thanksgiving.) Contributions may be sent to Freda Martin, Box 109, Halfway, Oregon 97834. The 500-pound contribution of special deer feed delivered by the Game Commission last week is being distributed by members of this local organization dedicated to better game management through its field volunteers.

That's how the National Elk Refuge got started, isn't it? Wyoming may be way ahead of other states in providing for its big game (big dollar) species, but other states are beginning to see the handwriting on the herds. And how vital are the national forest and national park lands for raising wildlife for the local hunters! We cuss those Federal agencies, but really, where would we be without them as far as wildlife is concerned?

"Game management," says W. Joseph O'Connor in the November issue of THE POWDER RIVER SPORTSMAN, the official publication of the Powder River Sportsman's Club, Inc. of Baker, Oregon, "is difficult due to conflicts of interests, indifference by hunters to game management problems." He suggests that it takes winter range to carry four deer to provide one shootable deer during the hunting season. If this be true, winter range seems even more critical. The Oregon Game Commission report alluded to earlier says "the most critical (factor) being the low productivity of winter range, the Commission has authorized the liberal harvest of surpluses." And that means doe harvest, doesn't it?

So once again, we have the conflict of interests. Should the deer herds be managed for the interest of the sportsmen, the tourist dollar, the livestock range, the "average" citizen? Who?

Whatever the case, deer in northeastern Oregon are facing a critical winter. They obviously need help from man if they are to get through the winter, but the question is raised, should they get through the winter? If they don't, the hunting will be even worse next fall, but what about the long range effects of artificially wintering the deer herds? Reminds me of a chapter in MOMENT IN THE SUN called "Stoking Stomachs." Too many deer or too few? Too many for the range and too few for the hunter. How do you resolve the situation? Game management suggests that we don't simply let nature take her own course.

But the bigger question in all this is, where
(Continued on page 7)

Hunter's Paradise Found

High Country News—7
Friday, Feb. 4, 1972

By Milt Guymon

If I told you of a place in Oregon that supports a deer population of around 117 per square mile, you'd probably think I was some kind of nut. And if I said that this same area for 18 years has produced to hunters an average of 16.5 deer per square mile and in some years as high as 30 per square mile, you'd think for sure I was off my rocker.

Nonetheless, that's the record for McDonald Forest located northwest of Corvallis, which has for 18 years been the most intensively hunted and the most prolific producer of black-tailed deer of any comparative area in the state.

The McDonald Forest story was related to this writer by Dr. Paul A. Vohs, professor in the Department of Fisheries and Wildlife at Oregon State University in charge of the black-tailed deer investigations on the area, who said that it could be hunted even harder without serious effects on the deer population.

McDonald Forest -- 20 square miles and approximately 13,000 acres -- belongs to the University and is used as a vast study area for students in the school of forestry as well as students in fish and wildlife management. It is typical western Oregon habitat -- some in old growth, some in second growth, some recently logged, some in old burn, and some in brushy or open hillsides. Oregon nimrods hunt in the same type of terrain and habitat almost anywhere in western Oregon from the west slopes of the Cascades to the Pacific.

Although figures are not complete for the 1971 season -- reported to be a good one -- a summary of 17 years of hunting this 20-square-mile area shows 5,604 blacktails taken for a mean annual average of 330, or 16.5 deer per square mile per year. The annual take of blacktails has varied from a low of 212 to a high of 608.

Hunting regulations on the forest have also varied but in general it has been open during the regular buck deer season and also for taking antlerless animals by Alsea Unit permit holders. Again in November for two or three weekends it has been wide open to taking either-sex deer by hunters with unused deer tags.

All hunters are required to check in and out of the area daily at the Game Commission's regional office located nearby on Highway 99 West. Students of the Department of Fisheries and Wildlife, assisted by Commission personnel, man the station and collect data for the study.

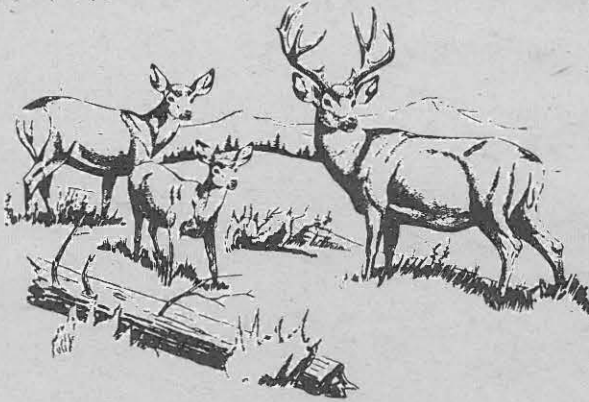
It is interesting to note that in the face of intensive antlerless deer hunting, neither the deer population nor the harvest have diminished in the 18-year period. Also for 18 years, blacktails on the McDonald Forest have withstood the high rate of harvest and replenished themselves. In other words, total deer numbers are about the same today as they were 18 years ago and the population is well balanced. Trophy bucks are present in good numbers.

Evidently it takes a lot of hunters working an area to flush blacktails from the brush to where they can be seen. Under light hunting pressure about all a sneaky blacktail has to do to outwit the hunter is pussyfoot aside or remain hidden. But under heavy pressure a blacktail attempting to slip away from one hunter is observed by others. In numerous instances the density of hunters on McDonald Forest has reached over 100 per square mile. The highest success is also noted on those days.

Now some nimrods might shudder at the thought of so many riflemen hunting under such crowded conditions, fearing for their very lives.

Yet in 18 years of intense pressure during the season, plus wide-open either-sex deer hunting permitted, only one accident occurred and this by an archer who mistook the rump of another hunter for that of a deer.

Another interesting note is that McDonald Forest blacktails experienced little mortality during the severe winter of 1968-69 even though



snow depths were comparable to other west side areas. Evidently, with most of the surplus taken by hunters in the fall of 1968, the remaining animals wintered with a minimum of stress. The only real sign of winter hardship was that yearling females failed to breed or produce young and there was less production among adult does. However, fawn production was

strong the following year, showing the high fertility of this well-cropped deer herd.

Poor fawn production is nothing unusual following tough winters. Where the deer population is high to begin with, it is even more noticeable. Females that survive the winter often abort the fawn, have stillbirths, give birth to crippled or deformed youngsters, and some even re-absorb the fetus. Fawns that are born are generally smaller than normal and weak, resulting in high mortality within a month or two after birth.

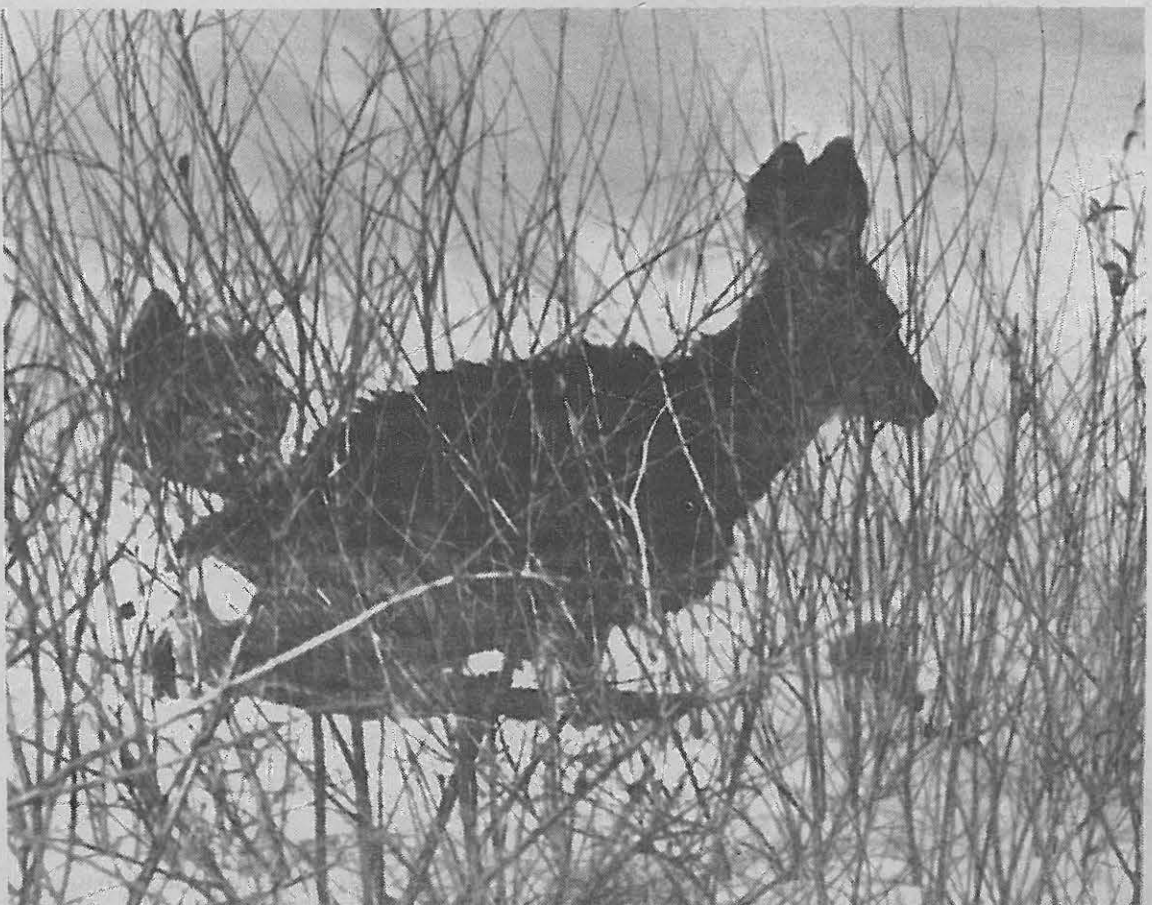
Although there is plenty of evidence to support it, Vohs does not suggest such close cropping of blacktails throughout western Oregon. But he is convinced -- as are biologists of the Game Commission -- that regulations on blacktails could be greatly liberalized. This would include the taking of antlerless deer as a general rule rather than on a limited basis as presently practiced.

Even with liberal regulations, though, it would be impossible to duplicate a similar high harvest of blacktails in other areas of western Oregon. We don't have enough hunters to even come close. For to equal or match it elsewhere would require at least three to four times the total number of deer hunters now hunting in the state.

Photos by Ted Carlson



Deep snows and prolonged cold weather seriously jeopardize wild animals even under the best of natural conditions. When game herds are further restricted on winter ranges, their plight becomes one of concern. Many of man's activities on the land tend to reduce or restrict carrying capacity. When this happens, the animals then must be reduced in numbers. Death may come by starvation, disease or predation, or man may see the need for reduction and hold a hunting season. Like Man himself, the animals are a part of an endangered ecosystem.



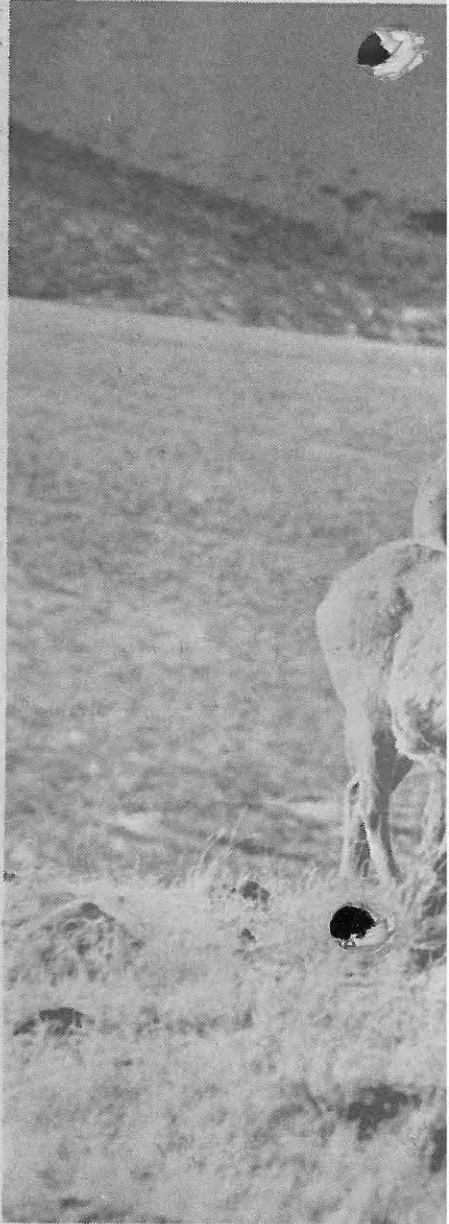
Where . . . deer?

are we going as a species? If we would have the power production of dams and of coal development, the lumber for more houses and the electricity for luxury living, we must sacrifice something. Shall it be our hunting and our fishing? Shall it be our deer herds, our elk and our coyotes? Shall we sacrifice our trout and steelhead and salmon for carp and squawfish and crappie? It's up to us, as a special interest group, to make our pressure felt.

As Anette Tussing says in her October, 1971, article, "The Fight to Save the Snake" in *FIELD AND STREAM* (dealing with saving the steelhead and salmon, the Snake River as an important fishery): "Organized persistence can, these days, carry some clout after all." Even with the facts, we are helpless without a philosophy. What do we want our world to be? We must decide now before the alternatives are gone. Then we must take action to see to it that the world we want becomes a reality. Should we feed wintering deer in northeastern Oregon? What's your answer?

REGAL RESIDENTS

LEWIS AND CLARK
OR BIGHORN, A
MONTANA. THE
PRINCIPALLY OF
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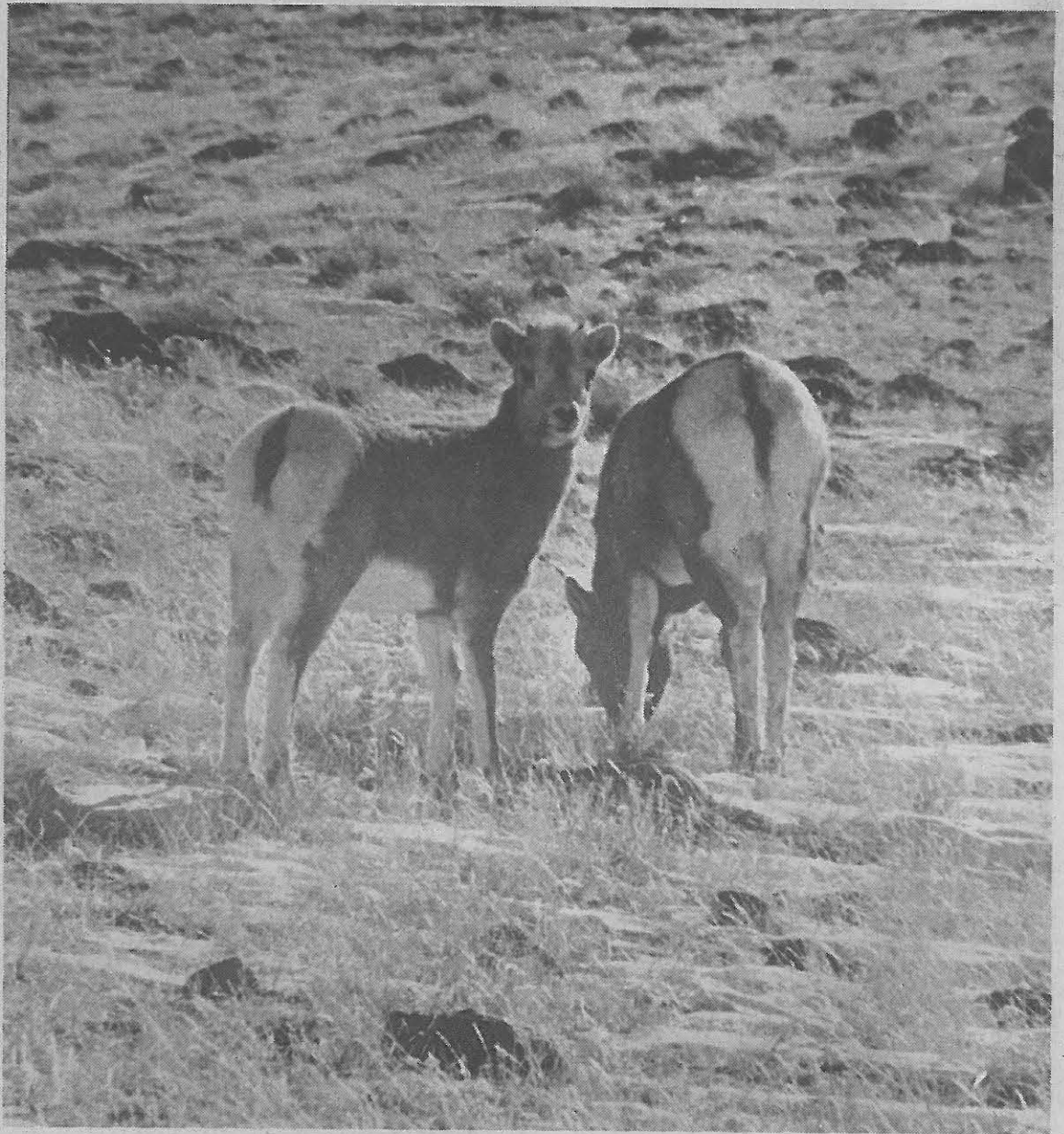


OF THE ROCKIES

High Country News—9
Friday, Feb. 4, 1972

MARK FIRST SAW THE MOUNTAIN SHEEP,
THE MISSOURI RIVER IN WHAT IS NOW
OF THEM, "THEY FEED ON GRASS, BUT
ARRAMATIC HERBS WHICH GROW ON
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ARE RESTRICTED TO A FEW AREAS, GENERALLY IN THOSE RE-
MOTEST AREAS OF "CLIFTS AND INACCESSABLE HIGHTS."



The Coyotes...

The following article from the Maine Times should be of interest to our readers in that it presents a situation in a state entirely different from our western scene. It also presents some basic environmental considerations.

The editor

I am disenchanted and incensed.

A few weeks ago on a hushed mid-November night I accompanied a warden down an abandoned logging road to investigate the still-warm carcass of a cow moose, shot in the head that morning by a hunter. At the site of the kill the warden built a fire and began to sleuth. We chatted amicably.

Suddenly an eerie wail in the middle distance silenced us. The sound was almost human, and we thought for an instant that somebody might be lost. The call was answered shortly by another. Entranced by the duet, we froze and glared futilely in to the darkness, then looked to each other in the firelight for an explanation. It came to us finally in a flash, and we burst out in unison, "Coyotes!"

The first either of us had ever heard in Maine.

I was shaking, elated—much as when I hear the haunted cry of a loon. The warden, too, I could see, was moved. We stood and listened in awe as formerly in the North woodsmen had stood and listened to the deeper lament of the wolf.

Within a minute or two, the duet ended. Perhaps because we had been humbled together, I felt a new intimacy toward the warden and turning to him, expressed the naive hope that the coyotes would appear on the road in the glow of the fire.

"I wish they would," he grinned. "My .38 is in the pack basket."

I recoiled—stunned—and backed away to hide my disillusion. Here was a man who moments earlier had, like me, been captivated by the song of the coyotes. His heartbeat had quickened in wonder, but at the idea of seeing the animals he was possessed by a bloodlust. My hurt was mixed with anger, and my voice trembled when I asked at last, "How could you say that? How could you kill an animal whose cry has just filled you with exhilaration?"

I anticipated a standard response, something about protecting the deer. Instead, he shrugged his shoulders as if a reply was unnecessary, as if to say, "You always shoot a coyote, my friend."

I am a zoologist. I have served my time in graduate school belaboring mammology, animal behavior and game management—all drudging but invaluable courses.

I am also a Mainer. I was nurtured and presently live in the North Woods, near Jackman. If I am qualified to discuss the ecology of any area, it is the North Woods of Maine.

There are coyotes in our North Woods now—and I, for one, like coyotes.

Coyotes are the most persecuted predators in North America. Relentlessly pursued by hateful, misinformed publicity, they are poisoned, trapped and shot wherever found. Their resiliency is extraordinary. Not only have they weathered the harassment, they have nearly doubled their former range.

Once confined west of the Mississippi, "their movement into the northeastern United States," according to Henry Carson, Game Biologist for the Department of Inland Fisheries and Game, "apparently started from southwestern Ontario about 1900." Their migration invariably heralded by a buffer zone of hybrid coy-dogs, they began to appear in New York in the 1920's and in northern New England in the 1940's. They were greeted in Maine, as in other states, by a plague of invective. Alarmist sportsmen and irresponsible journalists immediately clamored for controls or eradication.

Why the malice?

The Indians of the Southwest, who regard all creatures of the forest as brothers and who understand the harmony, balance and workings of nature far better than we, revere and coyote for its wisdom and agility. We brand it vermin and condemn it as a cunning assassin. "Voracious" it is called in one recent Maine sports column.

With the arrival of coyotes in Maine, the same shopworn, groundless fears that have been voiced across the country were unearthed and are being declaimed in the Maine press. Statements by "outdoors reports" and sportswriters, Gene Letourneau prominent among them, to the effect that "the spread of the coyote is a threat to the deer herd" reflect little but their own ignorance of the relationship between predator and prey.

The reasoning of these spokesmen is simplistic

and emotional. Not only do they disregard the vast body of research that has been conducted on predation, but they contradict biological laws that are the cornerstones of wildlife management. No science or empiricism here. Their ideas are assumptive. Their arguments are anecdotal.

Worse, they are capitalizing on and propagating a myth, a myth whose roots are deeply implanted in the unconscious—the myth that predators are evil. This is now an intrinsic concept, instilled during our impressionable childhoods by "fairy" tales like Peter and the Wolf, The Three Pigs, Goldilocks, and Little Red Riding Hood. Every wolf (and coyote for that matter) is now incarnate in the Big Bad Wolf. Little wonder that the public is incredulous to learn that there is not a single authenticated report of a wolf attacking a person on this continent.

From the mental image of a Big Bad Wolf a gentle nudge is all that's needed to convince you that wolves and their brethren should be wiped out. Then, and only then, you are told (by columnists whose reputability is beyond question) that you'll have improved hunting.

Nothing could be further from the truth.

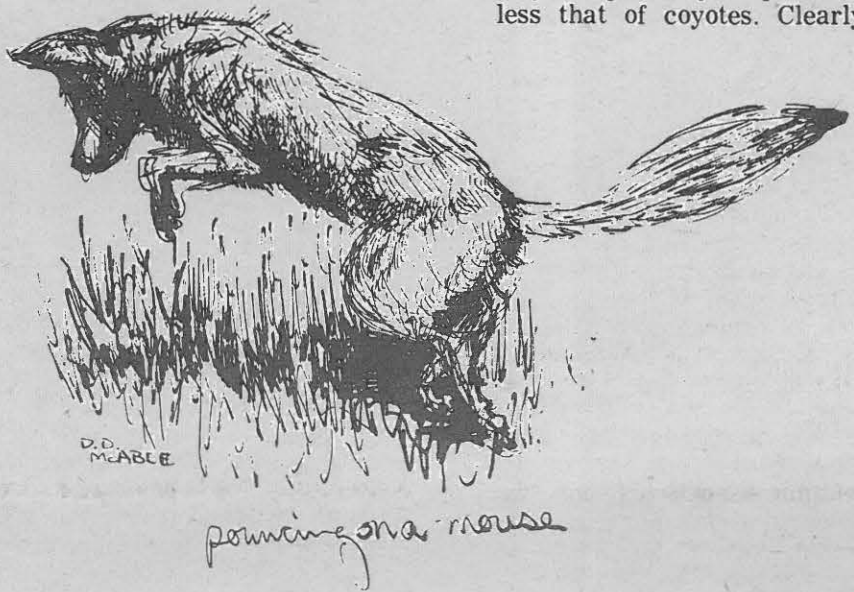
It is time that someone took the outdoor reporters to task. It is time that a few legendary

from their population without causing it to decline from some equilibrium level."

To prove this point, one only need study the effect of the coyote on the deer herds of Minnesota, Wisconsin, Michigan, Ohio, New York and Vermont—all of which states were recently invaded by the predator. In no case did the deer populations diminish with the appearance of coyotes. In New York and Vermont starvation is still an important regulator of deer numbers, even though the coyote is by now firmly entrenched in these states.

In light of these findings, it seems a trifle presumptuous (ludicrous?) to charge coyotes with reducing hunter success. In Texas and California where coyotes have been ensconced for centuries, two out of every three hunters bag their deer. For an equivalent number of hunters per deer per day in New York (where the coyote population is considerably smaller than in the West), less than one hunter out of five bags his deer. These statistics prove nothing except that it is unrealistic to link coyotes with hunter success.

In Minnesota, among the counties most popular with deer hunters, are those with populations of wolves. Wolves, in marked contrast to coyotes, feed regularly on deer, yet hunter success in northern Minnesota is in no way dampened by the presence of wolves, much less that of coyotes. Clearly, the arrival of



"truths" were debunked. It is time that some words were spoken in defense of coyotes and of predators in general. For their sake, I would like to set the record straight.

The advent of the coyote in Maine is without precedent in the state's history. As yet, the animal has barely gained a foothold. Acknowledging this, even the most skeptical old woods hermit would have to confess that it's too soon to predict the impact of the coyote on the deer population. Wardens and state biologists concur that at this stage there is simply no evidence to support the suppositions and insinuations of worried sportsmen.

The major misconception fostered by Letourneau and his colleagues is that coyotes are playing a significant role, in the current decline of Maine's deer population. Corollary: the presence of coyotes jeopardizes hunter success on which, of course, a sizable slice of the state's economy hinges. Unfortunately, Letourneau and friends are guilty of specious logic. They have led us to believe that coyotes bring down enough deer to control in some measure the latter's population trend. Humbug!

If anything, the coyote population will suffer with the reduction of deer. The number of coyotes is regulated by the number of deer (and alternate prey) available, not vice versa.

From years of study on predation, the noted wildlife biologist Paul Errington concluded that in normal ecological situations, particularly among higher vertebrates, predators rarely have a depressive influence on their prey; i. e., predation is not an important factor in limiting the numbers of prey. The reason for this is deceptively simple. Predators can afford to live only on surplus prey.

In the words of Dr. David Pimentel, one of this country's foremost ecologists, "The predator may be viewed as a successful 'capitalist' living off the 'interest' of its prey population, obviously it destroys its holdings—in this instance its food source. The successful predator lives, therefore, by harvesting the extra individuals from the prey population and leaves untouched sufficient individuals of the prey population for the production and maintenance of the prey species in the habitat area. 'Surplus prey,' in other words, are those animals which can be removed

coyotes in Maine is not going to influence the legal annual deer kill.

The deer population of Maine is definitely decreasing, but not in response to the increase of coyotes. The factors responsible for the current "crash" of our deer are more obscure. Although I should probably avoid the debate altogether, I would suggest that winter stress, hunter/poacher overkill, and habitat deterioration are the paramount causes of the decline.

1. Winter Stress - Two consecutively severe winters have placed enormous strain on the deer, resulting in starvation, physiological breakdown, reproductive failure, and fawn loss.

2. Hunter/Poacher Overkill - In striking contrast to some states where hunters and poachers have proved to be relatively inefficient predators, their counterparts in Maine appear to be drawing on both the "interest" and "capital" of the deer population. A high crippling loss adds to the carnage. Crop protection, I am led to believe, is most frequently a lame excuse for poaching.

3. Habitat Deterioration - Logging of winter cover areas, especially of cedar, is having adverse effects on the deer. (There is precious little evidence for the hypothesis that present pulpwood cutting practices favor moose over deer. Moose and deer rarely, if ever, compete for the same cover or browse.)

Two other factors are worthy of mention. Collisions with vehicles take a comparatively heavy annual toll of deer, and in certain sections of the state loss of deer to packs of feral dogs is, reportedly, substantial.

Coyotes, incidentally, are not feral dogs and do not act like feral dogs. Coyotes are a distinct species with a behavioral repertoire which is decidedly unlike that of domestic dogs gone wild. Dogs usually run in loose packs and devastate deer herds, sometimes even neglecting to feed on the kills. Coyotes work alone or in small family units and cannot afford to take "extra" deer without placing their own survival in jeopardy. The coy-dog offspring that are produced by coyote dog crosses tend to behave like their wild rather than their domestic parents and, as a consequence, exhibit strict parsimony as predators.

(Continued on page 11)

In fairness to the opposition, it must be admitted that in some circumstances predators can exert direct control over their prey.

Every wildlife management textbook contains the classic story of the fiasco on the Kaibab Plateau of Arizona. Between 1906 and 1924 professional hunters and trappers killed 3,000 coyotes, 674 mountain lions, 120 bobcats and 11 wolves. During the same period the mule deer population exploded from roughly 3,500 to 100,000. Startled biologists pressed for the return of predators, but there is an even more interesting epilogue. Analysis of kills in the course of the operation disclosed a momentous fact. The remarkable increase in deer was resulting from the extermination of the mountain lions which, it turned out, were feeding on healthy bucks and does. The coyotes and bobcats, it was found, preyed almost exclusively on sick and weakened deer; their removal as predators was not responsible for the exponential growth of the deer population.

What of bobcats in Maine? Surely if coyotes are guilty of causing the state's deer population to decrease, as predator control proponents insist, then bobcats must bear a similar yoke. Indeed they do.

Precisely the same mentality that prompted the warden to utter the stunning words at the beginning of this article prevails toward the bobcat. There is, however, one undeniable fact about bobcats in Maine that invalidates the accusations leveled at them and exonerates coyotes in the same breath. Bobcats have been preying on deer as long as there have been deer in the state, yet the deer population has been erupting and dying off in cycles for hundreds of years. These fluctuations, for the most part, have coincided with changes in the forest habitat, changes created by settlers and loggers. My point, naturally, is that the number of deer in Maine has fluctuated, and will continue to fluctuate, regardless of bobcat predation.

Killing a bobcat, of course, brings the added satisfaction of collecting a \$15 bounty. Doubtless there are advocates of predator control who would relish a bounty on coyotes, too. Such gentlemen will not be swayed, I'm sure, by the opinion of every wildlife biologist I've met that the bounty system is an anachronism, a white elephant, and accursed boondoggle. They might be interested to learn, though, that after a bounty on coyotes was imposed in Michigan, their numbers increased.

Up to this stage in the discussion, by way of concession to the anti-coyote factions, I have operated under a false premise, namely that coyotes feed to a large extent on deer. In point of fact, as analyses of stomach contents have proved time and again, coyotes feed primarily on small mammals.

Recent research on the food habits of coyotes in Vermont and upstate New York revealed that rodents and insectivores, hares and rabbits, vegetable matter, birds, and deer comprised the major portion of their diet. The studies also revealed that most of the deer consumed were carrion and that when coyotes actually felled deer, they were invariably the starved, the stunted, the diseased, the crippled, the old - in short, those deer most susceptible to winter kill. By thus eliminating the unfit, coyotes help insure that the stronger, more robust deer survive. In other words, the coyotes improve the genetic stock of the deer. This is elementary biology. Kindergarten stuff! Why then do the anti-coyote forces ummarily dismiss (or choose to overlook) the overwhelming evidence that paints coyotes in a favorable light and harp instead on the incidental sick deer they bring down? Big Bad Wolf complex?

(As if it were not enough to implicate the coyote in the decline of the deer, the self-proclaimed authorities have gone so far as to accuse the fisher of the same misdoing. Preposterous! The fishers' staple menu does not even include deer. Fishers feed on hares, squirrels and other small mammals, an occasional marten, birds, carrion, fruits and fern tips. They are, moreover, primary agents of porcupine control and, as such, are an asset to the state.)

On the Great Plains of the Midwest, the vortex of the coyote's domain, a few ranchers, hesitant at first at the risk of ostracism, have taken a bold step and slaughtered a sacred cow. They have banned predator control on their lands. The reason: as they rode the range checking the fences and the cattle, they missed seeing coyotes and bobcats and badgers and foxes and ferrets. The powerful sheep lobby, rabidly anti-coyote but lately undermined by solid, incontrovertible data which impugns its sources of information, is apprehensive that the new movement might be contagious.

The residents of Maine stand to profit from the example set by a handful of cowboys who came to realize that the war against the coyote is needless, that the animal's crimes are grossly

National Park Service Photo



The coyote has extended its range across the country. But wherever found, the discrimination against it as a villain amongst God's creatures still exists.

Editorial . . .

Malicious criticism seldom changes anything for the better. Constructive criticism by knowledgeable, interested people can help to improve wildlife management, and it is welcomed. The kind of criticism that degrades and undermines deserves nothing but contempt.

Perhaps as citizens interested in wildlife conservation, we need to scrutinize the attitudes we have developed toward our wildlife agencies and those who implement the programs. Even though we are expert sportsmen, it may be that we are behind times when it comes to outdoor biology and need to update our thinking toward the profession of wildlife management.

Farsighted men have fought a long, hard fight to bring wildlife management to its present professional status. Since the need for wildlife management was first recognized and practiced the quality of individuals who enter the field has been constantly upgraded. Professional standards have been set, and new men who dedicate their lives to a career in wildlife must now possess a college degree in wildlife management or a related field. Many of our most dedicated men in the wildlife field have invested equivalent time and expense in training to that of physicians, attorneys, engineers, and other professional people we accept and in whom we place our trust.

Most of us wouldn't think of taking a sick child to a "quack" for treatment or have an unqualified person handle our legal affairs. When we need professional services, we seek the best people in the field and place our confidence in them. Yet, when it comes to wildlife management, far too many of us fail to extend this same confidence to the wildlife professionals who have every right through training, experience, and dedication to receive it. Attempts to manage wildlife by individuals and groups with little knowledge and training have been made in the past. These efforts have been with good intent but have contributed little to wildlife management, often clouding the good works of the professionals.

Wildlife management is a science requiring dedication, training, and a professional insight by those carrying out the program. We need professionals to care for our wildlife, and they are entitled to our respect and support.

Shooting Stopped

Long-awaited legislation to stop the shooting of animals from aircraft has been signed into law by President Nixon.

The bill, sponsored by Congressman John Saylor, Pa., was signed by the President on November 18, after approval had been won in the House and Senate. The law calls for fines of up to \$5,000, a maximum jail sentence of one year, or both, for any unauthorized person who shoots, or attempts to shoot, any bird, fish or animal from a plane.

exaggerated, that it has an integral function in maintaining the order of natural systems. Perhaps most important was their awakening to the simple pleasure of coyote watching.

We have a new and noble predator in our state. It has come to occupy a vacant niche. I hope that you will all be privileged to hear a pair of coyotes howl some quiet night in the North Woods.

Elk Are Moved

The excellent success the Oregon Game Commission has had in trapping and transplanting Roosevelt elk to new ranges in the Cascades and coastal mountains prompted biologists to set their sights even higher this winter.

The elk wranglers may have bitten off more than they can chew but nonetheless they hope to round up 150 head in the next few months. That is, if they can entice that many into their man-made elk traps.

Sites for the transplants have already been selected on the Siuslaw National Forest and personnel from the Forest Service will lend a hand as time from other duties allows. Game biologists hope to capture 70 head for relocation to the Gaudy Mountain area south of Hebo, another 60 head to Buzzard Butte to the west of Beaver, and about 20 head to the Hiack Creek drainage north of the Salmon River Guard Station. If this ambitious program bears fruit there should be some nice elk herds roaming the north end of the Siuslaw in a few years.

Trapping the critters will take place generally on chronic elk damage areas along both the north and south coast. The corral-type traps, somewhat portable, will be moved about frequently to take advantage of small groups of animals that drop down from timbered slopes to agricultural lands in the lower valleys.

Traps are self-tripping. That is, animals entering the enclosure spring the gate shut, locking themselves in. The trip cord is strung a few feet off the ground and located near the back of the corral so that a number of animals might enter before one of them walks against it to spring the gate.

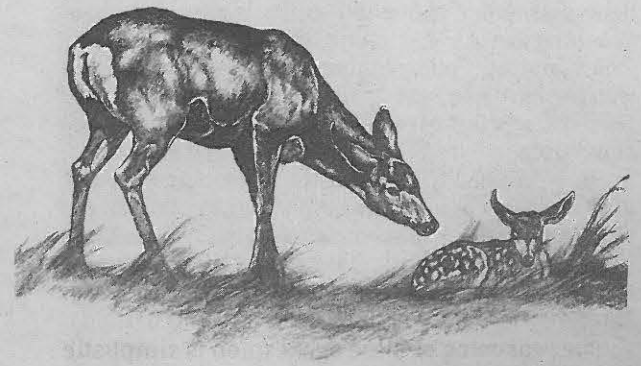
The big problem is to get the elk into the trap to start with. This is accomplished by baiting with choice food items -- pie and ice cream, so to speak -- which they find hard to resist. Bits of food are also scattered around outside the corral as appetizers to lure the animals to the banquet table on the inside. Even with this enticing come-on, though, a single elk may walk in ahead of the main bunch, trip the gate, and spook the rest away, much to the disgust of the trappers.

The big undertaking once the animals are captured is the transfer to their new homes. Each corral is equipped with a squeeze chute and loading ramp. The wranglers work slowly and carefully to force the animals into the chute, up the ramp and into a paneled stock truck.

This job often takes a bit of doing. The expression "stubborn as a mule" certainly applies to elk and there are times when the crew gives up completely on an especially cantankerous old cow. They leave her inside the enclosure with gate open to do as she pleases. Generally, she stomps around the corral, gnashing her teeth, and daring anyone to come inside to get her.

Elk settle down nicely once they're inside the stock truck and actually seem to enjoy the ride as if they were on a sight-seeing tour. But at their destination they are quick to leave the truck's confinement and usually head pell-mell for the nearest timber. A few stop enroute to challenge their tormentors with barks, blazing eyes and stomping feet.

The several hundred elk transplanted to new areas in the Cascades and coast range in the past few years have taken to their homes very well and today are going about the business of raising families as usual. Such transplants augur well for the future -- indeed a bright spot in the management of this magnificent big game animal.



Game Herds Threatened...

At a lunch in Orofino, in July, 1958, the general commented, "If Bruce Eddy is going to hurt fish and wildlife resources a great deal, we (the Corps of Engineers) would be hesitant about giving it our full-hearted support. . . . Some persons have been given a false impression as to the effect upon wildlife. It is very sad that this has gotten around."

When filled, the reservoir will stretch 53 miles into the winter rangeland of uncounted whitetail deer and elk.

The elk are now starting to move down into the area which will be critical for them. Biologists believe that they will also be trapped by the ice and water. Those which try to cross will be drowned, those which remain will slowly starve.

Originally the Corps of Engineers was to obtain and provide 40,000 acres of winter range. This was to mitigate the loss of range now being inundated. The Corps has not yet acted to obtain any land and the game animals are being lost.

The Corps has so far refused to buy or lease 4,000 acres of state-owned school land saying that the Fish and Game Department should be able to obtain use of the land from a sister state agency. But the State Land Board refuses to turn over the land for elk winter range because school endowment land must be managed for income to the schools. The land now produces an estimated \$18,000 per year from timber sales. In order to provide elk range, the timber would have to be removed and replaced with browse plants.

The Fish and Game Department has once again requested the Corps to buy the land. While bureaucratic machinery ponderously turns, and appropriations get approved, elk and deer will go the way of buffalo herds.

Across the state in eastern Idaho, herds driven down onto railroad and highway rights of way are being killed in accidents. An estimated two dozen deer have been killed by trains around Lava Hot Springs.

Pronghorn antelope on Wyoming's Red Desert may already have suffered catastrophic losses. Early blizzards pushed herds far south of many normal wintering areas. Deep snows and winds pushed the animals up against sheep-tight fences, now standing astride their ancestral migration routes.

Early estimates of losses put the figure at half of an estimated 8,000 animals. Now, those figures are being revised upwards as more storms hit the battered area and more animals are found.

Like the deer in Idaho, the pronghorns have been unnaturally concentrated along the fences. There they walk back and forth until exhaustion and stress brings them down. It also has concentrated coyotes which pull weakened ones down. Now, it appears the coyotes do not even have to do that as the animals die along the fences or become hung in the fences. Those which do manage to jump over the fences are often severely injured and then succumb to the cold, hunger, exhaustion or predation.

Conditions are so severe on the huge 3-4 million acre area that all livestock have been removed. The livestock people have petitioned for and received emergency disaster funds.

Loss of much more game range appears imminent. The Lower Teton Dam now under construction near St. Anthony, Idaho, will flood winter range for another sizable deer herd. Some 1,100 deer are now wintering in the area which will someday be underwater. It will also flood some 17 miles of choice cutthroat trout stream.

Plans for vast strip mining and power generation complexes in Montana and Wyoming's Powder River Basin will affect one of the last remaining undeveloped pronghorn ranges. Gillette, Wyoming, at the heart of the complex prides itself as being the antelope capital of the world. The "need" for energy in St. Louis and Minneapolis will change all that.

Quite often loss of game range is a slow and subtle encroachment on critical range. A good example exists along Wyoming's Green River in an area known as Soapholes Basin. There a series of desert land entries have been taken by ranchers in the area. Some of the lands taken are critical winter range for mule deer.

When the Bureau of Land Management finally was able to deny some of the entries, the decisions were protested to the highest levels in Washington. At that point the Wyoming Outdoor Coordinating Council interceded. Eventually the matter came to rest in the hands of Rep. Henry Reuss' Subcommittee on Governmental Operations.

Rep. Reuss' intervention has successfully stymied further land disposals in the area. However, the matter has still not been satisfactorily settled. There is still danger of thousands of acres of land being taken from native range and converted to irrigated fields.

Severe winter conditions have already brought numbers of deer onto rancher's

haystacks in the area. Wyoming Game and Fish Department men say there is no other feed available - that the Department will be forced to pay damage claims to the ranchers if they expect many deer to survive.

Not only are deer affected in the area but there is a serious problem of water quality. The Soapholes Basin derives its name naturally. Most of the soil is very poor and highly alkaline. Great amounts of salt are flushed from irrigated fields into the Green River.

The regional EPA office has just announced a meeting in Las Vegas, Nevada, for Feb. 15-17. The announcement says, "EPA national administrator, William D. Ruckelshaus, has asked that conferees address their investigations and discussions to the increasing problem of salinity in the Colorado River Basin and to the necessity for a basinwide water quality management program, with special emphasis on salinity problems."

Deer herds throughout the West are down. At

the same time, eager nimrods take to the hills in ever increasing numbers. The effect has been to put tremendous pressure on the remaining herds.

In direct reflection of that fact, game departments are reducing available permits, especially for non-resident hunters. Wyoming's Game and Fish Commission has recently reduced the number of non-resident hunting permits for deer from 50,000 available in 1971 to 48,000 in 1972. Almost 80,000 non-residents hunted deer in Wyoming in 1970.

Increased demands for energy - gas, oil, coal and oil shale - and increased demands for more timber and more minerals bode no good for the West's big game herds. They are slowly being squeezed from the land base which supports them.

Few people recognize the immensity of the problem. It is not going to matter if seasons are curtailed or hunters restricted. There are no simple answers.

Letters to the editor...

just \$10 and gets you 26 issues a year. Write to: HIGH COUNTRY NEWS, Box K, Lander, Wyoming 82520.

Editor's note: I am humbled and honored by such an accolade. The tribute by the editors of The Living Wilderness is most appreciated - but decidedly undeserved on my part. I am not a journalist in the traditional sense - only a concerned citizen of Earth and member of the human race. What few talents I have are dedicated to my kind and its continued existence on this planet so long as the Good Lord is willing. I am fearful that my talents fall short. But if I can even approach the effectiveness of a William Allen White, possibly posterity will judge me in a more charitable manner than I can yet judge myself.

To my fellow editors and faithful readers who think so kindly, my heartfelt thanks.

Editor:

Your publication, HIGH COUNTRY NEWS, comes highly recommended by The Wilderness Society and I should like a trial subscription.

Environment and ecology are becoming an ever-increasing issue in this country; I hope we are not too late. The Rocky Mountain region, including the Canadian Rockies, is one of my favorite "retreats"; efforts of people like you will help to keep it that way.

Thank you and good luck, for all of us.

Sincerely,
Robert L. Wilson, MD.
Los Angeles, Calif.

Editor:

Enclosed is our check for \$10 to renew our subscription. Keep up your good work! Our paper does double duty. After we read it my wife, who is an elementary school teacher, takes it to school where her twenty-eight pupils go through it from beginning to end.

Yours truly,
Kimmel Marshall
Bluffton, Ohio

Editor:

Enclosed is a check for \$10 to renew our subscription to your most enjoyable and informative publication.

We have traveled extensively in the West over the past years and still find your part of the country the most relaxing and refreshing. Each copy of the paper brings back pleasant memories.

Sincerely,
Mr. and Mrs. Roger Stark
Grant, Mich.

PS. Our daughter is using many of your articles for a research paper on ecology and would like your opinion as to the most pressing and pertinent ecological problems.

Editor's note: Thanks to our many new readers who, like Dr. Wilson, have written us cordial and encouraging notes, and have subscribed. We need many more subscribers before the paper can even become self-sustaining; so if you know of others who are interested in the Rocky

Mountain area and might like to know more about what is happening here, we would like to have their names so we could send a sample copy.

And thanks, too, to the many readers who have renewed their subscriptions. Without them the paper would be lost.

To answer the question of the Starks for their daughter, I think my column in the last issue (Jan. 21) which was published about the time your letter was written should give her some of my feelings. Outside of the most critical problems concerned with our proliferating populations, it would be difficult to pinpoint the most critical of other problems. Some might point to the pollution and degradation of the oceans, while others would emphasize the steady deterioration of the quality of the air we all must breathe. And there are a myriad of lesser problems all of which contribute to the major concerns.

Editor:

I am writing in regard to the column, "The Wild World," in the Jan. 21 issue of High Country News. Mr. Huser asked for dialogue, so here's mine.

Huser raised some strong arguments in favor of removing the facilities from the national parks--such facilities as souvenir shops, hotels, motels, restaurants, etc. But then he pushed a little too far by suggesting a monorail system for "zipping people through the parks and remove all roads."

His arguments say the idea of the national park has gone astray. The parks were put there for people to enjoy wildlife and nature, not to provide them with the comforts of home. I agree--but how much of the parks could you enjoy while "zipping through" on a monorail or in a tour bus.

I'm not a motel owner or gas station owner--I do enjoy being outdoors. I'm in favor of removing the "comforts of home", but I would prefer to have my enjoyment of the parks at my own leisure--not on a guided tour.

Tear down the motels, hotels, souvenir shops, etc., and convert their land area to partially developed campgrounds. By partially developed, I mean with outdoor "johns" and possibly a water faucet or two. Nothing more.

Existing roads should be left in and maintained. In Yellowstone, perhaps the only concession made to the modern comforts should be a gas station--either at Old Faithful or at the lake. Just one--for it's a big park and a long way to any such facility outside the park--except on the west side.

I don't believe a family spending a few nights in a tent or self-contained camper could be accused of living in luxurious overnight accommodations. They're just enjoying nature.

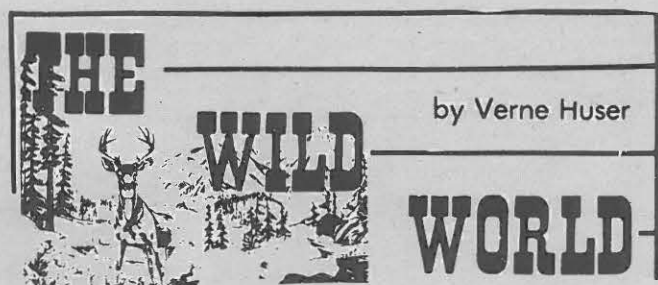
The NPS plan to eliminate tourist traffic in Yellowstone should be vigorously and actively protested. Without the facilities in the park, as Huser suggested, perhaps the traffic would dip a little, and the so-called damage caused by all those cars and trucks in the park would also decrease.

Let's eliminate the modern day conveniences, but let's not eliminate the people for whom the parks were created.

Yours truly,

Larry Hitchcock
Editor
The Greybull Standard
Greybull, Wyo.

Huser Answers



A moose has wandered into Hells Canyon. Miles from any others of his kind, he lives a solitary existence a few miles below Hells Canyon Dam on the Idaho side of the Snake River (though he spent part of the summer in Oregon above the mouth of Battle Creek).

Rocky and steep, the deepest part of Hells Canyon offers poor habitat for moose.

There is virtually no aquatic vegetation for the young fellow, a two-year-old bull by my judgement, and the growth on the steep rocky slopes is mostly cheat grass, poison ivy, and hackberry. But for all that, he wasn't in bad shape when I last saw him in late October. Since then he seems to have disappeared from Hells Canyon, an inhospitable habitat for moose to say the least.

Jim Zanelli, who runs a jet boat down Hells Canyon almost daily—as far as the head of the first major rapid (Wild Sheep) below the dam—believes that Bullwinkle, as the local people have come to call the Hells Canyon moose, has moved down river. He thinks perhaps to Granite Creek, which flows out of the higher Seven Devils peaks on the Idaho side of Hells Canyon. That's about two miles below Wild Sheep, and Zanelli doesn't go that far with his jet boat.

And no one who runs jet boats further downstream from Lewiston comes up that far. No one runs jet boats above Cache Creek Rapid just below Granite Creek, and few even run much above Johnson's Bar, because several of the rapids in the eight-mile stretch above Johnson's Bar have been known to wreck jet boats. Thus, the two-mile stretch of river where Zanelli believes the Hells Canyon moose may have gone for the winter are virtually unknown to man during the winter.

Heavy snows in the Seven Devils close the trails, and there are no roads. If Bullwinkle has taken that route, he'd no doubt have had to cross and re-cross the mighty Snake, which is now running between 23,000 and 30,000 cubic feet per second. He could easily walk around Wild Sheep Rapid, which is within sight of Granite Creek. And Granite Creek flows out of what may be moose territory in the Seven Devils (where do the Seven Devils moose winter?).

Bullwinkle appears to have found his way into Hells Canyon from the south, having been seen early in the summer along Hells Canyon Reservoir. Then for a few days he was just below Hells Canyon dam, where dozens of people a day congregate to sight-see and fish, to float the magic waters of Hells Canyon or to jet-boat its next few miles.

For the rest of the summer he moved slowly downstream, crossing the river a time or two, then finally taking up residence—perhaps four months—below Brush Creek across from Barton Heights. According to Zanelli, who saw him nearly every day from July through October, he never went below Battle Creek on the Oregon side.

Where is he now? When I saw him in late October, he was a quarter-mile from the river, high in the brush-covered rocky slope of Hells Canyon's steep walls. Wade Hall, Forest Service expert on Hells Canyon, saw the moose a few days after I did and photographed it and felt that the moose was in poor condition. I seldom disagree with Wade, but from my knowledge of moose in Jackson Hole, I felt Bullwinkle was looking fine, his hair long for the winter to come—and nowhere near as hard a winter, weather-wise, as he'd have had to face had he lived in Jackson Hole.

I suggested in a newspaper interview for the Baker Democrat-Herald that the moose was more likely to break a leg in the rugged terrain than to starve to death or winter-kill. Has he in fact slipped on the treacherous rocks he's come to know as home and injured himself so badly that he may have died? Was he in worse shape than I thought, and has he winter-killed—or did some predator, a mountain lion perhaps, have a few good meals off this isolated young moose?

At this point no one knows for sure. Zanelli's suggests that he may have gone to Granite Creek and up that steep stream to find fellow moose. He believes that the rutting season may have gotten to the young bull—but he didn't leave the area until mid-November, a little late for rutting in my opinion.

Perhaps when we float Hells Canyon next spring, we'll find further evidence of the truth. At present all suggestions are mere speculation. If he shows up somewhere this winter, I'll let you know.



High Country . . .

around and make some real, humane sense of the scientific, technological and economic discoveries that have brought us this far . . . to the moon and back. The problem is, they have brought us a bit too far, and now we have to find our way to the balance point. I am convinced Maine is the best place to begin that journey, and as we begin 1972, I am resolving to make my personal start; and now I have all of you to hold me to it.

The following letter is from Columnist Verne Huser in reply to University of Wyoming Professor Ernest Linford. The exchange was generated by a column Huser wrote in the November 26 issue of High Country News. Mr. Linford commented in reply to Huser in the December 24 issue of High Country News.

Dear Mr. Linford:

In my column of Nov. 26 ("The Wild World"), I had no intention of abusing the University of Wyoming faculty, nor did I feel that I had done so. I fully realize and appreciate the leadership in Wyoming's environmental movement that has come from the University faculty—and Gov. Hathaway is aware of it too.

I did not say that academic freedom is lacking at the University of Wyoming, only that it suffers from political pressure. And judging from second-hand personal experience, this I believe. I did not blame Wyoming's backward attitude toward protection of wildlife in the state (the Wyoming laws speak for themselves) upon the University faculty but thought I suggested—meant to suggest—that Wyoming politicians often ignored facts and sound research, listening rather to selfish interests.

The university community should provide leadership in the realm of its expertise, and it does. But too often political structures and pressures stand in the way of its being as effective as it might be.

Senator Hansen's proposal for an environmental studies center in the park is a political pork barrel, not a grass roots surge of environmental awareness. The proposal itself is



Bull Winkle, the Hells Canyon moose (See Verne Huser's Wild World column.)

"A Wild Idea"

LINCOLN, Nebr. -- Reversing the deterioration of the quality of our environment may seem like a wild idea to some, but nothing is impossible in an age that has seen man walking on the moon, according to the National Wildlife Federation.

That is the reason for the 1972 theme of National Wildlife Week -- "Ecology: A Wild Idea". History is full of wild ideas that worked, ideas such as space flight. Why not make an improved environment one of them, asks the federation.

This year, National Wildlife Week is scheduled for March 19 through 25, and will again attempt to focus national attention on the plight of wildlife in the face of a deteriorating environment. Through Wildlife Week, the federation hopes to make Americans realize that wildlife's reaction to a contaminated environment is a preview of man's fate if the pollution trend is not reversed.

In our technological society, where success is measured in terms of industrial production, new gadgets, and gross national product, there is a growing sentiment that our goals and values need adjustment. Our nation's symbol, the bald eagle is one of the species in trouble because of the pollution our technology has brought about. This majestic bird is featured on this year's Wildlife Week poster and focuses attention on the plight of our wildlife.

an exploitive move to generate more interest in having more people come to Wyoming for the Yellowstone Centennial - something the Park Service doesn't want because the park is already overcrowded. Yet, the Wyoming Travel Commission is carrying out an extensive winter travel promotion campaign in preparation for the centennial celebration. Encouraging snowmobile use of our oldest park is merely the newest exploitive technique to make money by degrading the parks (see Saturday Review, Jan. 1, 1972, page 40: "Pristine Preserve or Popcorn Playgrounds").

One research biologist has responded to my question How do you feel about Senator Hansen's proposed environmental research center? in the following manner: "Do you think responsible scientists would want to be a party to placing another development inside Yellowstone?" Yet, how many responsible scientists at the University of Wyoming would like to see the environmental research center become a reality—even in the park—if they have a finger in the pie? Even scientists can only be objective up to a point.

Such sound scientists as the Craighead brothers constantly cry for independent research in the national parks because Park Service scientists are not objective enough. Just how objective would a University of Wyoming Environmental Studies Center in Yellowstone really be? If they found they were actually polluting the park with their sewage effluent, would they move out? Wouldn't it make more sense to study the problem from the outside and avoid even that potential pollution?

Responsible scientists testified on both sides of the recent nuclear bomb blast on Amchitka Island in Alaska: it won't harm the wildlife; it will harm the wildlife. Nothing happened at first, but now we learn that hundreds of sea otter (as much as 15% of the herd) have died, and no one seems to know just why. Objective scientific opinion?

There is presently a biological studies center located in Grand Teton National Park and operated by the University of Wyoming. I've heard it said that it serves primarily as a summer vacation spot for University faculty members and students. But I know better, for I have frequently attended weekly lectures there and I have seen the work that goes on there. The existing facility is unobtrusive and small, a group of log cabins that have been there for years; it was there before the park came into being. I can accept this, but why a 2-1/2 million dollar plant in Yellowstone when even the Park Service is trying to cut back on its facilities within the park, and there is even a major move afoot to remove all development from the parks?

I've obviously stepped on some toes, and stepped-on toes sometimes hurt. I'm reminded of Sakini's lines in the play TEAHOUSE OF THE AUGUST MOON: "Pain makes man think; thought makes man wise; wisdom makes life enduring." If my comments have made someone think, then they were worth while, even though my "scattergun" attack may have hurt others unintentionally, for which I offer my apologies.

But let our thinking be open-choice thinking: not, shall we build another hotel in Yellowstone or an environmental studies center, but rather, shall we build anything at all; shall we not perhaps be better off removing all development? Only then will Yellowstone endure and only then can man endure, for "in wildness is the preservation of the world."

Photos by Verne Huser



Looking down the Snake River from the habitat of Hells Canyon moose. Battle Creek, on the Oregon side, enters the river in the distance. Jim Zanelli's jet boat shown beached.

Thoughts
from the
Distaff Corner

By Marge Higley

The Story of Sage-chicken Little

One morning Sage-chicken Little strutted through the grass on the way to her nesting grounds in the sage brush. When she got there, she discovered that the brush was gone, and all she could see was the sky and the barren brown ground.

"My Goodness!" said Sage-chicken Little. "The sky must be falling in! I'd better hurry off to tell the Governor."

On the way, she met Deery-Leery. "The sky is falling in, and I have no place to raise my young," she cried. "I'm off to tell the Governor."

"Probably the whole world is falling in," said Deery-Leery. "My mountain has been almost scraped away by noisy machines, and I have no home nor any shelter. Let me go with you."

On the way they met Beary-Wary. "The whole world is falling in, and we're off to tell the Governor," they said.

"I wondered what was happening," said Beary-Wary. "All the trees in my forest have been cut down. By the time more trees can grow there, it will be too late even for my great-great-grandchildren. Let me go with you."

On the way they met Elky-Welky. "The whole world is falling in, and we're off to tell the Governor," they said.

"I knew that something was wrong," said Elky-Welky. "I tried to cross the river this morning, but it has been turned into a vast spreading lake, and there's no way for me to migrate to my summer range. Let me go with you."

So Sage-chicken Little and Deery-Leery and Beary-Wary and Elky-Welky hurried off to tell the Governor that the whole world was falling in.

At the top of a hill they met Bloomin-Human.

"Where are you going?" asked Bloomin-Human.

"We're off to tell the Governor that the whole world is falling in," they said.

"Let me go with you," said Bloomin-Human, with a foxy smile. "I have some pull around there, so maybe I can help you out."

First, Bloomin-Human walked beside Elky-Welky.

"See that rocky trail up the mountain?" he whispered.

"If you climb up there and go over the steep cliffs on the other side, you'll find an easy way to reach your summer range."

So Elky-Welky disappeared up the rocky trail, and was never seen again.

"Now there's no-one to keep me from building all the dams I want," thought Bloomin-Human.

Next he walked beside Beary-Wary.

"See that rocky trail up the mountain?" he whispered.

"If you climb up there and go over the steep cliffs on the other side, you will find a dense forest for you and your children."

So Beary-Wary disappeared up the rocky trail, and was never seen again.

"Now there's no-one to keep me from cutting down all the trees I want," thought Bloomin-Human.

Next he walked beside Deery-Leery.

"See that rocky trail up the mountain?" he whispered.

"If you climb up there and go over the steep cliffs on the other side, you will find a fine sheltered spot for your home."

So Deery-Leery disappeared up the rocky trail, and was never seen again.

"Now there's no-one to keep my from stripping out all the coal I want," thought Bloomin-Human.

Then he walked beside Sage-Chicken Little."

"See that rocky trail up the mountain?" he whispered.

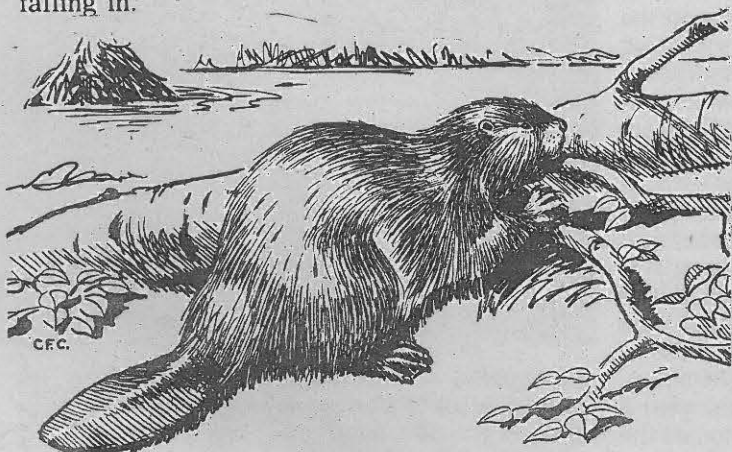
"If you climb up there and go over the steep cliffs on the other side, you will find lots of nice sagebrush for your nesting grounds."

So Sage-chicken Little disappeared up the rocky trail, and was never seen again.

"Now there's no-one to keep me from spraying all the sagebrush I want," thought Bloomin-Human.

There was no one left to tell the Governor that the whole world was falling in, except Bloomin-Human. And he was far too busy dreaming of all the wealth and power he could gain.

So the Governor never knew that the whole world was falling in.



"The indescribable innocence and beneficence of Nature, -- of sun and wind and rain, of summer and winter, -- such health, such cheer, they afford forever! and such sympathy have they ever with our race, that all Nature would be affected and the sun's brightness fade, and the winds would sigh humanely, and the clouds rain tears, and the woods shed their leaves and put on mourning in mid-summer, if any man should ever for a just cause grieve. Shall I not have intelligence with the earth? Am I not partly leaves and vegetable mould myself?"

Henry David Thoreau
Walden

"..Noted & Quoted.."

"The resources of nature are not limitless, and now that man has acquired so many of the powers which used to be exercised by God, we are in grave danger of destroying the very world we live in, starting with all the wild things which get in our way."

HRH The Duke of Edinburgh

Foreword to VANISHING WILD ANIMALS OF THE WORLD.

"Beyond this, man must begin to question the morality of ruthlessly destroying organized patterns of life that had operated long before our advent and indeed helped to make the earth habitable for us. Only as we learn to see and appreciate for ourselves the systems of living communities will be begin to respect and cherish them. We must learn to share the landscape with those that inhabit the earth with us."

Dr. Paul B. Sears.
Ecology, The Intricate Web of Life
In AS WE LIVE AND BREATHE, National Geographic Society

Teton Magazine Out

JACKSON HOLE, WYOMING - The new winter-spring issue of the award winning TETON MAGAZINE features a comprehensive documentary of the first ski descent of the Grand Teton. The feature is illustrated with exclusive photos showing the complete route taken by the group during the expedition.

Also featured is a winter float trip on the mighty Snake River through Grand Teton National Park by the famous Craighead family. Ski touring and the unusual sunrise courtship of the Jackson Hole grouse are included along with beautiful color photos including a two page full color panorama of the Teton Range.

The magazine is distributed on news-stands in Col., Wyo., Mont., Id., Ut., Calif., Wash., Ore., Nev. & N. Mex. Sample copies are \$.75 each. Subscriptions are \$1.50 for 1 year, \$3 for 3 years from Teton Magazine, Box 1903, Jackson, Wyoming 83001.



Hikes Sponsored

Snowshoe hikes led by a park naturalist will begin Saturday, February 5, in Grand Teton National Park according to Superintendent Gary Everhardt. During February hikes will originate from the visitor center at Moose and Vis Blacktail Ponds and the Snake River where elk, moose, trumpeter swans, and other wildlife are frequently seen. During March and April, hikes will be led from Colter Bay, where ice fishing and camping are also popular winter activities.

Snowshoes will be provided by the Park, with each trip limited to 15 persons. Hikers should dress warmly, wear comfortable hiking or insulated boots, and bring poles and camera if desired.

Reservations and additional information are available from the visitor center at Moose. The address is Box 67, Moose, Wyoming 83012. The phone number is 307-733-2880.

Pass The Word Along

A concerned public is necessary if we are to have a quality environment. HIGH COUNTRY NEWS strives to present facts on environmental matters in the mountain west -- but a newspaper can get the message only to those who read it. We need many more readers.

Have you a friend who would enjoy HIGH COUNTRY NEWS? Send us the name and address, and we will gladly send a sample copy.

Name _____

Address _____

City _____

State _____ Zip _____

Environmental Eavesdropper

LOONEY LIMERICKS

by Zane E. Cology

Said the Owl, to the Squirrel and the Skunk,
"Now here's a deep thought I just think:
What impresses me least
Is man's kindness to beast.
I think that whole notion's the bunk!"

A Louis Harris and Associates poll of New York State residents revealed that environmental pollution is considered to be the most serious problem facing them. Sixty percent said they would pay an additional \$50 per year as a part of family expenses to reduce pollution. Fifty-three percent would be willing to buy only returnable bottles and pay a deposit of five cents per bottle. Sixty percent would be willing to pay \$200 more for a car with a pollution-free engine, even if it were not required by law.

A Nebraska state senator has introduced legislation which would increase fines for polluting, and would allow citizen legal action on pollution even if direct damages could not be proven.

Supplies of a plant killer banned from use in Vietnam is to be burned by the Air Force. Some 2.3 million gallons of 2,4,5-T are to be disposed of since it has been banned by the Defense Department. Laboratory tests have indicated it retards growth and causes birth defects.

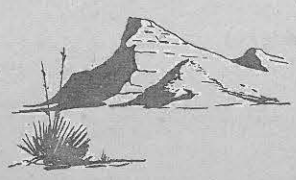
A porous asphalt pavement has been developed which will allow water to soak through it and recharge ground-water reserves. The pavement would also relieve storm sewers during high rainfall periods. Bacteria are also found to flourish beneath the paving. It would cost less than conventional paving materials.

California's Air Resource Board has about given up on realistic efforts to comply with the federal Clean Air Act of 1970. It is felt the Los Angeles air basin and a few other parts of the state cannot be cleaned up sufficiently by 1975 to meet the standards. The EPA says there may be other cities such as Chicago, New York, Washington and San Francisco that also cannot comply by the deadline.

The Agriculture Department, EPA and the National Science Foundation have announced a new multi-million dollar program of pest management involving biological controls. In the same vein, the Senate has unanimously passed legislation to establish a series of pilot projects aimed at developing alternatives to chemical pesticides.

Three California Mosquito Abatement Districts have revealed the DDT and other insecticides are no longer controlling insects. Mosquitoes have not only become resistant to the DDT but also toxaphene, parathion, methyl parathion, and Baytex.

The Florida Pollution Control Department has sued Cities Service Oil Co. for \$20 million for polluting the Peace River. A settling pond broke Dec. 3, spilling a billion gallons of phosphate slime into Whidden Creek and the river. The slime destroyed vast numbers of fish for which the river is famous. The company had a spill of lesser proportions in 1967 which nearly destroyed the fishery then.



Dunkle's Opinions

Frank H. Dunkle, director of the Montana Fish and Game Department, has publicized his professional convictions on the topic of executive reorganization.

In the January/February 1972 issue of MONTANA OUTDOORS, the department's official publication, Dunkle answered this question, "How will executive reorganization affect wildlife and its management?"

In his answer, he said, in part, "When the Fish and Game Department is activated by executive order into the new reorganized Department of Fish and Game, the chairman of the commission and the director of the department will both be appointed by the governor in office at the time. From then on both those men, plus the members of the commission, serve at the governor's pleasure. All appointees come under the gun every four years after the gubernatorial election.

"When the people get to express their approval or disapproval of the way things are handled only every four years, this puts an awesome amount of power in the hands of a governor. In the past, the public has had access to comment forcefully on wildlife matters at any time on many levels. In the future their only source of appeal will be the governor.

"Some of the most competent comments, recommendations and criticisms of environmental activities come from employees of government. These comments normally are based on scientific facts, uncolored by politics. Facts often reveal the necessity for a course directly opposite what might be politically expedient as far as resource and people welfare is concerned. It is one thing to be able to quickly and decisively remove deadwood from government payrolls. It is entirely different to expect conscientious, dedicated professional workers to perform in the public interest with a constant job threat hanging over their heads.

"Although executive reorganization as presently written appears to offer certain securities to workers, there is no way to escape the fact that the men doing the hiring and firing will be political appointees.

"Absolute political control of an agency from top to bottom means that a tiny number of persons can make airtight decisions which cannot be appealed or questioned and which may have irreversible consequences.

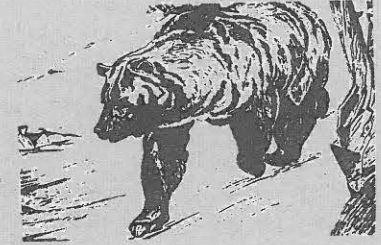
"Government as we know it is supposed to be conducted with the consent of the governed. Straight political appointment structures seriously restrict the governed from being able to voice either consent or dissent, except at four year intervals. The face of Montana could be permanently scarred several times in four long years at today's rate of change.

"For while even the wisest, most honest and intelligent men can make mistakes, it is much less likely that any group of men will make as many mistakes when all their actions are fully open to public scrutiny and comment at all times rather than just every four years. Reorganization with modest changes could insure performance in the best interests of our

wildlife and public."

In the same article, Dunkle stated the department's position on two other somewhat controversial topics—public land management and logging access roads.

"The department receives hundreds of requests concerning these subjects." Dunkle stated. "By answering these inquiries in MONTANA OUTDOORS, I hope our position will be made clear."



Seminars Set

The spectacular peaks of the Continental Divide of Colorado will again provide the setting this year for the Rocky Mountain National Park Summer Seminars. For the eleventh summer in a row, interested adults from throughout the nation will gather in the Park for this unique series of outdoor classes.

Sponsors of the 1972 Seminars have announced that this year's session will be a major feature in Rocky Mountain National Park's celebration of the One Hundredth Anniversary of National Parks in America. Beginning June 19, distinguished scientists and educators will lead intimate groups in first-hand study of animal ecology, mountain ecology, bird ecology, alpine ecology, plant identification, mountain geology, mountain climates; and innovative ecological education techniques. Daily field trips in the Park and its vicinity will be supplemented by indoor discussion periods and evening lectures. Each seminar will last for six days and is independent from the others.

There is a blanket fee of \$35 per seminar/week with \$5 off per week for each additional week after the first one. Interested participants may arrange credit with the University of Colorado. Accommodations are available in the town of Estes Park; and Rocky Mountain National Park has several campgrounds.

Registration forms and further information may be obtained from Dwight Hamilton, Executive Secretary, Rocky Mountain Nature Association, Estes Park, Colorado 80517.

The Rocky Mountain National Park Summer Seminars are sponsored by the Rocky Mountain Nature Association, in cooperation with Thorne Ecological Institute, Colorado State Department of Education, Estes Park Chamber of Commerce, National Park Service, and University of Colorado - Division of Continuing Education. Seminar instructors for 1972 will be Dr. Richard G. Beidleman, Colorado College; Dr. John Day, Linfield College; Dr. William G. Gambill, Denver Botanic Gardens; Dr. Robert B. Johnson, Colorado State University; Dr. John W. Marr, University of Colorado; Dr. Gustav A. Swanson, Colorado State University; Dr. John C. Wannamaker, Principia College; and Dr. Beatrice E. Willard, Thorne Ecological Institute.

Standards Vetoed

Governor Forrest H. Anderson has vetoed Montana's proposed strict air quality controls. His reason was that the controls would be too damaging to the state's economy.

The governor asked EPA for an extension of time to work out a revised implementation plan. However, an EPA spokesman said it would appear that the federal agency would come in and establish standards. The Clean Air of 1970 requires the governor to approve a plan or the federal government would step in and draw up a plan.

The proposed air quality standards were more restrictive than the EPA minimum standards. Anaconda Co. and the American Smelting and Refining Co. had particularly opposed the regulations on sulfur dioxide.

While hearings were being held late in 1971, Ben Wake, Montana's director of air pollution control, had warned of an EPA policy "destructive to air quality."

Anderson wrote EPA administrator William Ruckelshaus in justification for his actions. He said, "If my assessment of the implementation plan is correct, Montana standards would be the most stringent in the nation.

"I have grave doubts that Montana, a state with little development or population growth, can wisely and in good conscience assume this posture.

"I consider the possible loss of full lunch buckets and people without work to support their families as important a part of the eco-system as the air and other standards."



Frank Dunkle, former director Montana Fish and Game Department and announced Republican candidate for governor.

Dunkle . . .

not approved of the planning board approach in seeking industry only.

"Where is planning and zoning and the seeking of economic growth?"

"State government is not asking nor listening to Montanans - it's telling them."



Polar bear hunting continues while the great, endangered beasts lose more of their isolated ranges to man and his machines.

Polar Bears Are Endangered Species

by Gregory Paul Capito

Once the inhabitant of a bleak, frigid land seldom intruded upon by man, the domain of the polar bear is now being threatened. Modern technology, coupled with man's insatiable appetite for energy, has led to exploitation in the arctic wilderness.

As early as 57 A.D., historians reveal that man possessed knowledge of the polar bear. The ancient Romans and Norsemen of Scandinavia knew of them, as reference to the species occurs in records and sagas of the North.

Centuries passed and by the late 1800's, interest in the white bear was still slight. Hunting was at best a risky endeavor, fit only for hardy Eskimos living at the subsistence level. As a result, the killing of polar bears was limited.

During the post World War II era, the introduction of light, ski-equipped airplanes reduced the time element and danger associated with a traditional polar bear hunt. Here, a notable change in philosophy occurred as white hunters in aircraft replaced the Eskimo and dog team. As killing techniques were perfected, hunter success ratios dramatically increased.

By 1960, commercial, subsistence and sport hunting had taken its toll. Specially designed airplanes, boats and snowmobiles had opened the most remote reaches of the bears' domain to the hunters. Annual harvests in the arctic regions of Canada, Alaska, Norway and Denmark ran as high as 2,300 animals. Conservationists became alarmed as census figures for the species were estimated as low as 5,000. The public outcry was so intense that in September of 1965, the five inter-polar countries, including the Soviet Union, convened the first international meeting on the polar bear in Fairbanks, Alaska.

Primary aim of the conference was to encourage scientific research with particular emphasis on the polar bear's food habits, migrational patterns, reproductive physiology and distribution. The meeting also permitted a free exchange of information on the current world bear population in order to determine the effects of the annual kill.

During the course of the conference, some of the most interesting proposals came from the Soviet Union. The Russians recommended that a five year, world-wide moratorium be placed on polar bear hunting. In addition, they urged that a limit be placed on the number of bears taken

after 1971 until the present study clarified the status of the species. The recommendations were not well received since hunting has proved to be a significant economic factor in Canada, Alaska, Norway and Denmark. However, the delegates did agree to restrict future harvests in their respective countries, and there were vigorous research proposals submitted to the conference chairman.

Today, conservation of the polar bear faces yet another problem—the adverse modification of habitat. Jim Brooks, who heads the American research team in Alaska, fears that the enormous increase in human population due to the massive north slope oil strike will adversely affect the bears' domain.

In the Dominion of Canada, the situation is even more acute. In an effort to attain domestic self-sufficiency and increase their position in world trade, Canadian oil and gas interests are pushing into the islands adjacent to this country's northern coast. Exploration threatens to disrupt the only established polar bear denning

sites on the North American continent. Similar conditions exist in the other inter-polar countries.

Clearly, the future of the polar bear goes far beyond regulating the hunter's gun. If this magnificent animal is to remain a part of the arctic landscape, the immediate and long-range effects of mineral and petroleum operations in the Far North must be minimized. In addition, officials of the five inter-polar countries must set aside reserves in order to protect vital denning areas. Currently, only two such sanctuaries exist, one in the Soviet Arctic, the other off the Norwegian Coast.

Perhaps the most important consideration is a vigorous re-education of the public at large. Power hungry countries must realize that the earth's supply of fossil fuels is not limitless. Conveying this idea to established and newly emerging nations of the world is of utmost importance. The future of the polar bear, and at least one other creature, man himself, may hang in the balance.

Pesticides Program Developed

WASHINGTON, D.C. -- Legislation to establish nation-wide pilot programs to develop alternatives to the massive use of pesticides has been unanimously supported by the Senate Agriculture Committee. The legislation, introduced by Sen. Gaylord Nelson, was ordered reported out of Committee to the full Senate for action.

Nelson said the strong support of the legislation by Committee members "is indicative of an enlightened attitude regarding the severe problems of pesticides" that is beginning to spread through rural America.

"More and more farmers and other agricultural specialists are realizing that pesticides have created a world environmental crisis and that the massive use of the broad-spectrum chemicals have actually diminished agricultural productivity," Nelson said.

The Wisconsin Democrat added that the rigid reliance on pesticides, which he said is directly attributable to the U. S. Department of Agriculture and the farm chemical industry, has spawned an environmental backlash.

"Insects are becoming immune to pesticides--

an established scientific fact," Nelson explained. "This means that farmers are faced with escalating costs of pest control but are getting less and less protection." The legislation would, in part, establish a five-year pilot program to further develop and field test the concept of integrated pest control. Under this method, all available pest control techniques are adapted into a scientific program best suited for a particular crop and climate. Emphasis is placed on the use of beneficial insects to control pest species and to vary farming practices to create a better environment for the beneficial insects.

Some chemicals still would be used, but only used very sparingly and with great caution so that the eco-system would be disturbed as little as possible. Massive chemical applications could become a thing of the past.

Nelson said that integrated pest control, which already is being successfully practiced in some parts of the country, is a way of farming with nature instead of against it. Experts have testified that farmers who have utilized this method have experienced no reduction in yield, improved crop quality and increased profits.