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PM
25 MAY
1979

REVALUED
TO 15c

Dr + Mrs Frank Craighead
Box 156
Moose, Wyoming
83012

Yellowstone Worker Bitten by Grizzly Bear

YELLOWSTONE NATIONAL PARK, Wyo. (AP)— Yellowstone National Park officials say a seasonal worker at a Montana resort suffered minor injuries when he was bitten by a bear.

Michael W. Neese, 22, of Big Sky, Mont., suffered minor injuries Tuesday and was treated and released at Mammoth Clinic after being bitten in the right thigh, a park spokesman said Wednesday.

Spokesman Margaret Holland said Neese and two companions encountered a bear with two cubs while hiking near Tower Falls in the northern part of the park. The bear was believed to be a grizzly sow, she said.

Neese's companions, Timothy R. Pattison, 24, and Gregory W. Hill, 22, also seasonal workers at Big Sky, weren't injured.

It was the first reported bear incident in the nation's oldest national park this season.

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Denver, Colo.—Climate Capital of the World

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Bear of a Problem Still Haunts Colo. Guide-Outfitter Wiseman

Outdoor Empire

by BOB SAILE

ALMOST FIVE MONTHS ago, Ed Wiseman survived a struggle with a 400-pound grizzly bear. Now, he says, he finds himself in a fight that is extremely hazardous in an entirely different way — a fight to protect his reputation as a professional guide and outfitter.

"My business depends on my reputation," said Wiseman, 46, of Crestone, Colo. "These hunters don't want to deal with somebody they think might be a shady character. And I have to work with game and fish officials. At first, my lawyer told me to cool it (on making public statements), but then when all this broke in the papers, he said I had no choice but to protect myself."

The voice on the telephone sounded concerned and sincere. Wiseman had called this writer at home to make a few points about one of the most dramatic and controversial incidents in the history of hunting in Colorado.

As almost anybody who can read a newspaper or tune in a radio or television knows by now, Wiseman fought off a sow grizzly bear after it attacked him in a remote section of the San Juan Mountains east of Pagosa Springs.

HE WAS RESCUED and hospitalized for several wounds and told reporters and wildlife investigators that he repelled the bear with a hand-held hunting arrow after it charged without provocation. Wiseman was guiding a party of bowhunters on an elk hunt. There had been no confirmed kills of grizzlies in Colorado since the 1950s.

State and federal investigators entered the case, primarily because the grizzly is protected by both state and federal law. A necropsy on the carcass turned up the throat wounds Wiseman recalled inflicting to the bear, but it also disclosed a puncture wound through the right side of the rib cage into the area of the heart.

This wound is one of the questions that have prolonged an investigation by agents of the U.S. Fish and Wildlife Service. It would be illegal under both federal and state law to shoot a grizzly bear, with or without a bear license, except in self-defense.

On the telephone, Wiseman said neither he nor any of his hunters shot at the bear, and none of them was hunting bear. They didn't possess bear hunting licenses (which would entitle them to hunt black bears, but not grizzlies), although they had discussed the possibility that they might see bears, he said.

"THAT WOUND they say is behind the right shoulder is actually more on the underside of the chest than directly on the side behind the shoulder," Wiseman said. "It has a strange shape, too — kind of like a keyhole, as if somebody might have made it fleshing the hide."

This columnist examined the hide where it is being kept pending the outcome of the investigation. I found Wiseman's description of the chest-area hole to be fairly accurate; it appears to be more toward the underside of the chest. While he initially mentioned only inflicting throat wounds, he says now he can't be sure just what he might have done.

In my inspection of the hide, it appeared that there were two major, ragged holes on the side of the neck, as opposed to the front of the throat. The necropsy reportedly showed that the neck punctures went through the area of the trachea into the spinal vertebrae, but wouldn't have been immediately fatal. Wiseman doubts he could have inflicted such wounds without severing a major vein in the throat.

The irregular "notch" in the chest hole appeared to have been made with a knife, as if in the skinning process, but the notch appeared to have been added to an already existing hole. In fact, the skinning and fleshing process seems to have been somewhat ragged — there are at least six holes in the hide, two of them in the area of the hind legs.

WISEMAN FURTHER made these points in defense of his story:

—There was, he said, no blood trail (from a wounded bear) to the point where the grizzly attacked him.

—The Kansas man (one of Wiseman's hunters) hunting nearby left his quiver of arrows at the scene, said Wiseman, and the recovered quiver later was found to have its full complement of eight arrows.

—The necropsy showed that the probably fatal chest wound penetrated only 6 to 12 inches deep. Wiseman said an arrow shot from a compound bow at any reasonable distance would penetrate much deeper, possibly even passing through the bear if it didn't hit ribs or other bones. (The ribs in the area of the chest wound are in the possession of investigators.)

Knowledgeable bowhunters generally agree with this statement, although an unsteady release from a bow might lessen penetration. One archery expert contacted by this columnist said it would be almost impossible to get any penetration at all if a compound bow is "snap shot" before reaching full draw.

—An employee of Wiseman's (identified by Wiseman as Richard Baumfalk of Alamosa) stabbed at the carcass of the bear while skinning it, said Wiseman, and this may have been the chest wound. (The necropsy, however, indicated the chest wound occurred before the bear died.)

Wiseman said he and his attorney agreed to a lie-detector test, but only if the attorney, J.D. Lewis, would have some say over who administered the test and what questions were asked.

"I have nothing to hide," said Wiseman, "but these lie-detector tests aren't necessarily conclusive anyway."

Meanwhile, a U.S. Fish and Wildlife Service agent said the investigation is continuing.

to complete the climb to the top of North America's highest peak. Then in late June, Mark Edwards of Anchorage reached the top, at 14 believed to be the youngest person ever to climb the mountain.

Talkeetna pilots hauled four climbers off the mountain in early June. Jim Sharp told the *Anchorage Times* the operation began after three German climbers called for help. One had fallen and two others were suffering altitude sickness. Sharp credited helicopter pilot Ed Guntor with pulling one climber off the 14,000-foot level then flying to the 18,000-foot mark to grab the other two.

Doug Geeting, also of Talkeetna flew to the 10,000-foot level, where he rescued a Swiss climber who had broken his ankle 3,200 feet farther up the mountain.

Scientists in Salt Lake City in May isolated what was believed to be the first known case of rabies in moose. Alaska state game biologist Jim Faro, in Anchorage, said no cases of rabies in moose have been reported in Alaska, although he did know of one case of the disease in a caribou on the Alaska Peninsula some years ago. Faro said any mammal can contract rabies but it's most common in carnivores, particularly canids including foxes, wolves and dogs.

Doctor said that I had stones in my gall bladder and should be taken out. So I was called in for surgery in a couple of weeks. In my Eskimo way of saying, this is a miracle, but this beautiful way of getting the deadly pains out is done by skill and care. Boy, I told my friends that the angels at ANS [Alaska Native Services] Hospital have taken pains out. — Grace Slwooko, Gambell correspondent to the TUNDRA TIMES.

Longliners reported the best success in a test fishery for bottom fish out of Ketchikan, according to the *Ketchikan Daily News*. The state-funded $150,000 study paid fishermen to try various types of gear for a potential profitable bottom fishery in Southeastern. The study, about 40% complete, stopped in May so fishermen could prepare for upcoming salmon openings. Longliners reported catches averaging more than $258 a day, mostly red snapper, while gill-netters and pot fishermen showed poor results. One pot fisherman seeking gray cod caught 605 pounds of octopus instead.

Forty-seven grizzly bears were moved from an area north of the Denali Highway last May in an effort to protect spring moose calves. The bears were drugged, then airlifted and trucked to areas as far as 200 miles away, but by late June some of the tagged bears were already reported moving back into their original habitat.

The move resulted from a wolf study two years ago in which Department of Fish & Game biologists discovered grizzlies were killing a large number of moose calves. While expecting some of the bears to move back to the area, biologists hoped to give the calves some respite during their most vulnerable first six weeks of life.

The bears were weighed and measured, lost a tooth for age determination, given tags and lip tattoos and released. The operation was believed the largest such animal movement by air in the state.

Pilot Vern Lofstedt guides his Kenai Air Alaska helicopter off the ground, heavy with its cargo of three grizzly bears, two on the landing gear and another suspended in the net hanging below. Ted Spraker of the Department of Fish & Game steadies the net. (Craig Gardner, ADF&G)

Battles over keeping the North Slope Haul Road open this winter grew through the summer, with Gov. Jay Hammond endorsing the concept and attempting to find a way to finance winter maintenance. The legislature earlier had cut requested maintenance funds in half forcing the winter closure. Hammond conferred with trucking industry officials and reportedly asked Alyeska Pipeline Service Co. to pick up the tab.

In the meantime, Hammond had called a special session of the legislature for August on another matter and a group of Fairbanks legislators, calling themselves the killer mosquitoes, vowed to bring that session to a halt unless the haul road was opened from September to April. While the North Slope Borough supported the winter closure, opponents cited a loss to the Alaska economy. The state Department of Commerce said 1,000 jobs would be lost along with $35 million in payrolls and profits and $3 million in state taxes.

The state assumed management of the road a year ago and maintenance was budgeted at about $5 million for the coming year. The legislature approved only $2.4 million for the 360-mile road.

A dock facility under construction at Dutch Harbor was damaged extensively in a fire in late June. The dock was to handle increased fishing activities in the Aleutian Island port. The fire apparently started from a welding torch and spread immediately, sending smoke and flames hundreds of feet into the air. The $1.8 million facility was about one-fourth completed when the fire started.

Four fisheries biologists had the 10-second adventure of their lives last summer when a brown bear came charging down a Kenai Peninsula stream at them. According to the *Peninsula Clarion*, Jim Browning was leading the party up the Upper Russian River checking salmon eggs in riffles. On

Sepy. 10, 1979

Dear Mr. Craighead;

In case you missed it - the enclosed may be of interest to you.

If these biologists cared just enough to READ your book "Track of the Grizzly", not to mention using you as an advisor, these animals could have been spared the trauma of tranquilizing, etc.

But, of course, these are the same people responsible for shooting wolves from airplanes!

This not does not require an answer.

With thanks for your dedication and best wishes,

Georgie Leighton
Box 1431
Aspen, CO 81611

Georgie Leighton

Encl.

SOBEK EXPEDITIONS Inc.

P. O. BOX 67 • ANGELS CAMP, CALIFORNIA 95222 • (209) 736-2924

Frank,

Thought I'd write to say hello and let you know of the outcome of the griz you saw near the Chilkoot camp ground. Last nite a local shot him & saw his skin at the A.I.A. (Alaska Indian Art) bldg. today. The Judge was cleaning off the hide to make it into a costume for his Chilkat Dancers. I thought it was a drummer.

Well I'm through around here in Haines so I'm going to do a fishing trip in the Grand Canyon with my fellas.

It was real nice meeting you folks and I certainly hope I'll see you again somewhere. If you are in Haines next summer look me up and we'll find an adventure to do.

Thanks again for the belt buckle Frank.

Have a beautiful winter,

Sincerely,

Burt Henderson
251 E main St.
Vernal, Utah
84078

Seven D Ranch
Sunlight Valley

Dewey Dominick, M.D.
P.O. Box 102
Cody, Wyoming 82414
Ranch Tel. 307 587-3997

1907.

Mr. Frank Craighead
Moose, Wyoming, 83021.

Oct. 11, 1979.

Dear Frank :

The Dude Ranchers' Association is holding its annual meeting and convention in Cody Nov. 29,30, and Dec. 1st, at the Holiday Inn.

I have been asked to chair a Game and Fish panel which will take place at 8:00 A.M. Sat.,Dec. 1st '79. I would very much like to have you join me and others on this panel. I hope to have a representative from Montana's Fish and Game Dept.,if not the Director, Wamback himself. Earl Thomas, Dir. of the Wyo. Game and Fish Dept. plans to be with us; as will Larry Roop of our Wyo. Game Dept. Larry has spent better than two years as a member of the Interagency team, studying the grizzly bear, in our three state areas. It is my intent to have discussions on the several game and fish problems of game management. However, I am sure that the grizzly and the management of him with the proposed open hunting season, as suggested by the Game Departments of Wyoming, Montana, and Idaho, will bring forth opinions and controversy.

Recently, I have read Emory P. Anderson's article in the Sept. issue of Wyoming News, "Tracking The Grizzly". He quotes you and your opinion as to the grizzly's census. Definitely a lower count than the one given by the interagency team. I agree with you, and for this reason and others would be greatly flattered if you would join our panel Dec. 1st. Hopefully,we can get it underway for a breakfast after the traddditional "Moose Milk" gathering. I have been promised that we can have at least two and one half hours of time alloted to our discussions on the panel.

If you can attend, you probably will wish to travel to Cody the night before, and put up at the Holiday Inn, Friday evening, Nov. 30th. I believe that the Dude Ranchers' will cover your expenses. We do hope that you will find it possible to join me and others for the breakfast and panel Dec. 1st.

Cordially,

Dewey

DeW. Dominick,M.D.

P.S. I have not forgotten how much you added To our meetings some years ago

BEAR ACTIVITY SUMMARY
for the week ending 8/19/79

Sightings of 10 grizzlies, 8 unknown, and 13 black bears were reported this week. To date 241 grizzly. 78 unknown, and 209 black bears observations have been reported.

The only incident reported this week was damage to a pickup camper shell at Biscuit Basin parking lot on 8/12. A bear entered the camper, scattering the contents and eating some food. This followed two similar incidents on 7/26 and 7/30, and several sightings of a grizzly in the Whiskey Flats picnic area.

Traps were set at Whiskey Flats and Biscuit Basin on 8/13 and a 350 lb. male grizzly was captured at Whiskey Flats. The bear was in rather poor condition and appeared to be quite old judging by the extremely worn condition of its teeth. On 8/14 the bear was drugged, examined, fitted with a radio transmitter and released near Parker Peak.

A "second-hand" report of a bear in Bridge Bay campground on 8/14 was received. No losses or damage was reported.

For the week ending 8/26/79

Bear visibility increased somewhat this week with the reported observations of 33 grizzlies, 2 unknown, and 23 black bears. Many of the grizzlies were spotted by the Interagency Grizzly Bear Study Team while they aerially tracked radio-collared bears. Reported sightings to date total 274 grizzlies, 80 unknown, and 232 black bears.

An outfitter reported a grizzly with one cub grazing in a meadow in the Mist Pass vicinity on four separate dates.

On 8/24 a black bear was reported above C loop in Bridge Bay Campground. No damages were reported.

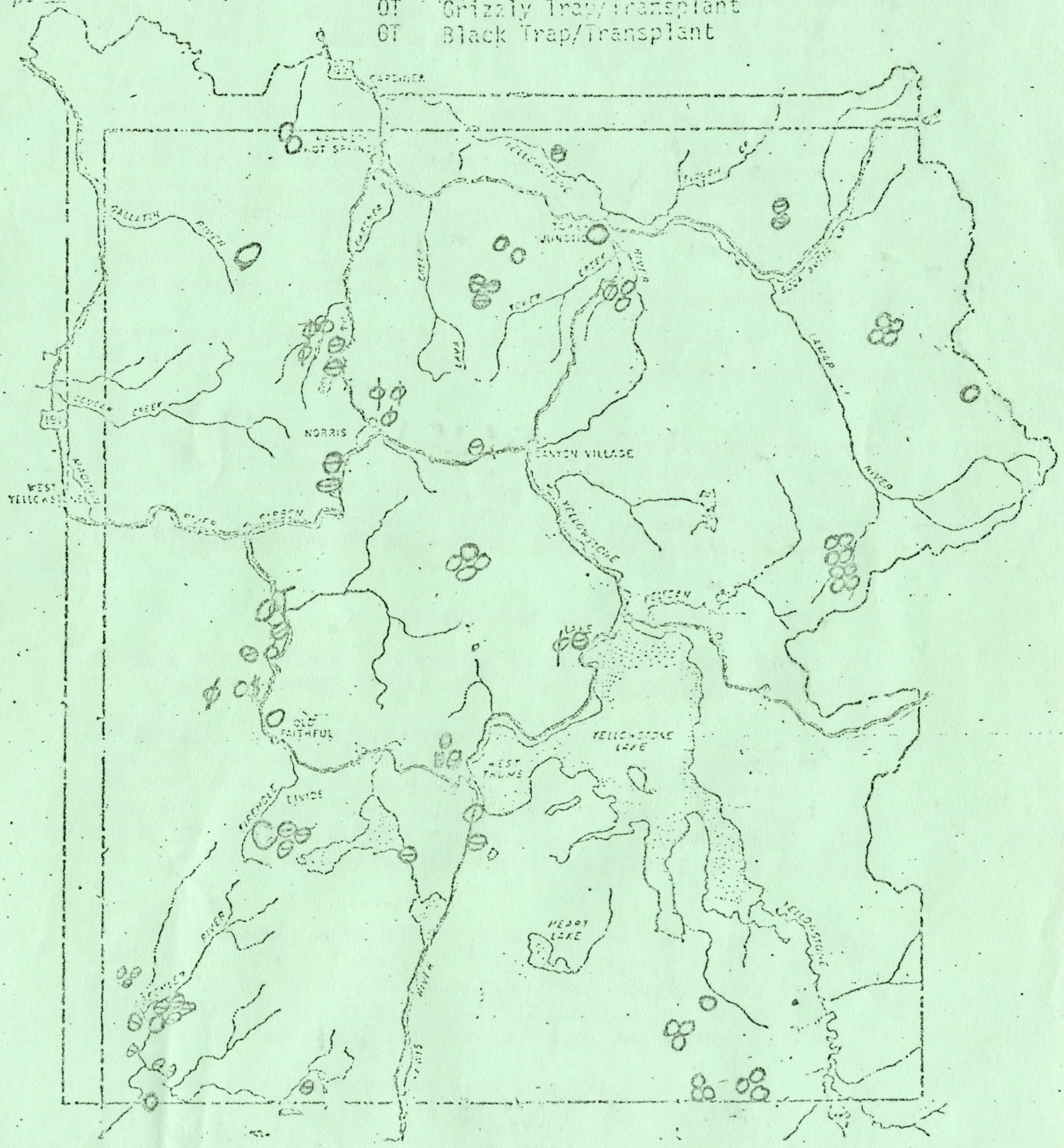
On 8/21 a visitor was charged by a black bear with two cubs. The bears ran when surprised but stopped to look back at the hiker, who stood and took their picture. When the camera clicked, the mother bear charged and chased the visitor up a tree. The bear remained at the base of the tree for about 15 minutes before departing.

On 8/20 radio-collared grizzly #14 was found shot to death in the Targhee National Forest approximately ten miles southeast of Bechler Ranger Station. The circumstances surrounding the killing are still being investigated.

Radio bear #42, the grizzly that was caught at Whiskey Flats and released near Parker Peak last week, has survived the effects of the trapping and drugging. He has been located by radio signal in the Parker Peak - Lamar Mtn. vicinity on subsequent aerial flights of that region.

LEGEND

O Grizzly Observation	O$ Grizzly Damage	MK Mgmt. Kill
θ Black Observation	θ$ Black Damage	DK Drug OD (Accident)
ϕ Unknown Observation	ϕ$ Unknown Damage	VK Vehicle Kill
OI Grizzly Injury	OC Grizzly Confrontation	ND Natural Death
θI Black Injury	θC Black Confrontation	
ϕI Unknown Injury	ϕC Unknown Confrontation	
	OT Grizzly Trap/Transplant	
	θT Black Trap/Transplant	



Box 156
Moose, Wyoming 83012
October 22, 1979

Dewey Dominick, M.D.
PO Box 1907
Cody, Wyoming 82414

Dear Dewey:

I appreciate the invitation to participate in the Game and Fish panel discussion December 1, 1979. I would very much like to do so and to attend the Dude Ranchers' Association meeting. I am sorry that I must decline. I'll be in the east (Washington, Philadelphia, New York) from Nove-ber 5 to December 5. Should anything occur to alter the last part of my itinerary, I'll get in touch with you.

I am concerned over the present situation in regard to the grizzly. I think it is essential for the Interagency Team this year to present their research findings and supporting data. This should include information on the ecosystem population level, composition and age structure, reproductive rate, annual mortality, and seasonal and yearly movement.

To date I have seen no scientific data that would justify the Game and Fish Department's petition to reopen a limited grizzly bear season. I wrote Earl Thomas my views of this petition January 24, 1979. I am enclosing a copy of the letter purely for your own information. I never received an acknowledgement of it.

Should an analysis of the results of the Interagency Team research, along with the results and conclusions of the Craighead Research Team, indicate a current well-adjusted, stabilized or growing grizzly bear population, consideration could be given to again using hunting as a management tool. Should the opposite be the case--that is, a low population as compared to the 1969 level, or a still-declining population--immediate steps should be taken to give the grizzly bear all the protection possible.

Again, thanks for the invitation. Perhaps we can get together at some other meeting.

Sincerely,

concern is not only for the grizzlies but that the blame for the current low grizzly bear population and the possibility of its still declining may be shifted. It now rests squarely on past management activities of the National Park Service. If the State takes grizzlies through special permit hunting, even if only two or three a year, and the population continues to decline or does not recover, the State can be blamed and must then answer for a situation which to date the State has not contributed to.

The apparent increase in nuisance bears, should this actually be the case, can be explained through movement of grizzlies over a period of years from Yellowstone Park into surrounding wilderness areas, particularly in fall. Fall hunting camps are now a greater attraction than in the past for grizzlies that have been denied a former source of food in the Park. In recent years these grizzly movements (to and from Yellowstone) have apparently changed, with fewer bears going back to their former haunts such as Hayden Valley in the Park. Movement--not population increase--is what is causing an apparent population pressure.

I could question quite a few statements in the petition and support it with evidence, and I would be glad to do this in a discussion with you should you desire. The main purpose of this letter is to point out that I feel the present action could well result in throwing the blame for the decline and perhaps elimination of the grizzly onto the Wyoming Game & Fish Department rather than on the agency most responsible for the present threatened condition of the grizzly bear.

I am enclosing a few publications that relate to this subject.

Sincerely,

Frank Craighead

Box 156
Moose, Wyoming 83012
January 24, 1979

Mr. Earl Thomas, Director
Game & Fish Department
State of Wyoming
Cheyenne, Wyoming 82002

Dear Mr. Thomas:

I have read the State of Wyoming's petition to the Secretary of the Interior and the Director of the U.S. Fish & Wildlife Service for reopening of limited grizzly bear seasons in Wyoming. I would like to comment on this petition with the hope that it may be of some help to you and to the Commission members.

I favor the hunting of grizzly bears under special permit in order to accomplish needed control when necessary. I have publicly stated my position on hunting on several occasions including management suggestions in a paper on "Grizzly Bear Ranges and Movements as Determined by Radiotracking" which was published in Bears: Their Biology & Management, 1976. However, hunting as a control should only be considered when the grizzly population has increased in numbers and when accurate census figures reveal that they can and should be reduced. I do not believe this situation currently exists.

In 1974 my brother John Craighead, Joel Varney, and I published a paper "A Population Analysis of the Yellowstone Grizzly Bears". In this computer analysis we used research data gathered over a fifteen-year period. We concluded that the average grizzly bear population in the Yellowstone ecosystem from 1959 through 1967 averaged about 229 grizzlies with a high of 245 in 1967, and that in 1974 this same populatinn had declined to approximately 136 animals. During the period 1968-1972 mortality was high and the reproductive rate declined. This was largely a result of Park Service mismanagement of the grizzlies.

To date there is no evidence from the results of the Interagency Grizzly Bear Study Team or others that this downward trend of the grizzly population has stabilized or been reversed. In fact, to the contrary, the data available indicate a still lower populatinn than in 1974 as well as an even lower reproductive rate. If there is scientific evidence to the contrary, I would certainly very much like to see it and on a basis of it would reassess my position. If the grizzly bear population is still very low, perhaps even lower than in 1974, and I believe it is, it would be ill-conceived for the Wyoming Game & Fish Commission to reopen the season and take twelve or so nuisance bears. My

Dead Bear Thought to Be Grizzly

ALAMOSA (UPI) — The carcass of a 400-pound bear killed by a hunter it attacked has been tentatively identified as that of a female grizzly, the first of the species confirmed in Colorado for nearly 30 years.

Arch Andrews, division public relations director, said officers reached the carcass in a mountainous area 25 miles southwest of Alamosa Tuesday afternoon. An attempt was made to lift the animal with a helicopter, but failed, Andrews said, because the carcass was too heavy.

"We've got other crews in there with trucks and on horseback," Andrews said. "They will skin the bear and bring it to Denver for tests."

Andrews said the tests would include an examination to determine if the bear was actually a grizzly.

Andrews said if the identification is confirmed, the carcass would be shipped to the Smithsonian Institute in Washington for further tests to determine if the bear could have been raised in captivity and released into the wilds.

Ed Wiseman of Crestone, a veteran mountain outfitter, was attacked by the bear Sunday night while hunting elk with a bow and arrow. Wiseman, 46, suffered numerous bite and claw wounds but managed to stab the bear in the neck with an arrow and kill it.

Wiseman, 46, a veteran hunter, was in stable condition Tuesday at Alamosa Community Hospital. "I'm a very lucky man to be alive," he said.

Wiseman had reported he thought the bear was a grizzly and Andrews said there had been "several" reported sightings of grizzlies over the years, but none had been confirmed by wildlife officials.

Crestone Man Mauled by Bear; Stabs, Kills Animal

ALAMOSA (UPI) — A veteran mountain outfitter hunting elk with a bow and arrow in rugged terrain was mauled severely by a 400-pound bear, but the hunter, now in stable condition, was able to kill the beast by stabbing it in the neck with an arrow.

Dick Weldon, a spokesman for the Colorado Wildlife Division, said efforts were under way to determine whether the bear was a grizzly as the hunter believed. He said it was unusual to find grizzlies in the southwestern part of the state.

"I've been here 10 years and I have yet to see anything but black bear in this country," he said. "Until I see the bear, I won't guess."

Investigators said Ed Wiseman, 46, of Crestone, Colo., was attacked by the bear late Sunday while scouting with a member of an elk hunting expedition.

Wiseman, who was rescued by an Army Helicopter early Monday after spending the night in sub-freezing temperatures, was listed in stable condition at Alamosa Community Hospital.

He suffered numerous puncture wounds, cuts and bites to both legs, left hand and right shoulder.

"I'm a very lucky man to be alive," Wiseman said from his hospital bed. "I've been an outfitter for more than 14 years and nothing like this has ever happened."

Wiseman said he suspected the bear was a grizzly because it had a humped back, flat face, and was two-tone colored.

The attack occurred in the mountains about 25 miles southwest of Alamosa after Wiseman and Mike Niedry, 25, a member of the expedition, left base camp and ventured 10 miles further up the mountain looking for elk.

Wiseman's daughter, Kathy, 19, said her father saw the bear about 30 yards away when it suddenly charged at him.

"He couldn't draw back his bow because there was no time to react," she said. "The bear then knocked his bow and arrow away and he curled up into a fetal-like position to protect himself. My father saw one of the arrows on the ground, picked it and stabbed the bear in the throat."

Ms. Wiseman said the bear continued to bite her father after the stabbing but the animal began to weaken and subsequently released him.

She said Wiseman walked more than 300 yards to find Niedry, but because of Wiseman's condition was forced to leave the hunter on a mountain meadow while he sought help from other members of the expedition.

Neidry and his surgeon father, Dr. W. L. Neidry, returned in the predawn hours six hours later. The doctor administered basic first aid to Wiseman, who was found lying near a campfire in 15-degree mountain temperatures.

Wiseman was dressed in a saddle rainslicker, insulated underwear and a coat to ward off the freezing weather.

"The rescue operation went great," said Chuck Gibbs, Wiseman's partner. "Everything went super except they couldn't get in until this morning. I flew back to the base camp this morning to bring out the Bear. Ed said he wanted the hide."

Bear, man conflicts on the increase in Park

[This is the first of two articles on bears in the northwest corner of Wyoming. Next week the News will look into the grizzly population centered in Yellowstone National Park. Ed.]

A couple hiking around Jenny Lake in Grand Teton National Park this summer ignored other hikers' warnings of a black bear on the trail ahead.

"Why be alarmed?" they thought. The couple knew that black bears are naturally afraid of humans and can be easily scared away with a couple of shouts. But the black bear they were about to encounter was different.

In a few minutes they saw the animal lumbering towards them on the trail. They stopped, but the bear continued. As the distance between them became uncomfortably close, the couple began to retreat.

Suddenly the bear charged. The hikers sprinted down the trail, leaving all preconceptions about docile black bears behind. The chase ended only when the couple reached another group of hikers and their shouts deterred the bear from continuing its charge.

Since the mid 1970s, more and more "incidents" between people and black bears have been recorded by rangers in Grand Teton Park. According to district ranger Tom Milligan, an "incident" is an occurrence in which a bear damages property, injures somebody, or commits an act that poses a "verified threat." "We are very careful about people coming in and saying 'I was threatened,' " said Milligan, discussing the way the Park's statistics are collected.

Confrontations between men and bears peaked in the summer of 1977, when 85 incidents were recorded. Bears were credited with over $5,000 in property damage and with the injury of three people. Sixteen bears were trapped and removed from the areas where they were stealing food. One bear was killed.

Originally, man was the hunter and bears were the game. Now, in the Parks, where bears have learned not to fear humanity, some black bears have turned into the aggressors, and the fleeing hikers with loaded backpacks are the source of food.

A problem bear, such as the one that charged the Jenny Lake hikers, begins to become a nuisance and a danger when he first makes an association between humans and food. Bob Wood, a resource management specialist in Grand Teton National Park called the black bear "a very opportunistic animal. They are quick learners," Wood said, adding that they are willing to go after human food of any kind. The more they get into, the harder it becomes to break them of their habit, he said.

According to ranger Milli-

Continued on page 19

A black bear waits for food from California motorists. Such handouts are illegal today.

Bear conflicts

Continued from page 1

gan, the Park Service took a different attitude towards bears around 1976. In 1977, GTNP officials prepared a bear management policy statement that reflected the attitudes of the previous year. The 1977 policy called for current and future use of the Park to include a population of black bears (and grizzlies) that could survive under "natural conditions . . . with minimum interference by humans."

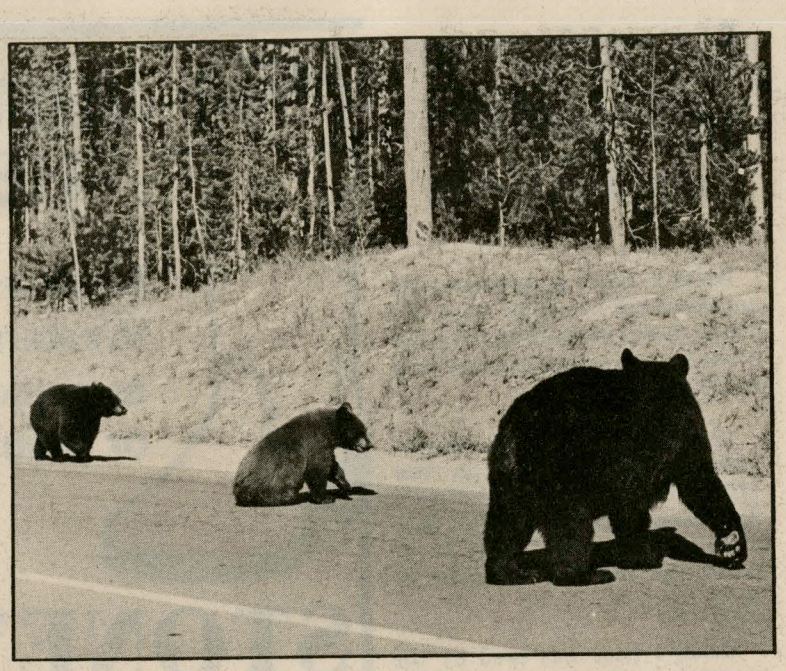
The closing of open garbage dumps was begun before 1975. Later, trash cans in the Park were also bear-proofed. This left a population of bears that had previously fed on garbage without that portion of their diet. "Closing the dumps forced them [the bears] into the backcountry, said Milligan.

"We used to isolate offending bears and kill them," said ranger Wood. But after the 1977 policy was adopted, the rights of bears were given more consideration. "We're overly conservative on looking out for the welfare of the bear now. That's the way most people want it," said Wood. Milligan agreed. "We're giving the bear more of a chance. That's why there are more bear incidents," he said.

The first objective of the 1977 policy is to inform members of the public "of their role in preventing destruction of bears through proper food handling and camping techniques." In 1978, the Park enacted a new food storage law, similar to the ones currently in effect in Yellowstone, Yosemite, and Shenandoah National Parks. The law gives teeth to the policy, but Wood said enforcement "isn't heavy-handed." Wood estimated that of all the time spent on the human-bear problem in the Park, 75 percent is spent on people, telling them how to store food.

To continue eliminating human food from the black bears' diet, the Park in 1977 began closing campsites that bears were raiding. Since then, backcountry campsites at Amphitheater, Holly, Leigh, Trapper, and Bearpaw Lakes have been closed following reports of confrontations with bears.

If the offending bear continues to pester people, the Park Service will then try to move the bear from areas of backcountry use. The first option, according to ranger Wood, is to move the bear somewhere else in the Park. A large bear, capable of traveling great distances, or a bear that has been moved to somewhere else in the Park and has subsequently returned to bother campers, might then be moved to National Forest



Roadside attraction: a black bear with two cubs in Grand Teton National Park.

damage and has to be trapped a third time, the bear probably will be disposed of, said Wood. The policy makes a distinction between a bear that is seeking human food and one that is exhibiting natural behavior "such as defense of a natural food source or its young." The policy states that no bears will be destroyed or moved for natural behavior.

Once the bears have been transplanted outside the Park, the rangers are unsure of the bears' future. Wood said he knew of two incidents where a black bear was shot within five minutes of being released in the National Forest. Such occurrences make the park rangers feel they are wasting their time. But Wyoming Fish and Game biologist Garvice Roby disagrees. Most bears are transplanted in early summer when there are no hunters around, said Roby. "Probably a few get harvested," said the biologist, but he has seen no recent kills with National Park ear tags. "At least the hunter will appreciate the bear," said Roby. "It isn't going to waste" as it would if it were disposed of and dragged to a dump, he said.

While Milligan admits that implementing the 1977 plan has resulted in more bear incidents and injuries to people (none serious or requiring stitches, said the ranger), confrontations have been on the decline since 1977. With thousands of campers visiting the backcountry every year, parts of the Park can no longer be considered a "natural" environment and confrontations between man and bear will undoubtedly continue. With the 1977 policy in effect, more people may be more likely to receive nips and bruises than in the years when problem bears were shot without question. But perhaps the estimated permanent population of 60

The Grizzly's Last Stand

BY JIM WRIGHT

A simmering controversy is rapidly approaching the boiling point: can grizzly bears and people coexist in our national parks? The author examines the issue—and takes a hike through grizzly country—to find answers.

For thousands of years he ruled as undisputed king of North America, roaming the continent from the Pacific to the prairies and numbering a million strong. Indians worshipped him and called him "real bear" for his awesome size. White men feared him and called him "grizzly" for his grizzled, silver-tipped fur. Considered a threat to people and livestock, he was relentlessly shot, trapped and poisoned as civilization spread throughout his domain during the 1800s. Today, fewer than 400 grizzly bears—a.k.a. *Ursus horribilis*—remain south of Canada. Virtually all of them are confined to the protected refuges of Yellowstone and Glacier National Parks.

Now even the refuges have become controversial. For over half a century, man and the grizzlies existed in harmony in the parks. But the situation has changed abruptly in recent years. Grizzly sightings in the parks, which used to be rare, are increasing in number. More important, the bears are losing their inherent shyness of man as swelling streams of summer backpackers invade their territory. Attacks have occurred, and in the past decade three young women have been killed by grizzlies in Montana's Glacier Park.

In the face of these incidents, public debate over the grizzlies' presence in the parks is reaching fever pitch. Should the big bears be removed from the parks as an inordinate danger to man, or preserved as an integral part of the wilderness? In the eye of the storm of controversy stands the National Park Service.

"Legs, I hope you're ready for this," Larry said. It was a bright August morning, and four of us stood by the shore of Two Medicine Lake in Glacier National Park, adjusting the straps on our backpacks. A two-day hike lay ahead of us.

During the summer of 1974 I'd worked at Glacier, and had hiked over 300 miles in the park's million acres. I had encountered a lot of game on the trail, but I hadn't glimpsed the animal that I most wanted to see—the grizzly bear. Now, four years later, I had returned with three friends (geologists Kurt Welty and Bruce Harvey and rancher Larry Slonaker) to embark on a hike through prime grizzly country in the southern sector of the park. Our desire was to spot a grizzly in the wild, to view the king on his turf before it was too late.

Our hike would cover about 30 miles in all. The first day would be the toughest, involving a 2,500-foot climb over the Continental Divide at Two Medicine Pass (elevation 7,500 ft.), and then a descent to a campsite on the upper end of Park Creek. The following day we would head down the valley, spending the night at the lower end of the creek before hiking out to the park's western border the next morning.

"Well, let's hit it, boys," Bruce said. We walked along the lake toward the trail.

The National Park Service (NPS) was created in 1916 by an act of Congress to preserve and protect designated natural areas "in an unimpaired natural state for the enjoyment of the people." As one NPS official notes, the purpose involves a dichotomy.

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"In order to fulfill the law," he says, "both the natural side and the human side must be provided for. Unfortunately, the problem has always been—and will always be—where is the balance?"

At the hub of this question is the grizzly bear controversy—the problem of balancing a danger that can prove fatal to humans against the continued existence in America of an animal that is on the verge of extinction in the lower 48 states.

On one side of the controversy, defenders of the grizzly note that Yellowstone and Glacier are its last habitat south of Canada. No other animal except the buffalo has been so obliterated by man, they argue. Are we now to remove grizzlies from the last remnant of a territory that once spanned two-thirds of the continental United States? The grizzly is part of what little wilderness we have left, they argue—remove him, and what will be next? As for the risk to people, defenders point out the low odds of encountering a grizzly in the parks (500 sightings annually out of 1.5 million visitors to Glacier; fewer in Yellowstone). They note that only a handful of these encounters result in injury, and say that it's statistically much safer to hike through grizzly country than it is to drive to the parks.

On the other side, the bears' detractors argue that the grizzlies' presence in national parks is an unreasonable danger to people and therefore an impediment to their enjoyment of areas that their tax money preserves. Granting the low encounter rate, they point to the three grizzly-caused fatalities in the past decade and maintain that *any* chance of death or injury from the bears constitutes too great a risk for park visitors. Suppose it was *your* friend or relative who was mauled or killed, they tell the pro-grizzly contingent. Finally, they argue that the bears themselves would be better off away from people, in a more remote environment somewhere in Alaska or Canada, where 20,000 grizzlies still live.

> "I'd hate to see it come to clearing out the grizzlies. They are magnificent animals and the park wouldn't be a park without them."

As the argument rages on, the NPS continues to walk a tightrope down the middle by attempting to fulfill its dualistic mandate to provide for human safety while preserving the grizzly. At stake is the future emphasis of our wilderness preservation policy. Ground zero for this acid test is Glacier National Park, home of over 200 grizzlies and site of the three fatal grizzly attacks.

At the trailhead, a bright orange sign caught our attention. On it was a silhouette of a charging grizzly, with the words: WARNING: GRIZZLY FREQUENTING AREA TRAVERSED BY THIS TRAIL. BE ALERT.

We planned to be very alert, because the trail had recently been closed due to grizzly sightings. Although we wanted to see a grizzly, we had great respect for the animal and no desire to surprise one. Spotting a grizzly on a ridge about 300 yards away would be fine. But on the trail we'd make noise to announce our coming, and in camp we'd be careful to hang our food in a tree away from the site in the hope that any bears would keep to themselves.

As we headed uptrail we conversed merrily until the climb got steep and left each of us to our private thoughts. I thought about bears. Sighting a bear is an event for most people, and I think it's because this country is so tamed. Visiting wilderness areas reminds us that there are places where man's hand hasn't yet been felt; places that are unplowed, unmined, undrilled and unfenced. And seeing wild game, especially an animal as big and powerful as a bear, brings us a sense of our own vulnerability and our place in the larger scheme of things.

If the sight of any animal on earth can put a human being in his place, that animal has to be the grizzly bear, one of the largest and most powerful carnivores on earth. Up to 10 feet tall, weighing hundreds of pounds, a full-grown grizzly has the agility of a monkey, the speed of a racehorse and the strength to drop a charging bull with one swipe. Combine these attributes with high intelligence and aggressive demeanor, and the result is one formidable animal.

"Check out this view," said Bruce from up ahead. We had just gone up a series of switchbacks and come out on a shoulder that overlooked the lake and valley below. Across from us a wall of powerful mountains jutted up into the sky. They were 70 million years old, and the valley we were standing in (called a "cirque") had been carved through them by glaciers some 10,000 years ago. We could see five or six waterfalls along the mountains' sides. They led down to streams that flowed into Two Med Lake, nourishing the interlocking web of life that had spun here for centuries.

I scanned the tree line across the valley for movement, but all was still.

Over the years, the Park Service has done a commendable job of keeping people and grizzlies apart at Glacier Park. But in the last decade this has become an increasingly difficult act to pull off. Until 1967, for example, the Park Service could boast that not a single visitor fatality at Glacier was attributable to the grizzly. The 50-year calm was shattered on a single August night that year when two college coeds—both summer employees at Glacier—were killed by grizzlies while camping with friends in the back country.

The incidents both occurred sometime around midnight, and involved different bears at campgrounds that were 50 miles apart. In both cases the grizzlies entered the campgrounds and dragged the women off, sleeping bags and all. The bodies were found early the next morning—one of them partially eaten. Both bears, as well as all other grizzlies that happened to be near either location, were hunted and killed.

The incidents received sensational nationwide media coverage, and sparked the furor over the grizzly's future. The Park Service responded by hiring a wildlife biologist to study the grizzly situation in Glacier and evaluate the bear-management policy.

The biologist, Cliff Martinka, is one of the top authorities on grizzlies in the nation. He immediately instituted a strict garbage-removal program for Glacier after word came in that the bears involved in the killings had been seen around garbage dumps in the parks. When it was discovered that the campers had been lax in following back-country camping rules (both groups had left food around their campsites; one had brought a dog with them, which is forbidden on the trail; and one woman had been wearing cosmetics that may have attracted the bear), the visitor information program on both bears and wilderness use was stepped up.

Although the number of grizzly sightings continued to increase at Glacier, relative calm presided during the next several years. The grizzly furor quieted down. Then, late in the summer of 1976, two subadult grizzlies entered a tent at one of the park's most popular auto-campgrounds, killing a University of Montana coed. This time, the campers involved had followed all the rules. Yet a woman had once again been killed by a grizzly—at a campground that was 75 feet from the ranger station. The public outcry was immediate and intense.

After three hours on the trail we stopped by a stream for a lunch of cheese, sausage and the hiker's mainstay, gorp (nuts mixed

The grizzlies entered the campgrounds and dragged the women off, sleeping bags and all. The bodies were found the next day.

with raisins and M&M's). We were about halfway up the valley, nearing the tree line where the thick lodgepole pine would give way to grassy alpine meadows.

All of us knew that grizzlies, which are solitary and territorial animals, had often been seen roaming this high country. During the summer months they usually split their time between the meadows, where they fed on herbs and small mammals such as marmots and squirrels, and the lower forest areas, where they ate the succulent huckleberries that grow wild in Glacier. (Grizzlies will eat anything, however, including fish, insects and carrion.) In winter, the bears would retreat to the high country to dig dens and semi-hibernate, emerging occasionally for short forays.

The stream we'd stopped at was fed by a series of cascading waterfalls directly above us. Earlier in the summer a group of hikers had spotted three grizzlies there. We soaked our feet in the cold, clear water as ground squirrels chattered nearby.

"How helpless would we be up here in bare feet?" Larry said. The thought made me wince, and reminded me once again of just how vulnerable our "dominant" species really is when removed from the civilized world. Modern man can only survive by exploiting and altering the environment to suit his needs. The contrast with the grizzly bear, which lives in simple harmony with its environment, is striking.

We proceeded up into the high country above the tree line. If any grizzlies were around, they hid themselves well. There were no signs of their presence, except for a couple of holes that might have been grizzly diggings. At 5:00 we reached Cobalt Lake, surrounded by a rim of mountains at the upper end of the cirque. The lake is named for its deep blue hue; its waters were crystal-clear and I could see cutthroat trout darting around near the shore. Beyond the lake, the trail wound up to Two Med Pass and the other side of the continent.

An hour later we sat at the pass, eating gorp and taking in a spectacular view. The Rockies shot up all around us, their shoulders and spires sharply defined by the low sun. Snow-white mountain goats were moving on several of the mountainsides, searching for vegetation. We could see parts of three valleys far below us, and the distant trees looked like green moss. We still had a five-mile hike ahead, so after taking a final look at Cobalt Lake below, we began our descent.

Half an hour after leaving the pass we had entered thick forest once again. As dusk descended we started getting edgy. Grizzlies are most active at dusk, and in the twilight every stump and tree-trunk looked like a bear poised to rear up. We whistled and clapped to make noise as we walked on, and were relieved to hear the rippling stream at last and to come upon the campground before dark.

After setting up camp and devouring a substantial portion of our food, we spent a long time talking. Millions of stars filled the sky overhead, a canopy of sparkling jewels outlining the mountains and treetops. The only sound was the faint rushing of the stream nearby, but I knew that the forest was teeming with activity. The grizzlies were out there somewhere, too. We crawled into our sleeping bags and drifted off to sleep.

"The killing in 1976 showed us that the grizzly situation isn't as simple as we might have thought," says Cliff Martinka from behind his cluttered desk at Glacier Park headquarters. Now in his 12th year as the park's chief biologist, Martinka is in the hot seat. He is the individual most directly responsible for administering Glacier's bear-management program.

"Ten years ago, our only grizzly trouble involved the garbage situation and encounters with sows protecting their young," Martinka says. "Now we're seeing incidents unrelated to either. Before, we could close the dumps—but now that's not enough."

After the 1976 incident, Martinka again re-evaluated and stepped up the Glacier bear-management program. Trails were temporarily closed after grizzly sightings (if the bears had behaved aggressively) to allow for investigation by special patrols of bear-management rangers. Troublesome grizzlies were quickly darted with tranquillizers and relocated to remote areas of the park, and second offenders were destroyed. Finally, a computerized bear-monitoring system was set up. The system, pioneered at Glacier and now used in five other national parks, compiles and analyzes information on all bear sightings in the park.

"Using the computer, we're able to see patterns and predict trouble spots," Martinka explains. "Our object is really people management. We still don't know enough about grizzlies to predict or control their behavior. But people can be educated about bears, and kept out of trouble spots."

So far, the system has worked—there were no grizzly incidents involving injury at Glacier in 1977 and only two in 1978. But the emphasis on "people management" and the repeated trail-closings have heightened the clamor among the parks-are-for-people contingent. One of their spokesmen is Mel Ruder, Pulitzer Prize-winning editor of the *Hungry Horse News*, a Glacier-area weekly.

"As far as I'm concerned," says Ruder, who founded his newspaper in 1946, "every time the Park Service closes a trail they are gypping the public. Suppose you drove all the way from Florida to see the park and found that the best trails were closed? Sure, the park was created for wildlife as well as people. But I think the public has certain rights, too."

Ruder feels that public sentiment on the grizzly issue is shifting. "It used to be, if I printed anything anti-grizzly I'd get a thousand letters of protest. Now all the letters lean the other way," says the editor, who published several editorials critical of Glacier's bear-management program last summer.

"To me, closing trails is avoiding the problem, not solving it," Ruder says. "Sooner or later, there are going to be more killings. We're dealing with animals that are losing their fear of man. Something has got to be done. The situation is a real powder keg."

Morning roused us, clear and cold. We countered the chill with jackets, vests and hot coffee, and by the time it began to warm up we were packed and on our way. This day would be spent hiking down Park Creek Valley—through thick forest, occasional avalanche chutes and meadows, and several miles of huckleberry patches. This was all prime grizzly habitat, and if we were going to spot one of the bears this would probably be the day.

We headed west along the trail, stopping to scan each avalanche chute we entered in the hope of seeing a speck of brown or silver crossing it higher up. But there was no movement. Every so often the trail would come to a spot where the trees broke for a view of the creekbed, about 100 feet below us. There were numerous sandbars, a result of spring flooding; grizzlies like to scavenge on them. But we saw nothing there either.

At 1:00 we stopped for lunch, after which Larry took the lead. We were steadily descending now, and all at once we entered a grizzly's paradise. Lining the trail were bushes loaded with ripe, juicy, beckoning huckleberries. We spent an hour eating and filled up a water bottle with berries to add to that night's jello. Finally we moved on, unable to eat any more. After 100 yards Larry came to a sudden halt up ahead. When I reached him he pointed down at the muddy trail. Right in the middle of it was a

large bear track. My stomach slid upwards about a foot, opening up some lungs along the way.

"Think it's a grizzly?" Larry asked.

"I can't tell," I said, trying to spot claw-marks, which show up particularly large in grizzly prints. "But it's big enough. And it's fresh, too."

"I hope he doesn't mind sharing his huckleberries," Larry said.

"Hey, I didn't eat any. Did you?"

"Me? Never touched any. Here, you take this bottle."

The four of us closed ranks and continued on, apprehensively now, feeling bears all around us but seeing nothing. A bird rustled through the bushes, making my heart jump and causing me to begin eyeing trees for their climbability. There is no outrunning an animal that could beat a 9.0 sprinter by 30 yards. We talked half-kiddingly for a while to combat our squeamishness.

"At least grizzlies can't climb."

"They prefer to knock the tree out from under you."

"I wish I had an inflatable tree."

"I wish I had a couple of jets on my pack."

"What do you say, guys—let's put those huckleberries back."

At 5:30 we reached our campground, situated in a small open clearing along the creek. We were in a narrow part of the valley, and the mountains rose up on both sides of us. A large sandbar extended out into the creekbed, and before we set up camp I took a walk out onto it. I found what looked like moose or elk tracks, but no sign that any bears had been around.

We set up camp and ate every speck of food we had left. The jello was magnificent.

Cliff Martinka admits that the present bear-management system in Glacier is by no means the last chapter of the park's grizzly situation.

"The real problem is one of knowledge," he says. "As of now, we just don't know enough about the grizzly's behavior pattern to take further steps." What's needed, Martinka says, is field research on grizzly behavior. But no such research is being done presently, and none is in the works. Not surprisingly, the reason boils down to dollars and cents.

"Applying for research grants means tackling the bureaucratic pyramid in Washington," Martinka explains. "That involves going through about 3,000 people, and competing with the Park Service's other financial needs. If it's between a research project and a new comfort station, you can guess what will get the nod."

In fact, the funding situation is even bleaker than Martinka indicates. Even if money for a research project is approved, actually getting the funds involves a two-year lag caused by spinning bureaucratic wheels.

"Of course, you could get faster action for a major reason," says John Dennis, of the Natural Resources Division of the NPS. "But emergency funding is hard to justify."

Martinka glumly points out that a few more grizzly attacks might speed the needed funds—but then it would be too late. "It's really a classic case of management by crisis," he says.

One aspect of grizzly research that *is* being done is taking place at the University of Montana. Funded by a variety of state and federal agencies, the zoology department at UM is studying the applications of aversion conditioning to grizzlies.

"What we're doing is trying to reinstill in grizzlies the idea that man is to be avoided," says graduate student Gary Miller, who is currently experimenting with a pair of captured grizzlies. Chemical sprays and recordings of angry-bear noises and high-pitched sounds are being tested on the grizzlies as potential repellents.

"I wouldn't call the project a success yet," says Miller, "but some areas look promising."

Martinka, however, is skeptical of aversion studies. "There's no panacea for the grizzly problem," he says. "What are hikers supposed to do, carry bottles of Mace and tape cassette players? Even if an effective repellent is devised, this would change bears, and our objective is to keep them wild."

As for the "final solution"—the mammoth task of darting and capturing the park's 200 grizzlies for removal to remote areas in Alaska or Canada—Martinka is steadfastly opposed to the idea.

"I'd hate to see it come to clearing out the grizzlies. As far as I'm concerned, they are magnificent animals and the park wouldn't be a park without them. A Glacier bear would have a very rough time adjusting to a new environment. They are very territorial animals, and the park is their natural home."

While recognizing the growing anti-grizzly clamor, Martinka remains optimistic that the problem can be solved without resorting to removal of the grizzlies from Glacier.

"I think we can work this out, but we need research and we need public cooperation," he says. "We've got a Congressional mandate to keep the park both natural and safe for the public. If we can't do it, nobody can."

> "The problem has always been—and will always be—where is the balance?"

Because of that mandate, the grizzly will continue to be preserved and protected for the time being. The present policy of strict grizzly monitoring and "people management" will continue—at least until the next crisis. But further grizzly attacks on people will undoubtedly fuel pressure for the bears' removal. Changing NPS policy to allow that might require an act of Congress—so the ultimate fate of the grizzlies in Glacier and Yellowstone may well be decided on Capitol Hill.

Larry and I awoke at 3 a.m. in a downpour of cold rain. Clouds had moved in unexpectedly after sundown, and Bruce and Kurt had opted to sleep in the tent. Larry and I had decided to risk it. Now, swearing and soaking wet, we crowded into the tent to pass the rest of the night.

An hour later I woke again. Still half asleep, I heard a splashing noise coming from the direction of the creek. Then what sounded like a muffled growl snapped me to full consciousness.

"Bruce! Did you hear that? Something's out there!"

Bruce, who was lying beside me, woke up and we both strained to listen. The rain had stopped and all was silent. Had I heard anything? I didn't want to go outside to check. Within minutes, Bruce was snoring again. It took me a while longer.

When morning came the rain returned and showed no sign of letting up. Thoroughly soaked and sullen, we began the last leg of our hike. By noon we reached trail's end on the park's western border, where we'd left one of our two cars. We piled in to head for food and hot coffee. It felt good to be warm and sitting. Modern civilization does have its pluses.

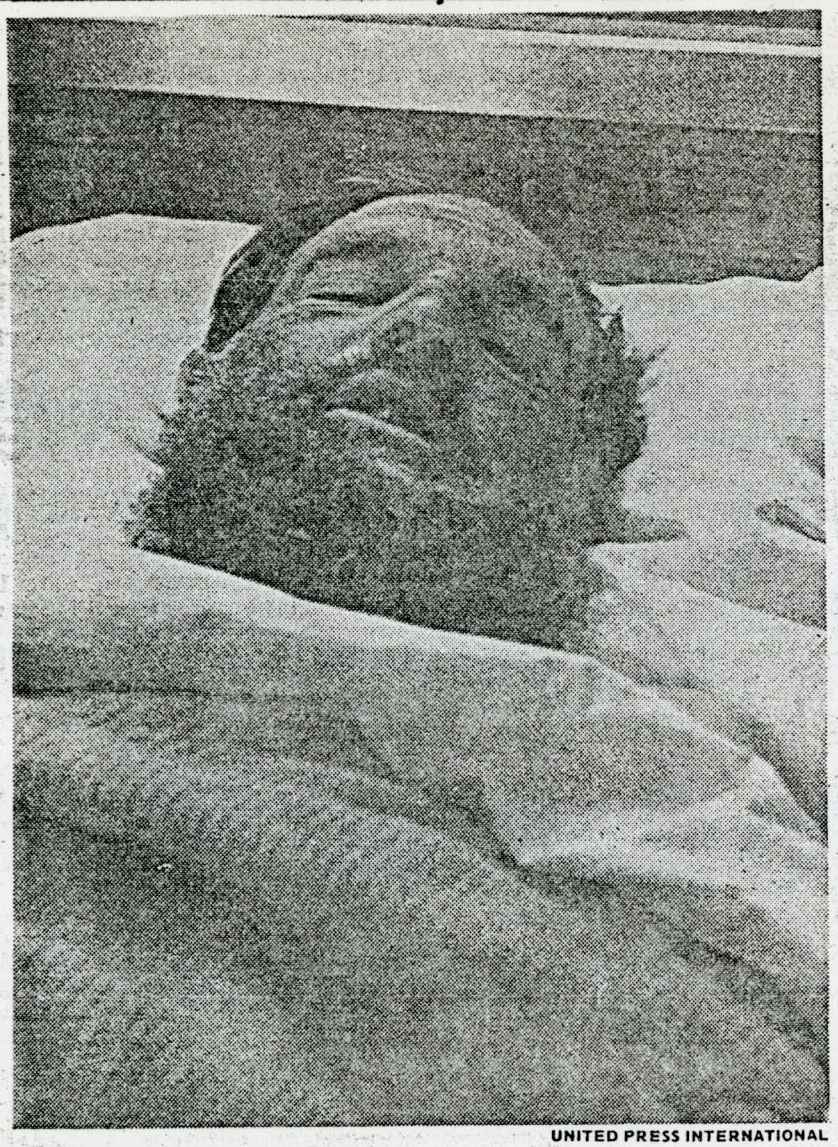
As we drove out of Glacier, I felt disappointment that we hadn't seen a grizzly. But then I wondered if it really mattered that much after all. We had spent two and a half days in country where the grizzly bear—the living symbol of the mountain wilderness—still reigns supreme. Where he survives, wilderness itself survives, pure and untamed. Just knowing that had added an extra dimension to being in Glacier and had set the adrenaline pumping more than once during our trip. Suddenly I felt privileged to have shared the grizzly's domain for a while.

We were by far the muddiest people at Apgar Cafe. The waitress who brought us our coffee smiled and asked us if we'd been on the trail.

"Two and a half days," Bruce said.

"Really? Did you see any grizzlies?" ■

Jim Wright believes any life worth living is worth living dangerously.



UNITED PRESS INTERNATIONAL

Ed Wiseman, who was mauled by a bear while bow-and-arrow hunting, is reported in stable condition in an Alamosa hospital.

Bear tentatively identified as grizzly

ALAMOSA (UPI) — A spokesman for the Colorado Division of Wildlife Tuesday said a bear killed by a hunter who was attacked by the animal tentatively had been identified as a grizzly, which, if confirmed, would be the first sighting of a grizzly in Colorado in nearly 30 years.

Arch Andrews, division public relations director, said officers reached the mountainous site 25 miles southwest of Alamosa Tuesday afternoon. He said an attempt was made to remove the carcass by helicopter, but the animal "was too heavy.

"We've got other crews in there with trucks and on horseback," Andrews said. "They will skin the bear and bring it to Denver for tests."

Andrews said Dick Weldon, a division official, tentatively had identified the dead animal as a female grizzly. He said if the identification was confirmed, the animal would be shipped to the Smithsonian Institution in Washington, D.C., for further tests to determine if the bear could have been raised in captivity and released into the wilds.

Ed Wiseman of Crestone, a veteran mountain outfitter, said he was attacked by the bear Sunday night while bowhunting elk. Wiseman, 46, suffered numerous bite and claw wounds but managed to stab the bear in the neck with an arrow.

Andrews said there had been "several" sightings of grizzlies over the years, but he said none had been confirmed by wildlife officials.

"But our field people have said if there are any grizzlies still left in Colorado, they probably would be in the southwestern part of the state."

Wiseman, who suffered wounds on both legs, his left hand and right shoulder, said nothing like the bear attack had happened in his 14 years as a mountain outfitter.

"I'm a very lucky man to be alive," Wiseman said.

Wiseman's daughter, Kathy, 19, said her father was 30 yards away from the bear when it charged him. He had no time to draw back his bow, but curled up into a fetal position to protect himself. During the attack, he picked up an arrow from the ground and stabbed the bear in the throat.

6—Rocky Mountain News Tues., Sept. 25, 1979, Denver, Colo.

Man is attacked by bear, kills animal with arrow

ALAMOSA (UPI) — A 46-year-old mountain outfitter who surprised what may have been a sleeping grizzly bear was mauled by the animal before fatally stabbing it in the jugular vein with an arrow clutched in his hand.

Colorado Division of Wildlife officials were attempting to confirm if the bear actually was a grizzly. They said it was unusual for the animal to be found in the southwestern part of the state.

An Alamosa County sheriff's spokesman identified the victim of the attack as Ed Wiseman, 46, of Crestone. He was listed in stable condition at Alamosa Community Hospital with numerous puncture wounds, cuts and bites in both legs, left hand and right shoulder.

The spokesman said the attack occurred late Sunday in the mountains about 25 miles southwest of Alamosa, near Platoro.

Wiseman had set up base camp for a party of mountain campers when he and a boy ventured further into the wilds and came across the sleeping bear, said Chuck Gibbs, Wiseman's partner.

Gibbs said the boy walked around the bear and the animal suddenly awakened. When the boy ran, the bear attacked Wiseman who tried to fight the animal with his hands.

Gibbs said Wiseman later reached for the arrow that he used to severe the bear's jugular vein, but only after the animal had mauled him.

Dr. W.L. Neidry, the boy's father, who was camping with Wiseman's group, gave emergency medical treatment to Wiseman throughout the night after a Army helicopter was unable to land because of rugged terrain.

"The doc stayed with Ed during the night and that's the only thing that saved him," Gibbs said.

A rescue squad from Fort Carson Army base early Monday landed at the base camp and took Wiseman to Alamosa for treatment.

9/27 : DoW indentified ~~grizzly~~, female, appx 15 yrs old

Thank you for your grizzly book.

(no answer necessary)

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'I COULD HEAR FLESH TEARING'

'Time Stood Still' in Grizzly-Guide Battle

Denver Post Photo

ED WISEMAN

He detailed his fight with grizzly.

By BILL MYERS
Denver Post Staff Writer

ALAMOSA — A veteran Colorado outfitter who fought a barehanded battle to the death with a grizzly bear in the wilderness — and won when he stabbed the animal with an arrow — said he felt no fear or pain during the ordeal.

"I didn't have time to get scared. It was a strange sensation," said Ed Wiseman, 46, from his bed in Alamosa Community Hospital. "I was thinking mainly of survival; what do I do now, what to do next.

"I was oblivious to pain, but I could actually hear the flesh tearing when he bit me."

Another strange sensation he felt during the battle was that "Time stood still. I have no recollection of (the passage of) time."

If he had to estimate how long the fight lasted, he said, he would guess about a minute.

Close as he was, Wiseman said, he didn't smell the grizzly. "There was no foul odor."

HE DOESN'T RECALL many details of the experience, and others are fuzzy in his mind. But one of the things he remembers vividly is that he recognized the bear as a grizzly the first second he set eyes on the animal.

The bear had a flat face, a hump on the shoulders and silver-tipped fur, all of which stamped it as a grizzly, he said.

"He had light-colored guard hairs (the long outer hairs on the pelt) and an almost-black undercoat," he said.

But Wiseman didn't notice the long claws that are about three times longer than those on a black bear. Some old hands at recognizing grizzlies say the claws are the surest at-a-glance evidence of their species.

Wiseman looks like the kind of fellow who might stand some kind of a chance in such a fight. A 6-footer, he weighs 185 pounds, is muscular and in good shape because of the rugged nature of his work.

But he isn't feeling too athletic these days in his hospital bed.

HE HAS A BREAK in the small bone in his lower right leg and a lot of cuts and tooth-puncture wounds on his legs, right shoulder and right hand.

"The right leg is the worst," he said. "That's the one he (the grizzly) worked on the most."

Wiseman, who lives in the small town of Crestone, about half way between Salida and Alamosa, gave this account of his ordeal:

He, his camp cook and two guides took four Kansas bow hunters on an elk trip to the rugged and remote area near Platoro Reservoir, about 35 air miles west of Alamosa. Among the hunters were a surgeon, Dr. W.L. Niedree, and his son, Mike, 25, of Great Bend, Kan.

They set up a base camp about 5 miles southwest of the reservoir. Sunday, the last day of the bow-hunting season, Wiseman and Mike Niedree rode out to hunt in

Continued on page 24.

Another photo on page 2.

Record of Grizzly Sow

Ear Tag Nos. 7293 and 7155 (current)

1973

This bear was never handled in 1973 or previously, but is believed by Dick Knight to be the female with two cubs of the year seen in the Fishing Bridge area. There were nine separate observations of this family group in and near Fishing Bridge during the season. Examinations of scats showed they were getting garbage. The last observation, on 9/7, indicated only one cub.

1974

From July 6 through August 28, there were eight reported sightings of this sow with one yearling between Pelican Creek and the Fishing Bridge Campground. (See Meagher's memorandum of September 7, 1976 appended).

9/25/74 - The sow and yearling were trapped behind the Lake Hotel, marked with brown plastic eartags, nos. 7293 and 7294 respectively, and were planted by helicopter along Badger Creek, on the Two-Ocean Plateau. These bears were probably responsible for damage to a Yellowstone Park Company duplex on September 23, 1974.

1975

No records or observations.

1976

8/13 - The sow with three cubs of the year was sighted near the Fishing Bridge sewage ponds.

8/14 - Sow and cubs visited Fishing Bridge Campground and got food from an ice chest. (See C.I.R. #76-1643 appended). Extended efforts being made with visitor contact in Fishing Bridge Campground. Traps set.

8/15 - Bear with three cubs damaged a tent trailer in site B-13 at Fishing Bridge Trailer Village. Visitor reports were sketchy, but was assumed to be subject sow and cubs. (See C.I.R. #76-1701 appended). A confrontation occurred at site G-21. (See C.I.R. #76-1813 appended). Stepped up visitor contacts continued. Traps still set.

8/16 - Early a.m. visitor (Melvin Ford) severely injured by subject sow grizzly. (see C.I.R. #76-1738 appended). By evening, an immobilization team was assembled and plans made to capture the family group with drugs. By 2330, all four bears had been captured. (See C.I.R. #76-1765 appended).

8/17 - After discussions among Mary Meagher, Ted Bucknall, Bud Estey, Dale Nuss and Roger Rudolph, it was decided to relocate the sow and cubs to the vicinity of Mariposa Lake. In the afternoon, the bears were drugged and moved by helicopter to the release area, but the presence of a camping party near Mariposa Lake precluded release of the bears at that site. Lynx Mountain, about four miles northeast of Mariposa

Lake, was chosen by Ted Bucknall as a suitable alternate site. The bears were released, given the antagonist, and all had revived shortly before 1600.

8/19 - At 0300 the subject sow was trapped at the Fishing Bridge Trailer Village. Her identity was not known at the time, but during preparations for transplanting (Meagher, Rudolph, Anderson, Lesko) the tag became readable. Meagher and Lesko flew to the Lynx Mountain release site, located the cubs, and returned to Lake to prepare the sow for replanting at Lynx Mountain. It was surmised that the sow was confused by the transplant drug (M-99) on 8/17, and did not realize her cubs were with her, so returned to Lake hunting them. The sow was held in the trap overnight at Lake.

8/20 - The sow was drugged with Sernylan, returned to Lynx Mountain via helicopter and reunited with her cubs. (See C.I.R. #76-7690 appended).

8/30 - Early a.m. the sow slightly injured a camper in Fishing Bridge Campground. (See C.I.R. #76-1923). That evening, an immobilization team of Rudolph, McDowell, Anderson and Lesko prepared to recapture the bears. By 2330, all bears had been captured. (See C.I.R. #76-1975 appended).

8/31 - Meagher, Estey, Nuss and Scott conferred on transplant site and agreed on the Buffalo Plateau near the north boundary. Bears were

drugged with Sernylan at Lake, trucked to Tower and taken by helicopter to the Buffalo Plateau. (See C.I.R. #76-1795).

9/4 - Sow and cubs moved into Tower Campground. First reported as a black bear with three cubs. Some food was apparently obtained. (See Meagher's memorandum of 9/7 appended).

United States Department of the Interior
NATIONAL PARK SERVICE

Yellowstone National Park, Wyoming 82190

IN REPLY REFER TO:

October 5, 1976

Memorandum

To: Superintendent
Chief Park Ranger

From: Mary Meagher, Research Biologist

Subject: Grizzly, Adult Female, Eartag #7155

1973

Never handled. Believed by Dick Knight to be the female of Fishing Bridge area, with two cubs of the year, seen in sewage pond area various times (9 reports). Droppings, believed to be hers and family, contained melon seeds, cantaloupe remnants, etc. She was getting garbage (Knight, pers. comm.).

SIGHTINGS

Rpt.#	Date	Location	Observer	CIR #	Description
114	7/24	Sewage Trt. Site	Holbrook (Nat.)	--	Female/2 yrl.*
116	7/26	Ebro Springs	Knight (NPS)	--	Female/2 cubs
145	7/26	FB Empl. Trailer Village - 2 hrs. in area.	Holbrook	--	Female/2 cubs
122	7/28	½ m. beyond gate on service road N. of Fishing Bridge	Holbrook	--	Female/2 yrl.*

SIGHTINGS - 1973, cont.

Rpt.#	Date	Location	Observer	CIR #	Description
124	7/31	N. of FB Dry Dumps	Knight	--	Female/2 cubs
147	8/1	FB Commercial Trailer Village- 2 hrs. in area.	Ford (Rngr.)	--	Female/2 cubs
137	8/4	FB Empl. Trailer Village	Holbrook	--	Female/2 cubs
161	8/14	Near highway N. of Squaw Lake	B.Jackson (Packer)	--	Female/2 cubs
186	9/7	Lake Utility Area	Nuss (Rngr.)	--	Female/ cub

* Yearlings called cubs of year by Glen Cole in Sept., 1973.

1974

SIGHTINGS

Rpt.#	Date	Location	Observer	CIR #	Description
122	7/6	1½ m. up Pelican Cr.	Oliverius (Rngr.)	--	Female/yrl.
179	7/29	Pel. Fish Trap	Dean (FWS)	--	Female/yrl.
178	7/30	Pel. Fish Trap	Dean	--	Female/yrl.
211	8/16	Storm Pt. Trail	Emerson (Nat.)	--	Female/yrl.
218	8/20	Sewage Lagoon	Wagner (Rngr.)	--	Female/yrl.
229	8/23	FB Campground	Lebsack (NPS)	--	Female/yrl.

Fishing Bridge Campground restricted to hard-sided trailers 8/24.

SIGHTINGS - 1974, cont.

Rpt.#	Date	Location	Observer	CIR #	Description
246	8/28	2 m. from Pelican Cr. trailhead	Blair (Rngr.)	--	Female/yrl.
--	9/23	Behind Lake Hotel- sow sighted on porch of YP Co. duplex, tried to enter house, ripped screen. Prints of adult and cub seen later. House located 50' from grease pit for Lake Hotel.	M.Hargis (YP Co.)	74-1687	Female/cub
--	9/25	Lake Lodge- Female with yrl. captured. Both translocated by helicopter to Lynx Pk. Eartags- female, #7293; yrl., #7294. Female with split ear but no tatoo, wt.est. 250 lbs., old; yrl.male, wt.est.125 lbs. Bear believed responsible for CIR# 74-1687.	Blair	74-1688	Female/yrl.

Other grizzly incidents occuring in the Lake area for three weeks prior to the trapping on 9/25 (indicates level of activity).

CIR#74-1532 - Damage - Bridge Bay (9/4)
CIR#74-1510 - Damage - Bridge Bay (9/6)
CIR#74-1533 - Trap & transplant of 390 lb. grizzly to Lamar Mt. - Bridge Bay (9/6)
CIR#74-1572 - Trap & transplant of 300 lb. grizzly to Beula Lake - Bridge Bay (9/31)
CIR#74-1646 Accidental overdose female sub-adult - Fishing Bridge (9/20)
Bill Armstrong (NPS) knew of two grizzlies in Fishing Bridge area -- one with two yearlings and one with one yearling.

1975

No records that can be distinguished as the same female grizzly. No reports of eartags seen from Thorofare, Lake East, or Pelican.

1976

SIGHTINGS

Rept.#	Date	Location	Observer	CIR#	Description
64	6/23	Lake area between horse corral & road	Kirkley (NPS)	--	Dark brown female (200-400 lbs.) & 3 dk. brown cubs of year.
95	7/16	Fishing Bridge-Pelican	Nuss (NPS)	--	What appears to be same female with 2 cubs of year.
123	7/18	¼ m. N. of FB Jct.	Visitor ver: Mernin (NPS)	--	Family of 4 grizzlies sighte
146	8/13	FB Sewage Ponds	Knight (NPS)	--	Female/3 cubs
148	8/14	FB Campground-Took 4 eggs, 1 lb. bacon, fruits & vegetables. (This one meal may have greatly reinforced the campground usage, since this is a lactating female.)	Lomas (NPS)	76-1643	Female/3 cubs
140	8/15	FB Trailer Village	Lesko (Rngr.)	--	Female/3 cubs

SIGHTINGS - 1976, cont.

Rpt.#	Date	Location	Observer	CIR #	Description
149	8/15	FB Campground- in pickup, eating garbage.	Visitor	--	Female/cubs (number of cubs ?)
151	8/16	FB Area- Trailer Village- (1) Damage to tent trailer Campground- (2) Confrontation (3) Injury (Ford) Charged lights.	Lake Rangers	76-1701 76-1813 76-1738 --	Female/3 cubs
	8/16-17	Trap & transplant to Lynx Pk. Eartag of female, #7155; old eartag gone, but evidence of prior tagging (hole in ear). Eartags of cubs, #7151,7152,7153. Female may be 10-12 years old -- unlikely older. Age and above records suggest ample prior garbage experience over the years.	Lake Rangers	76-1765	Female/3 cubs
157	8/18-19	FB Campground- Trapped herself during night and Transplanted to Lynx Pk. Female apparently recovered from drug 8/16, but disoriented, returned as quickly as possible to where cubs were presumed to be; held night of 19-20 to verify cubs not with her, moved on 20th.	Lake Rangers	76-1790	Female of family

SIGHTINGS - 1976, cont.

Rpt.#	Date	Location	Observer	CIR #	Description
170	8/30	FB Campground-Injury (minor)	Ross (Rngr.)	76-1923	Female/3 cubs
171	8/31	FB Campground-Trap & transplant to Anderson Pk. (Buffalo Plateau), charged drug team 3 times.	Lake Rangers	76-1975	Female/3 cubs
		Fishing Bridge Campground closed 9/1.			
182	9/4	Tower Campground-foraged for one hour on food of some sort, some property damage.	Visitor	76-1979 (page 1)	Black female/3 cubs (verified grizzly, Meagher 9/5)
183	9/4-5	Tower Campground-Midnight-2 am, 4 am; continued to prowl for 2 hrs; returned at 4 am to a concessioner garbage can (dorm). No charging of lights, systematic forager. Campground patrolled by two units.	Tower Rangers	--	Female/3 cubs
184	9/5-6	Tower Campground-patrolled by two units. Bear came in at 3:30 am, got garbage from the can closest to campsite 79 (no garbage pickup was made) probably got garbage from 2 other cans. Bears seemed to move off from patrol units. Bottom step torn off at Tower store even though it had just been scrubbed (D. Patterson).	Weidner (Rngr.)	76-1979 (page 2)	Female/3 cubs
		Tower Campground closed 9/6.			

SIGHTINGS - 1976, cont.

Rpt.#	Date	Location	Observer	CIR #	Description
186	9/6-7	Buffalo Picnic area- seen approx. 10:30 pm, post midnight patrol did not see her.	Weidner (NPS)	--	Female/3 cubs
190	9/8-9	Tower Parking Area seen approx. 1 am.	Murkley (Lake Hospital)	--	Female/3 cubs
214	9/17	Lake Store	Stanley (Ham. -Store)	--	Grizzly 200-400 lbs.
212	9/18	Pelican Valley- by registration sign.	Visitor	--	3 cubs
204	9/19-20	Bridge Bay- got food from ice chest;	Visitor	--	Unknown
		Trapped	Lake Rangers	76-2224	Female #7155
213	9/21	Pelican Valley- 2 m. beyond registration sign, 5 pm.	Nuss	--	3 cubs
204	9/22	Lake- Female destroyed	Lake Rangers	(76-2224)	Female #7155
232	9/27	Pelican Cr. Trailhead	Nuss (NPS)	--	3 cubs
239	9/30	Pelican Cr. Trailhead	Graham (NPS)	--	3 cubs

August 2, 1977

Memorandum to Director Whalen, National Park Service

From: A. Starker Leopold, National Parks Advisory Board,

Durward L. Allen, Council, National Parks Advisory Board

Re: A review of National Park Service bear management programs.

This responds to a request from Director Everhardt, made last year, that we undertake a review of bear management problems in the National Parks and suggest what further measures might be taken to promote and protect the interests of both the public and the bears. Our available time for this important task was limited. We visited some of the parks with bear populations and contacted personnel within and outside the Service whose knowledge of bears might be helpful. Attendance at the International Bear Conference at Kalispell, Montana, in February and visits with officials from Yellowstone, Glacier, Yosemite, Great Smoky Mountains, and Shenandoah National Parks were particularly instructive. Likewise we learned a great deal from Cliff Martinka and from his report on "Black Bear Management in the National Parks System in 1976."

It should be emphasized that this summary of the bear management outlook brings together a selection of ideas and recommendations most of which originated on scenes of action where competent staff and collaborators are dealing with bear problems. We have distilled some constructive suggestions that merit your attention.

Let us first attempt to paraphrase the bear problem. For approximately ten years the National Park Service has been trying to phase out the feeding of bears in the parks with the hope that they will again become independent, wild-living members of the park fauna. Garbage dumps have

been closed, trash cans bear-proofed, tourists warned against feeding bears or leaving food out, and troublesome bears have been transplanted or if necessary removed from the population. It might be fair to say that in most parks the Service has eliminated 90 percent or more of the opportunity for bears to obtain human food. But sadly, this does not mean that the bear problem is 90 percent solved. On the contrary, the problem continues to plague the National Park Service, in undiminished form in some parks. It is abundantly clear today that bears are too smart and too aggressive to be shunted easily from human contacts and food rewards. A program that will really keep all the bears out in the woods making an honest living has to be specific, incisive, and rigidly enforced -- meaning 100 percent, not 90 percent.

And even if all food contacts are removed, we see distressing signs that some bears -- both grizzly and black -- are losing their fear of people and are developing aggressiveness that is unrelated to the food motive. This is a new and extremely serious turn of events. It is imperative, we feel, that the Service give high priority and devote substantial funding to research and experimental management designed to find ways of keeping bears and people apart.

In addition to needed research there are many points of improvement that can be made in current bear management programs, both in terms of Park Service actions and in public instruction and education. For your convenience we summarize our recommendations at this point. These are discussed at more length in the sections that follow.

Recommendations

1) We feel that the present effort to educate the public about deportment in bear country is grossly inadequate. There should be continuing education programs designed to inform people about bears before they even set out for a park visit (movies, TV, magazine articles), and an even more intensive and effective system of teaching and warning when visitors reach the park. Information systems of every available kind should be utilized.

2) Human foods and remains thereof must be made completely unavailable to bears. Systems of garbage disposal, roadside policing, overnight storage of visitors' food stuffs, emptying bear-proof trash cans, and general camp cleanliness will require unrelenting attention. Few of the parks are taking the bear problem this seriously.

3) Monitoring and record-keeping systems in the bear parks should be refined and organized to provide day-to-day and even up to the minute information to the Superintendent on the whereabouts and actions of bears and visitors. This would include reports of people/bear confrontations, property damage, personal injury, aberrant behavior of individual bears, and information on numbers and deployment. Only thus will the Superintendent be able to judge an impending dangerous situation and act to head it off.

4) In addition to policing (2) and monitoring (3) there will be required personnel to implement bear management actions as needed. Resource Management Biologists, especially trained to handle bears, should be available to implement decisions of the Superintendent on moving or destroying dangerous or troublesome animals. All of these recommendations call for additional specialized personnel.

5) In the long run, perhaps the greatest need is for research in methods of teaching bears to shun people. Somehow, bears have to be convinced that human contacts are best avoided. At present, we are abysmally ignorant of how to transmit that message throughout bear society. Continuing bear troubles will plague the Parks until we achieve some skill in aversive conditioning.

Public Information and Warning Systems

Methods of influencing public attitudes and practices relative to bears and other potentially dangerous wildlife might be categorized as follows:

General films and publications issued at national level.

Handouts and bulletins specific to a park, which can be given to the visitor at the entrance gate.

Warning signs in campgrounds, on trails, and at other appropriate sites.

Locally developed films, slide shows, and interpretative talks.

Personal contacts with individual visitors by ranger personnel on patrol

How useful a general film or animated slide show on bears could be to a particular park is open to some question. However, in view of the national interest and importance of the grizzly as an endangered species and of the black bear as the largest carnivore that will be seen by most of the public, a major effort to reach the average citizen seems to be in order. It could be an important part of the commitment of the National Park Service to outdoor education. Likewise it could counteract to some

extent the common characterization of the bear as a friendly buffoon (Yogi Bear, Teddy Bear, Smoky Bear, Grizzly Adams, etc.)

Thus we recommend that the Park Service develop at one of its centers a highly professional film that will portray for the average individual the habits and character of bears, their place in wilderness, and the environmental management they require. This would include wholesome viewpoints on back-country travel and the responsibilities of people for their own safety in the presence of potentially dangerous animals, and a summary of what the Park Service is doing to preserve wild bears in a wild state. An outstanding film of perhaps 20 minutes would be in demand by many outdoor organizations throughout the country for meetings and other purposes, and it could be shown in the parks. It would also be a convincing notice to the public that the National Park Service is in earnest about meeting its obligations in an important wildlife field.

In the individual parks, a great deal more can be done to educate the visitor about bears. We have examined the warning signs and the handouts given to visitors arriving in many of the parks and find them generally trite, casual and unconvincing. To discourage roadside feeding and careless exposure of food in campgrounds the visitor has to be convinced that bears are <u>dangerous</u>. From the moment he enters the gate this message should be impressed and reiterated. Perhaps there is some concern that scare tactics will spoil the pleasure of a park visit. The pleasure can be spoiled more effectively by an obstreperous bear.

The educational and warning system, in summary, should be the best and most complete possible within the skills and means of the National Park Service. It serves these important purposes:

Protects the people from the bears;

Protects the bears from the people; and

Protects the National Park Service from tort cases in the event of mishap.

Park Sanitation

Substantial progress has been made in sanitizing those parks with major bear populations. The closing of open-pit garbage dumps is largely completed (Shenandoah closed its last dump in 1976, for example) and bear-proof trash cans have been installed in most parks. But still, slip-ups occur and bears obtain bits of food. A trash can overflows, a back-packer leaves a dirty camp, a touring motorist tosses a left-over sandwich to a bear encountered along the road, or a hiker drops his pack and flees upon meeting a bear on the trail. It takes very few such incidents to turn a wild bear into a beggar and thence ultimately into a bold tyrant who has to be destroyed. When a well-meaning visitor inadvertently or deliberately feeds a bear he is in essence signing that animal's death warrant. For this reason, provisions for maintaining 100 percent compliance with rules about park sanitation and not feeding animals are essential to protect the welfare of the bear as well as the health and property of the visitor.

We recommend a service-wide review of plans and programs of sanitizing bear parks and of implementing pertinent rules and regulations. As Martinka states in his 1976 report on managing black bears in the parks, the management plans and associated regulations are effective only to the level that they are implemented. He emphasizes the "...need for greater

attention to visitor management, including food control and distribution restrictions." Trapping and moving troublesome bears, or even destroying them, does nothing to solve the bear problem. Prevention is the only ultimate solution.

Monitoring Systems

In Martinka's report on black bear management on six parks, he rated the information system acceptable in one, marginal in a second, and deficient in four. Of the two grizzly parks in Montana, we would rank the information systems deficient in both. A graduate student from California attempted to analyze visitor/grizzly contacts and interactions in Glacier and was severely handicapped for lack of adequate records. If the Superintendent of Glacier had been fully apprised of the actions of the grizzly that killed the Mahoney girl in September, 1976, he surely would have ordered the bear destroyed before the death of the girl, rather than afterward. Good monitoring would easily and accurately have anticipated that incident.

In every park with a record of bear problems a biologically trained staff member should be responsible for keeping files and providing the Superintendent with current information on bear actions, incidents, and management requirements. According to need, this may be a full-time activity, or it could be combined with other appropriate responsibilities in some parks. It is evident that in major bear parks a new staff position that might be called Wildlife Management Biologist should be established to assist the resources management supervisor under the Chief Ranger. This staff member should be coordinating all bear-management information and problems, and be in close touch with research workers on the one hand and management personnel and the interpretation staff on

the other. Especially in parks like Great Smokies and Shenandoah the addition of a well-trained biologist to the resources management group is urgently needed. The position would also provide technical supervision to (usually seasonal) back-country personnel adequate to patrol trails and campgrounds and improve the present extremely poor level of reporting and record keeping on bear incidents. This work is accessory to more personalized visitor contacts and a better warning system relative to bear regulations and dangers.

Management Actions

Bear problems are going to occur despite the most conscientious efforts to avoid them. On each bear park there should be specific provision for taking management action as needed and a trained staff to do it. In too many parks bear problems are handled on an impromptu basis, with untrained personnel and no pre-conceived game plan. Parks with large bear populations might have pre-season training sessions for staff and seasonal help, as they now have "fire schools." Martinka emphasizes the need for a written plan of management to guide action programs.

Park Service policy dictates that troublesome bears be trapped and moved to isolated areas where hopefully they may resume an independent life. Only when an animal proves to be incorrigible should it be removed from the population. By and large we endorse this concept. Yet there remains a broad spectrum of judgement as to when a bear is declared incorrigible. Repeated transplanting of bothersome bears is expensive and may result in merely transplanting and amplifying a problem rather than solving it. A few years ago in Yosemite, for example, persistent complaints

by some protectionists against killing bears - even the worst offenders - caused the Park to transplant many animals that should have been eliminated. The result is that today Yosemite has far and away the worst black bear problem of any park in the whole system. Subsequent development of a firm and effective management plan offers hope of ultimate solution.

Trapping and marking bears for biological and management studies can properly be done, under a permit from the Superintendent, by research people in the parks. But transplanting nuisance bears or killing bears that are habitual trouble-makers should be done by specially trained members of the ranger staff. Research personnel should be given the opportunity to cooperate and to gather data on trapped animals, but they should not have primary responsibility for management actions. In 1977 this change is being made at Great Smokies, where all trapping had been done formerly by collaborators from the University of Tennessee.

It is important that responsible personnel in bear parks subscribe to the idea that these animals are a wilderness resource that must be preserved in a wild state. Thus the aim is to mitigate the need to destroy or relocate bears because their habitat has been invaded by large numbers of people. In Great Smokies and Shenandoah, bear problems occur most commonly in large back-country campgrounds. It would seem that a scattering of campers in small groups reduces bear problems. Where it is necessary to remove a "repeater" bear, who is a threat to hikers and campers, the practice has been to turn these animals over to the state; they are commonly liberated in areas open to hunting. Where bear habitat well removed from the park is not available, transplanting becomes a vain and costly expedient. The bear might better be destroyed and used for whatever research information can be gained from it.

In large bear parks, campgrounds and hiking trails should be kept out of the prime bear habitats to the greatest extent possible. The closing (permanently or temporarily) or relocation of camping areas, or the enforcement of use restrictions (such as hard-sided campers) should receive high priority in park operations. These actions should be planned on an annual basis as problem areas are identified by research or by the record of bear incidents.

Research

Superintendents in parks with bear populations are much in need of habitat surveys that reliably identify and map seasonal use areas according to quality and such habits as breeding, feeding, and denning. This information will naturally accompany studies, which must be site-specific to different parks and regions, on the environmental resources required by bears. In view of long standing deficiencies in bear management information, ecological and population studies should be part of a continuing research effort in every park where bears are important. Research and management personnel from different parks should be brought together periodically, and there should be a routine exchange of information via annual reports, publications, and meetings such as the recent bear conference in Kalispell.

We have found Superintendents of bear parks to be keenly knowledgeable and concerned about their bear management problems. They are obviously stretching the capacities of their staffs and other resources to cover as many problems as possible. They know that more research is needed to answer urgent management questions. Many requests for funding

such research have been submitted or are in preparation. We recommend that a greater effort in this field should have high priority in allocating research budget increases to the National Park Service. If this seems to take for granted an expansion of the research program, that is indeed our feeling about it. We so recommended in a memorandum dated July 12, 1977.

For example, it was almost incredible for us to learn that the principal bear study program in the Southeast has been in progress at Great Smokies for the past seven years without any direct funding by the National Park Service. This work by personnel of the University of Tennessee has been under a contract by the park natural history association, who raised money for it. It has been partially funded by McIntyre-Stennis funds (Forest Service) made available through the University Agricultural Experiment Station. We firmly believe in the use of such sources for research funding in the parks. But where urgent management questions are involved, concerning public safety and the management of park resources, we think that a funding equity direct from the office of the Regional Chief Scientist should be helping to support such projects in the parks.

In addition to continuing research on the ecology and natural history of bears, we see a pressing need for study of bear behavior, with a view to possible aversive conditioning to people. As noted at the outset of this report, bears in a number of situations are showing less timidity and more and more outright aggressiveness toward people -- a trend which we find very worrisome indeed. If such a trend is allowed to continue there might arise serious question about people and bears sharing

some parklands. To date, the National Park Service has not entered this important field of study. A small beginning was planned for 1977 in Yellowstone, but the investigator, Dr. Barrie Gilbert, was mauled by a grizzly before the study was even underway. No event could more forcibly have emphasized the need for research on bear behavior in relation to people and the desirability of seeking ways to modify bear attitudes and action patterns. Above everything else in this report, we urge that substantial funds be allocated for initiating behavioral studies and management experiments in aversive conditioning. This line of research should be initiated in 1978 in the Alaska parks, Yellowstone, Glacier, and selected black bear parks. Failure to do so would, it seems to us, expose the Service to charges of negligence and legal liability subsequent to future bear mishaps. As a corollary study it might be well to initiate a legal appraisal of NPS responsibility and liability toward the increasing number of unsophisticated people coming to share the parks with the bears.

Funding

Virtually all of the suggestions that we have made in this memorandum will cost money. Martinka in his report on black bear management offers an annual estimate (Table 4) of $368,000, of which $125,000 is specified for research and the rest for management personnel and information/public relations systems.

We are not in a position to comment intelligently on this estimate although generally it seems to us quite modest, especially if grizzly problems are added to the black bear problems. Perhaps $500,000 would

be closer to a realistic goal, with most of the additional funding devoted to a stepped up research effort.

Summary

Despite considerable progress in closing garbage dumps, sanitizing campgrounds, and regulating public behavior in relation to bears, it would appear that progress in bear management is far from satisfactory. We seem to have grossly underestimated the problem. In the past 10 years grizzlies have killed more people in the parks than in the previous century (back to the founding of Yellowstone). Black bears continue to be an unmitigated nuisance in many areas. As professors we could perhaps give the Park Service an A for effort in trying to manage bears but no more than a C- in accomplishment. The task ahead is still enormous. We hope that you as Director and the whole Service will acknowledge and accept this challenge.

LLEGE OF NATURAL RESOURCES
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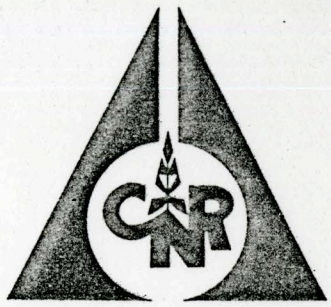

Department Wildlife Science
752-4100 EXT. 7928

5 March 1979

Mr. Don R. Petersen
Howard, Lewis & Petersen
Attorneys at Law
Provo UT

Dear Don:

I am enclosing copies of two documents which may relate to your client's case.

"Research Note: No. 7" evaluates 1976 mgmt. You may want to request No. 8 for the following year as well.

The memorandum to Director Whalen has been referred to in the scientific literature I assume it has been widely distributed. The opinion on p. 12 re "negligence and legal liability" of the NPS may be of interest.

Sincerely yours

B. L. Gilbert

denning shortly after November 8. All other grizzly transplants (5) were successful.

Tables 6 and 7 compare daily bear sightings in developed areas and in the wild. All sightings were up over last year--also believed to be a function of the habitat differences mentioned previously.

The bear monitoring information suggests several other things. Hayden Valley no longer appears to support a high density of grizzly bears comparable to Pelican Valley. In spite of increased grizzly sightings park-wide over 1975, sightings for Hayden Valley proper were down--(four reports only) roughly a third of last year's. The level of open valley bear use there in the past would seem to have been a function of the long-term presence of the Trout Creek dump. Only now, five seasons post-closure, and perhaps influenced by a season (1975) of relatively little bear use of open areas throughout the park, may bear numbers for that area be natural. Knight (pers. comm.) concurs. This does not mean that there will not always be bears of both species utilizing the valley and/or adjacent areas at times--a comment that applies throughout the park.

By contrast, Pelican Valley continues to be a major area of grizzly habitat. Knight (pers. comm.) can account for four separate family units using the valley and adjacent areas this summer (three females with cubs of the year: one with three cubs, one with two cubs, one with one cub; and one female with one yearling). Documentation of a basic conflict stemming from a development intruding on this natural unit of high biological importance will be the subject of a separate report which will include but not be limited to bear problems.

The monitoring system also gives some indication of visitor opportunities to see bears from park roads which are behaving naturally. Of 453 grizzly bear "in the wild" observations, 37 or 8% were seen from roads. For blacks, 67/441 or 15% were observed from roads carrying on natural activities with no signs of begging behavior.

Finally, the monitoring system suggests where additional effort-- a combination of information and law enforcement--may be useful. Ice chests are the most common campground attractant, in spite of warnings. Stricter enforcement may help. The token road side black bear quickly escalates to a problem. Hazard warnings should be blunt.

Realistically, however, there are some individuals who will ignore all efforts to prevent bear incidents. The circumstances leading to the major personal injury caused by grizzly female #7155 demonstrate this clearly. The individual ignored two requests to properly store an ice chest, hid the chest, and then tried to drive the bear's cubs away from it. Another person was deliberately baiting bears into the development for observation. These kinds of actions will cause some bear problems as long as both bears and people use the park.

In summary, the present bear monitoring system is providing an efficient tool for anticipating, analyzing, and to some degree preventing bear problems. It is clear that the present level of effort, both monitoring and management response, must continue to be as integral a part of park operations as are road patrol and interpretive services.

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Chester, J.M. 1976. Human wildlife interactions in the Gallatin Range, Yellowstone National Park, 1973-74. MS thesis, Montana State University. 114 p.

Cole, G.F. 1976. Management Involving Grizzly - Black bears in Yellowstone National Park 1970-75. Nat. Res. Rept. #9. NPS. 26 p.

Knight, R.R. et al. 1975. Yellowstone Grizzly Bear Investigations. Annual Report Interagency Study Team, U.S.D.I.-N.P.S. Misc. Rept. #9. 46 p.

Table 1.--Numbers of injuries to humans from grizzly bears by periods and year, Yellowstone National Park, 1930-1976.[a]

Years	No. grizzly-caused injuries per year		No. of visitors per injury
	Developed area	Backcountry	
1930's	0.6 (0-3)	0	800,000
1940's	1.2 (0-7)	0	600,000
1950's	0.5 (0-2)	0	2,700,000
1960's	3.6 (1-8)	0.3 (0-2)	500,000
1970	2	1	700,000
1971	0	0	0
1972	1	1	1,000,000
1973	0	0	0
1974	0	0	0
1975	0	2	1,000,000
1976	2	2	600,000

[a]Data 1930-1975 from Cole, 1976.

Table 2.--Records of grizzly bear control actions in developed areas, Yellowstone National Park, 1968-1976.[a]

	Control actions[b]								
	1968	1969	1970	1971	1972	1973	1974	1975	1976
Old Faithful	1	0	22	1	0	0	1	0	3
Canyon	14	16	9	11	10	3	6	0	0
Lake Outlet	16	25	11	20	13	4	5	0	10
Bridge Bay	8	9	0	1	3	3	2	0	1
Grant Village	20	5	15	5	0	0	0	0	0
Eleven other units	0	2	13	1	0	0	0	0	1
Total control actions	59	57	70	39	26	10	14	0	15
No. different bears	?	?	50	33	21	7	11	0	9
Pct. successful transplants	33		60	80	74	70	77	0	57
No. bears destroyed	5[c] (3)	10 (5)	12 (6)	6 (2)	6 (4)	0	2 (1)	0	1
No. bears to zoos	0	0	8	0	1	0	0	0	0

[a]Data 1930-1976 from Cole, 1976.

[b]Numbers of times a bear was cap[illegible] for transplanting, shipped to a zoo, or destroyed.

[c]Yearly totals with number that [illegible] unintentional because bears charged personnel, came out of drug eff[illegible] during handling, injured themselves in traps, or failed to recover [illegible] drugs shown in parentheses.

Table 3.--Numbers of grizzlies removed by park and state control programs and other known kills of marked and unmarked bears in adjacent state areas, 1970-1976.[a]

Year	Removals due to control programs		Killed by vehicles	Other known kills[b]			Yearly totals
	Park	Mont.		Wyo.	Mont.	Idaho	
1970	20	0	2	12(1)	7(1)	7(1)	48
1971	6	14	1	12	6(3)	5	44
1972	9	2	1	7	0	4	23
1973	0	1	0	7(1)	2	3	13
1974	2	1	0	10(3)	1	0	14
1975	0	0	0	0	0	0	0
1976[c]	1	0	0	2	1	0	4
Totals	38	18	4	50	17	19	146

[a]Data 1930-1975 from Cole, 1976.

[b]Legal and illegal kills from hunting or to protect livestock or property, with those marked inside Yellowstone National Park prior to or since 1970 in parentheses. In 1976 one illegal kill occurred at Huckleberry Hotsprings, Wyoming, one at the dump at Cooke City, Montana, and one was killed accidentally in Wyoming by the Interagency Grizzly Bear Study Team.

[c]One grizzly cub was found dying in June; was not related to the control program so was not tallied here.

Table 4.--Numbers and ratios of female grizzlies and young seen in different family groups in and adjacent (1 mi) to Yellowstone National Park during a 1959-1966 period and subsequent years.[a]

Years	Numbers			Numbers			Pct. cubs surviving to yearling age
	Females	Cubs	Ratios	Females	Yearling	Ratios	
1959-66 averages	15	33	2.2	15	20	1.3	61
1972	11	22	2.0	9	18	2.0	?
1973	15	27	1.8	16	24	1.5	75
1974	14	22	1.6	16	27	1.7	93
1975	5	7	1.4	5	7	1.4	89
1976[b]	15	30	2.0	4	8	2.0	-

[a]Data 1930-1975 from Cole, 1976.

[b]From Knight (per. comm., 1976), with 16 females and 32 cubs, and 5 females with 9 yearlings reported in the overall study area.

Table 5.--Park records on the numbers of human injuries caused by black bears and the number of bears transplanted and destroyed 1931-69 and from 1970 to 1976.[a]

Years	No. injuries to visitors	No. captures and transplants	No. black bears killed[b]
1931-69	45 ave./yr.	--	24 ave./yr.
1970	7	19	7 (1)
1971	9	15	4 (2)
1972	5	34	11 (3)
1973	5	13	3 (0)
1974	7	11	3 (2)
1975	1	5	1 (1)
1976	4	13	4 (1)

[a]Data 1930-1975 from Cole, 1976.

[b]Includes bears killed by cars which are shown in parentheses for 1970-1976.

Table 6.--Yearly totals of the numbers of grizzly bears observed on a daily basis in developed areas and in the wild within Yellowstone National Park, 1970-1976.[a]

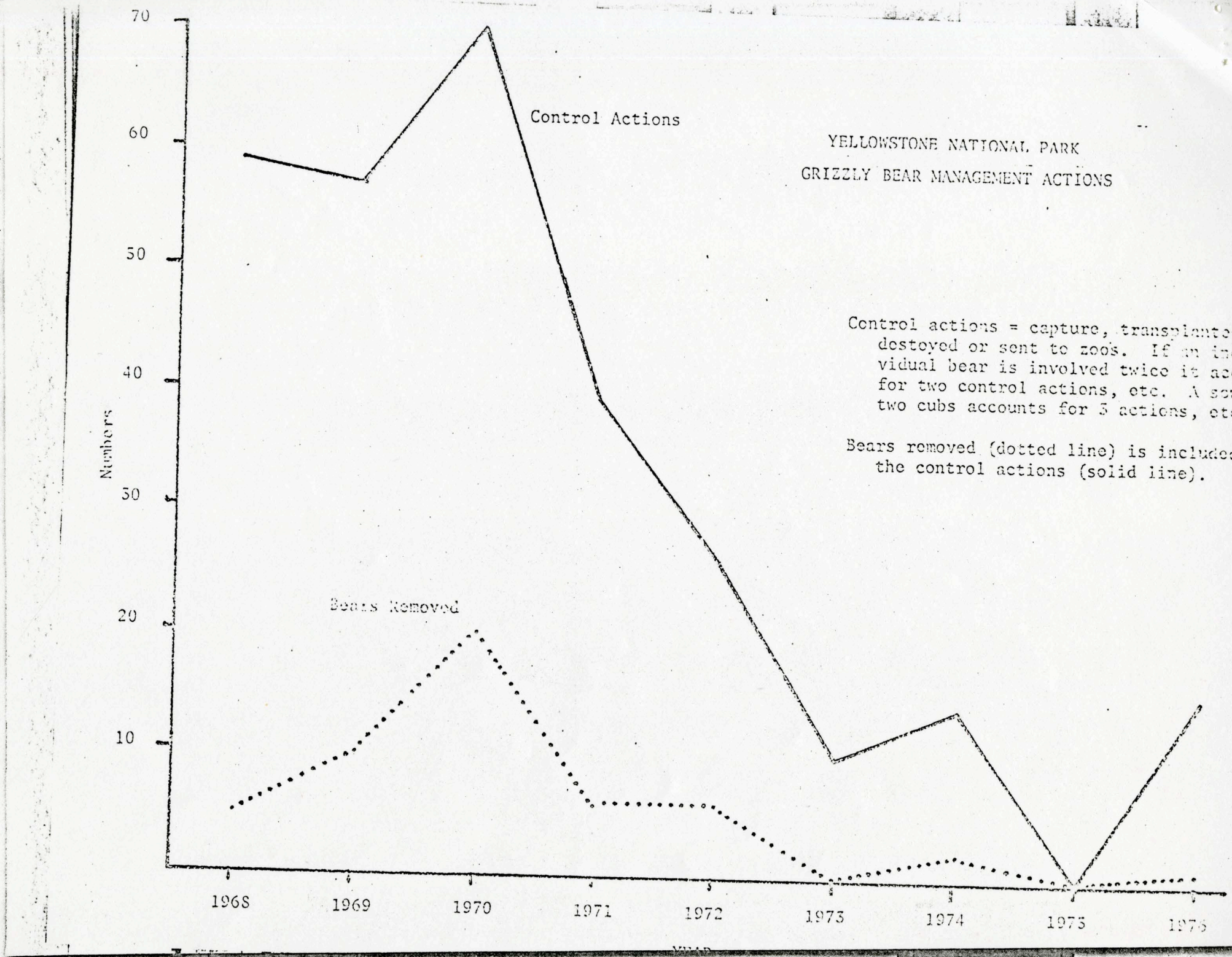
	1970	1971	1972	1973	1974	1975	1976
No.in Devel.	178	146	105	54	26	5	65
No.in Wild	614	320	349	348	426	216	453

[a]Data 1970-1975 from Cole, 1976.

Table 7.--Yearly totals of the numbers of black bears observed on a daily basis in developed areas and in the wild within Yellowstone National Park, 1975-1976.[a]

	1975	1976
No.in Devel.	57	60
No.in Wild	347	441

[a]No comparable data available prior to 1975.



YELLOWSTONE NATIONAL PARK

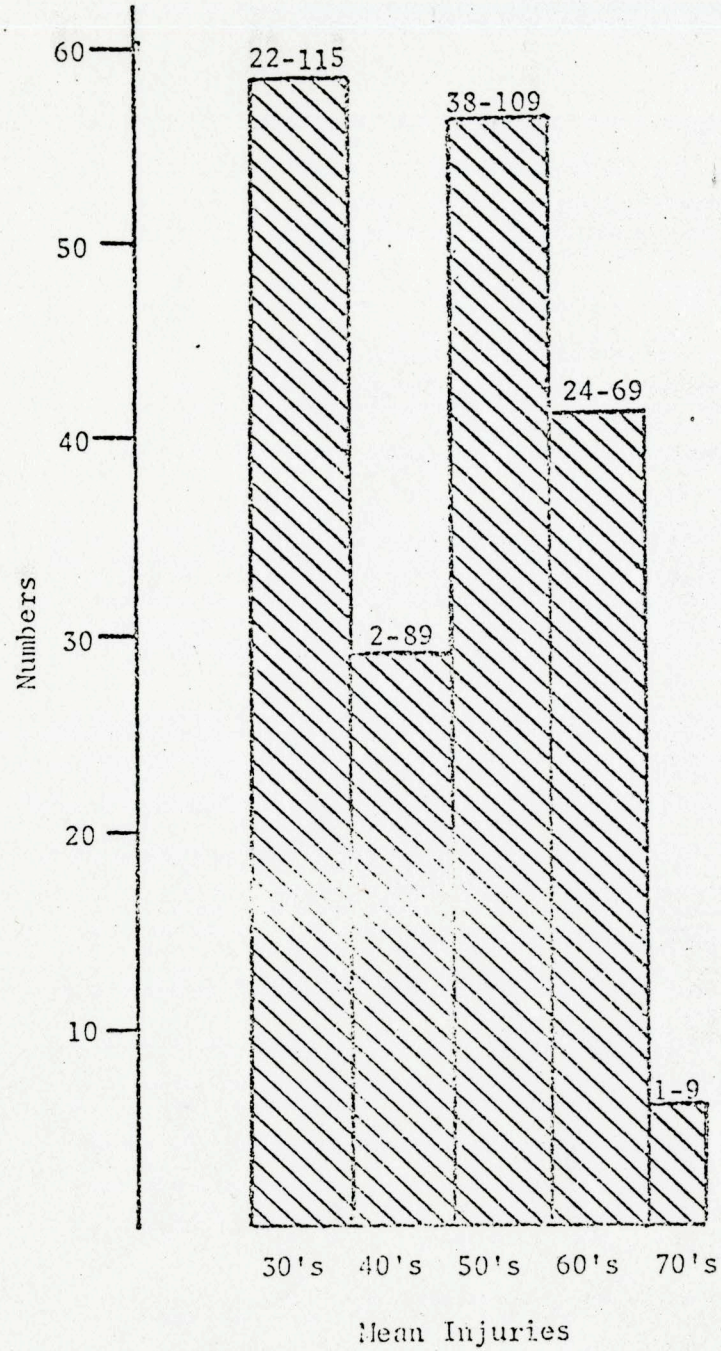
GRIZZLY BEAR MANAGEMENT ACTIONS

Control actions = capture, transplanted, destoyed or sent to zoos. If an individual bear is involved twice it accounts for two control actions, etc. A sow with two cubs accounts for 3 actions, etc.

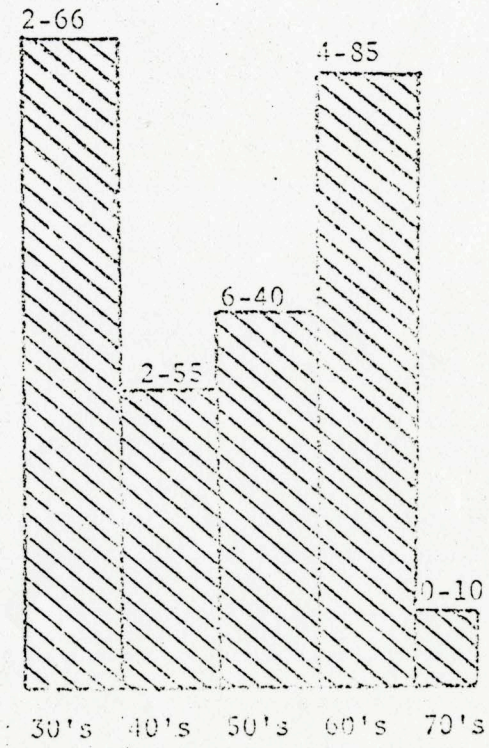
Bears removed (dotted line) is included in the control actions (solid line).

YELLOWSTONE NATIONAL PARK
BLACK BEAR INCIDENTS
Averaged by Decade

(numbers at top of column are the range for that decade)



Mean Injuries



Bears Removed

Record of Grizzly Sow

Ear Tag Nos. 7293 and 7155 (current)

1973

This bear was never handled in 1973 or previously, but is believed by Dick Knight to be the female with two cubs of the year seen in the Fishing Bridge area. There were nine separate observations of this family group in and near Fishing Bridge during the season. Examinations of scats showed they were getting garbage. The last observation, on 9/7, indicated only one cub.

1974

From July 6 through August 28, there were eight reported sightings of this sow with one yearling between Pelican Creek and the Fishing Bridge Campground. (See Meagher's memorandum of September 7, 1976 appended).

9/25/74 - The sow and yearling were trapped behind the Lake Hotel, marked with brown plastic eartags, nos. 7293 and 7294 respectively, and were planted by helicopter along Badger Creek, on the Two-Ocean Plateau. These bears were probably responsible for damage to a Yellowstone Park Company duplex on September 23, 1974.

1975

No records or observations.

1976

8/13 - The sow with three cubs of the year was sighted near the Fishing Bridge sewage ponds.

8/14 - Sow and cubs visited Fishing Bridge Campground and got food from an ice chest. (See C.I.R. #76-1643 appended). Extended efforts being made with visitor contact in Fishing Bridge Campground. Traps set.

8/15 - Bear with three cubs damaged a tent trailer in site B-13 at Fishing Bridge Trailer Village. Visitor reports were sketchy, but was assumed to be subject sow and cubs. (See C.I.R. #76-1701 appended). A confrontation occurred at site G-21. (See C.I.R. #76-1813 appended). Stepped up visitor contacts continued. Traps still set.

8/16 - Early a.m. visitor (Melvin Ford) severely injured by subject sow grizzly. (see C.I.R. #76-1738 appended). By evening, an immobilization team was assembled and plans made to capture the family group with drugs. By 2330, all four bears had been captured. (See C.I.R. #76-1765 appended).

8/17 - After discussions among Mary Meagher, Ted Bucknall, Bud Estey, Dale Nuss and Roger Rudolph, it was decided to relocate the sow and cubs to the vicinity of Mariposa Lake. In the afternoon, the bears were drugged and moved by helicopter to the release area, but the presence of a camping party near Mariposa Lake precluded release of the bears at that site. Lynx Mountain, about four miles northeast of Mariposa

Lake, was chosen by Ted Bucknall as a suitable alternate site. The bears were released, given the antagonist, and all had revived shortly before 1600.

8/19 - At 0300 the subject sow was trapped at the Fishing Bridge Trailer Village. Her identity was not known at the time, but during preparations for transplanting (Meagher, Rudolph, Anderson, Lesko) the tag became readable. Meagher and Lesko flew to the Lynx Mountain release site, located the cubs, and returned to Lake to prepare the sow for replanting at Lynx Mountain. It was surmised that the sow was confused by the transplant drug (M-99) on 8/17, and did not realize her cubs were with her, so returned to Lake hunting them. The sow was held in the trap overnight at Lake.

8/20 - The sow was drugged with Sernylan, returned to Lynx Mountain via helicopter and reunited with her cubs. (See C.I.R. #76-7690 appended).

8/30 - Early a.m. the sow slightly injured a camper in Fishing Bridge Campground. (See C.I.R. #76-1923). That evening, an immobilization team of Rudolph, McDowell, Anderson and Lesko prepared to recapture the bears. By 2330, all bears had been captured. (See C.I.R. #76-1975 appended).

8/31 - Meagher, Estey, Nuss and Scott conferred on transplant site and agreed on the Buffalo Plateau near the north boundary. Bears were

drugged with Sernylan at Lake, trucked to Tower and taken by helicopter to the Buffalo Plateau. (See C.I.R. #76-1795).

9/4 - Sow and cubs moved into Tower Campground. First reported as a black bear with three cubs. Some food was apparently obtained. (See Meagher's memorandum of 9/7 appended).

United States Department of the Interior
NATIONAL PARK SERVICE

Yellowstone National Park, Wyoming 82190

IN REPLY REFER TO:

October 5, 1976

Memorandum

To: Superintendent
Chief Park Ranger

From: Mary Meagher, Research Biologist

Subject: Grizzly, Adult Female, Eartag #7155

1973

Never handled. Believed by Dick Knight to be the female of Fishing Bridge area, with two cubs of the year, seen in sewage pond area various times (9 reports). Droppings, believed to be hers and family, contained melon seeds, cantaloupe remnants, etc. She was getting garbage (Knight, pers. comm.).

SIGHTINGS

Rpt.#	Date	Location	Observer	CIR #	Description
114	7/24	Sewage Trt. Site	Holbrook (Nat.)	--	Female/2 yrl.*
116	7/26	Ebro Springs	Knight (NPS)	--	Female/2 cubs
145	7/26	FB Empl. Trailer Village - 2 hrs. in area.	Holbrook	--	Female/2 cubs
122	7/28	½ m. beyond gate on service road N. of Fishing Bridge	Holbrook	--	Female/2 yrl.*

SIGHTINGS - 1973, cont.

Rpt.#	Date	Location	Observer	CIR #	Description
124	7/31	N. of FB Dry Dumps	Knight	--	Female/2 cubs
147	8/1	FB Commercial Trailer Village- 2 hrs. in area.	Ford (Rngr.)	--	Female/2 cubs
137	8/4	FB Empl. Trailer Village	Holbrook	--	Female/2 cubs
161	8/14	Near highway N. of Squaw Lake	B.Jackson (Packer)	--	Female/2 cubs
186	9/7	Lake Utility Area	Nuss (Rngr.)	--	Female/ cub

* Yearlings called cubs of year by Glen Cole in Sept., 1973.

1974

SIGHTINGS

Rpt.#	Date	Location	Observer	CIR #	Description
122	7/6	1½ m. up Pelican Cr.	Oliverius (Rngr.)	--	Female/yrl.
179	7/29	Pel. Fish Trap	Dean (FWS)	--	Female/yrl.
178	7/30	Pel. Fish Trap	Dean	--	Female/yrl.
211	8/16	Storm Pt. Trail	Emerson (Nat.)	--	Female/yrl.
218	8/20	Sewage Lagoon	Wagner (Rngr.)	--	Female/yrl.
229	8/23	FB Campground	Lebsack (NPS)	--	Female/yrl.

Fishing Bridge Campground restricted to hard-sided trailers 8/24.

SIGHTINGS - 1974, cont.

Rpt.#	Date	Location	Observer	CIR #	Description
246	8/28	2 m. from Pelican Cr. trailhead	Blair (Rngr.)	--	Female/yrl.
--	9/23	Behind Lake Hotel- sow sighted on porch of YP Co. duplex, tried to enter house, ripped screen. Prints of adult and cub seen later. House located 50' from grease pit for Lake Hotel.	M.Hargis (YP Co.)	74-1687	Female/cub
--	9/25	Lake Lodge- Female with yrl. captured. Both translocated by helicopter to Lynx Pk. Eartags- female, #7293; yrl., #7294. Female with split ear but no tatoo, wt.est. 250 lbs.,old; yrl.male,wt.est.125 lbs. Bear believed responsible for CIR# 74-1687.	Blair	74-1688	Female/yrl.

Other grizzly incidents occuring in the Lake area for three weeks prior to the trapping on 9/25 (indicates level of activity).

CIR#74-1532 - Damage - Bridge Bay (9/4)
CIR#74-1510 - Damage - Bridge Bay (9/6)
CIR#74-1533 - Trap & transplant of 300 lb. grizzly to Lamar Mt. - Bridge Bay (9/6)
CIR#74-1572 - Trap & transplant of 300 lb. grizzly to Beula Lake - Bridge Bay (9/31)
CIR#74-1646 Accidental overdose female sub-adult - Fishing Bridge (9/20)
Bill Armstrong (NPS) knew of two grizzlies in Fishing Bridge area -- one with two yearlings and one with one yearling.

1975

No records that can be distinguished as the same female grizzly. No reports of eartags seen from Thorofare, Lake East, or Pelican.

1976

SIGHTINGS

Rept.#	Date	Location	Observer	CIR#	Description
64	6/23	Lake area between horse corral & road	Kirkley (NPS)	--	Dark brown female (200-400 lbs.) & 3 dk. brown cubs of year.
95	7/16	Fishing Bridge-Pelican	Nuss (NPS)	--	What appears to be same female with 2 cubs of year.
123	7/18	¼ m. N. of FB Jct.	Visitor ver: Mernin (NPS)	--	Family of 4 grizzlies sighte
146	8/13	FB Sewage Ponds	Knight (NPS)	--	Female/3 cubs
148	8/14	FB Campground-Took 4 eggs, 1 lb. bacon, fruits & vegetables. (This one meal may have greatly reinforced the campground usage, since this is a lactating female.)	Lomas (NPS)	76-1643	Female/3 cubs
140	8/15	FB Trailer Village	Lesko (Rngr.)	--	Female/3 cubs

SIGHTINGS - 1976, cont.

Rpt.#	Date	Location	Observer	CIR #	Description
149	8/15	FB Campground- in pickup, eating garbage.	Visitor	--	Female/cubs (number of cubs ?)
151	8/16	FB Area- Trailer Village- (1) Damage to tent trailer Campground- (2) Confrontation (3) Injury (Ford) Charged lights.	Lake Rangers	76-1701 76-1813 76-1738 --	Female/3 cubs
	8/16-17	Trap & transplant to Lynx Pk. Eartag of female, #7155; old eartag gone, but evidence of prior tagging (hole in ear). Eartags of cubs, #7151,7152,7153. Female may be 10-12 years old -- unlikely older. Age and above records suggest ample prior garbage experience over the years.	Lake Rangers	76-1765	Female/3 cubs
157	8/18-19	FB Campground- Trapped herself during night and Transplanted to Lynx Pk. Female apparently recovered from drug 8/16, but disoriented, returned as quickly as possible to where cubs were presumed to be; held night of 19-20 to verify cubs not with her, moved on 20th.	Lake Rangers	76-1790	Female of family

SIGHTINGS - 1976, cont.

Rpt.#	Date	Location	Observer	CIR #	Description
170	8/30	FB Campground-Injury (minor)	Ross (Rngr.)	76-1923	Female/3 cubs
171	8/31	FB Campground-Trap & transplant to Anderson Pk. (Buffalo Plateau), charged drug team 3 times.	Lake Rangers	76-1975	Female/3 cubs
		Fishing Bridge Campground closed 9/1.			
182	9/4	Tower Campground-foraged for one hour on food of some sort, some property damage.	Visitor	76-1979 (page 1)	Black female/3 cubs (verified grizzly, Meagher 9/5)
183	9/4-5	Tower Campground-Midnight-2 am, 4 am; continued to prowl for 2 hrs; returned at 4 am to a concessioner garbage can (dorm). No charging of lights, systematic forager. Campground patrolled by two units.	Tower Rangers	--	Female/3 cubs
184	9/5-6	Tower Campground-patrolled by two units. Bear came in at 3:30 am, got garbage from the can closest to campsite 79 (no garbage pickup was made) probably got garbage from 2 other cans. Bears seemed to move off from patrol units. Bottom step torn off at Tower store even though it had just been scrubbed (D. Patterson).	Weidner (Rngr.)	76-1979 (page 2)	Female/3 cubs

Tower Campground closed 9/6.

SIGHTINGS - 1976, cont.

Rpt.#	Date	Location	Observer	CIR #	Description
186	9/6-7	Buffalo Picnic area- seen approx. 10:30 pm, post midnight patrol did not see her.	Weidner (NPS)	--	Female/3 cubs
190	9/8-9	Tower Parking Area seen approx. 1 am.	Murkley (Lake Hospital)	--	Female/3 cubs
214	9/17	Lake Store	Stanley (Ham. -Store)	--	Grizzly 200-400 lbs.
212	9/18	Pelican Valley- by registration sign.	Visitor	--	3 cubs
204	9/19-20	Bridge Bay- got food from ice chest;	Visitor	--	Unknown
		Trapped	Lake Rangers	76-2224	Female #7155
213	9/21	Pelican Valley- 2 m. beyond registration sign, 5 pm.	Nuss	--	3 cubs
204	9/22	Lake- Female-destroyed	Lake Rangers	(76-2224)	Female #7155
232	9/27	Pelican Cr. Trailhead	Nuss (NPS)	--	3 cubs
239	9/30	Pelican Cr. Trailhead	Graham (NPS)	--	3 cubs

Mr. John Townsley
Superintendant
Yellowstone National Park
Mammoth, Wyoming 82190

May 2, 1977

Dear Mr. Townsley,

Encouraged by the positive and progressive management as well as the candid self-evaluation policies which you have promoted in the recent past, I am prompted to write you this letter concerning the problem of man-grizzly bear conflicts in Yellowstone Park. I would specifically like to discuss the incidents which took place in 1976 in the Fishing Bridge-Pelican Creek Area.

Working as a South District maintenance employee in the Park Service for the past five summers and talking to employees whose experiences far exceed my own, I have become well aware of the inherent problems created by the location of developed areas within grizzly habitat. The crux of the problem, as you know, involves the natural tendency of bears to be attracted by the odors of garbage, fish and other aromatic foods (an automatic response for any omnivorous animal). Recent attempts to reduce the availability of human foodstuffs to bears through the use of bear-proof cans, multiple garbage removals, incinerators, land fills, and public education have undoubtedly helped to reduce the number of man-bear conflicts, and yet the problem persists.

The bear mauling incidents of August 1976 in the Fishing Bridge Campground and near the south end of Pelican Creek give a clear indication of the problems which are still encountered. As is true any summer, the afternoon garbage removal in the campgrounds is rarely productive since most campers are out touring throughout the day and deposit most of their garbage during their evening meals at dusk. Thus large quantities of garbage remain in the cans all night as evidenced by the majority of full cans we find at 8:00 AM each morning. The simple fact is that hundreds of campers are sleeping amidst tons of garbage (bear attractant) during the three months of heavy visitation.

A second problem seems to be the proximal location of additional bear attractants near the campgrounds. Two such examples are the Pelican Creek fish trap and the Lake incinerator each being located less than one half mile from the Fishing Bridge and Bridge Bay Campgrounds respectively. The frequent grizzly bear usage of the Pelican Creek fish trap is well known to the Fish and Wildlife employees who operate that trap as well as to many employees who report the sighting of bear tracks, scats and fish carcasses there throughout most of the summer. Not surprisingly, the discontinued operation of this trap in August 1976 seemed to coincide with the influx of grizzlies into the adjacent Fishing Bridge Campgrounds that year.

The expensive and dangerous practice of trapping and transplanting grizzlies also displayed its notorious ineffectiveness last year with the multiple returns of the offending sow and her apparent abandonment of her cubs as a result of the transplanting operations. The fact that the park's size does not permit transport distances of sufficient magnitude to overcome a bear's natural homing ability is well established by the high return rate in past years. This technique also risks the safety of both the bears and the rangers who handle them, as well as those persons camping in the backcountry areas where the bears are released. In August 1976 the South District trail crew personnel and the many tourists who were camped at Mariposa Lake were not informed that the grizzly sow and her three cubs were being released in their vicinity. In essence, transplanting or elimination of problem bears is only a temporary means of "treating the symptoms" rather than solving the problem, and serves to draw negative publicity and criticism from those who are

concerned with the endangered status of the grizzly in the lower 48 states of the U.S..

It is distressing to see the general lack of cooperation between the various branches of the Park Service and the Interagency Bear Study since the joint efforts of these groups could bring about a more coordinated effort toward proper management. Perhaps a specially trained bear management team similiar to that used in Yosemite should be created in order to monitor problem areas and to act in a coordinating and advisory capacity, thus providing a biologically sound and consistant means of dealing with the problem. A valuable recommendation made in 1969 by the National Sciences Advisory Committee of the National Park Service was that campgrounds in areas with recurrent bear problems be either fenced or relocated. The fencing of incinerators, land fills and sewage plants in the park has already proven successful, and similar fences set back into the woods surrounding campgrounds could prove equally successful with a minimum of visual impact. Unless food odors can be eliminated from campgrounds through late evening garbage removals or the "locking" of garbage cans after the last pickup (see attached diagram), then bear-proof fences seem to offer the best alternative in problem areas.

I hope that my suggestions and criticisms will be received in the positive light in which they are intended, as I know that this is an area of particular sensitivity to those involved. In addition, my comments are not meant to degrade any Park Service employee in particular, but merely to illuminate the problems of present management methodology. Management of Yellowstone Park in a progressive and informed manner will continue to make it a model for other parks and to ensure its preservation as a treasured American vacationland. Thank you for your time and interest.

Sincerely,

John S. Kirkley

John S. Kirkley
Department of Biology
Utah State University
Logan, Utah 84321

MANAGEMENT RECOMMENDATIONS FOR 1977

1.) Remove Pelican Creek fish trap.

2.) Reschedule garbage pickup to include an evening removal. (ie. make hours 10:00- 1:00, 2:00- 5:00, & 6:00- 8:00)

3.) Require that no garbage be deposited in the cans after the last pickup.

4.) Modify the bear-proof lids for locking shut at night. (see diagram)

5.) Supply a number of cans at the campground entrances for persons who have no means of garbage storage during evening hours.

6.) Include an explanation of these new proceedures at comfort stations, & registration office, as well as posting a reminder on each can lid.

7.) Impose stiff fines on those who leave food or garbage outside vehicles.

8.) Patrol campgrounds regularly during the late evening hours to determi.e bear presence, especially during the month of August.

9.) Communicate regularly with caretakers and garbage crews who work in the campgrounds to learn of unsanitary conditions or bear sign.

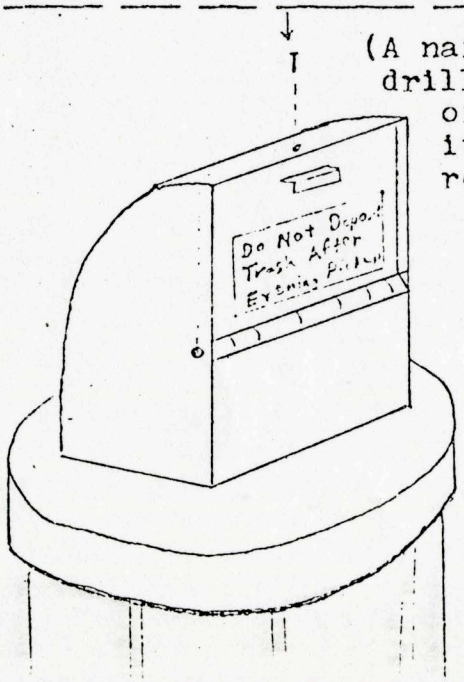
10.) Limit camping to hard-sided vehicles if grizzly or black bear are present.

11.) Remove bears only in instances where attacks are unprovoked or behavior seems abnormal.

12.) Do not hesitate to close a campground prematurely if grizzly numbers present an extreme risk to human safety.

13.) Enclose all high-risk campgrounds with 10' chain-link fence and monitor bear activity near these fences to prevent bear enterance.

MODIFIED BEAR-PROOF LID FOR LOCKING AT NIGHT



(A nail is inserted into a hole drilled in the lid just in front of the moveable door, preventing it from opening until nail is removed.)

On the Other Hand . . .

Poor management endangers the grizzlies.

On the Other Hand . . . is written by invitation about a subject chosen by the writer. Martha Shell has been studying grizzly management in Yellowstone for 11 years.

MARTHA SHELL

Some environmentalists are upset by failure of the Senate to act on the Alaska lands legislation during the 95th Congress. However, others feel that with the bill now before the new Congress, legislators must look closely at problems within agencies that would manage the 110-million-acre Alaskan federal wilderness preserve the bill would create.

The National Park Service (NPS), which would inherit most of the land, manages wilderness under its policies for "natural areas" of the park system. How successful is this management?

In this context it is useful to examine the management of grizzly bears in Yellowstone National Park, a "natural area." In 1968, on the premise of achieving "natural conditions" in the park, the Yellowstone administration made drastic changes in grizzly management but failed to incorporate into its program many recommendations of the NPS Natural Sciences Advisory Committee that were crucial to its success. Subsequent evidence of failure to provide the grizzly population the necessary protection to guarantee its survival aroused public ire. The Interior Department requested a committee from the National Academy of Sciences (NAS) to evaluate data on population dynamics and follow up with recommendations.

The committee's report, issued in 1974, indicated that from 1968 to 1974 the grizzly population was reduced substantially. It found the NPS research "inadequate to provide the data essential for devising sound management policies" for the bears. Data from an independent research project had placed the population decline at 45 percent and included kill statistics showing that for three years grizzly mortalities within the park "preserve" exceeded those in adjoining areas where bears were hunted and killed for depredations on livestock.

Stressing the importance of independent investigation of studies undertaken by land management agencies, the NAS report criticized a 1973 arrangement for a five-year project, heavily funded by NPS, which placed all research on the grizzlies, including that in areas adjoining the park, under NPS instead of a neutral individual. Under the arrangement, the U.S. Fish and Wildlife Service ceded its responsibility for management of wildlife on public lands to NPS, failing to use its expertise in behalf of the bears.

Among the committee's recommendations was a requirement to re-establish independent research on the bears, reinstating modern techniques the Yellowstone administration had discarded as inappropriate for a "natural area."

A spokesman for a coalition of environmental groups announced later that all efforts to persuade NPS to accept the committee's recommendations had failed and one prominent conservation organization opted for peace, urging a truce in the so-called "debate" on the bears. All research on Yellowstone grizzlies has since remained under NPS, the agency whose management was under investigation.

NPS now claims there are many more grizzlies in the population than the research data support. Are bureaucrats kiting the figures to assure continued funding of the research arrangement by which NPS controls the information on the bears? Such tactics in bureaucratic self-interest to the detriment of the resource are unacceptable. Do they prevail in NPS management of other species? Does NPS management of "natural areas" protect public resources as NPS is directed to do?

Alaska is bear country. We need assurance that Congress will not extend the above failure in performance into greatly expanded areas of Alaska through the Alaska bill. Oversight hearings are needed to ensure against this.

The Kansas City Star, 3/20/79

P. O. Box 2705
Jackson, WY 83001
(307) 733-6856
31 January, 1979

Honorable Cecil D. Andrus
Secretary of the Interior
Department of the Interior
Washington, DC 20240

Dear Sir:

We are writing to express our opposition to the Wyoming Game and Fish Department's petition to open hunting for 12 grizzly bears annually. For much of the past two years we have been studying grizzly bear ecology on the Bridger-Teton National Forest, through grants from BTNF and others. We feel we are in a unique position to provide significant input into your Department's decision on Wyoming's petition. We feel that the petition substantially misrepresents: 1) characteristics of the grizzly bear population, 2) the amount of human-grizzly conflict, and 3) the real alternative measures for dealing with the limited number of nuisance bears.

Our study focused on Teton Wilderness, an 880 square mile area just south and southeast of Yellowstone National Park. Teton Wilderness includes Teton County where 4 grizzly bear permits are requested, and a small portion of Park County where 8 permits are sought. We have traveled more than 2200 miles on foot and horseback on and off established trails, gathering data on grizzlies. Our survey involved recording all sightings and sign of grizzly bears, measuring and plaster-casting tracks, collecting and analyzing scats, and classifying and evaluating habitat types. We thoroughly interviewed all outfitters in the Wilderness, with special attention to documenting bear-human conflict. We also requested and examined all Game and Fish records of human-grizzly bear conflict. We have maintained close communication with other bear biologists in the region, including our attendance of a recent Interagency Grizzly Bear Study Team meeting in Idaho Falls. We will gladly provide you with a copy of our report on the grizzly bears of Bridger-Teton National Forest which will be submitted for scientific publication. We hope to have it completed within a few weeks.

We would like to stress that we are not opposed to grizzly bear hunting as a valid management tool. We would welcome data demonstrating that the grizzly bear population is viable enough

to warrant removal from the Threatened list. Our research and ongoing discussion with other bear biologists suggest, however, that such data do not exist. Our data indicates a much reduced cub-sow ratio on the Brider-Teton this last year from the year before, and a slightly declining or stable estimated population. Other research in the Yellowstone ecosystem shows average litter size decreasing from a peak of 2.34 during the period 1962-64 to 1.90 in 1978; our 1978 figure for Teton Wilderness is 1.33. Recent data shows the population to be lower, perhaps, and stable or slightly declining in the wake of heavy ecosystem-wide mortality totalling 309 known grizzly bear deaths 1967-1978. (Mortality 1959-1966 totalled 170.) Unreported grizzly bear mortality may be a substantial addition in some areas. Inserting the most current data into the Craighead population simulation model suggests that the grizzly bear population may be at a twenty-year low. In short, reduced cub-sow ratios in a stable or declining population indicate lowered potential for recovery. In this situation, the grizzly population would not likely absorb 12 hunter-inflicted losses in addition to other ecosystem-wide mortality. Research has firmly established the unity of the Yellowstone ecosystem grizzly population; it would seem unwise to single out any segment of the population for additional losses, ignoring consequences for the whole.

Much of the rationale for Wyoming's petition centers on an alleged increase in human-bear conflict. One of our study's major objectives was to review records for data on such conflicts, and to develop a current file of case histories of conflict. Our tentative conclusion is that no more than 3 incidents have occurred over the last 5 years in Teton Wilderness involving what might be classified as nuisance bears. In these cases, as in most human-bear encounters, human irresponsibility precipitated the incidents. A mauling in Yellowstone Park is cited in the petition as evidence that grizzly bears are becoming more aggressive and dangerous. To the contrary, Park records detail an incident involving an individual's attempt to photograph, at extremely close range, a sow grizzly with three cubs. Claims in the petition that ". . .the magnitude of problems associated with grizzlies killing livestock, tearing into cabins and camping areas, and threatening human life has increased to very serious proportions. . ." simply are not substantiated by our data or any data to our knowledge.

The Wyoming Petition is being sought in accordance with S(2) of the Endangered Species Act (16 U.S.C. 1532(2)), which provides for regulated taking "in the extraordinary case where population pressure within a given ecosystem cannot be otherwise relieved." Neither our data nor that of other bear biologists

supports the notion of grizzly bear "population pressure" in Wyoming. Nuisance bears, where identified, can be managed in accordance with procedures detailed in a cooperative agreement in the final stages of negotiation between the U. S. Forest Service and the Wyoming Game and Fish Department. This document clearly defines "nuisance bear" and identifies measures for dealing with the very limited numbers of these individuals. More importantly, the document comprehensively lists operational guidelines which, if implemented by human users of grizzly bear inhabited areas, could virtually eliminate potential for human-grizzly conflict in Wyoming.

If we can supply further information, please let us know.

Sincerely,

John H. Hoak, B.S.
Scientist
Western Environmental
Research Associates
Pocatello, ID 83209

Tim W. Clark, Ph.D.
Research Associate
Biology -
Idaho State University
Pocatello, ID 83209

cc: John Spinks, USFWS
Keith Schreiner, USFWS
Dale Harms, USFWS
Malcolm Wallop, U.S. Senate
Earl Thomas, Wyoming Game & Fish
John Turner, Wyoming State Senate

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Bridger-Teton National Forest
P.O. Box 1888, Jackson, Wyoming 83001

2610
March 15, 1979

Tim W. Clark
P.O. Box 2705
Jackson, Wyoming 83001

Dear Dr. Clark:

The letter written by yourself and Mr. Hoak to Secretary of Interior Cecil Andrus on the status of the Teton Wilderness grizzly bear population has been brought to my attention.

We recognize that your motivation for writing the above letter stems from a sincere concern for the grizzly bear. We also respect your right as an independent researcher to communicate your professional opinion. However, the matter is complicated by the fact that the supportive information you cite came from studies largely financed by the Bridger-Teton National Forest.

Section 150 of our contract states that, "Neither party will publish any results without prior consultation of the other." It also states "Distribution of the final report shall be the prerogative of the BTNF. . . ." We believe that before your letter was sent to Secretary Andrus you had a responsibility under the terms of the contract,as well as an ethical obligation, to consult with the Forest Supervisor of the Bridger-Teton National Forest on the matter. There may be an unstated implication by virtue of our support of this study that we also indirectly support your letter and opinions expressed therein.

Under the circumstances we cannot agree with your unilateral actions, nor can we dismiss the matter as unimportant. The failure on your part as a Forest Service contractor to consult with the concerned agencies jeopardizes relationships both with Game and Fish Department and the Interagency Team, and this in the end result could work to the disadvantage of management for grizzly bears.

The Forest Service cannot be responsible for statements by individuals who are not a part of our agency who use data from unpublished studies without prior consultation. We do not sanction those actions, nor do we believe such incidents contribute in a positive manner towards accomplishing the purpose which we are all concerned with, viz. the management and protection of a federally designated threatened species and its habitat.

We are willing to discuss this matter further with you. We frankly believe your ideas have a legitimate right to be considered in decisions affecting management of grizzly bears and their habitat; and the data from the studies should be made available to other agencies and cooperators. However, we do have cooperative agreements, contracts, and proper channels to accomplish and serve those purposes, and unless they are proven ineffective or unworkable, I believe we should all attempt to work within these existing organizations. Otherwise, we have chaos.

Finally, in the future, I would appreciate being included on the list of people or agencies to which copies of correspondence are forwarded when it is a subject that directly concerns the Bridger-Teton National Forest.

Sincerely,

REID JACKSON
Forest Supervisor

January 6

Frank -

I got a copy of the Wyo G and F petition recently from John Weaver; thought you might be interested in examining the "document." John tells me you expect to be away for a couple of weeks, so I'll just drop this into the mail.

Hope to visit with you again before long.

Regards,
John Hoak

BEFORE THE

UNITED STATES DEPARTMENT

OF THE INTERIOR

PETITION TO THE SECRETARY OF THE INTERIOR AND THE DIRECTOR OF THE U.S. FISH AND WILDLIFE SERVICE FOR REOPENING OF LIMITED GRIZZLY BEAR HUNTING SEASONS IN WYOMING. SUBMITTED BY THE STATE OF WYOMING AND THE WYOMING GAME AND FISH DEPARTMENT.	PETITION OF THE STATE OF WYOMING

At present the grizzly bear (Ursus arctos horribilis) of the 48 conterminous States of the United States is listed as a Threatened Species under the Endangered Species Act of 1973 (16 U.S.C. 1532 (2)). At the same time, in accordance with established states' rights for the propagation, management and control of wildlife within their borders, the State of Wyoming has retained both classification and management authority? over the grizzly bear as a trophy game animal under State Legislative authority (Wyoming Game and Fish Laws, Section 23-1-101 and Section 23-1-302, Title 23 Wyoming Statutes). Since 1974, the Wyoming Game and Fish Commission has closed grizzly bear hunting seasons in Wyoming pending research results from the Interagency Grizzly Bear Study Team in determining the status of grizzly bear populations in the Yellowstone region. Because the number of nuisance and problem grizzly bears has increased dramatically in the past two years and preliminary results from the Interagency Grizzly Bear Study Team show a stable or expanding population, the State of Wyoming seeks to reopen grizzly bear hunting seasons on a limited and strictly

and strictly controlled basis. In accordance with § 3(2) of the Endangered Species Act of 1973 (16 U.S.C. 1532 (2)), which provides for regulated taking "in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved." Such a situation has now developed with grizzly bear in Wyoming after several years of complete protection.

Background relating to the problem:

The Wyoming Game and Fish Department has shown great restraint and concern in managing the grizzly bears, despite considerable in-state pressures for more liberal taking of a large, aggressive and sometimes dangerous animal that causes considerable losses in property and livestock. In 1967, when no great concern for the grizzly was evident on the federal level, the Wyoming Game and Fish Commission elected to declare a moratorium on grizzly hunting. All sport hunting was closed for the 1968 and 1969 seasons, and in 1970 the season was opened on a strictly controlled permit basis. When it became evident that the grizzly bear would be classified as a Threatened Species in 1975, the Game and Fish Commission, even though a neighboring state elected to maintain a hunting season, voluntarily chose to close hunting seasons for grizzly bears. That season closure has been in effect from 1975 to present.

As outlined in the Wyoming Game and Fish Department's Strategic Plan, it is the Department's goal to:

"Manage grizzly bears in their natural habitats such that they will:

1. Maintain themselves in sufficient numbers to provide for all types of ecological, recreational, esthetic, educational and economic uses.

2. Not become injurious to human health or cause excessive damage to private property."

It is the second item in the Department's Strategic Plan goals that has become of concern because of recent events. During years when sport hunting seasons of grizzly bears were open, the occurrence of problem and nuisance grizzlies was insignificant. In most cases the animal causing serious problems was taken by hunters. With complete protection of grizzlies in six of the last eleven years, the magnitude of problems associated with grizzlies killing livestock, tearing into cabins and camping areas, and threatening human life has increased to very serious proportions. In response to this growing problem and its potentially tragic consequences, field personnel from state and federal agencies met in Cody, Wyoming on April 20-21, 1978 for a Grizzly Bear Control Coordination Workshop. Because of overlapping authorities and a lack of clearly defined responsibilities for nuisance or dangerous grizzly bears, this meeting dealt with compliance with Section 7 (ESA-73) including requirements for consultation and species and habitat protection. Interagency guidelines were developed at this workshop, concerned steps taken to deal with nuisance or problem bears. Such steps are short term means of dealing with critical situations, and are actions that only treat the symptoms but offer no solution to the problem.

By fully accepting its responsibility to manage a game animal, the Wyoming Game and Fish Department expended considerable funds and manpower during recent years to cope with grizzly problems. Enforcement personnel investigating illegal killings, use of helicopters to move bears or reach remote areas having bear problems, handling of orphaned animals, or trapping operations to capture and move bears killing livestock are all examples of the types of activities undertaken by the Department.

To illustrate the nature of the problem, some of the conflicts with grizzly bears in the national forests and ranchlands surrounding Yellowstone National Park during just the last year are described as follows:

Grizzly bears were known to be killing cattle and sheep in several widespread locations. Only one cattle killing grizzly was dispatched as part of control actions in Montana. This animal was an extremely old male and was not considered to be a good risk for relocation and release. It is suspected that another bear in Wyoming was shot by unknown persons while killing beef calves, although the exact cause of death was not determined. Unsuccessful attempts were made to capture livestock-killing grizzly bears in Targhee National Forest and the Beartooth Mountains of the Shoshone National Forest.

Bear mortalities were higher than usual due to increased bear activity associated with food scarcity. A female grizzly and one of her two cubs were killed in separate incidents by automobiles in Yellowstone National Park while attempting to feed on a road-killed elk. In Idaho one of two yearling cubs was killed and its mother wounded when a man shot them as they attempted to tear into a food chest. The wounded female later had to be dispatched when it charged an Interagency Grizzly Research Team Member attempting to drug her and remove her from an area of high human use.

Another female with two small cubs was attracted to a highway in Wyoming by a road-killed moose. As a result she was shot illegally and considerable time and expense was expended by the Wyoming Game and Fish Department in relocation of the cubs to a remote area.

In the Teton National Forest of Wyoming a female grizzly with two small cubs was extremely belligerent, stole elk quarters from a hunting camp, and could not be driven from the camp during evening hours. Game and Fish Department biologists helicoptered into the area, drugged and collared the bear and harrassed her in attempts to discourage her from coming into camps. The bear and her cubs persisted in coming into this camp for another week before leaving. The group immediately traveled to another camp, stole a moose quarter and the female was shot. Again considerable time and money were expended to prevent the killing of the bears and prevent a threat to human life. Although nearly all parties wished to prevent the loss of a female and possibly her two cubs, the female grizzly was an old bear (18-20 yrs.) that had obtained three elk quarters in a hunting camp. This is a strong reinforcement or association toward camps for a bear in a year of food scarcity, particularly for an older animal that is supporting two cubs. It proved impossible to keep the sow out of camps and her death resulted.

In all, a total of 12 known grizzly mortalities occurred in 1977; nine were man-caused, one was natural and two were from unknown causes. Of these, five were females with two siblings each, either cubs or yearlings, and in two cases one of the siblings was also killed. Most of these mortalities resulted from man-grizzly conflict situations and many more bears might have been killed if considerable effort had not been made to lessen conflicts. Even in normal years, however, these same kind of mortalities and conflicts occur. Only the intensity was greater this past season.

Many other incidents occurred that are not described since it would take a lengthy report to recount all grizzly conflict situations during 1977. Some were of minor importance and easily resolved. Others were extremely serious and the loss of human life was a real possibility. Complaints of bears stealing harvested game were numerous and not considered of serious consequence, but in some instances a definite threat to human life resulted. Belligerent grizzly bears and repeated offenders, even in nuisance situations, are worthy of concern considering the high potential for attacks on humans.

Two young grizzlies that were considered nuisance campground bears in Glacier National Park of Montana dragged a woman out of a tent and killed her during 1977. A nuisance bear in Yellowstone National Park during the spring of 1978 was following a similar pattern of behavior, and after it harassed some campers and slapped around a jogger, the grizzly bear was immediately dispatched.

Such incidents are no longer uncommon outside of the national parks. As an example, a grizzly came into a developed area several times near Crandall, Wyoming where Youth Conservation Corps employees were housed. This same bear ran people out of a nearby camping area and ate the food they were preparing. Although these incidents ended with no serious consequences, the potential for tragic results are always high when grizzly bears do not exhibit natural fear and avoidance of man and their occurrence in inhabited or high recreational use areas becomes common place.

The spring of 1978 has begun in the same fashion as the previous year with grizzly incidents and sightings occurring at unusually high frequency. Most disturbing are the reports of

grizzly bear showing up in private ranchlands or fringe areas that are unsuitable for grizzly habitat. Already several serious incidents have occurred in forest campgrounds and a near fatality from a suspected grizzly mauling has occurred in Yellowstone National Park. Heart Lake - defensive

Justification for opening the grizzly bear hunting season:

The Wyoming Game and Fish Department wishes to reopen its grizzly bear hunting season for the following reasons:

1. While concern for perpetuation of the species is not lessened, the Department feels that it must act responsibly toward the public safety and remove or dispatch grizzly bears that present a serious threat to human life when there seems to be no other practical alternative.

2. The Department's policy is to provide opportunity for sport hunting by the public when possible rather than the taking of animals by other means.

3. In accord with § 3(2) of the Endangered Species Act of 1973 a regulated taking of a protected species is provided for "in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved." The Wyoming grizzly bear population exists in just such an ecosystem. Grizzly bears are now wandering into settled areas where they threaten human safety and commit significant depredations on legally present livestock and other interests. Thus, such population pressures definitely exist in the Wyoming grizzly bear population.

4. Grizzly bears are large, aggressive and highly mobile animals. Moreover, they are difficult to capture and may cause problems in remote areas where trapping operations are difficult if not infeasible. Therefore, livetrapping and transplanting are too dangerous and too expensive to be used with sufficient frequency to relieve the above mentioned population pressure. A limited amount of regulated taking is necessary.

5. Grizzly bear researchers and experts generally agree that a limited amount of sport hunting is necessary outside the national parks to keep grizzly bears from expanding into semi-developed areas or ranchlands and to maintain their natural fear and avoidance of man.

6. Even though there has been no legal hunting for grizzly bears in the Wyoming population since 1974, total mortalities from all causes have occurred at an increasing rate. Controlled sport hunting does not increase mortality of grizzlies, but replaces mortalities occurring from depredation, control actions, illegal killings, etc., since the problem bears are usually the ones taken by hunters. In fact, when properly controlled, to encourage the hunter to take a problem or nuisance bear, sport hunting can be an effective tool for managing grizzlies and will lessen bear-man conflicts. The Department recognizes that it is important to insure that the total number of bears killed from sport hunting and other causes is strictly controlled. The proposed season would be closed within hours in any year where the total number of

bears killed for whatever reason--defense of human life, nuisance control, other taking, and sport hunting--reaches 12 bears (within Wyoming and excluding Yellowstone National Park) for that year.

Supportive Data:

1. A Strategic Plan for the Comprehensive Management of Wildlife in Wyoming 1975-1980

2. Grizzly Bear Control Guidelines Draft

3. "Grizzly-to Kill or Not to Kill: a Question." Wyoming Outdoor Reporter, Vol. 1, No. 36, April 14, 1978 and Vol. 1, No. 37, April 21, 1978

4. Annual Report of the Interagency Team 1974-1975-1976

5. Wyoming Game and Fish Progress Reports (W-87-R) 1974-1975, 1976-1977

6. Chapter XXI Grizzly Bear Hunting Seasons, (Proposed)

P R O P O S E D

CHAPTER XXI

GRIZZLY BEAR HUNTING SEASONS

Section 1. Authority. Section 23.1-302, Wyoming Statutes

Section 2. Hunting Seasons Established and Effective Date. There will be an open season established for the hunting of grizzly bear as set forth in the Hunting Regulations Section (4), Archery Regulation (Section 5), and the Hunt Area Description (Section 6) of this Chapter. This regulation will remain in effect until modified or rescinded by the Commission.

Section 3. Hunting Regulations.

a. Shooting Hours. Shooting hours for the hunting of grizzly bear will be from one (1) hour before sunrise to one (1) hour after sunset.

b. Reporting Kills. Hunters taking grizzly bear must retain the pelt, skull and other parts as requested by research authorites, and remove the same from the field. Even if the skull or other parts are damaged they must accompany the pelt. Within ten (10) days after taking a grizzly bear the pelt, skull and other specified parts must be presented to authorized personnel at the Jackson or Cody Game and Fish District Office, for examination and reporting. Hides, skulls and other parts may be retained by the Department for scientific examination and will be returned on request of the hunter.

c. Bag and Possession Limits. Bag and possession limits for grizzly bear will be one (1) grizzly bear in any five year period.

d. Use of Baits Prohibited. No fish or animal carcasses or artificially placed baits may be used in taking grizzly bears.

e. Taking of Young and Females With Young Prohibited. Taking of cubs of the year, yearling cubs, or females with cubs of the year or yearling cubs is prohibited.

f. Issuance of Licenses and Eligibility of Hunters. Not more than 12 licenses will be issued annually for the hunting of grizzly bear and hunting will be terminated at any time when the total number of bears killed for any reason--defense of human life, nuisance control, other taking and sport hunting--reaches 12 bears for that year. In the event the annual quota of 12 grizzly bear mortalities is reached, the hunting season will close. Hunters will be notified through public media and direct contact where possible that the season is closed. A grace period of 48 hours will be allowed from time of the closure to allow for communications to reach hunters in remote areas. Applications and fees for grizzly bear licenses must be received at the Cheyenne office of the Wyoming Game and Fish Department by 5:00 p.m., May 1. A drawing will be conducted to determine successful applicants. A second drawing will be conducted to determine the order of selection of eligible hunters to participate in the hunting of problem bears from July 1 - August 31. Hunters will be contacted by telephone to determine if they are interested in taking problem bear should this become necessary. Fees of unsuccessful applicants will be returned.

g. Open Areas, Season Dates and Limitations.

Hunt Area	Date of Seasons Opens	Closes	Limitations
1	July 1	Aug. 31	Open to the hunting of problem grizzly bears. After verification by the Chief Game Warden that all reasonable means of dealing with problem grizzly bears have been exhausted, said problem bears may be taken by licensed hunters under direct supervision of assigned department employees.
1	Sept. 1	Oct. 31	Open to the holders of valid grizzly bear licenses. Hunters participating in the Sept. 1-Oct. 31 hunting season must report for orientation to either the Cody or Jackson district office of the Wyoming Game and Fish Department prior to entering the hunting field. The limitation of 12 grizzly bear mortalities and resultant immediate season closure provisions apply.

Section 4. Archery Regulations.

a. Closed to archery hunting

Section 5. Hunt Area Description.

a. Area and Number

Area 1. All of Park and Teton Counties, and those portions of the Shoshone and Teton National Forests in Fremont County north of U.S. Highway 26 and 287.

Questions report on grizzly bear

To The Denver Post:

THE MOST ridiculous story to be published in recent years is the account of the grizzly bear which was supposed to have been killed with an arrow held in the hand of outfitter Ed Wiseman. The press should have made some effort to seek out the facts before publishing the story as authentic. The many stories given out by Mr. Wiseman and his companions should alert the public that an investigation is called for.

An experienced sportsman should know that it would be impossible to penetrate the hide of a bear by an arrow held in the hand of anyone, especially while the victim is being mauled by a bear.

The law-abiding sportsmen of Colorado are entitled to a complete investigation of the incident by the Division of Wildlife, and the facts should be made public. An examination of the hide and carcass of the bear would provide the facts necessary to tell whether the story was fabricated to conceal an error in judgment by Mr. Wiseman. It is against the law to kill a grizzly bear in the state of Colorado.

KARL T. ROTH

Lakewood

EDITOR'S NOTE: Denver Post staff writer Bill Myers flew to Alamosa and interviewed Ed Wiseman when he was brought out from the mountain area. The Division of Wildlife personnel took charge of the carcass of the slain bear and is still investigating the incident.

Hunting season on grizzlies proposed to curtail "nuisance"

By Kristin Lau

Deeming the grizzly bear to be an increasing nuisance and problem over the past two years, the Wyoming Game and Fish Commission has petitioned the U.S. Secretary of Interior and the U.S. Fish and Wildlife Service to reopen grizzly bear hunting season on a limited and strictly controlled basis.

Although the grizzly bear had been a trophy game animal between 1971 and 1974, Fish and Wildlife put a moratorium on hunting in 1975 when they classified grizzlies a threatened species. The "threatened" classification creates an extraordinary hunting situation that the petition must analyze.

To eliminate confusion of terminology, Threatened and Endangered Species Biologist John Weaver, of the Bridger-Teton National Forest, defined "endangered species" as wildlife in danger of extinction throughout a significant portion of its normal range of habitat. "Threatened species" are those species likely to become classified as "endangered" in the foreseeable future.

As a threatened species, grizzlies could once again be hunted through a provision of the 1973 Endangered Species Act. But that provision requires Game and Fish to prove grizzlies, an animal with national significance, to be an extraordinary case where population pressure within an ecosystem cannot otherwise be relieved than by hunting. Since Congress reserved this provision for cases where a threatened species moves outside its previous boundaries, mostly Yellowstone Park in this instance, hunting licenses would be issued to areas outside the national park.

The Wyoming Game and Fish Department petition justifies reopening grizzly bear hunting season for a number of reasons. First, nuisance bears, those threatening public safety, are increasing in numbers, according to the department's figures over the past few years. And, the petition states, "Grizzly bears are now wandering into settled areas where they threaten human safety and commit significant depredations on legally present livestock and other interests."

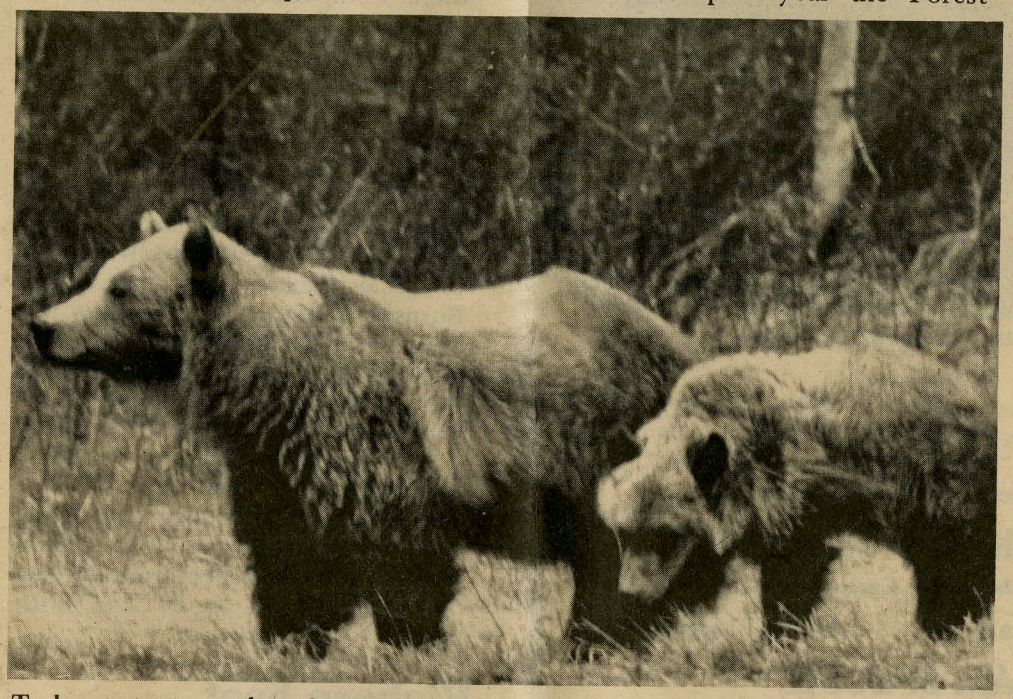
The department also maintains that public hunting is a preferred alternative for relieving overpopulated areas rather than risking live-trapping and transplanting dangers.

Threatened and Endangered Species biologist John Weaver supports hunting nuisance animals, but he does have some serious reservations about the way Game and Fish determined the limited number of bears to be hunted and which ones. From comparing his own research into grizzly reproduction and mortality rates, Weaver determined, "The department has not done its homework. The number (12 licenses to be issued each year) is arbitrary."

Weaver explained that a primary consideration when establishing any hunting license figures, is a close analysis of population data — the number of animals dying from natural causes, road kill, and so forth, plus an annual reproduction rate to assure a stable population. He said such an analysis is particularly crucial to the grizzly since the reproduction rate is lower now than when Frank and John Craighead completed their grizzly population model in 1974. Weaver also noted that the total grizzly population, from recent studies by a federal grizzly study team and his own tentative conclusion, has declined since the Craighead's study.

When the two components of lower reproduction rate and low population are combined, Weaver predicted an even more touchy situation for a threatened species: if unnecessary depletion of the population should occur due to inaccurate studies and excess licenses, then the grizzlies would have a difficult time recovering a stable population.

In regard to the 12 licenses the petition suggests, Weaver said that number was affixed as a remnant from the early 1970's hunting seasons, irrespective of the decreased population and reproduction rate.



To hunt, or not to hunt? **Photo by Betsy Graff**

Part of the difficulty in determining grizzly population data is the wide range the bears travel. Weaver said it takes many multiple comparisons of a bear's location in any one day or week, before a bear can be added to the list.

Another weakness of the petition that Weaver pinpointed was an emphasis on the increased number of nuisance bears. According to Weaver, this is untrue and lacks sufficient documentation. If the season reopens in the future, the hunters with licenses would be called to stalk declared nuisance bears bothering campers, hunting camps or ranches.

Over the past year the Forest Service has been developing guidelines for dealing with nuisance bears — when a bear should be relocated or destroyed according to age, sex and number of offenses. The guidelines were presented to the director of the Wyoming Game and Fish last week. Since the Game and Fish petition for reopening the grizzly season is mainly directed at nuisance bears, the guidelines could have a significant effect on systematizing the hunting season, or in Weaver's words, "establish a conservative basis."

But one last reservation of Weaver's remains. As petitioned, a quota of 12 bears could be killed per year, whether nuisance or not. "The Game and Fish department assumes that the number of bears taken in hunting would compensate for other causes of death. This would be the case if 12 nuisance animals were taken each year. But, based on problems in the past (road kills, inaccurate population assessments, and so forth) I think the number 12 would be an addition to the mortality rate, not a replacement."

Weaver said his objections represent an honest disagreement with Game and Fish. Although various departments, Game and Fish, U.S. Fish and Wildlife and the Forest Service exchange information, such disagreements will occur. This one he feels could potentially harm the grizzly population. The petition will now be assessed by the U.S. Department of Interior. This, said Weaver, could take anywhere up to a few years to process.

The Pittsburgh Press
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Grizzlies Bear Brunt Of Park Spat

By JAMES R. SCHIFFMAN

CHEYENNE, Wyo. (UPI) — Thousands of years before European man inched across the American West, there was the grizzly.

Scientists say the species at one time numbered in the hundreds of thousands and was found from California to South Dakota, from Arizona to Montana. Grizzlies perhaps came across the Bering Strait, possibly up to 30,000 years ago.

Gradually the bears were pushed from their habitats by hunters and trappers and by a westward movement of people that crowded them into progressively more desolate country.

The grizzly found refuge in remote areas, including the region of forests, mountains and geysers where Yellowstone National Park, the nation's oldest, was created. Today the surviving bears roam in an 8,000-square-mile area that extends beyond the confines of the park into the neighboring wilderness of Wyoming, Montana and Idaho.

Frank and John Craighead from the 1950s until the early 1970s gained fame as private researchers of Yellowstone grizzlies. Since leaving the park in an angry dispute over bear management policy, the Craigheads have been at loggerheads with the National Park Service.

The researchers loudly declared that federal officials were too hasty during the early 1970s in removing garbage dumps that for years had been feeding grounds for grizzlies. The practice, the Craigheads said, resulted in unnecessary killing of bears that did not quickly adjust and harassed park visitors. Part of the controversy that continues today concerns the actual number of grizzlies in the Yellowstone area.

"Our studies reveal probably not over 135 grizzlies in 1974 in the Yellowstone eco-system," Frank Craighead said from his home in Moose, Wyo., near the park. "There is no evidence that that population has increased.

"If not properly managed and their numbers continue to decline and the reproductive rate continues to decline, we may reach a point beyond which they cannot recover."

However, Richard R. Knight, the leader of a federally commissioned group called the Interagency Grizzly Study Team, disputed — albeit with a qualification — Craighead's contention.

"There's no good solid scientific evidence," Knight said from his headquarters in Bozeman, Mont. "I think there are 300 to 350 grizzlies. The population is probably either stable or increasing a little bit, depending on how widespread the killing of bears is.

"Maybe the mortality that we don't know about (from poaching or killing by sheepmen) may be fairly significant."

Craighead questioned results from "in-house" researchers, saying federal agencies tailor their findings to desires of superiors. But Yellowstone Park Superintendent John Townsley rejected the accusation and said the interagency team is independent.

Except for a female with cubs, grizzlies usually travel and hibernate alone.

"I have no desire, nor is there any record of anything going on in my park, to suggest what kinds of answers we are looking for," Townsley said.

"The continuing disagreement among bear biologists is one that I don't view as being terribly helpful to the grizzly bear himself."

The Craigheads and the Knight group tracked grizzlies by trapping bears, placing radio-controlled collars on them, and returning them to the wilds. In addition, the interagency team has used aircraft to spot grizzlies.

Craighead advocates placing animal carcasses at strategic, remote locations throughout the park to attract grizzlies and keep them away from people. Townsley said he has seen no evidence suggesting that would help the situation.

"When you get into this business of proposing to feed bears, I would judge that during the time of year you have campers in Yellowstone, probably natural food is fairly abundant," the superintendent said.

The main effort, Townsley said, has been and should be to keep food carried by people away from bears. In recent years, a few "problem" grizzlies that consistently sought food at campsites have been shot to death.

Townsley said another problem is a dump at Cook City, Mont., outside the park, where bears feed on garbage left by people. "We're working toward the elimination of that dump," the superintendent said.

Through all the years of study, the grizzly has remained an elusive animal. However, Knight said, a picture of an independent animal that follows the path of least resistance has emerged:

✓ Grizzlies may return to places they find food, but otherwise, there appears to be no pattern to their meanders. "They seem to be very independent. They pick up and go for no apparent reason," Knight said.

✓ Grizzlies generally are wary of people, a trait that may be passed from one generation to another via a learning process. However, they are dangerous. Contacts with humans are not making them domesticated.

✓ The hibernation period begins anywhere between late October and early December and runs until February, March or April, depending on the bear. Except for females with cubs, grizzlies hibernate alone and do not seem to have a particular preference for den locations.

✓ Cubs are born in the hibernation den, but, Knight said: "We've never witnessed a birth. All births anybody has any record on have taken place in zoos." Two is the most common number in a litter, but occasionally four will be born at one time.

✓ Grizzlies often rest during the heat of the day and set out at night. Except for females and cubs, they usually travel alone.

✓ Bears like to follow trails as much as possible, which accounts for some of the encounters with people.

✓ Bears tend to eat whatever is easiest to find, whether it be meat, fish during spawning season, grasses or roots.

✓ Grizzlies in the wild will live about 20 years, some 10 years less than their counterparts in zoos.

Scientists hope to popularize 'fishfurter'

By The Associated Press

NEWS-PRESS

Newsmakers

Scientists at the Northwest and Alaska Fisheries Center in Seattle are hoping that some day Americans might find something fishy about their hot dogs.

They have developed a wiener containing nearly 30 percent Alaska pollock, a bottomfish now being caught by Japanese, Koreans and Russians and eaten in America as fish sticks.

A reporter who tried a "fishfurter" said it looked like a wiener, smelled like a wiener and tasted like a weiner, with maybe a tang of fish.

Maynard Steinberg, director of the center's Utilization Research Division, has worked on the pollock frankfurter for seven years and says it has more protein than a regular wiener and could cost perhaps 5 to 7 cents per pound less than regular franks.

Geyser Gazing

with
Dr. John S. Rinehart

A geyser is essentially a hot spring , but it has one unique characteristic: it periodically and violently throws hot water and steam into the air. In fact, the word geyser comes from an Icelandic word meaning "to gush forth." In order to function, a geyser must have a source of heat; it must have a place to store water while it heats up to just the right temperature, an opening to the surface of just the correce size out of which to throw the hot water, and underground channels adequate for bringing fresh water in after an eruption. Only very rarely does exactly the right combination exist. when there is little water but intense heat, a steam vent called a fumarole exists. A mud pot occurs when the hot water is laden with dirt. If there is plenty of incoming water but it is comparatively cool, it is a hot pool; or if too hot, a hole continuously spouting a spray of steam and hot water.

A geyser erupts when some of its stored hot water having been heated too hot, suddenly explodes into steam. This transformation from water to steam is as powerful a reaction as blowing up dynamite. Water in the form of steam occupies more than 1,000 times as much space as in the form of water, so that the geyser reservoir can no longer contain it when the water suddenly expands to steam. This process makes the geyser erupt.

Water can remain a liquid even if heated to a temperature hotter than its normal boiling point if it is under pressure. In a geyser, the pressure is applied by the weight of the water itself. Thus the water in the lower part of the reservoir is heated much hotter than the water at the top. The deep water as it heats up becomes lighter and lighter. It eventually becomes unstable and all of a sudden a blob of hot, light water rises to the surface where it explodes. The eruption has started! The explosion throws water and steam out of the pool, and upsets all the water in the geyser. More hot water comes up, more explosions occur, the cataclysmic process continuing until the geyser has either thrown out all of its stored water or at least its very hot water. The emptied reservoir is hot and often a steam phase ensues. Beneath the ground, water starts flowing in again, begins heating, and the process starts over. A complete cycle can take minutes, hours, days, or years.

Preeruption play usually consists of overdlowing water which ebbs and flows. A geyser may flow for over an hour preceding an eruption. SOmetimes there are fairly large bursts of water and steam beforehand, and with a few geysers there may be preeruption play of an adjoining indicator geyser.

Editor's Note:
Dr. John S. Rinehart was educated as a physicist and teacher. When he started studying geysers in 1965, he was Director of Research and Development of the U.S. Coast and Geodetic Survey. In 1966, he became Senior Research Scientist with the National Oceanic and Atmospheric Administration where he remained until his retirement in 1973.

Be sure to get Dr. Rinehart's booklet "A Guide to Geyser Gazing" wherever books are sold.

At this time of year, snow and ice on roads makes driving hazardous. Use extreme caution! Drive slow! On mountain roads use snow tires or carry chains. Watch for snowplows!

Dick Knight

considering sport hunting of individual bears that are obviously surplus because of their behavior patterns. These are bears that would ordinarily have to be destroyed by the state. Instead, the state would allow a qualified hunter with a permit to kill the bear.

Times: Frankly, concern has been expressed in some places that even now it may be too late to save these bears. Do you believe this based upon the work you have done to date?

Knight: No, I don't think it is too late but I do think that great care should be taken in grizzly bear management. This means that some sacrifices will have to be made for the sake of the bear, particularly in the areas of timber harvest, livestock grazing and real estate development.

Times: What value does a bear have? Why should we even bother to preserve the species?

Knight: I guess that a bear has the same value as a wilderness area or a park or a diamond. In other words, it's worth whatever value that society places on it for their asthetic enjoyment. We preserve these things because we want them and the effort that we make to do so is probably a measure of the value that we put on them.

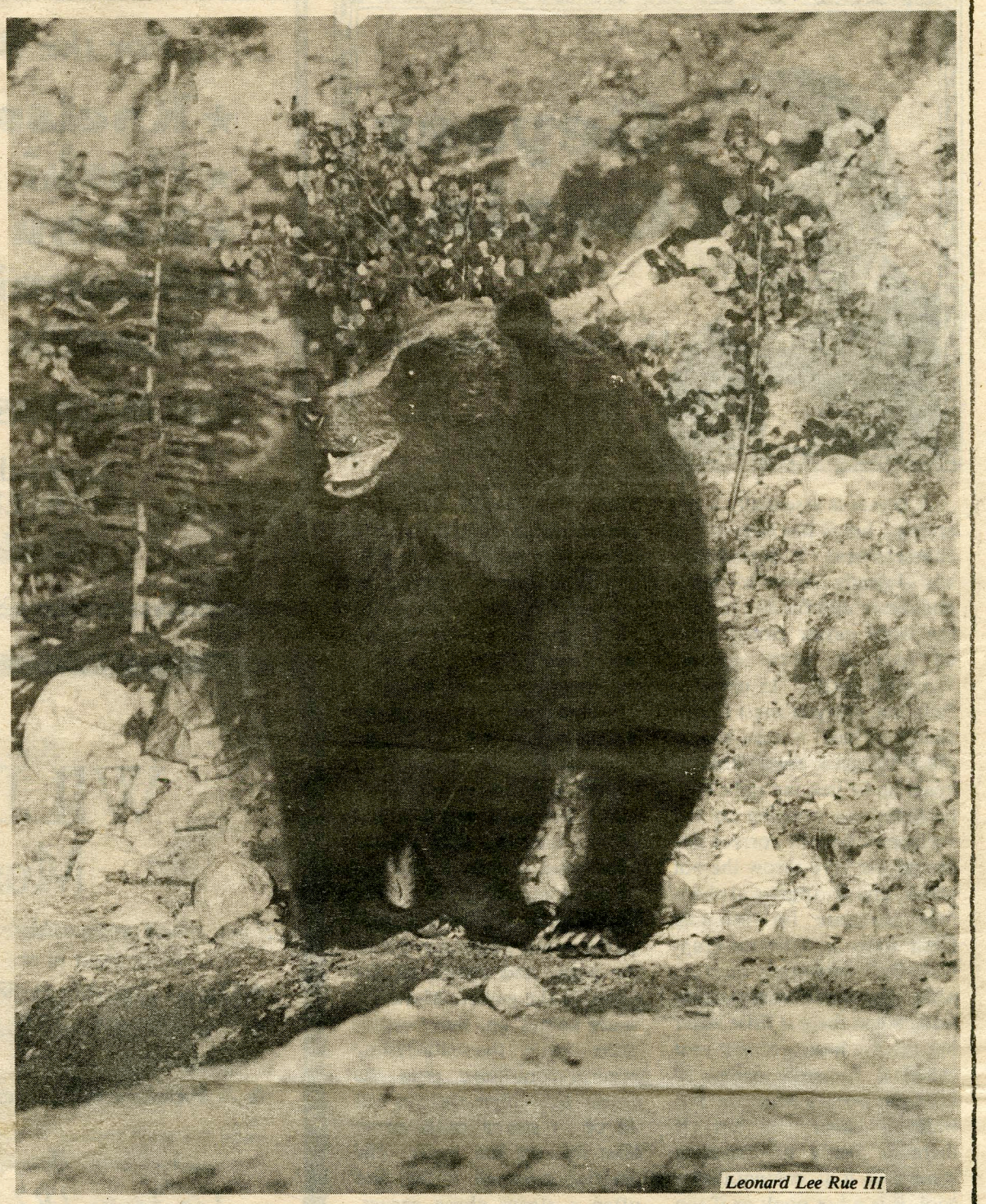
Times: All Americans should be aware of the work of the Interagency Study Team in investigation of the grizzly bears of the Yellowstone area. And this work must be supported. But we think it would be of great interest also to learn from you just how you perceive this bear. How dangerous is he? How much of a threat does he pose for humans who also live in the area with him? There is a saying around West Yellowstone that goes, "Never pet anything black after dark!" Yet, the bear has never hurt one single visitor inside town. Just exactly how fierce and dangerous is a grizzly?

Knight: Well, I think that a bear is as fierce and dangerous as he feels he needs to be under the circumstances. Bears vary a lot in behavior patterns but they usually go about minding their own business and as long as they don't feel threatened in any way they are not dangerous. If a grizzly bear is threatened or at least feels threatened especially in close quarters, he becomes dangerous. The grizzly bear is probably one of the original users of the theory that "the best defense is a good offense" and their offense is one of the best if they decide to use it.

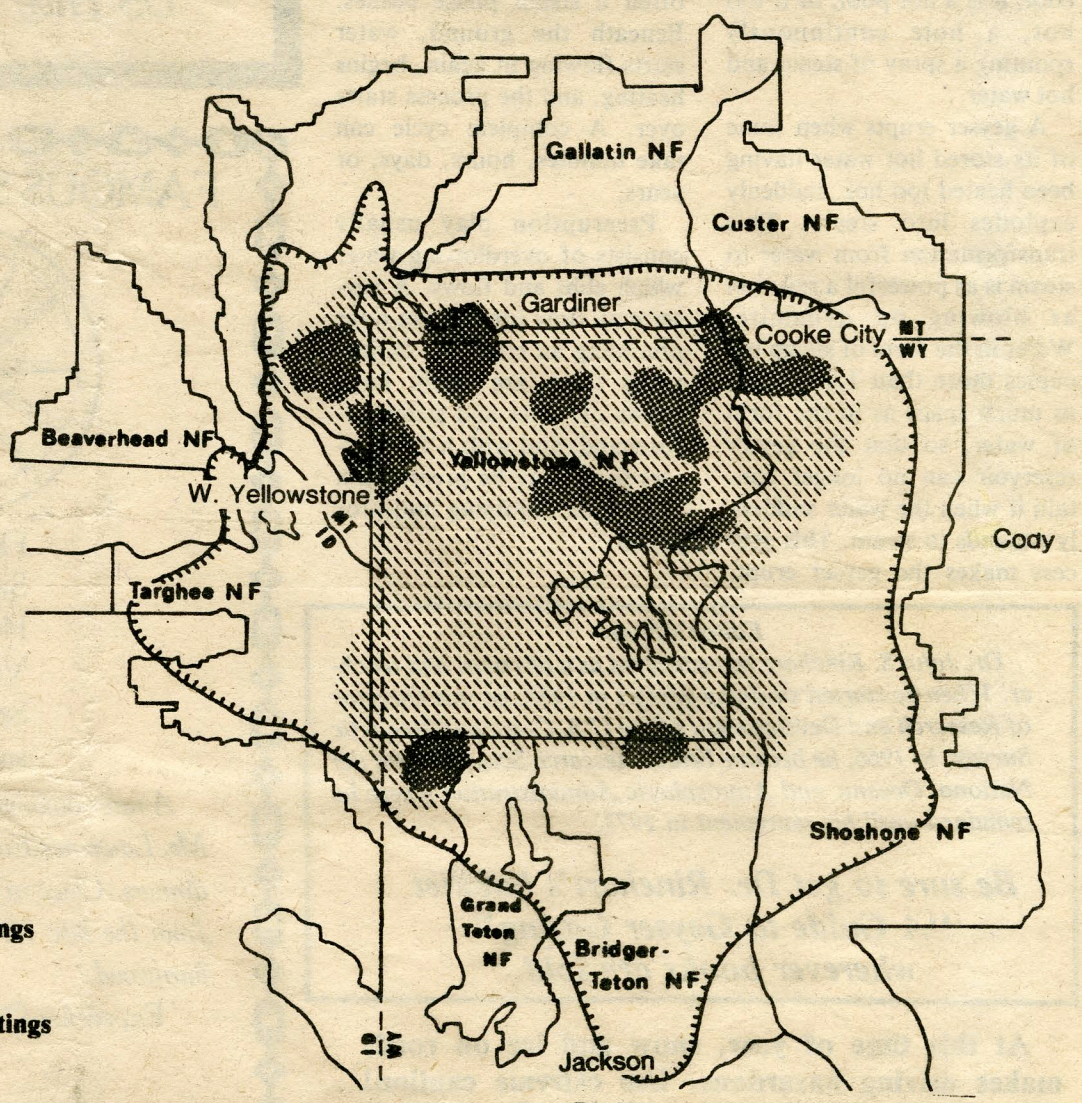
Times: Finally, as one of the foremost bear authorities, what advice do you have for a visitor who might find themselves vis a vis a grizzly?

Knight: Here again, circumstances make a lot of difference. First I would have to say that it's a good thing to avoid if possible. There are times when it can't be avoided but a little alertness goes a long way in grizzly country. If a confrontation does occur the most important thing to do is remain as calm as possible. Remember, if the bear doesn't feet threatened, he will probably not attack. On the other hand if you turn and run he may chase you for the fun of it or if you drop to the ground and curl up his curiosity may be aroused and a rather painful investigation could be the result. If the bear does not have something to protect, it will probably retreat or allow you to retreat slowly. A bear that does have something to protect and feels that you are a threat will probably charge, whether for real or for a bluff. Depending on the distance between you and the bear you can stand and bluff, curl up, or climb a tree. Climbing a tree is probably the safest, but remember grizzly bears can move very fast and some of them can climb trees.

Times: Thank-you, Dick Knight.



Leonard Lee Rue III



Distribution of grizzly bears in the Yellowstone Study Area.

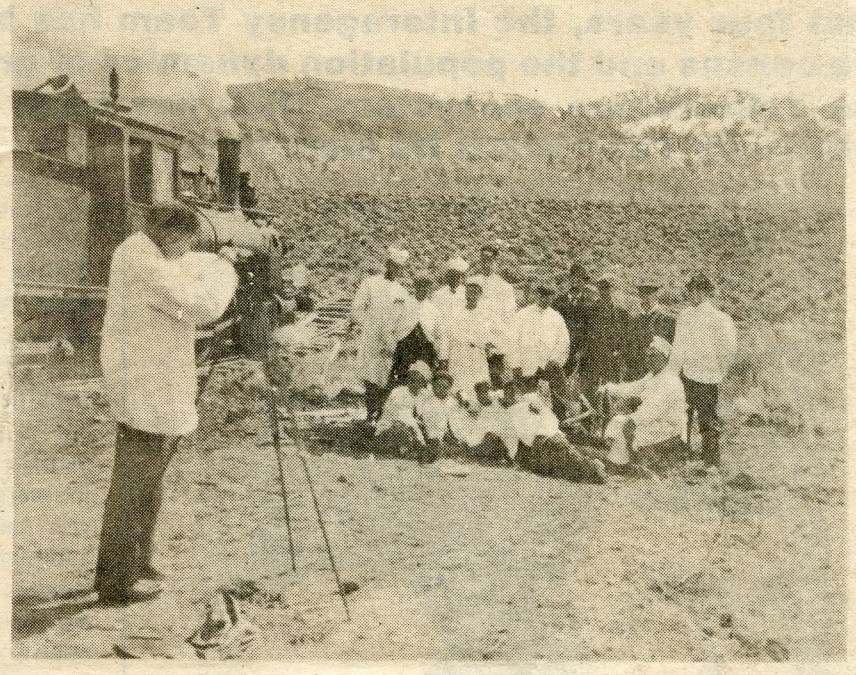
Yellowstone Yesterdays

National Park Photos

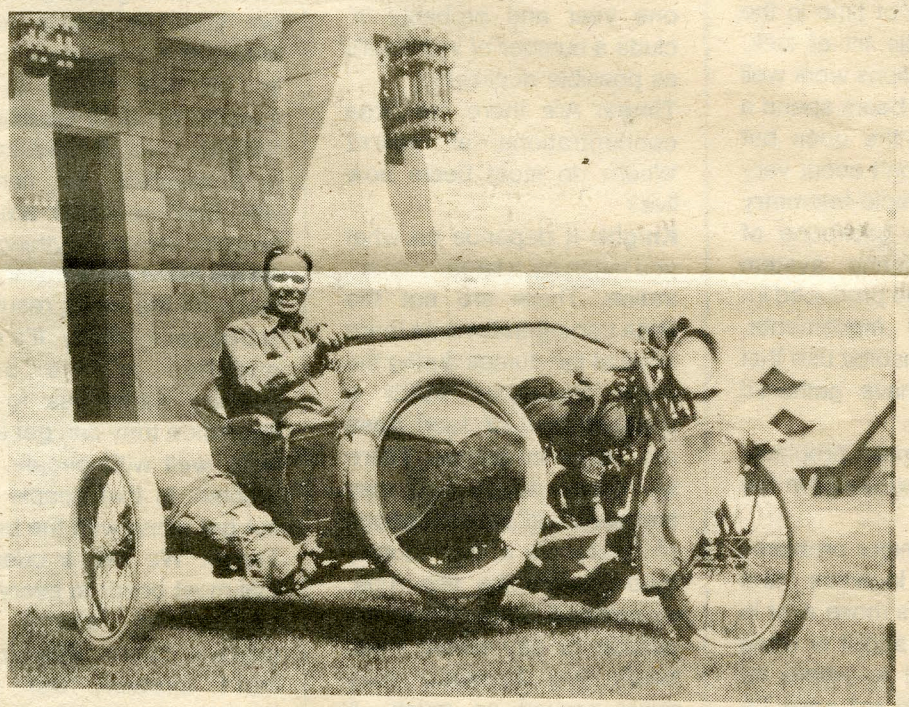
Captions by the Editors

The Park's past relived in pictures.

1915-These fellows are members of Yellowstone's Ski Patrol. They were tough men, and very dedicated to their job, which included keeping track of the Park's game herds, and hauling in stray tourists who refused to stay on marked trails. They performed physically taxing and mentally demanding labor, usually alone or in pairs.

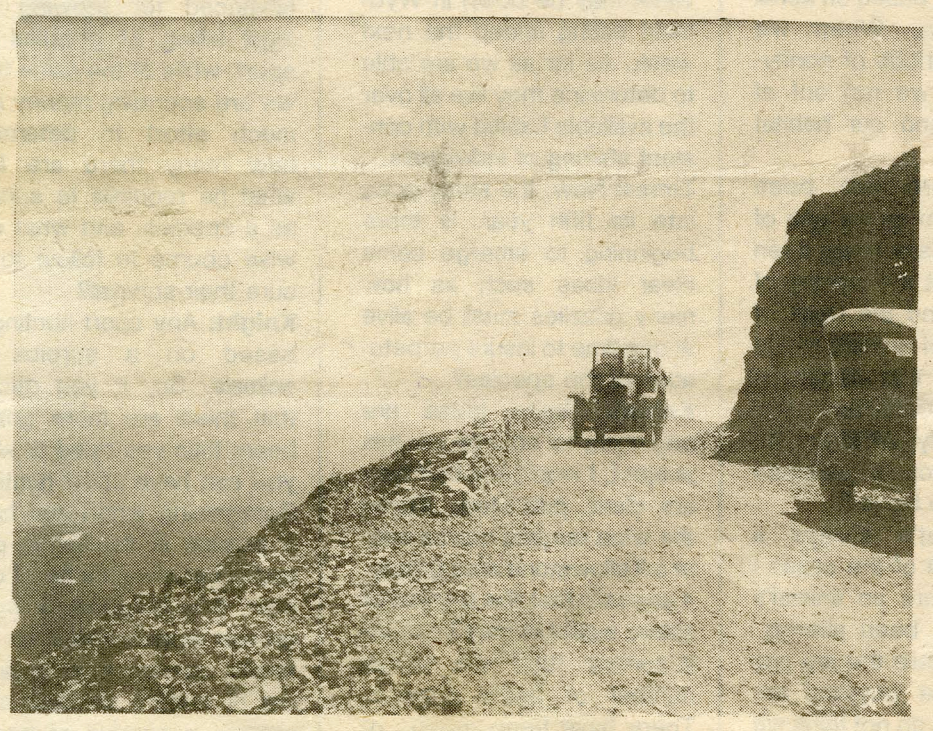


1903-President Theodore Roosevelt's personal staff posing for posterity near Cinnabar, Montana (at Yellowstone's North Entrance), in April, 1903. President Roosevelt was at Yellowstone for the dedication of the cornerstone of the North Gate Arch.

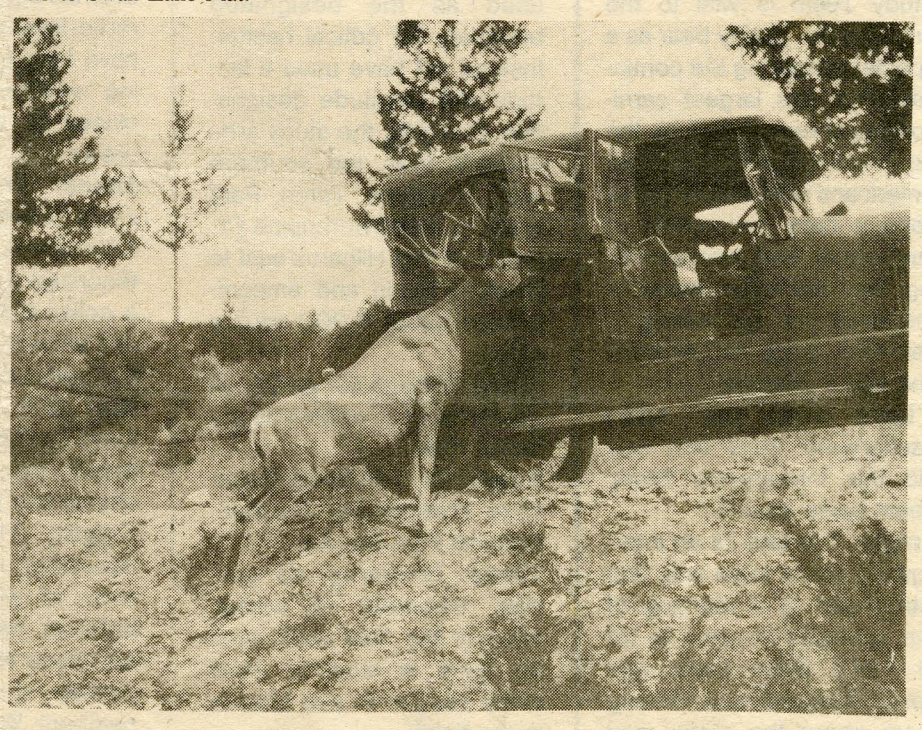


1922-This motorcycle was equipped with a handlebar extender (shown) so that one could ride in the sidecar and steer at the same time. It is popular belief that the extender was invented for ladies who thought it too "vampish" to ride astride like a man.

1922-Yellowstone used to be shoveled almost entirely by hand. The requirements were a strong back and withstanding freezing temperatures. These men are shown giving the heave-ho to Swan Lake Flat.



1924-The Mt. Washburn road before pavement, guard rails, and automatic transmissions. This is a "slow go" even today, but the scenery is well worth the trip.



1927-an extremely dangerous practice. Visitors are injured every year due to this type of stupidity. Leave wildlife alone. They are most dangerous in this sort of situation.

This Week's Exclusive Interview

The Old Faithful Times talks with Dick Knight,

leader of the Interagency Grizzly Bear Study Team. For the past four years, the Interagency Team has been studying the census and the population dynamics of grizzly bears in the Yellowstone ecosystem. Dick has been the leader of this Study Team since its inception.

Wyoming Game and Fish Photo

Richard R. "Dick" Knight was born in Sheridan, Wyoming in 1934. He received B.S. and M.S. degrees from Montana State University in 1956 and 1960 respectively with a tour of duty in the U.S. Army in between. He received a Ph D. from the University of Minnesota in 1968. From 1960 to 1967 he worked as a Research Biologist for the Montana Fish & Game Department. From 1967 to 1973 he was associate professor of Forestry at the University of Idaho. In the spring of 1973 he moved to Yellowstone National Park as Leader of the Interagency Grizzly Bear Team.

Times: Dick, the work being done by the Interagency Study Team is vital to the future of the grizzly bear as a species. Assuring the continuation of this largest carnivore must remain high on the list of national priorities. Most Americans who visit this area have a hazy perception of this animal, and, not surprising, few are even aware of the study you are making to gain knowledge and information about grizzlies.

Let's begin with some background. How and why did this Interagency Study Team come about?

Knight: The idea of an interagency study team was first introduced at a meeting of the agencies involved in fall of 1972 when there was some disagreement among them about the status and management of the grizzly bear. Mr. Nat Reed, then Assistant Secretary of Interior, was instrumental in getting the team organized and operational by the summer of 1973.

Times: What are the main objectives you wish to accomplish?

Knight: We have two major objectives: 1. determine the status and trend of the grizzly bear population; 2. determine the use of habitats by bears and the relationship of land management activities to the welfare of the bear population.

Times: Define for us the actual study area...using landmarks we all know, if possible.

Knight: We have deliberately avoided using landmarks for the study area boundary since we did not want it to be used as the designated boundary for critical habitat. Instead we have used a latitude and longitude designation. Roughly, the study area extends from the southern end of Grand Teton Park north to about Porcupine Cr. and from The Hilgards east to Sunlight Basin and emcompasses about 8,000 square miles.

Times: Who is the person in government to whom you are answerable?

Knight: Dr. Ted Sudia, Associate Director for Science, National Park Service.

Times: Obviously, as grizzlies hibernate all winter, most of the field work must be done in summer. How many people do you employ in the field?

Knight: We have three team members and one technician working in the field. During the summer we usually employ 16 temporary people.

Times: The next question must follow: how do you study a grizzly bear? Certainly, this secretive and notoriously un-cooperative beast is not a standard laboratory matter. Tell us about some of the more successful methods you have used to gather information.

Knight: That's a good question. It's true that the grizzly bear is difficult to work with. You have to find him, then get close enough to find something out — but not too close. Getting the information takes lots of time in the field and a little bit of luck. Aerial observations work well in years when bears spend a lot of time in the open but those years don't occur very frequently. Radio-telemetry has been the backbone of our data-gathering system since 1975 and produced information on movements, behavior and habitat use that we couldn't have gathered any other way.

Times: What major problems have you encountered in the field?

Knight: The major problems have been logistics and weather. Bears move a lot in remote areas and it is often difficult to get to where he was in time to tell what he was doing there. Most of our success in measuring habitat use has been based on aerial radio-tracking. When we have long periods of nonflying weather we run out of places to send our habitat crews.

Times: There has been some criticism of the use of telemetry collars. It has been theorized that the placing of a collar around the neck of this wildest of animals alters the behavior and results in data and information that might be faulty. What do you think? Has your experience shown this to be so?

Knight: That's always a possibility. All of the cases I know of where an animal's behavior has been altered are those where the tag has caused some physical impairment. We do not think we have a problem of this type since the radio-collars are very light compared to the weight of the bear. In cases where we can make comparisons, we do not notice any behaviorial differences. These cases are where we have one member of a family tagged or observe tagged bears in close proximity to untagged bears.

Times: To date, how many grizzlies have been found and positively identified in the study area?

Knight: We have caught and tagged 39 grizzly bears during the study. If not tagged, it is difficult to definitely tell one individual from another and almost impossible between years unless there is some physical deformity. We try to identify a minimum number of recognizable bears each year. These are mostly tagged individuals plus any recognizable family groups or individuals. This usually runs about 100 individuals. This does not have any bearing on the size of the population since we do not see all of the bears in any one year and probably include a number of individuals as possible duplicates.

Times: Are there still large concentrations of bears? Where do most bears now live?

Knight: It depends on what you mean by a large concentration. There are not the large concentrations as there were at the dumps during the 60's because such a concentration of food does not occur in nature. There are areas where you may find seasonal concentrations of bears on a high quality food source like fish runs, exceptional berry crops. It's difficult to say where most bears live because they move around so much. A bear that's fishing on spawning streams in the Park one week may be down in Wyoming eating sheep the next week. As far as we are able to determine they live all over the available habitat with constant shifting of individuals.

Times: Now, the study goes into its fifth year. Is there beginning to emerge some clear ideas such as how many grizzlies must be alive at one time to insure perpetuation of the species?

Knight: Some ideas are beginning to emerge on this subject. I won't say that they are clear, just ideas. Given the wide ranging movements of a Yellowstone area grizzly, it appears that the amount of space available may be more important then the actual number of bears present. There have been reports of very small populations in Europe that have persisted with less than 25 members. In the Yellowstone area I would take a dim view of the future if there were less than 100 bears.

Times: Many people do not understand the grizzly's status under the Endangered Species Act. Could you clarify this point?

Knight: The Endangered Species Act provides for two classifications of animals in low population status: threatened, as is the grizzly, is believed to be at such a low population level that it could become endangered without careful management. This means that mortality levels should be held to a low level, and that any disturbance to habitat used by the animal should be kept to a bare minimum.

Times: Dick, it may be putting you on the spot, but, again, it is very important. What do you consider the greatest threat to the grizzlies? We hear of things like encroachment...conflict with man...hunting...but, based on your extensive knowledge and experience, what is the real threat to the species south of Canada?

Knight: I would have to say encroachment by humans and their activities are the greatest threat. Anything that brings more people into contact with the bears results in increased mortality. It's not a question of the bears needing wilderness to survive since they can get along quite well with people. The problem is that people cannot get along with the bears.

Times: We ask a question that must occur to everyone concerned about the grizzly's future. Maybe you can't answer, but your thoughts would be most interesting. The question is what possible reason can be advanced for allowing the legal killing of grizzlies for sport, while at the same time we are spending money and much effort to determine how many there are left, what he requires to survive as a species, and what is a wise course to follow to insure their survival?

Knight: Any sport hunting is based on a surplus of animals. So, if you decide that there are more grizzly bears than you need or want you can have sport hunting. Determining when you have a surplus is the tough part and is largely a matter of opinion. For instance, a woolgrower would have a far different opinion than defenders of Wildlife on what constitutes a surplus of bears. Montana and Wyoming are

(conti. next page)