

University of Montana

ScholarWorks at University of Montana

Graduate Student Theses, Dissertations, &
Professional Papers

Graduate School

1996

Reintroduction of grizzlies to the Selway-Bitterroot Wilderness : a boon or a burden?

Ray R. Stout

The University of Montana

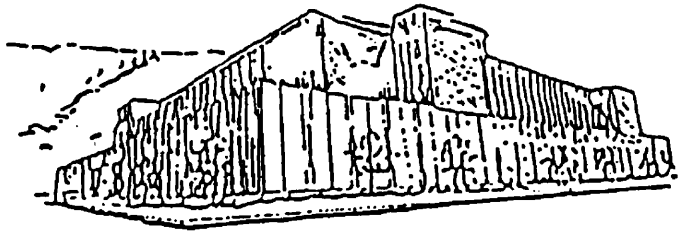
Follow this and additional works at: <https://scholarworks.umt.edu/etd>

Let us know how access to this document benefits you.

Recommended Citation

Stout, Ray R., "Reintroduction of grizzlies to the Selway-Bitterroot Wilderness : a boon or a burden?" (1996). *Graduate Student Theses, Dissertations, & Professional Papers*. 8403.
<https://scholarworks.umt.edu/etd/8403>

This Thesis is brought to you for free and open access by the Graduate School at ScholarWorks at University of Montana. It has been accepted for inclusion in Graduate Student Theses, Dissertations, & Professional Papers by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact scholarworks@mso.umt.edu.



Maureen and Mike
MANSFIELD LIBRARY

The University of **MONTANA**

Permission is granted by the author to reproduce this material in its entirety, provided that this material is used for scholarly purposes and is properly cited in published works and reports.

*** Please check "Yes" or "No" and provide signature ***

Yes, I grant permission X AFTER 5-29-97
No, I do not grant permission

Author's Signature Ray R. Stout

Date May, 28, 1996

Any copying for commercial purposes or financial gain may be undertaken only with the author's explicit consent.

The Reintroduction of Grizzlies to the Selway-Bitterroot Wilderness:

A Boon or a Burden?

by

Ray R. Stout

B.A. Eastern Oregon State College, 1992

presented in partial fulfillment of the requirements

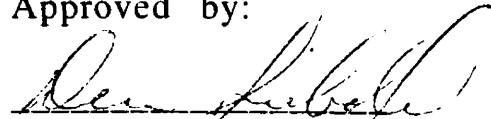
for the degree of

Master of Arts

The University of Montana

1996

Approved by:



Chairperson



Dean, Graduate School

5-28-96

Date

UMI Number: EP39204

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI EP39204

Published by ProQuest LLC (2013). Copyright in the Dissertation held by the Author.

Microform Edition © ProQuest LLC.

All rights reserved. This work is protected against unauthorized copying under Title 17, United States Code



ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

ACKNOWLEDGMENTS

Many thanks to committee members Joe Durso, Dan Pletscher, and, especially, Dennis Swibold, and for the assistance of journalism school staff Frank Allen, Megan Drake, and Lynne Kisling.

The Reintroduction of Grizzlies to the Selway-Bitterroot Wilderness:
A Boon or A Burden? (51 pp.)

Director: Dennis L. Swibold *DS*

In what would be the first reintroduction of grizzly bears in history, the U.S. Fish and Wildlife Service has proposed a return of 20 to 30 bears to the Selway-Bitterroot ecosystem of Montana and Idaho. The five-year, \$1 million project could begin as soon as summer 1997. The purpose is to increase the numbers of the grizzly, a species listed as "threatened," by establishing a viable population in the Bitterroot Mountains, one of six regions targeted for grizzly recovery in the Lower 48 states.

One of the magazine articles presented here is a report on the grizzly reintroduction, including the condition of the habitat, the question of remnant grizzlies, the debate over a viable population, the necessity of links with other grizzly regions, the implications of citizen management, and the effect on the Endangered Species Act.

The other major piece, using similar or identical sources, explores why a society should go to potentially great pains to keep a species alive when the society's trend is toward its demise. In developing this piece, I tried to synthesize published information with the views of professional biologists, a conservationist, people living near the proposed recovery area, people who actually live with grizzlies, and a Native American spiritual leader. Perhaps the most intriguing thing about their collective views, I found, is that what one person believes he needs, his opponent believes he only wants.

Throughout my coverage of a topic that concerns me, the issue has shown me what it means for a reporter to be objective, to appear to be objective and to think he is objective. I will watch how the reintroduction proceeds in the next several years with a great deal of interest as I recall what my sources told me.

TABLE OF CONTENTS

Grizzly Reintroduction: The Bitterroot Debate
1

Why On Earth? Putting Grizzlies Back in the Bitterroots
2 2

Map of Proposed Grizzly Recovery Area
4 2

Sources Cited
43

Grizzly Reintroduction: The Bitterroot Debate

“They’re here somewhere. I’m starting to feel it as I look across to the farther, rockier mountains. There are places where our pale pipestem legs, our ribby backs, cannot take us without days and days of journey, and there are places where cattle and sheep surely cannot go. . . . It is like the birth of a new species: the thinking bears of the San Juans.”

— Rick Bass, from “The Lost Grizzlies”

Stephen Bowler is sure it’s a grizzly bear in the photo he took in the southern Bitterroot Mountains on Independence Day 1992, perhaps the first color photo of a Bitterroot grizzly ever taken. So are his wife and the couple who had gone with them to pick huckleberries not far from their home in Darby, Mont.

“We were just picking berries, and you get that feeling where something’s watching you? We all got it at the same time,” Bowler says.

The tan bear was looking at them calmly from atop an old stump, licking her chops of the berry juice, 125 feet up the hill.

She had three cubs in a tree across the road, Bowler says, which he and the others had thought were black bears. The people scooted back to the car, where Bowler grabbed his camera.

“They were dragging me back,” Bowler says. “I said, ‘No one’d ever believe it,’ so I shot the picture.” One frame. She raced off through the vegetation. “She could move, too.”

Though he’s only heard about them and hasn’t seen the bears again, he’s shown the print to about 30 people, and he guesses 90 percent say it’s a grizzly. Even if it weren’t, he’s not bothered. She was big. “It was still a hell of a bear,” Bowler says. “It’s a story worth telling.”

It’s also a story germane to the proposed reintroduction of the rare grizzly to the Selway-Bitterroot region of Idaho and Montana, the very region in which Bowler photographed the bear and to which the U.S. Fish and Wildlife Service, spurred by the Endangered Species Act, plans to bring the species back. The reintroduction — 20 to 30 bears over five years starting perhaps in 1997 — will be the first official return of grizzlies to an ecosystem from which they had been supposedly exterminated.

The project is expected to cost about \$1 million for capture, transport and monitoring of the reintroduced grizzlies, far less than the nearly \$7 million to reintroduce gray wolves to the Northern Rockies beginning in 1995.

It's been nearly 60 years since most of the Bitterroot grizzlies were hunted, trapped or killed by sheepherders. The agency's official position is that there's been no evidence of grizzlies in the range since the 1940s.

That's significant, because if there is a population of grizzlies — an officially “threatened” species — the project would not be a “reintroduction” but an “augmentation,” and the agency couldn't release the newcomers as experimental. If reintroduced experimental bears joined existing bears, the reasoning goes, it would be hard to tell them apart.

And they must be distinguished, because grizzlies labeled “nonessential, experimental” — that is, without full protection under the Endangered Species Act, which all other grizzlies have — could be harassed or killed if seen harming livestock.

However, 15 of 16 bear biologists who have seen the photo believe it's a black bear, says USFWS grizzly recovery coordinator Chris Servheen. So does he.

“He's looking sideways,” says John Chamberlin, who was with Bowler and their wives when Bowler shot the picture, and is certain it's a grizzly. Chamberlin saw a lot of grizzlies and blacks in

Yellowstone when he helped build telephone lines there in the '40s, he says, and knows what they look like. "There's not much question, I would say."

Mike Bader, executive director of the Alliance for the Wild Rockies in Missoula, Mont., says a remnant grizzly population in the Bitterroots is almost certainly there. That shouldn't be surprising considering how secretive bears can be and how no one can prove they're not there, he says. "There's been, in my opinion, such a rush to judgment that there's no grizzlies there," Bader says. "That's improper."

And there have been signs, says Charles Jonkel, bear researcher and scientific adviser to the Great Bear Foundation, a conservation organization headquartered in Bozeman, Mont. He says he has seen definite grizzly evidence — hair, scat, claw marks — and reports of those from other people.

He stops short of saying the evidence proves there's a population, but he's certain there are grizzlies.

But Servheen isn't convinced. "There's no evidence of grizzly bears in the Bitterroots. None. Zip. Nada. We haven't seen anything," he says.

Proof or no proof, the Bitterroots is the place where the bears will be returned as FWS pursues grizzly recovery in the Lower 48 states. What awaits them is a poorer habitat than 80 years ago, an unknown level of viability, questionable travel routes to other populations and, quite probably, management by local citizens.

###

If grizzlies are hanging on in the Bitterroots, they have survived despite a less-than-ideal home range. Any reintroduced would have to do the same.

While the remote, rugged 5,500 square miles is good grizzly country in many respects, it's not as good as it once was. Gone are the salmon runs the bears would feed on and the use of the adjacent, lush Bitterroot Valley. Disappearing is the whitebark pine tree, the nuts of which are an important food source in the fall.

And the linkage corridors, the routes the bears would have to use if they traveled to other grizzly populations, are difficult to maintain for the benefit of the bears and the exchange of their genes.

The bears no longer have the big, wide, productive Bitterroot Valley. The people do, in the form of roads and subdivisions, which also dominate the linkage corridors.

Nor do the grizzlies have the salmon runs, which were cut off by a dam built in the 1920s at Lewiston, Idaho, for electrical power. Though it was removed about 40 years later, the steelhead and chinook, like the grizzlies, had declined to nearly nil.

And the whitebark pine is doing the same. It's essentially gone, Jonkel says, a victim of the mountain pine beetle, competition from other trees and especially the disease called white pine blister rust. "There'll never be whitebark pine significantly in the Bitterroots or the Mission Mountains," Jonkel says. "They're not going to come back, I don't think."

If the whitebark disappeared, bear scientist John Craighead believes, grizzlies eventually could suffer as much as they did when the Yellowstone garbage dumps, a longtime food source, were suddenly closed in the early 1970s. After the closings, the bears moved more often into the campgrounds, prompting park officials to kill or remove them. "If we lost the whitebark pine throughout the Northern Rockies region, the effect over time could be every bit as great as the closure of the Yellowstone dumps was on the Yellowstone grizzly bear," Craighead says.

For example, after the Yellowstone fires of 1988 killed a lot of

whitebark, Craighead says, the bears searched for food outside the park, where they are likely to be shot by game officers or citizens. “When they get out onto the periphery of the habitat like that, they’re much more susceptible to death by control or poaching,” Craighead says.

There are no other trees that produce food for the bears, says John Weaver, former FWS biologist in charge of Bitterroot reintroduction and now a research associate with the Northern Rockies Conservation Cooperative, a nonprofit organization based in Jackson, Wyo.

U.S. Forest Service grizzly biologist Dick Knight, who monitors Yellowstone grizzlies, agrees that the whitebark probably won’t recover. “It’s a long way down the road if it does,” Knight says. However, he expects the Bitterroot bears will adjust, relying on the other food sources such as roots and other plants.

###

Good habitat or not, there’s no question the Bitterroots is some of the best grizzly range left outside of Yellowstone and Glacier. Just how many grizzlies it should sustain, however, is a matter of bitter debate.

And just how few are enough to carry on the species is still a question with no certain answer.

FWS's proposal is to reintroduce four to six grizzlies a year for five years to the Bitterroots, which it says could ultimately support more than 200. When bear numbers near that — depending on other factors such as females with cubs, how far they scatter and human-caused deaths — the Bitterroot grizzly would be considered recovered, and attention would turn to conservation. That would be in 30 to 60 years.

Two hundred is not enough bears, say the Alliance for the Wild Rockies and other biologists, including University of Montana research biologist Lee Metzgar, because the area should be expanded to almost 22,000 square miles and host about three times as many grizzlies.

According to a rough rule of thumb among some conservation biologists, a grizzly population needs to number at least 50 breeding animals to have a decent chance at survival. That number, a bare minimum, means the total population would be about 200, the theory goes. Below the 50, "you're probably flirting with disaster," Metzgar says.

A rough number that's probably safe is 500 breeding bears, or 2,000 total, Metzgar says. Two thousand, he says, is the ballpark number of bears needed throughout the Northern Rockies.

In order to survive for several hundred years, those 2,000 grizzlies would need perhaps 50,000 square miles of habitat, Metzgar says. However, only some 40,000 suitable square miles, in disconnected chunks, exist in the Northern Rockies. But the guideline he favors is still 2,000 grizzlies, roughly twice the number that remain in the Lower 48.

But the 50-500 Rule they subscribe to is shaky, according to Mark Boyce, a University of Wisconsin-Stevens Point professor who studies Yellowstone grizzly populations. While the minimum of 50 breeding bears has some basis, from livestock breeding, the 500 comfort level has none, he says. "It is totally bogus," Boyce says.

Knight agrees. "I think it's a naive thought," he says. "Where are you going to put 2,000 bears in this area?"

Servheen also dismisses the theory. "It's a seat-of-the-pants issue that somebody came up with," he says. "It sounds great, but it really doesn't mean much in applied management activities."

What the agency does, rather, is adapt while keeping tabs on the

bears' habitat, births, distribution and deaths, Servheen says. It's not useful to strive for a certain number. "I don't think there's any number that one can state," he says. If the agency had grizzly range that extended unbroken for great distances, "then we could use that kind of a concept. But we don't."

Jonkel says that biologically, a minimum viable population for the Bitterroots might actually be quite small. However, with unreported killings, it probably has to be higher — maybe 30 or 40 — to compensate. "If we gave them everything they need, we could put damn few in there and they'd do just fine," Jonkel says. "Animals may be more resilient than we're giving them credit for."

But the number of bears is not the only factor involved in how well a Bitterroot population fares, Metzgar says. If the bears can't travel to the other grizzly ecosystems, their numbers won't sustain them. "The population will never be recovered until there's movement between those areas," Metzgar says.

Servheen defies that. Though the government tries to attain the use of private lands in linkage corridors, the bears don't use them, he says. "There's nothing we can do to make those bears use those corridors," he says. Since 1975, nearly 500 grizzlies in the Northern

Rockies have been radio-collared, he says, but none have moved between the recovery areas: Yellowstone, Glacier, the Cabinets, not even the seven miles between the Cabinets and the Selkirks in northern Idaho. “We’ve never seen those bears move,” Servheen says.

###

Wherever the Bitterroot bears do move, however, may be known by more than just the agencies. If a team of traditional foes has its way, there’s a new boss in town: the local citizens.

That’s the idea proposed by a meet-in-the-middle coalition of timber and conservation groups. The coalition would have the bears dubbed a “nonessential, experimental” population subject to a 15-member committee made up of two federal officials, one tribal member and 12 citizens of Idaho and Montana, including state wildlife agents, local officials and people from other affected parties.

Habitat would be compromised, too: The proposal allows logging, mining and grazing to continue in areas where they already exist.

The “nonessential, experimental” designation means livestock owners can harass or kill grizzlies in the act of harming their livestock. With the ESA in full force, no one could do that without

severe penalty.

The committee's two federal officials, from FWS and the U.S. Forest Service, would make sure its decisions led toward recovery.

The proposal is aimed at giving more power to the people living near the species and relieving them of some of the federal regulation. The authors are Defenders of Wildlife, the National Wildlife Federation, the Resource Organization on Timber Supply and the Intermountain Forest Industry Association.

The coalition hopes its proposal will prevent the squabble that arose over wolf reintroduction and lasted nearly 20 years. Wolves were first released in 1995 as nonessential, experimental animals in a program thus far considered a success, though still managed mainly by government.

The citizen-management concept is a new approach that's caught on in other parts of the world. "It's been tried in most places except the United States," says Weaver, the former Bitterroot-reintroduction biologist for FWS. But Servheen has said publicly that the agency is "extremely" interested in the option.

One place citizens manage their wildlife is Zimbabwe in southern Africa, where the citizens "own" the animals and sell to safari

companies the rights to hunt or photograph the species like elephants, antelope, lions, leopards and buffalo. The money goes straight to the communities, where the people decide how to spend it, and it's helping to beat destitution.

However, Weaver says, the difference in culture and economy between places like Zimbabwe and Montana's Bitterroot Valley, which borders the grizzly recovery area, is important.

For one thing, grizzlies brought to the Bitterroots won't be legally hunted for years. And, unlike animals in Zimbabwe, they don't represent food and revenue to the local people but compensation for damage they might do to property, Jonkel says.

Many countries using citizen management "tend to be village-based, traditional cultures, so that once leaders of a village or community adopt an approach it's transmitted throughout the community," Weaver says. "We have a much more diffused society. It's harder for our so-called leaders to adopt the populace's wishes."

But citizens manage wildlife in industrialized countries, too. One is Norway, Jonkel says, where local committees control the hunting of reindeer, moose and red deer. The approach is used all over Europe as well, he says, even for species like snails. "They've got little groups

for just about every damn thing,” he says.

Looking at the Bitterroot committee as proposed, Weaver is mildly concerned that 15 people may prove too many. He’s often found a group of eight to 10 to be less productive than it should. The committee make-up also appears slanted toward logging and mining, he says, and local representation seems to outweigh government and national presence.

That’s a major concern of the Alliance for the Wild Rockies, too. Bader doesn’t believe the committee structure favors biology or the ESA. “It’s definitely a political move,” he says. Nor does he like the “experimental” option that eases the stringency of the act. “The whole thing is just a dodge, really, and that’s not what the law’s set up for: to be dodged,” Bader says.

###

As for citizens who would be the grizzlies’ nearest human neighbors, many feel the best option would be no grizzlies in the Bitterroots. But the citizen-committee alternative ranks a second-place behind that, albeit a far one. “My preference is you don’t move them in at all,” says Rick Laible, who fears for the horses on his southern Bitterroot Valley ranch. But if you do, Laible says, then the

citizen alternative is “the least offensive of the bunch.”

But it doesn't appease outfitter Bill Mitchell, who takes 40 or more clients a year into the Selway-Bitterroot Wilderness. Citizen control of experimental grizzlies may be better than granting them full legal protection, “but I still don't think they should be put in there, period,” Mitchell says. “So I sure can't support that alternative.”

Neither does John Shuler, who raises sheep and cattle on the Rocky Mountain Front, the plains area that borders the Bob Marshall Wilderness some 200 miles northeast of the Bitterroot Valley. More than 100 grizzlies roam near the ranches within a stretch of about 75 miles. And across Shuler's ranch, grizzlies run what he calls a “grizzly highway.”

In 1989, Shuler did the forbidden: He killed one. He shot it because it had been killing some of his sheep. He was fined \$4,000. He appealed four years later, but the court hasn't yet ruled.

Shuler doesn't support the citizen-management alternative, because he doesn't trust it. He doesn't believe federal agents, intent on justifying their jobs, would give up as much control as the proposal describes. “I think that they're lying through their teeth,” Shuler says. Grizzlies in the Bitterroots would be a protected nuisance

like they are on the Front, he believes. For example, when someone reports a problem grizzly, there's often a six-hour wait while agents seek permission to trap the bear, and they often don't get it, he says.

"I would not feel comfortable saying that the federal government would back off of it," Shuler says. "I've seen more bureaucracy in this thing since I got into this than you can shake a stick at."

Servheen says he doesn't have time to answer that charge. "I am not going to get into that kind of thing," he says.

Thirty-five miles south of Shuler, cattle rancher Dusty Crary thinks grizzly management authority would be good for citizens of the Bitterroot as well as the Front. "I think it's an excellent idea," Crary says.

One big advantage, he says, is that committee duty would get FWS more closely involved than they've been with citizens of the Front. "I've never seen a Fish and Wildlife person," Crary says. "They're like Deep Throat. I'd like to visit with them and hear what they have to say."

"I'd love to be on something like that."

But his ranching neighbor, Kirk Moore, is skeptical. Moore doubts that citizen management would protect either the people or the bears

protected by the ESA. “We don’t have to spend millions of dollars to tell you what’s going to happen,” Moore says, which is that the bears won’t reach recovery. They’ll lose their fear of humans, get too close, get killed and remain threatened or endangered. “They get accustomed to people, and just get used to humans.”

“You’re just trying to bring in a population of grizzlies and get them established, and citizens have no more rights than before,” he says. The grizzlies would suffer too, “and they just get back on the endangered species list, and you just have that problem all over again.”

###

Nevertheless, Servheen believes the Bitterroot reintroduction could mark a positive turning point for the Endangered Species Act — by virtue of citizen management. “A new opportunity to involve citizens in management of the species,” Servheen says.

Hank Fischer, Northern Rockies representative for Defenders of Wildlife, sees good things for the act if his alternative is chosen and works. “I think if it turns out that it is successful it’ll set a very important precedent,” Fischer says. “This isn’t the federal government laying reintroduction on top of people. It’s local people

coming up with a plan and getting state and federal officials on board.”

David Wilcove, senior ecologist for the Environmental Defense Fund in Washington, D.C., also likes what successful citizen control would do for the ESA. But the act would win national support simply by virtue of the grizzly bear, he says. “In general, a lot of people would be pleased to know the bears are doing better,” Wilcove says.

Another who predicts the grizzly reintroduction would strengthen the act if it’s a success is Thomas Lovejoy, biologist for the Smithsonian Institution in Washington, D.C. “If people find it’s not a terror to have grizzly bears in the Bitterroots, that will definitely help,” Lovejoy says.

If the project fails, the effect on the act would depend on whether the reasons were biological or political: If biological, there’d be no harm to the act, but if political, then the act would likely get more bashing by politicians, Lovejoy says.

###

Regardless of what the reintroduction would do for the act, more important is what it would do for the grizzlies, says Brian Peck, grizzly recovery director of the Great Bear Foundation. Some bear

scientists say the project could prove critical for the long-term survival of the grizzly bear in the Lower 48, largely because of its potential links with Yellowstone and the Northern Continental Divide, the places where most grizzlies remain.

Peck is among that school. "Without the Selway-Bitterroot, it's pretty difficult for me to see how we'll get that interplay between Glacier National Park and Yellowstone without the use of helicopters," Peck says. "If it's not successful, I'm not sure how Fish and Wildlife Service can ever hope to recover the Yellowstone population."

Peck is clueless, says a disgusted Servheen. "This whole linkage-zone issue seems to be confused and fraught with misinformation," he says. The Selway-Bitterroot reintroduction, though important, isn't critical for those other populations, Servheen says. "They're not connected," he says. Bitterroot grizzlies would be "independent of the Yellowstone and Glacier populations."

Just look at Monida Pass from Interstate 15, he says, which crosses the 240-mile route grizzlies would have to take to get between Yellowstone and the Bitterroots: wide open terrain, no cover for the grizzlies to steal through. So they'd have no urge to travel between those recovery zones, Servheen says.

And that's no problem genetically, he adds. In the Yellowstone grizzlies, "we've seen no loss of genetic diversity," so there's no urgent need for them to mix their genes with other populations to prevent disease or birth defects. "There is no genetic argument that those bears will disappear without connections," Servheen says.

"In terms of the Yellowstone bears, it would be good to have connections, but it would certainly not be fatal to that population to not have connections."

Peck, however, would rather err on the side of safety: providing linkage zones for the long term. He thinks grizzlies without radio collars may indeed use the corridors, in which cases perhaps no one would know.

He points out that in 1995 one of the grizzlies added to the Cabinet Mountains population several years ago was captured outside the recovery zone without her radio collar, apparently headed in the direction of her former home, the North Fork of the Flathead in Canada. "So clearly, that bear had every intention of using something that looked like a linkage zone to her to get the hell home," Peck says. "I'd hate to get 10 years down the road and say, 'Oh, damn, we should have done the linkage zones.'"

###

Whether or not grizzlies can still get from Yellowstone to the Bitterroots, the cubs in the tree when Bowler photographed the adult make him wonder, several years later, if grizzlies aren't recolonizing the region on their own, wherever from. If they are — which is fine with him — he can't see how spending a million dollars or more to put them there could ever be worth it.

“I'd rather see a little more caution and a little more prudent use of funds,” Bowler says. “I could see \$500,000 in this mad day and age, but when you start pushing up over a million dollars, that's a lot of money.

“Where's all that going, you know?”

Why On Earth? Putting Grizzlies Back In the Bitterroots

Roughly halfway between Yellowstone and Glacier national parks, and a degree to the west across roads, houses and other signs of an ever-expanding human population, is a wide, remote expanse of rugged terrain throughout much of which man is supposed to be just a visitor. It's an area with the distinction of being the wildest real estate in the Lower 48 states.

The area goes by the name of the Greater Salmon-Selway. Federal wilderness is its hallmark, preserved in the Selway-Bitterroot and the Frank Church-River of No Return. The remote, wild character makes it some of the best remaining stomping ground for creatures that need to roam where there are few people. Chief among those creatures are grizzly bears, which were once there.

They are not there now, save for any that have managed to hide. Nearly 60 years after some of the last Bitterroot grizzlies fell to the guns or snares of sheepherders, trappers or hunters, the grizzly in the contiguous United States is arguably tending toward extinction.

The Bitterroot Mountains within the Salmon-Selway is one of six regions where the federal government has said it will try to recover

the grizzly from its “threatened” status of more than 20 years. The region is unique among Yellowstone, Glacier, the Cabinet Mountains of northwest Montana, the Selkirks of northern Idaho and the North Cascades of northern Washington in that no grizzlies officially exist.

Most of the remaining grizzlies, in populations of several hundred each, reside in Yellowstone and Glacier and the territories surrounding both, where development has taken over much of their former habitat. Some scientists have said the populations there are currently on the increase. But whether the bears will be there indefinitely is an uneasy prospect for people who want the species to carry on.

To help make sure it does, the federal government has selected the Salmon-Selway as the place where grizzlies, starting perhaps in 1997, should be brought back for the first time ever to an area from which they had been officially exterminated. Some biologists say the Yellowstone and Glacier populations need a third group within traveling distance to ensure the species’ long-term survival and, moreover, that there is no better place left than the 5,500 square miles within the Salmon-Selway.

But why is it so important that grizzly bears remain? Why save

something that can so easily kill people or livestock? Is it worth it considering the million dollars or more to move them to Idaho from Canada or northwest Montana, the specter of more federal regulation, the threat to property and human safety?

The federal government's reason is rather simple: The Endangered Species Act of 1973 requires that it try to increase the numbers of anything on its List of Threatened and Endangered Wildlife and Plants (the "endangered species list"), including the grizzly. That was also why the government began reintroducing endangered gray wolves to the area in 1995, a program it has called a success.

But the deeper question — why grizzlies are that important — is one that transcends talk about bears, laws and programs.

###

That's because though biologists may have learned a lot about the grizzly bear in the last few decades, there's a lot they don't know about how the animal — or many other plants and animals — complement the other flora and fauna that occupy the planet. "Arguing for an individual species is not an easy thing to do," says Thomas Lovejoy, biologist for the Smithsonian Institution in Washington, D.C. "That's because we don't know much."

The grizzly is one of countless species that make up biological diversity, the variety of beings that exist in nature and which ensures that some form of life continues living. The grizzly is what biologists call an “umbrella” species, which, when legally protected, helps protect the other life forms that live with it, such as the cougar, lynx and wolverine. And the grizzly is one of the more substantial species that exist on the continent. By virtue of its size and its place as a symbol of wildness and the American West, the animal is considered a “charismatic megafauna,” or large, high-profile creature that people tend to admire.

While many admire the grizzly, while they recognize its role in biodiversity, they fear it. The animal’s ferocity on the occasions when it has attacked humans has rendered it as much akin to the bogymen as any real, live animal in North America.

Admiration and fear aside, there’s a value the grizzly presumably has regardless of what anyone thinks of it. That value is just as important biologically as any worth humans can put on themselves, says Brian Peck, grizzly recovery director for the Great Bear Foundation, a conservation organization based in Bozeman, Mont. “We’re part of the picture,” Peck says. “We’re not the picture.”

But respecting an animal's intrinsic value requires an assumption that the animal has it, which no one can really prove. What gives the matter more urgency is the grizzly's visible contribution to the diversity of life, the hodgepodge that benefits all species, including man, and which scientists say is threatened by accelerating extinctions.

Though evolutionary biologists say it's natural for all species to go extinct, human activity has given them a push. Before man gained the power to manipulate his surroundings on a large scale, biodiversity in the long run managed to keep up with species extinctions. It was natural for species to become less fit for survival, die off and be replaced by others. Because there was no net loss of species, nature's goods and services remained plentiful.

But since 1600, as the number of humans and their technology have skyrocketed, nearly 500 animal species — that we know of — have become extinct, according to the World Conservation Monitoring Centre in Cambridge, England. Harvard naturalist Edward Wilson says the world stands to lose 20 percent of its species in the next 30 years. "We are, as most biologists agree, in the beginning of another spasm of extinctions," Wilson says.

Though scientists believe biodiversity in the big picture has actually been increasing in spite of several major, natural “extinction events” in life-on-earth’s 3.5-billion-year history, it’s taken tens of millions of years for diversity to bounce back after each of them. Evolutionary biologists say that’s too long for humans — if they last about as long as other species tend to — to stick around and enjoy the new diversity that will arise after the current extinction spree, which, theoretically, they could have averted.

According to Wilson’s book *Biophilia*, it’s not likely that human technology could ever surpass nature as a provider for humanity: “The truth is that we never conquered the world, never understood it; we only think we have control.”

In the present era, losing the grizzly bear would be another sign of a deteriorating mix of species. “If we cannot preserve the grizzly bear in the northern Rockies,” writes veteran reporter Rocky Barker in his 1993 book *Saving All the Parts*, “then it is doubtful humans can stop the plummeting level of biodiversity on earth.”

###

Of course, just as important as plants and animals in the discussion of why to reintroduce the grizzly bear is the human

element. Along with those who tell why we need the bears, there are those who tell why we don't — at least, not near them.

In the Bitterroot Valley bordering the east end of the proposed recovery area, 33,000 people now inhabit what used to be a lush feeding ground for the grizzlies. Rick Laible, who moved to the area several years ago to raise Egyptian-Arabian horses now worth an average of \$30,000, doesn't want to lose one to a grizzly, much less because of a federal government he suspects doesn't have the local interest at heart. The horses are "priceless," Laible says. "I don't want them to become dinner for a grizzly bear that's been transplanted by someone who doesn't have an investment here."

However, he has little against the bears themselves. "I don't have a problem with grizzly bears per se," Laible says. Nor would he with the bears coming back on their own, or with a test program run by the state. "But when the federal government wants to do it, I have a problem with that," he says.

That's because he believes the federal agencies are more concerned with their own welfare: their jobs. "In all honesty, I don't think this is about grizzly bears. This is about power," Laible says.

And pointing out that grizzlies were there before people is not

practical, Laible says. “The Indians were here first too, so what do you think we ought to do? Give all the land back to the Indians?”

“I don’t think you can turn back the clock.”

Neither does Bill Mitchell, an outfitter for more than two dozen years. Mitchell doesn’t believe there’s any need for grizzlies in the Bitterroots, either for people’s sake or the bears’. The grizzlies in other parts of the country are not threatened, he believes, even though their numbers may not be as high as they once were.

Mitchell, 52, has lived in the valley all his life. He takes 40 to 60 clients into the mountains each year, many of them hunters. He loves wild animals, but he’s concerned that grizzlies would bring government regulations and a serious safety threat.

And all for nothing, because the granitic-soil habitat in the Bitterroots isn’t good for them, he believes; they’d soon come to the valley looking for food. “I just don’t think it’s fair to the bear to put him in an area that ain’t suitable for him,” Mitchell says. If the Bitterroots really were good grizzly habitat, the bears would go there on their own, he says. And he wouldn’t mind if they did: “I’d think it was just part of the natural features of the country.”

But the conservationists who want bears reintroduced are too

idealistic, Mitchell says. “I guess they think this is the 1800s,” he says. “It’s kind of like the wolf situation: The wolves have to be everywhere they were in the 1700s.”

“This is a different age, and I think that ought to be taken into account.”

It may be a different age, but it’s one the grizzly bear still belongs in, says Steve Kloetzel, a five-year valley resident. Kloetzel, who with his wife, Andrea, spent several summers maintaining recreational trails in the Bob Marshall Wilderness where grizzlies are fairly numerous, says a lot of the fear of them is unfounded.

Their crew saw fresh grizzly sign almost every day, Kloetzel says, but never had an encounter. He saw a griz only once, from a great distance. At night, “we were definitely concerned,” he says. And they were always careful when traveling — “stopping and pausing and looking and listening.”

But those precautions, along with keeping a clean camp, are a price he’s willing to pay. “For me, it’s very much a spiritual thing,” Kloetzel says. “Having the bear there makes it a more complete experience. He belongs there. It’s his home. He was there before I was.”

###

Of course, living near grizzlies and anticipating living near grizzlies are two different things. Some of the relatively few people familiar with real grizzly bears are those on the Rocky Mountain Front, where the Great Plains meet the mountains that form Glacier National Park and the Bob Marshall Wilderness complex and where cattle ranches hundreds or thousands of acres dominate the landscape. There, ranchers have seen so many grizzlies in the wake of the Endangered Species Act that they wish for the return of a local hunting season.

Living with the 136 or so grizzlies is something they do whether they like it or not. But whether they suffer the depredation of a calf or the presence of the wild animals in their yard, ranchers say they don't like there being so many.

Cattleman Dusty Crary, 35, has been ranching all his life on the land his family acquired about 70 years ago. Although grizzly attacks on his calves are rare, he worries that with bear numbers so high a dangerous encounter with someone somewhere is due.

He's also bothered that the bears seem to be losing their wild nature: They've been marked for identification, and they've eaten dog food on other people's porches. "When you've got bears eating

out of dog dishes out here with blue streamers and radio collars, that's not a wild bear," Crary says.

In the spring of 1995, the state wildlife department trapped four bears within two days and released them along the Front, including a young female named Danya. She had to be moved from people's yards several times, including Crary's mother's where she broke some apple tree branches, and later got sent to the west side of the mountains followed by the Bronx Zoo. "I think you could put her in this room and she'd sit down and watch TV with you," Crary says.

"The bears are no longer being bears. They're out here being beggars, and that's not what bears are about."

Neither is the occasional spectacle of a bear wandering into the nearby town of Choteau, Crary says.

What the area needs, he says, is loosening of the Endangered Species Act just for the local area so that the bears could be hunted to eliminate some. Plus more authority for the local state wildlife office, with less direction from FWS, and more input from people who live with the bears.

In spite of his irritation, Crary holds no animosity toward the bears, and he likes having some around. He doesn't worry about

encountering them while working his ranch or fishing the Teton River that runs through his 3,000-acre spread. "The bear hasn't made my life miserable," he says. "I'm not going to get that way. I've lost more young cows to coyotes than I ever would to bears."

But with so many bears, he'll worry more about the children he's started having. When he was a kid, he'd camp and fish on the Teton all the time without his parents worrying, but he'll be wary of letting his kids do the same.

Nonetheless, the bears give his ranch and his home a sense of place he connects with. "I go places, people say, 'Choteau, oh, the bears,' and I am proud of that," Crary says, "but I also feel I should have a say in all the wildlife management around here."

That could be doubly true for rancher Kirk Moore. Moore lives on a tributary of the Teton in a creek drainage, where more grizzlies tend to congregate and frequent the yard outside his house.

He relies on his border collie and Australian shepherd to bark whenever a grizzly is near. When he meets one, he walks backward until he's safely away.

There are no leisurely walks along the creek. If he has to walk through the brush, he's very, very cautious.

His two kids, ages 3 1/2 and 1, can't play in the sandbox or ride the swings by themselves. Nor do he and his wife let them walk the 50 yards between the house and barn alone.

The bears have mauled his calves. They've chased them through fences. They've left nose prints on his windows.

He has been talking on the phone and looked out to see his dog face-to-face with a bear in his yard.

He's walked around the corner of his house and nearly bumped into Danya.

And his landlord's black labrador has had one side of its face ripped open.

"We're kind of prisoners of our surroundings," says Moore, 30. "We're constantly watching. You can't really be relaxed and enjoy yourself." The bears seem to have lost their fear of humans, Moore says, even though they don't necessarily threaten to attack. "They'll look at you, and 90 percent of the time they won't even run. They'll just walk off."

He's written letters and talked to congressmen, but the bears remain a problem. "We just have to live with them," he says. "There's really nothing we can do." Give some for the Bitterroots? He laughs

ruefully. "You're taking a problem from here and putting it somewhere else," Moore says.

While a hunting season for Bitterroot grizzlies won't be in store for a long time, people there may be permitted to shoot bears attacking livestock on private land. That would have saved a lot of hassle for John Shuler, who raises sheep and cattle on the Rocky Mountain Front.

In 1989, Shuler shot a charging grizzly he had caught eating his sheep. He was fined \$4,000. His 1993 appeal hasn't yet been resolved.

In spite of having lost about \$10,000 in livestock before the killing, Shuler doesn't hate the bears. "I don't have any animosity toward them, but I think, like anything else, they ought to be controlled," he says, "and running all over your ranch is not being controlled."

"I very definitely think they should be a game animal, and then they would respect people more."

They're so plentiful that he doesn't feel the government needs to reintroduce any, not even in the distant Bitterroots. "I don't think that they need to have more bears than they know what to do with,"

Shuler says.

Nor does he feel the grizzlies themselves need the benefit of the money spent on them, he says. He believes they shouldn't rank higher than other important things: schools, hungry people, the homeless. "I don't think they ought to spend all that money till they address all these other issues," Shuler says.

Moore also longs for limits on bear benefits. "I enjoy wildlife, but there's a place for it," he says. "There comes a time when we have to draw the line and make a living."

For Crary, who doesn't get as close to the bears, that line may be somewhat more flexible.

"I hope someday I can show my grandkids a bear," he says, "but I hope it doesn't have blue streamers in its ear and wool in its teeth."

###

For some people concerned for grizzlies and other struggling forms of life, the issue is not a matter of actually needing animals that are nearing extinction. "To me it comes down to one question," says John Mitchell, former director of the Craighead Wildlife-Wildlands Institute in Missoula. "Do you want to have these species or don't you?"

But why should people want them so badly? What difference would it really make if the grizzly goes extinct here?

To a lot of people, none very apparent. The dinosaurs disappeared, and we later appeared; the Costa Rica golden toad expired, and we're still here. But when so many other species are going extinct along with them, the ecosystems in which they lived, in which we still live, are getting stressed.

The grizzly's plight warns us of that, says Brian Peck, grizzly recovery director for the Great Bear Foundation, a conservation organization based in Bozeman, Mont. With their size, the space they need and the time it takes to legally commit that space to them, "they make us think long-term, which humans don't like to do," Peck says.

Yet for some people, the grizzly's survival is a spiritual necessity. To the Nez Perce, whose historical range extended into the Salmon-Selway, the grizzly provided spiritual power to people on vision quests lasting several nights, says Nez Perce spiritual leader Horace Axtell. The quest was a voluntary time of fasting and solitude, when the person would receive the power of whatever animal took pity on them. The most powerful animal was the grizzly.

Once they had gotten the grizzly's power, Axtell says, they were endowed with its qualities, such as keen instinct, keen smell, courage. "It was just a strong belief in the power of the animal that you received," he says.

To lose the grizzlies completely would mean not just the breaking of a bond but the loss of what the people had been bonded to. "We feel like we feel about the wolves: that if they become extinct the world will be off balance and our circle of life will be off balance," Axtell says. "We would lose the connection with the animals."

The loss of the grizzlies for the Nez Perce would be like the loss of human loved ones. In the Nez Perce culture, people are related to people, people to animals and animals to animals, Axtell says. "There's a feeling for each other like we feel for our neighbors," he says. "So someone comes and takes your neighbor away, it doesn't feel good. You're hurt."

The issue is also a spiritual one for people like Larry Campbell, a wilderness advocate who lives in the Bitterroot Valley. It becomes spiritual when discussion turns from fear, both for personal safety and for economic security, to a value higher than fear.

That higher value is reverence for life, he says, which brings with

it an obligation to not let a species go extinct, even at personal cost.

And in the long run, the cost to bring back the bears will be minimal, Campbell says. It's just a matter of maintaining the status quo — i.e. not logging the roadless areas — and learning to be careful in the woods.

Also manageable, he says, is the risk of attack, which he feels is no greater than the risk of accident people willingly take when, for example, they drive their cars. "They'll sort of invite risks into their daily lives if they think there's a benefit," Campbell says. With bear reintroduction, "the risk is so small we can act in a moral way at a very small cost."

"I would feel I would be acting in arrogance to not make room for one of the creatures in the choir," he says.

Regardless of the reverence for life Campbell talks of, there's the simple fascination for life other than that of our own kind. Lovejoy, the Smithsonian biologist, says there's a strong pull to observe living creatures that seem powerful, mysterious or bizarre. "If somebody said they had a live dinosaur, there'd be people breaking their door down to see it," Lovejoy says.

Two hundred miles northeast of the Bitterroot Mountains, Crary

doesn't have to break anyone's door down to see grizzlies. In fact, on some nearby ranches grizzlies regularly wander close to the doors of the people living there.

There are too many grizzlies in that area, Crary says, and bringing back the grizzly hunting season would help keep them manageable. But as long as they don't harm people or many of his cattle, he likes having some nearby. They add variety, give his place something most other ranches in the world don't have. "I just like wildlife," Crary says. "A lot of ranchers just ranch. It's just a business for them."

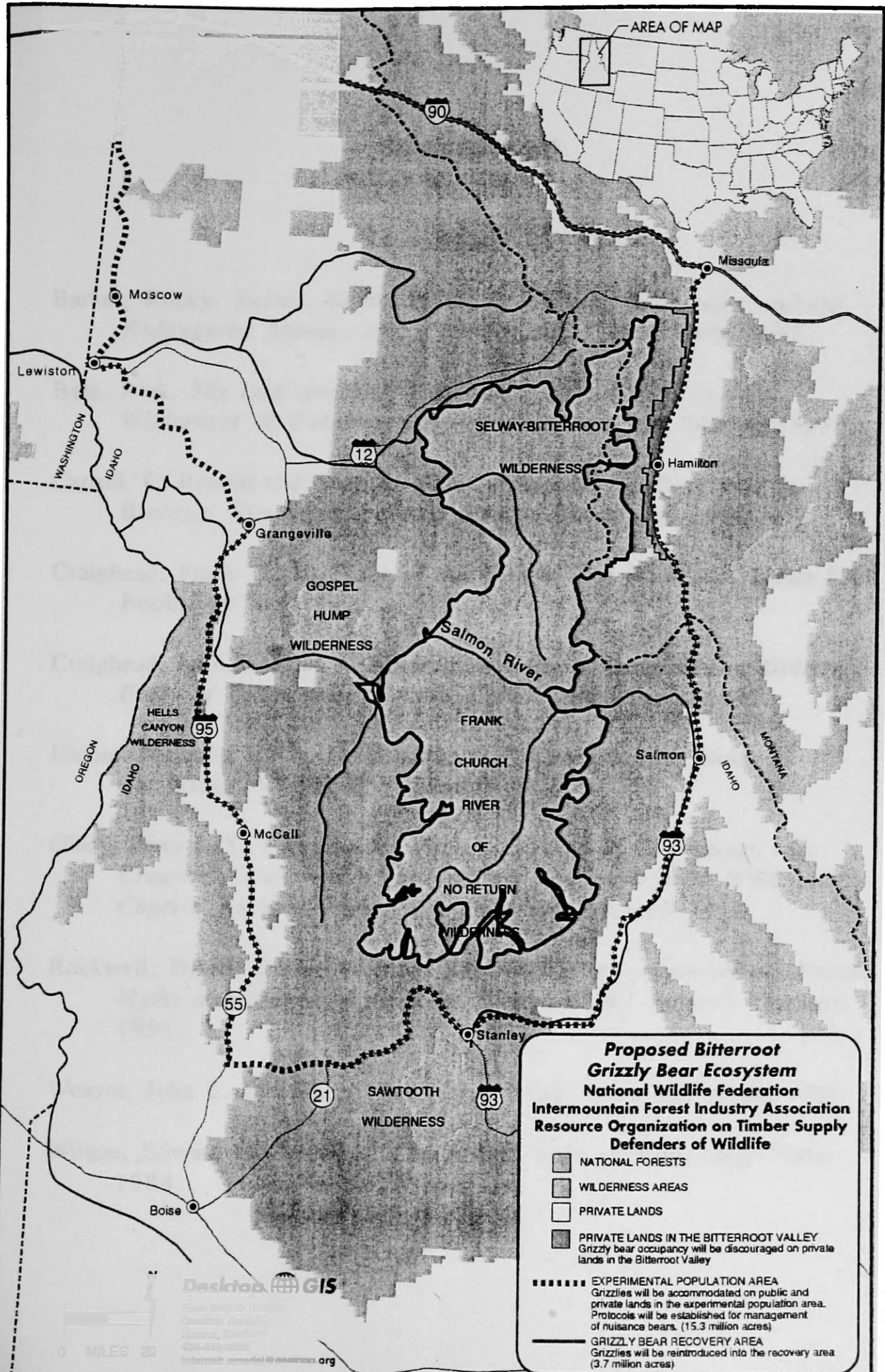
The bears bring a part of what he enjoys about ranching: a wild touch. "I couldn't farm in Indiana," Crary says. "I'd rather sell shoes than farm in Indiana." And for him, the grizzlies are an indicator of the space he's more comfortable sharing with them than with subdivisions. "I hope there's always a place for them up here," he says. "If the bear can't live here, there's something wrong.

"As long as there's a place for the bear to live, there's a place for me to live."

Certainly, having a place for oneself is difficult to argue against. When Peck, of the Great Bear Foundation, responds to the challenge

of why society should keep the grizzly alive, he shifts the burden back with his rhetorical retort:

“Why do we need you?”



AREA OF MAP



Missoula

Moscow

Lewiston

SELWAY-BITTERROOT

WILDERNESS

Hamilton

12

Grangeville

GOSPEL

HUMP

WILDERNESS

Salmon River

FRANK

CHURCH

RIVER

OF

NO RETURN

WILDERNESS

Salmon

93

HELLS CANYON

WILDERNESS

McCall

55

Stanley

SAWTOOTH

WILDERNESS

93

21

Boise

WASHINGTON

IDAHO

OREGON

IDAHO

IDAHO

MONTANA

SOURCES CITED

Books

Barker, Rocky. *Saving All the Parts: Reconciling Economics and the Endangered Species Act*. Covelo, Calif.: Island Press, 1993.

Bass, Rick. *The Lost Grizzlies: The Search for Survivors in the Wilderness of Colorado*. Boston: Houghton and Mifflin, 1995.

Carroll, C. Ronald and Gary K. Meffe. *Principles of Conservation Biology*. Sunderland, Mass.: Sinauer Associates, 1994.

Craighead, Frank C., Jr. *Track of the Grizzly*. San Francisco: Sierra Club Books, 1979.

Craighead, John J., John A. Mitchell, and Jay S. Sumner. *The Grizzly Bears of Yellowstone*. Covelo, Calif.: Island Press, 1995.

Hunter, Malcolm L., Jr. *Fundamentals of Conservation Biology*. Cambridge: Blackwell Science Inc., 1996.

Olney, Peter J. S., Georgina M. Mace, and Anna T. C. Feistner, eds. *Creative Conservation: Interactive Management of Wild and Captive Animals*. New York: Chapman and Hall, 1994.

Rockwell, David. *Giving Voice to Bear: North American Indian Rituals, Myths and Images of the Bear*. Niwot, Colo.: Roberts Rinehart, 1991.

Weaver, John L. *The Grizzly Bear*. New York: Dodd and Mead, 1982.

Wilson, Edward O. *Biophilia*. Cambridge: Harvard University Press, 1984.

_____. "Biophilia and the Conservation Ethic." In *The Biophilia Hypothesis*, eds. Stephen R. Kellert and Edward O. Wilson, 31-41. Washington, D.C.: Island Press, 1993.

_____. *The Diversity of Life*. Cambridge: The Belknap Press of Harvard University Press, 1992.

Articles

Bass, Rick. "Grizzlies: Are They Out There?" *Audubon*, September-October 1993, 66.

_____. "Thunder & Lightning." *Sierra*, January-February 1995, 38.

_____. "The Perfect Day." *Sierra*, May-June 1995, 68.

_____. "My Grizzly Story." *Audubon*, January-February 1996, 60-69.

Bean, Michael J., Thomas Eisner, Jane Lubchenco, David S. Wilcove, and Edward O. Wilson. "Building a Scientifically Sound Policy for Protecting Endangered Species." *Science* 268 (1 September 1995): 1231-32.

Casey, Denise, Tim W. Clark, A. Peyton Curlee, and Richard P. Reading. "Large Carnivore Conservation: Back to the Future." *Endangered Species Update* 11 (January-February 1994): 1-4.

Chadwick, Douglas. "Strength In Humility." *Sierra*, January-February 1996, 46-47.

Cone, Marla. "Howdy, Neighbors!" *Los Angeles Times Magazine*, 24 December 1995, 16-20.

Fischer, Hank, and Mike Roy. "Bitterroot Grizzly Recovery: A Community-Based Alternative." *Endangered Species Update* 12 (December 1995): 1-4.

Gallagher, Dan. "Idaho prepares for arrival of grizzlies in Bitterroots." *The Sunday Oregonian*, 14 January 1996.

Halfpenny, Jim. "Delisting the Grizzly: Mortalities Exceed Limits." *Bears Magazine*, Winter 1996, 8-9.

Kosova, Weston. "Ways to Skin the Act." *Audubon*, January-February 1996, 43-45.

Rauber, Paul. "An End to Evolution." *Sierra*, January-February 1996, 28.

Shiflett, Dave. "Grizzly Details: Sean's charge vs. John's charge." *Missoula (Mont.) Missoulian*, 10 June 1993, A4.

Watkins, T. H. "What's Wrong with the Endangered Species Act?" *Audubon*, January-February 1996, 36-41.

Watson, Jim. "Charisma!" *International Wildlife*, January-February 1996, 20-39.

Williams, Ted. "Defense of the Realm." *Sierra*, January-February 1996, 34.

"Citizens may decide bad grizzlies' fate." *Missoula (Mont.) Missoulian*, 25 Feb. 1996, A1 and A12.

"Grant helps Great Bear settle rancher reimbursement claims." *Bear News*, Fall 1995, 3.

"Idaho grizzly reintroduction plan draws support, criticism." *Bear News*, Fall 1995, 5.

Interviews

Axtell, Horace, Nez Perce spiritual leader. Telephoned by author, February 1996, Lewiston, Idaho. Handwritten.

Bader, Mike, executive director of Alliance for the Wild Rockies.
Interviewed by author, April 1996, Missoula, Mont.
Handwritten.

Bowler, Stephen. Telephoned by author, April 1996, Darby, Mont.
Handwritten.

Boyce, Mark, grizzly research biologist. Telephoned by author,
February 1996, Stevens Point, Wis. Handwritten.

Brown, Wendy, wildlife biologist for U.S. Fish and Wildlife Service.
Telephoned by author, April 1996, Albuquerque, N.M.
Handwritten.

Campbell, Larry. Telephoned by author, April 1996, Darby, Mont.
Handwritten.

Carr, Dave, The Nature Conservancy. Telephoned by author, March
1996, Choteau, Mont. Handwritten.

Chamberlin, John. Telephoned by author, 9 May 1996, Darby, Mont.
Handwritten.

Craighead, John J. Telephoned by author, 24 May 1996, Missoula,
Mont. Handwritten.

Crary, Dusty. Interviewed by author, 31 March 1996, Choteau, Mont.
Handwritten.

Davis, Dan, wildlife biologist, Clearwater National Forest. Telephoned
by author, March 1996, Orofino, Idaho. Handwritten.

DellaSala, Dominick, chief ecologist for U.S. Programs of the World
Wildlife Fund. Telephoned by author, April 1996, Washington,
D.C. Handwritten.

Diamond, Seth, wildlife program director for Intermountain Forestry Industry Association. Telephoned by author, April 1996, Missoula, Mont. Handwritten.

Fischer, Hank, Northern Rockies representative for Defenders of Wildlife. Telephoned by author, March 1996, Missoula, Mont. Handwritten.

Fontaine, Joe, Montana wolf recovery project leader, U.S. Fish and Wildlife Service. Telephoned by author, March 1996, Helena, Mont. Handwritten.

Gehrke, Craig, Idaho regional director for the Wilderness Society. Telephoned by author, April 1996, Boise, Idaho. Handwritten.

Giddings, Brian, statewide furbearer coordinator, Montana Department of Fish, Wildlife, and Parks. Telephoned by author, March 1996, Helena, Mont. Handwritten.

Hamilton, Tony, wildlife research biologist for British Columbia Ministry of Environment, Lands, and Parks. Telephoned by author, 2 May 1996, Victoria, British Columbia. Handwritten.

High, Mary Ann, wildlife biologist, Nez Perce National Forest. Telephoned by author, 6 May 1996, Grangeville, Idaho.

Jonkel, Charles, scientific adviser for Great Bear Foundation. Interviewed by author, February 1996, Missoula, Mont. Handwritten.

Kasworm, Wayne, grizzly biologist for U.S. Fish and Wildlife Service. Telephoned by author, April 1996, Libby, Mont. Handwritten.

Kloetzel, Steve. Telephoned by author, March 1996, Corvallis, Mont. Handwritten.

Knight, Richard, grizzly biologist for U.S. Forest Service. Telephoned by author, 6 May 1996, Bozeman, Mont. Handwritten.

Laible, Rick. Telephoned by author, February 1996, Darby, Mont.
Handwritten.

Lovejoy, Thomas, biologist for Smithsonian Institution. Telephoned
by author, 27 March 1996, Washington, D.C. Handwritten.

Madel, Mike, east side grizzly bear management specialist, Montana
Department of Fish, Wildlife, and Parks. Telephoned by author,
February 1996, Choteau, Mont. Handwritten.

Manley, Tim, west side grizzly bear management specialist, Montana
Department of Fish, Wildlife and Parks. Telephoned by author,
27 May 1996, Columbia Falls, Mont.

McLellan, Bruce, wildlife research ecologist for Canadian Forest
Service. Telephoned by author, April 1996, British Columbia,
Canada. Handwritten.

Mitchell, Bill. Telephoned by author, March 1996, Hamilton, Mont.
Handwritten.

Mitchell, John A., former director of Craighead Wildlife-Wildlands
Institute. Telephoned by author, February 1996, Missoula,
Mont. Handwritten.

Moore, Kirk. Telephoned by author, April 1996, Choteau, Mont.
Handwritten.

Moore, William A. Interviewed by author, 21 October 1995, Condon,
Mont. Handwritten.

Mutch, Bob, former fire management specialist for U.S. Forest Service.
Telephoned by author, 2 May 1996, Missoula, Mont.
Handwritten.

Peck, Brian, grizzly recovery director for Great Bear Foundation.
Telephoned by author, April 1996, Kalispell, Mont.
Handwritten.

Poochler, Tom, grizzly bear habitat coordinator, U.S. Forest Service, Northern Region. Telephoned by author, 6 May 1996, Missoula, Mont. Handwritten.

Ritter, Dan, Selway-Bitterroot Wilderness coordinator, U.S. Fish and Wildlife Service. Telephoned by author, March 1996, Grangeville, Idaho. Handwritten.

Rose, Sharon, public affairs officer, U.S. Fish and Wildlife Service. Telephoned by author, February 1996, Denver, Colo. Handwritten.

Salmond, Mark. Telephoned by author, April 1996, Choteau, Mont. Handwritten.

Schildt, Harry. Telephoned by author, April 1996, Browning, Mont. Handwritten.

Servheen, Chris, grizzly bear recovery director for U.S. Fish and Wildlife Service. Interviewed by author, 27 February 1996, Missoula, Mont. Handwritten.

Shuler, John. Telephoned by author, 5 May 1996, Dupuyer, Mont. Handwritten.

Smith, Michael, public affairs officer, U.S. Fish and Wildlife Service. Telephoned by author, February 1996, Denver, Colo. Handwritten.

Snodgrass, Randall, consultant for Americans for the Environment. Telephoned by author, 3 April 1996, Washington, D.C. Handwritten.

Tierney, Rob, assistant administrator for Enforcement Division, Montana Department of Livestock. Telephoned by author, March 1996, Helena, Mont. Handwritten.

Trogdon, Spence. Telephoned by author, April 1996, Victor, Mont.
Handwritten.

Weaver, John L., research associate for Northern Rockies
Conservation Cooperative. Telephoned by author, April 1996,
Missoula, Mont. Handwritten.

Wilcove, David S., senior ecologist for Environmental Defense Fund.
Telephoned by author, 17 April 1996, Washington, D.C.
Handwritten.

Wilson, Edward O., Harvard University professor. Questioned by
author, 10 May 1996, Missoula, Mont. Handwritten.

Woods, Guy, senior wildlife biologist for British Columbia Ministry of
Environment, Lands, and Parks. Telephoned by author, April
1996, Nelson, British Columbia, Canada. Handwritten.

Worf, William A., former ecology commissioner for International
Union for the Conservation of Nature. Telephoned by
author, April 1996, Missoula, Mont. Handwritten.

Reports

Bader, Mike, Timothy Bechtold and Michael Garrity. *The Conservation
Biology Alternative for Grizzly Bear Population Restoration in
the Greater Salmon-Selway Region of Central Idaho and
Western Montana*. Alliance for the Wild Rockies, Special Report
No. 8. Missoula, Mont., January 1996.

Melquist, Wayne E. *A Preliminary Survey to Determine the Status of
Grizzly Bears (Ursus arctos horribilis) in the Clearwater
National Forest of Idaho*. Moscow, Idaho: University of Idaho
Cooperative Wildlife Research Unit, 1 January 1985.

Letters

Craighead, John J., grizzly bear biologist, to Chris Servheen, U.S. Fish and Wildlife Service grizzly bear recovery coordinator, 21 January 1996.

Mattson, David, grizzly bear biologist, to Chris Servheen, U.S. Fish and Wildlife Service grizzly bear recovery coordinator, 7 November 1995.

Servheen, Chris, U.S. Fish and Wildlife Service grizzly bear recovery coordinator, to numerous grizzly bear biologists, 11 January 1996.

Miscellaneous

Grizzly Bear Recovery in the Bitterroot Ecosystem: Answers to Citizens' Questions. U.S. Department of Agriculture, U.S. Forest Service, and U.S. Department of Interior, U.S. Fish and Wildlife Service, no date given.

A Summary of the Grizzly Bear Recovery Plan. U.S. Department of Interior, U.S. Fish and Wildlife Service, no place or date given.

Endangered Species Act, Rule 10(j): Reintroduction of Grizzly Bears into the Bitterroot Grizzly Bear Recovery Zone. ROOTS Coalition, 4 March 1996, no place given.