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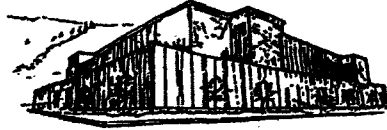
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SAWTOOTH TO SELKIRKS
CONNECTING THE WILD IN IDAHO, MONTANA, AND BRITISH COLUMBIA

by

Joshua Burnim

B.A. Colgate University, 1996

presented in the partial fulfillment of the requirements

for the degree of

Master of Science

The University of Montana

May 2004

Approved by:

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Sawtooths to Selkirks

Chair: Phil Condon

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On May 7, 2001 I set out from Redfish Lake, near Stanley, Idaho. I hiked along mountains ranges in Idaho, Montana, and British Columbia, and on October 7, 2001, I finished at Kokanee Glacier Provincial Park near Nelson, British Columbia. Thirty-three people hiked sections with me. I covered these 900 miles on foot and raft to promote a vision of sustainable human communities and healthy wildlife populations. I see the opportunity and have the hope that people will choose to live sustainably among the full complement of native species. Specifically, I publicized connectivity of wildlands and the Yellowstone to Yukon Conservation Initiative.

My thesis covers the first five of 18 legs of the journey, about one-third of a prospective book. It chronicles my adventures with Katie Deuel, Donny Johnston, Charles Pezeshki, Dawn Serra, Gary Macfarlane, Bethanie Walder, and Russell Poe. Grounding the story within central Idaho's natural and human history, I present the framework of the Yellowstone to Yukon Conservation Initiative as a vision for achieving habitat connectivity for wildlife around human communities. I recount my passage from civil disobedience in the forests of central Idaho to my present approach to conservation challenges on National Forests. I discuss threatened species in this region including wolves, wolverines, grizzlies, salmon, steelhead, bull trout, fisher, and lynx.

I have 1200 color slides to choose from as photographs to enhance a book.

My website (www.wildrockies.org/idahohike) contains journal entries and pictures.

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Prologue

May 23, 2001 Wet sand covered my bare feet and Idaho's Salmon River splashed and chilled my hairy legs. From the bow of the 12-foot, hot pink, inflatable raft, George heaved my green 60-pound backpack. I braced with a wide stance, bent knees, and flexed muscles to receive the weight, swung it left, and strode in shorts and T-shirt across the beach to set the backpack in the shade of a cottonwood tree. The morning sun warmed the air, and I could smell a hot day approaching.

Back at the raft, I settled my long arms on the bow and watched as two companions tied down gear and fixed an oarlock. Soon they would depart, leaving me alone in the largest wilderness area in the lower 48 states, the Frank Church—River of No Return Wilderness, to continue a five-month northward trek in the wild heart of North America.

Over two weeks before, I had set out from Redfish Lake in Idaho's Sawtooth Mountains to reach Kokanee Glacier in British Columbia's Selkirk Mountains by early October. I would cover these 900 miles on foot and raft to promote a vision of sustainable human communities and healthy wildlife populations.

Before me sang a chorus of water drops and particles gathered by gravity from all the upriver mountain slopes within the Salmon River drainage, including the Sawtooth Mountains. Tired sand sank from slow water, beach building. The central channel orchestrated the river flow; it proudly chanted, eddies swirling off and joining, all forced through by the momentum of millions of upriver gallons.

Smooth, rounded stones of many shades and hues of gray and brown rested on the far shore. To which geologic event each color, speckle, and streak signified, I did not

know, but the variety of stones amazed me. Some had been weathered by lichen, plant roots, and water, and brought to rest here by the Salmon River, which began to flow to the Pacific Ocean 2.5 million years ago, when the climate shifted from dry to wet, coinciding with the coming of the ice ages. The stones that I saw likely included Precambrian (1500 million years old) sedimentary basement rock – mudstones and sandstones, granite of the Idaho batholith (75 million years old), Precambrian metamorphic rocks – gneisses and schist formed during the upwelling of granite magma, Sawtooth batholith and other Eocene granite (50 million years old), Challis volcanic rocks (50 million years old), and more recent sedimentary rock.

The western border of Idaho lies about where the western edge of the North American continent once lay. About 150 million years ago, the westward movement of the North American continental plate began forcing Pacific oceanic crust down into the mantle, starting a chain of events that created the Rocky Mountains. In the U.S. northern Rockies, the collision fractured the continental crust and jammed pieces over each other. Steam from descending oceanic crust caused basalt magma to rise, over tens of millions of years, into the continental crust where it pooled and melted basement rock into large volumes of granite magma. This liquid rock rose to a depth of seven miles within the mass of continental crust in central Idaho. Seven miles of rock broke along a fault and slid east, down the regional slope. Exposure allowed pale gray granite to crystallize forming the Atlanta batholith of central Idaho.

My eyes looked across the dark blue river and up 5000 feet to the forested mountains painted by broad strokes of green. I followed the horizon to my left, past Burnt Knob and Trout Point to a ridge that dropped 2000 feet to the river. At this distance,

Douglas-fir and ponderosa pine were steep triangles on the light green grass slopes. I picked out the red trunks of the pines and a few gray spots of exposed granite. The trees, grasses, and soil thinly covered this 2000-foot bulge of 75 million-year-old granite from river to ridge.

A wolverine had crossed the Salmon River seven years before, perhaps coming down this very ridge, with a radio collar fitted by Jeff Copeland, an Idaho Fish and Game biologist and University of Idaho student, who researched the movements of these ferocious scavengers, up to 35 pounds and able to drag a 700-pound elk carcass. Wolverines are the largest and least known land-dwelling mustelid (otters, skunks, badgers, weasels) in the northern hemisphere. Jeff claimed to have caught every wolverine – 19 – in an area of the Sawtooth Mountains and fitted them with radio collars, which emitted a signal that could be received from ridge tops and airplanes. In May 1997 at Redfish Lake Lodge in the Sawtooths, I heard Jeff tell the crowd at “Wild Idaho” that four of his male wolverines had traveled over 100 km (60 miles), one making it across the Salmon River to be relocated between the Lochsa and Selway Rivers, west of the Selway Crags.

Meanwhile, radio-collared grey wolves moved distances never before recorded. Captured in Peter Lougheed Provincial Park, Alberta, in June 1991, at five-years-old, Pluie (pronounced ploo-ee) explored an area that encompassed 100,000 square kilometers, an area ten times the size of Yellowstone National Park. Her movements criss-crossed Alberta, British Columbia, Montana, Idaho, Washington, and First Nation’s territories – more than 30 different political jurisdictions. Later, another wolf traveled from northern Montana to Mile Zero of the Alaska Highway. The immense scale at

which wolves and wolverines moved surprised many researchers, and the surprises continued. As Karsten Heuer reported in Walking the Big Wild, a lynx walked halfway to the U.S. from the southern Yukon, a grizzly bear wandered from one side of British Columbia to the other, and a bull trout swam a thousand kilometers from central BC to the Northwest Territories.

Conservation biologists Michael Soule and Reed Noss had been urging the conservation community to think on a larger scale since the 1980's. Soule, Noss, and others asserted that ecosystems function on a grand scale, a continental scale. The extensive movements of wolverines, wolves, bears, lynx, and bull trout added to the already famous migrations of salmon, caribou, and birds to support their claim. More people agreed: our parks and wilderness areas are not big enough. Yet Soule and Noss did *not* suggest "superparks." Instead, they proposed wildlife movement corridors to connect the parks and wilderness areas into a network of reserves. It was this vision that lured me out West.

In the spring of 1996, as a college student in central New York, I spent hours inside a brochure on the [U.S.] Northern Rockies Ecosystem Protection Act. Its map depicted wildlife movement corridors connecting the ecosystems of the Salmon-Selway, Cabinet-Yaak/Selkirks, Glacier/Northern Continental Divide, Hells Canyon/Wallowa, and Yellowstone. I believed this connected landscape could hold intact natural communities. However, not until I began planning the Sawtooths to Selkirks Hike in 2000 did I start reading the research behind these reserve networks.

In the 1960's E.O. Wilson and Robert MacArthur coined the term "island biogeography" They compared the number of species found on islands of various sizes

and distances from the mainland. The larger islands had more species; islands that were closer to the mainland contained more species. This made sense. Some species required a lot of space, which the large islands could provide, and birds, swimmers, floaters, and windblown species could more easily reach islands that were closer to the mainland. Many observed that national parks and other protected areas looked increasingly like islands in a sea of development.

Published in Nature and Conservation Biology, William Newmark surveyed 14 national parks in western North America. Post-park-establishment, 29 populations of mammals had gone extinct due to natural causes – he attributed the loss of an additional six species to predator control and one to accidental poisoning. The parks were too small. Since their creation, Oregon's Crater Lake (641 km²) lost the river otter, ermine, mink, and spotted skunk, and Mount Rainier (976 km²) lost the wolf, fisher, striped skunk, and lynx. Even Glacier-Waterton Lake (4,627 km²) lost its caribou and Grand Teton-Yellowstone (10,328 km²) lost its wolves.

The movements of Pluie the wolf had encompassed 100,000 km². Clearly, no protected area could accommodate her movements, and few places in the lower 48 states had enough protected public land to allow for the recovery of wolf populations. Indeed, besides a small Mexican wolf population in the Southwest, the U.S. Fish and Wildlife Service's recovery plans for the entire Western population of wolves listed under the Endangered Species Act only included Yellowstone, central Idaho, and northwestern Montana.

Like wolves, grizzly bears had once lived throughout the West. The U.S. Fish and Wildlife Service planned to recover three out of six grizzly bear populations –

Yellowstone, North Continental Divide, central Idaho (Bitterroot), Cabinet-Yaak, Selkirks, and North Cascades – before taking them off the endangered species list, also known as delisting. The U.S. Northern Rockies looked like the best opportunity to recover grizzly bears and wolves. After all, in the U.S. Northern Rockies, America’s most treasured mega fauna benefited from northern connections.

My father, a well-read businessman and lover of the arts, understood this immediately, when he read of the Yellowstone to Yukon Conservation Initiative in the November 1999 issue of Smithsonian. Reading it, he thought of me. Over the telephone, he said, “There’s a Canadian biologist who is hiking from Yellowstone Park to the Yukon to see if grizzly bears have a chance of surviving along the Rocky Mountains. He’s really quite clever .animals walking from Canada to Yellowstone. You could do that. Sounds right up your alley ”

It was.

Two months later, I listened as Katie Deuel introduced an audience in Moscow, Idaho, to the Yellowstone to Yukon Conservation Initiative, called Y2Y for short. She told us about Karsten Heuer, the Y2Y hiker that my Dad had praised. Katie, who worked for Y2Y, suggested that someone do a similar hike through Idaho to British Columbia. “Idaho is a critical piece of Y2Y,” she said. “Hiking from central Idaho’s wildlands to a protected area in British Columbia’s Columbia Mountains would be a great way to promote connections to Idaho.”

With prior commitments and an understanding of the magnitude of preparations needed, I told Katie that I wanted to do it, but not until the following summer. I felt electrified thinking about this adventure on my horizon. All at once it occurred to me that

I knew so little about Canada. What were the people like? What was their government like? Were there really plentiful wildlife populations?

As I read about Y2Y, I learned that although Americans often thought of our northern border as wild, it was Canada's most developed region. While American conservationists dreamed of wildlife moving south from Canada, development and highway traffic increasingly fragmented the connections. In addition, political boundaries brought very different management of endangered species. While protected in the U.S., grizzly bears and wolves were hunted in British Columbia and Alberta. It had been illegal to kill Pluie in the U.S., but she was shot and killed in a legal hunt south of Kootenay National Park. Jeff Copeland noted that "Canada harvests about 800 wolverines each year yet still considers it one of its rarest mammals." Transboundary management cooperation could help wildlife populations, especially in the U.S.

Growing from the lessons of island biogeography, mammals in National Parks, and the long range movements of Pluie and others, the Yellowstone to Yukon Conservation Initiative envisioned connecting the backbone of parks and wilderness areas within the Yellowstone to Yukon Region. Maintaining and restoring connections involved many land ownership categories (federal, state, provincial, First Nation, and private), and could be complicated and difficult. But the umbrella of Y2Y drew the support of over 200 conservation organizations and individuals for good reasons. Many believed that increased connectivity would give wildlife populations the room that they needed to recover. And many believed that, with Y2Y's approach, humans would choose to let them recover.

Y2Y's approach viewed sustainable employment, quality of life, and social values as equally important as connected landscapes. In the 1990's, the natural beauty of the Rocky Mountains brought new businesses and economic growth, which stabilized the economy from the historic boom-and-bust cycles of mining and logging. However, the new economies of the West also permanently develop wildlife habitat and corridors and change the social assets of tight knit communities based on resource extraction. Y2Y favors managing growth to protect both the values of the community and the integrity of the ecosystems.

Grizzly bears and wolves play a key role in this integrity but draw some loud opposition. Ranchers feel unfairly burdened economically by America's love for grizzly bears and wolves. Someone in New York or Connecticut, where I'm from, does not have to protect livestock from bears and wolves. Perspectives are understandably different. While parts of Idaho, Montana, and Wyoming may be the only places with functional populations, if you live next to grizzlies or wolves, there seem to be a lot of them.

A recent conversation with Seth Wilson helped me appreciate the complexity of ranchers' attitudes toward grizzly bears. As a University of Montana student and a current post-doctoral researcher at Yale University, Seth has interviewed and worked with hundreds of ranchers in Montana during his graduate, doctoral, and postdoctoral research. Concurring with Steve Primm and Tim Clark, Seth said that grizzly bears can symbolize ranchers' frustration with difficult situations beyond their control. Grizzly bears are one of several external factors, like the price of beef and feed on the international market, mad cow disease, and higher taxes from increased land values, that make it difficult for them to keep their heads above water. While Defenders of Wildlife

compensates ranchers for livestock that they can prove are killed by wolves or a grizzly bear, the program is controversial for many and, in cases, is not viewed all that favorably by ranchers. Thus, the grizzly bear can symbolize anger toward the federal government.

While I planned my hike, Katie Deuel mentioned Seth's research and suggested that perhaps ranchers didn't mind grizzly bears nearly as much as they minded the power of the federal government. Allowing balanced local parties to shape how grizzly bears and wolves recover by easing federal control in the right places made sense. Y2Y encompassed many approaches, often emphasizing an important role for local knowledge and decision making. Through my hike, I hoped to spread Y2Y's positive vision, listen to perspectives on natural areas and wildlife, and find examples of place-based solutions that integrated local knowledge with scientific understanding.

Tragedy struck close to my heart as I planned the hike. At midnight on November 28, my 21-year-old brother Jonah sat in his friend's car as it sped 50 miles per hour into a tree. The impact fractured his ankle, tibia, femur, hand, scapula, skull, and facial bones, all on his right side, and sent him into a coma. Jonah was huge: six foot six and broad. A summer with a Forest Service trail crew in the Sierra Nevada Mountains had toned him to 215 pounds, the best shape of his life. Thirty hours later, my parents and I stood by his bedside in Arcata, California. Later my sister, brother-in-law, and niece arrived followed by Grandma, uncles, and friends. In San Francisco, the world's leading endovascular surgeons tried to restrict blood flow to a dangerous aneurism in Jonah's brain, but its location proved too difficult. On March 17, three and a half months after the accident, a brain surgeon clamped his aneurism, and we finally felt assured that Jonah would live.

But what kind of a life would he have? How well would the right side of his brain work?
And would he be able to walk?

In January, I had returned to hike preparations with Jonah constantly on my mind. I suppressed my fears that questioned who Jonah was or was going to be. With his physical form in question, our spirits convened. I sent him positive messages and wrote two songs for him. As I planned the hike, Jonah continued to be a center of focus for me and an anchor for meditation.

In March, I traveled with Harvey Locke, a Calgary lawyer and leader of the Canadian Parks and Wilderness Association, who helped found the Yellowstone to Yukon Conservation Initiative. I spoke at the tail end of his Y2Y slide presentations in Moscow, Lewiston, and Boise, Idaho. Harvey had a knack for presenting the bold vision of Y2Y I particularly liked his slide of the Y2Y Region taken from space. He pointed out the north-south orientation of the landscape. The Rocky Mountain Trench extended northwest from Montana's Flathead Lake all the way to the Yukon. The Purcell Trench ran north from Idaho's Coeur d'Alene Lake and divided the Columbia Mountains into the Purcells and the Selkirks until it intersected the Rocky Mountain Trench. Harvey emphasized that these landscape patterns must inform wildlife conservation.

The continental divide marched northwest from Waterton-Glacier International Peace Park to Banff and Jasper, providing the most intact wildlife linkage from the U.S. Northern Rockies to the Yukon. Karsten Heuer had followed this route on his Yellowstone to Yukon hike. The Glacier/Northern Continental Divide Ecosystem is a population center for grizzly bears, wolves, wolverines, fisher and lynx. The best remaining connections from central Idaho's Salmon-Selway Ecosystem to Banff and

Jasper were via the Glacier/Northern Continental Divide Ecosystem. But the Salmon-Selway also connected north via the Clearwater Mountains, the Cabinet-Yaak, and Purcell or Selkirk Mountains to significant protected areas such as B.C.'s Glacier National Park, the Purcell Wilderness Conservancy, and Kokanee Glacier Provincial Park. Grizzly bears, wolves, lynx, fisher, wolverine, and mountain caribou inhabited these parks.

I chose the most practical, wild route from the Sawtooths to the Selkirks, a route that a wolverine, lynx, or grizzly bear might use to walk south from the Cabinets, down the Bitterroot Mountains to the wild Clearwater country and the Greater Salmon-Selway Ecosystem. Could grizzly bears make the trip? Male grizzlies had made it from the Glacier/Northern Continental Divide to the Salmon-Selway. But female grizzlies probably wouldn't do it. If grizzlies were to make a comeback in central Idaho, they needed to be reintroduced like the wolves had been in 1995-1996. More and more as I contemplated reintroductions and wildlife movement corridors, I felt that the long-term survival of wolves, grizzly bears, and an intact Yellowstone to Yukon region depended on the favor of the local public.

My focus shifted back to the raft on the Salmon River. I stood in central Idaho's five million acre (20,000 km²) wildland – the size of Banff, Jasper, Kootenay, and Yoho National Parks combined. My friends were about to leave. Suddenly I feared being alone. That morning I had carefully packed my belongings. Later I double-checked by picturing where I'd packed each item. Now I went through them in my mind again: hiking boots, stove, raincoat, sun hat. *Leaving something behind would jeopardize my mission. I'd*

get wet, cold, and sick, or sunburnt. tent, sleeping bag and pad, water filter and bladder I might give up, decide that I could not go on. If I really did something stupid, I could die. . two changes of warm clothing, medical kit. But I'm not worried about death. Even if I was naked, I could hike out. But I want to do more than survive. I need to maintain my health and a positive mind frame, so that I can hike for another four and a half months. .camera, flashlight, and food bag. Everything I need is in my backpack, sitting in the shade of the cottonwood tree.

Further Reading:

Heuer, Karsten. Walking the Big Wild: Yellowstone to Yukon on the Grizzly Bear's Trail. Toronto, Ontario: McClelland & Stewart Ltd, 2002.

Chapter 1: Sugar Snow in the Sawtooth Mountains
May 7-11, 2001 (35 miles)

My eyes opened to the dim glow of predawn. I lay in my tent amid the lodgepole pines by the edge of Idaho's Redfish Lake. Untold numbers of spawning sockeye salmon, also known as redbfish, once returned up the Columbia, Snake, and Salmon Rivers to this mountain lake. According to historians, Redfish Lake Creek had been so thick with salmon that people on horseback had thrown rocks to clear a path for their horses' hooves. Breathing deep, I smelled the lake and decomposing pine needles. My body reminded me of the long drive and short night's rest. But on this morning I would not go back to sleep. Excited with the anticipation of nine months of planning, I rose to greet the day

Not wanting to be disappointed, I prepared myself for Donny's absence. *Oh, I hope that he has arrived.* As I emerged from the tent, a smile came over my face. His truck was parked next to my car.

We were setting out on leg one – from the northern part of the Sawtooth Mountains to Marsh Creek, a major tributary of the Middle Fork of the Salmon River. I packed my tent and sleeping bag before heading over to rouse Donny from his slumber in the back of his 1984 Toyota Landcruiser. Patches, his black and white border collie, leapt to the height of my chest, trying to lick my face. I petted Patches, and he thanked me copiously for the attention.

“Good morning, Donny ”

“Jooossh,” Donny declared, less enthusiastically than usual as he stretched his arms above his shiny bald head. His past weight lifting showed in his arms, neck, and

shoulders. He often said, “I used to be a muscle-head.” Donny Johnston sold outdoor gear at All About Sports in Moscow, Idaho, and spent his free time hiking, skiing, biking, snowshoeing, rock climbing, and kayaking.

“Got in late last night? Eh?”

Donny launched into an explanation. His truck had overheated after he had given a ride to two young women, friends with heavy backpacks. However, he found that below 50 mph the engine remained cool enough. His undaunted cheer and optimism never failed to surprise me. I wondered if all Canadians behaved so merrily

“Man, this week was a blur,” I said. “There were so many last minute details. I am glad to be finally starting. And I’m really glad that you made it.”

After we decided on communal gear (water filter and stove), I headed over to meet my send-off party Kaz Thea of the Alliance for the Wild Rockies arrived with three videographers, who all had been at my slide show in Ketchum last night. They set up a video camera on the beach.

Several men prepared Redfish Lake Lodge for the year, carrying lumber, fixing furniture, and setting up the marina. Strapping lads with big arms and chew behind their lips took orders from a middle aged fellow Small waves brought texture to Redfish Lake. Green forests sloped up from its shores to the base of Mount Heyburn, one of the magnificent white peaks in the Sawtooth Wilderness. With my backpack on and a microphone clipped to my shirt, I summarized my route and purpose.

“Today I begin my Sawtooths to Selkirks Hike, a trip of five months and 900 miles to promote protecting and restoring safe wildlife movement corridors. From my starting point here at Redfish Lake in the Sawtooth Mountains near Sun Valley, Idaho, I

will hike north through Idaho's backcountry along the Bitterroot and Cabinet Mountains to the Selkirk Mountains of British Columbia, finishing at Kokanee Glacier near Nelson.”

A puffy white cloud covered the sun. My pack felt heavy and Donny waited. A fish jumped. An osprey dove. The sun returned to grill my right shoulder and hair.

“These wildlands of central Idaho are an essential part of a larger vision. From here to Yellowstone National Park and up to the Yukon Territory is one of the wildest regions in North America. It fills the dreams of many Wildlife and sustainable communities can thrive here in the Yellowstone to Yukon Region if we protect and reconnect our wildlands. These wildlands used to be connected before highways and development strips fragmented the landscape. I'm hiking the most likely connections that remain, beginning in the drier forests of southern Idaho, crossing the big wild of central Idaho, and following some of the best links through the Bitterroot, Cabinet, and Selkirk Mountains to habitat in Canada.”

After the long interview, Kaz and the others kindly shuttled our vehicles to opportune spots. I finished packing my things, put on my backpack, and headed off. Not three steps toward the trailhead, I felt cold water run down my back. I swung my pack off and opened it up to find that the cap on my Dromedary water bladder was loose. Some clothes were already wet, as well as my down sleeping bag.

I've always been a slow learner. Ultimately, the lessons learned the hard way seem to stick the best for me – *must make sure bladder cap is on tight before putting in pack*. After things dried out, Donny and I finally hit the trail. My early start had been foiled. It was 11 a.m.

* * * * *

A forest of lodgepole pine (*Pinus contorta*) bordered the northern end of Redfish Lake. Standing side-by-side, their rough barked trunks had few branches and grew straight as telephone poles. Green dabbled on top with clumps of pine needles that emerged two at a time. Often germinating together after a fire, many of these trees grew to the same height.

Talking of life and love, Donny and I paralleled Fishhook Creek for a mile before breaking out among the sagebrush. Failed romances and pockets of aspen adorned the slope, meeting evergreen trees along a ridge that climbed due west to Williams Peak (10,635 ft), a massive, snow-covered chunk of Eocene granite, broken by ice age glaciers. As we ascended the ridge, Patches, seemingly unencumbered by his red doggy pack, ran laps between Donny and me.

Aptly named, the peaks of the Sawtooth Mountains look like the teeth of a cross-cut saw, or, perhaps, of a wolf. These white and gray teeth pierce a blue sky adding grandeur to the deep green forests and pale green sagebrush rangeland. In the 216,000-acre Sawtooth Wilderness, people on foot or horseback can find solitude at high mountain lakes and snow-covered peaks. In 1972 Congress created the Sawtooth National Recreation Area (SNRA) with Stanley being the only town inside. These 756,000 acres encompass the Boulder, White Cloud, Smoky, and Sawtooth Mountains including the wilderness area.

Idaho's Alps give Stanley (population around 70) a 4000-foot backdrop of glacier-sculpted granite from the Atlanta batholith (75 million years old) and the Sawtooth batholith (50 million years old) that defies the imagination and feeds the Boise, Payette, and Salmon Rivers. With its dirt roads and saloons, Stanley is rough and

straightforward, like a scene out of an old western movie. The Salmon River flows by town, and the Middle Fork of the Salmon River is nearby Stanley sits at the junction of Highways 21 and 75. A two-hour drive northeast of Boise, and one hour northwest of Sun Valley and Ketchum, the Sawtooths attract skiers, hikers, boaters, bikers, birders, hunters, fisherman, and motorized vehicle users from all over the U.S.

The Sawtooths have been popular for a long time. Two hundred years ago groups of Northern Shoshone lived in the valley bottoms where camas was a favored root for eating. They fished for salmon and hunted the big game. Northern Shoshone – as distinguished (by white people) from Western and Eastern Shoshone by their location and diet of salmon – lived in the area roughly outlined by the political boundaries of Idaho south of the Salmon River. The Bannock Indians who were Northern Paiute speakers had migrated from present-day Oregon to live peacefully among the Shoshone speakers in an open relationship with flux among their members. Most of the Shoshone-Bannock lived around the Snake River where its waters yielded fish, its plains yielded roots, and its upper prairies, horses, and earlier on, buffalo.

Alexander Ross and his Hudson's Bay Company trappers came into Stanley Basin from the south in September 1824. The Idaho Historical Society said that Ross and his Company "observed at some distance the appearance of a ploughed field, and riding up towards it, found a large piece of ground more than four acres in extent, dug up and turned over. On getting to the spot, we observed no less than nine black and grizzly bears at work, rooting away " Perhaps they ate camas, onions, and wild celery Today the black bears that survive are those that avoid humans, in this case steering clear of the open area around Stanley There are no grizzlies in the Sawtooths.

Fur trappers, searching for beaver, came and went. The long, cold winters deterred settlement until John Stanley and company discovered placer gold in 1863 on Stanley Lake Creek. Many placer operations opened up. Boom towns like Custer, Bonanza, Galena, Vienna, and Sawtooth City thrived in the 1880s. Ranching followed. Today, recreation has taken center stage.

Donny and I walked the ridge leading up to the wilderness boundary. Over the next few days we followed the Alpine Way Trail, which roughly paralleled the northeastern wilderness boundary at the base of the extreme peaks.

While on the ridge, approaching Williams Peak, the snow seemed a far way off. Enjoying a leisurely lunch, I lay back on the warm, dry earth and admired the trees. Douglas-fir (*Pseudotsuga menziesii*) boasted corky orange-red veined bark and ¾ inch fir needles that swirled around droopy twigs; subalpine fir (*Abies lasiocarpa*), a true fir, pointed steeply at the sky, often divided into several thin tree-tops, and had short needles and smooth, light gray bark with horizontal staple-like marks; and Engelmann spruce (*Picea engelmannii*) had bark with oval chips that broke off easily and sharp needles that swirled around their twigs. The conical shape of the spruce and subalpine fir kept heavy snow off its branches during the long winters. The occasional lodgepole pine, with most of their green on top, grew among the others.

“If this bright, warm sun keeps up, we won’t need these snowshoes,” I said to Donny

I had begun to think that leg one would be easy. Even the first bit of snow on the ground brought novelty to spring. But sinking up to our knees became tiring, and we

strapped on our snowshoes at 7500 ft. Sloshing higher, we lost sight of the brown soil and green shrubs as white snow gained dominance and the trail disappeared. Large snow crystals called surface hoar acted like ball bearings within the snow pack, sliding past each other, such that when we stepped on the snow, we sank deep, sometimes up to our thighs. To make matters worse, a crust layer on the top occasionally supported our weight. With each step we braced for a crash through the crust, creating an awkward walking rhythm. Unwilling to acknowledge the difficulty, I pushed on.

At 8300 feet, we turned north in search of the trail. In frustration, I complained, “If this were a thick forest, the trail would stand out. But here, it could be anywhere!”

Donny replied, “I wish that I was better at orienteering, Josh. Maybe if we keep going we’ll find the trail ahead.”

We looked for tree blazes – hand-sized ax cuts at breast height used to mark trails. However, so many of the fir, spruce, and pines seemed to have natural markings similar to blazes. Hours passed as we headed for Marshall Lake, gaining and losing elevation in search of the trail, trying to match the landscape to the contour lines on our map. The afternoon sun dropped toward the horizon and warmed the snow in the trees and underfoot.

We overshot Marshall Lake, hit its creek, and followed it up to the lake, which sat at the base of William’s peak. While setting up a rope to hang our food – an ordeal which took over an hour – I broke a snowshoe. The strap that bound the front cleat to the outer metal had snapped. I flopped around, cooked, and ate my dinner below a moonlit William’s peak, too tired to worry about tomorrow.

Morning came and Donny fixed my snowshoe with some webbing. Finally ready, we set off. After ten steps, my other snowshoe broke. With more webbing, Donny fixed that one, too. Again we departed at 11 a.m.

Through a forest of spruce and subalpine fir and across gurgling streams filled with spring run-off, the Alpine Way trail ran below peaks of 9 to 10,000 feet. On this day, we did not lose the trail. We diligently consulted maps, scouted ahead, and read the tree blazes. I felt deeply happy to be working hard, both mentally and physically, to meet these challenges and to be living out a dream.

When I look at a mountain chain, I often lose myself in the fantasy of traveling the ridgeline into the distance. *If only I had the time to go see what's out there!* And here I was on day two of a five-month hike through the mountains. Black bear tracks, deep paw prints in the snow, headed downhill from a den. Lower down, I thought, the bear walked easier, and found roots and shrubs in the recently melted snow. Crossing paths with bears felt remarkable.

Happy thoughts flowed with the crisp air and sun's rays. I sweated and crashed through the snow with a smile on my face. *Why do I love it out here so much? Well, physical activity sends endorphins to my head. There is cool, clean air, time for reflection, and spectacular views.* But I kept thinking of my family's summer home in Massachusetts. Memories of long walks in the woods with my mom, canoe outings through the swamp with my dad, and long swims with my siblings floated across my mind in answer to my question.

* * * * *

My father's three younger brothers found the brick-red one story wood cabin for sale in the small town of Warwick, Massachusetts, near New Hampshire and Vermont. Warwick contained one store and 600 people. The local legend, a two-foot bass named Walter, lived under the retired Police chief's sunken dock. Surrounded by woods and mountains and situated on Moore's Pond with 25 assorted cabins, the setting reminded my uncles of Thoreau's place on Walden Pond. A brass placard above the fireplace read "Whispering Pines." They sent pictures to my parents in London, England, and convinced them to buy it.

Warwick gave consistency to my childhood of moving between Yonkers, New York; Fairfield, Connecticut; and London. As a boy I grew up spending the school year in the suburbs of New York City or in London, and my summers in a natural setting – the pond, the swamp, the woods, and the mountains – with bullfrogs, beaver, and fish. I felt most at home in Warwick.

Mornings often began with the sun burning off a cloud of mist from the surface of Moore's Pond (more lake than pond), followed by a head-first plunge into the water for a quick dip before breakfast. Often the day's activities involved our next-door neighbors who had two children that were my younger sister and brother's age. As an annual physical fitness tradition, we all swam the 1.5 miles across the pond and back. One parent rowed our old, blue, wooden, paint-chipped boat, while another swam the distance with us.

After breakfast, we might pack a lunch of baloney and cheese sandwiches and hike the old dirt road to the top of Mount Grace (1300 feet). The route started at someone's private cow pasture. From atop the four-story fire lookout, we saw the soft

green mountain landscape broken occasionally with lakes, roads, and houses. Looking at Moore's Pond, I picked out our cabin, a tiny red spot, four from the end on the left.

I played in the water for many hours every day. We dove off our floating dock of barrels, did summersaults under water, capsized our green Old Town canoe, and talked to each other in the air pocket. Family and friends often visited. We filled our pails with blueberries and found salamanders. I took visitors to explore the channels of the swamp. We coasted over green lily pads with yellow and white flowers and by the dome-shaped beaver dens. One spring, a beaver startled my father and me by slapping its broad tail on the water surface near our canoe. In the swamp, shallow muck and sunken trees threatened to tip our boat. Gases would bubble to the surface. Sometimes a great blue heron flapped its long wings across the swamp with Mount Grace in the background.

On rainy days, we would take turns pumping the two front pedals on the player piano, turning out a tune like "Hot-Diggidy-Dog-Diggidy," "Twelfth Street Rag," "Hello Dolly," or "Bye-Bye Black Bird." We sang the words as they scrolled by on the reel. Clue, Risk, Monopoly, and Connect-Four, or charades, or cribbage, gin-rummy, crazy-eights, pitch, spades, or hearts entertained us and our company. My mom had forbidden a television in the cabin from the start. At an early age my sister, brother, and I learned to have fun without TV.

When I was nine, a bat took-up residence in the top of the front door's wood frame. Upon entering, we would look up and see its small body sleeping, wedged in the one-inch gap. We left it alone for several weeks. But one night, when we came back from a drive-in movie with family friends and opened the door, the bat flew into the house.

The two fathers ushered their families outside and tried to direct the bat out with a broom. It took them the better part of an hour, but they did it.

Grandpa Burnim taught me to fish. One evening when the lake lay still, Grandpa, Dad, and I cast from a slowly rowed boat. My grandpa caught a catfish and I two trout, each 11-inches. Our neighbors brought over more fish, and we cooked them on our outside fireplace made of bricks and concrete. Meals of hot dogs, hamburgers, chicken, fish, and kielbasa, corn on the cob, potatoes, and more were cooked on that fireplace. We roasted marshmallows, made “sommores,” and listened to the bull frogs’ low pitched croak. On my favorite nights our neighbor, Gordon Ellis, played guitar. We stared into the flickering red flames and sang a Harry Chapin song:

And the cat’s in the cradle and the silver spoon,
Little boy blue and the man on the moon.
“When you comin’ home Dad?” “I don’t know when,
But we’ll get together then, son.
You know we’ll have a good time then.”

“Bad Bad Leroy Brown” was another favorite.

My memories convey a deep association of family happiness with the outdoors. When it came to life choices, I looked to more opportunities to experience nature, leading me to explore the mountains, forests, and rivers. However, I learned quickly that venturing into rugged terrain did not always go as planned.

The route-finding of my second day went well until Donny and I made a wrong turn up a canyon. This two-hour detour brought us across a very steep section of trail that petered out before we realized that we must have gone wrong. Confused, we retraced our steps and took a different path. At dusk we crossed a creek on a log bridge. To our

dismay, a sign read Iron Creek. Before our detour, we had mistaken a small drainage for a bigger one. This caused us to think that we were farther along. Our nine-mile journey turned out to be only six.

Wisps of clouds departed to the east and stars glimmered in the dark pond. The crisp air smelled of winter snow. Spring had yet to arrive at this elevation and aspect, though patches of open ground had recently melted. We chose one for our tents, avoiding the wet, dark soil at the edges.

At another snow-free spot, Donny built a campfire where we dried out our clothes, warmed our hands, cooked and ate dinner. I took in the warmth, fragrant forest, night air, and spoonfuls of tasty black beans. Donny read a novel. I tried to come to terms with the two-hour detour, being behind schedule and the painful snow conditions.

As I hung our food, needles affectionately pricked me again and again, all over my hands and face: *spruce, spruce, and spruce!*

In my tent, I lay on my stomach with clothes as a pillow under my chest and wrote.

May 12 – Iron Creek, Sawtooth Mountains, Idaho – I'm unsure of my physical ability to complete this first leg according to plan. I'm frustrated by our lack of progress. If only we had been more diligent about map-reading, keeping to the trail, getting an early start, and taking shorter breaks, we might have made it the extra three miles. If only I was in better shape my body wouldn't be in as much pain.

Topographic maps and the Sawtooth Wilderness map unfolded, I recalculated the distance and time for the desired route (24 miles in 3 days), as well as an alternate route along the highway. Another six-mile day would take us to Stanley Lake. However, if we started hiking at 8 a.m., maybe we could make it the extra three miles to the far side of Elk Meadow, leaving 15 miles for Thursday and Friday. *Can my body handle it?* My left

thigh and hamstring had been going numb from a tight waist belt. Seventy pounds was too heavy

I rose early, determined not to slow us down for the third morning. However, it was Donny's turn. It took him a long time to pack and get going after our late night. He apologized for his late start. We again left at 11 a.m.

An exposed brown dirt trail – a beautiful sight – began the first mile of the day. But eventually the snow closed in, and I walked from tree bowl to tree bowl, extending my freedom from snowshoes as long as possible. We gained elevation and with it snow depth. I resigned to putting on the snowshoes again. Still we sunk in the sugar snow. At the first pass, the webbing came undone from a snowshoe and Donny repaired it. Farther along, the other snowshoe loosened – Donny to the rescue, again! Even Patches was getting tired. Following Donny, he jumped from hole to hole.

On this day we crested two passes and crossed two creeks. We had the same difficulties keeping to the trail and sinking in the snow, and my 70-pounder deepened my aches and pains. We again saw black bear tracks. We looked at the map often, managing not to get lost, but still we only covered six miles, getting to Stanley Lake with a couple hours of sunlight to enjoy

At the Sawtooth Wilderness boundary we came out onto a four-wheeler trail. Instantly I felt different, a little nervous and out of my element. I felt safer in wilderness where motors were not allowed. I worried that an all-terrain-vehicle would roar by. The possible conflict scared me. Still, I felt relieved to take off my snowshoes and feel the solid ground and see the obvious path.

I dropped my pack in the campground by Stanley Lake, ice cold and a mile across. We had the place all to ourselves. To the south, McGown Peak's white cap turned pinkish red from the setting sun. I recalled descending from its nearby pass through lodgepole and firs. Donny and I had gained speed down steep sections, shakily sliding through deep snow in an exhilarating rush. Now I looked at the base of McGown Peak. The forest created a green strip between the deep blue lake and the snow-draped, gray granite, thrusting toward the sky

I jumped off an old dock into icy Stanley Lake. All in the same second, I hit the water, turned, and began swimming as fast as I could back to shore. Rejuvenated by the chill and the familiarity of lake water, the stress and uncertainty began to wear off. I felt like a child again, getting out of Moore's Pond. I shivered and paced as my body dried, watching a beaver's head motor around the lake and ducks land on the water. Later, around a fire, Donny and I discussed our options.

"So, Donny, you know, I'd like to go the route that I planned: Elk Meadows, the three high mountain lakes – Elizabeth, Kelly and Marten – and out Swamp Creek to the Marsh Creek put-in. But it's probably not a good idea given that my leg's been hurting and my snowshoes keep breaking."

"Josh, you can take my snowshoes. I'm going to walk along Highway 21 to my vehicle. I have to get back to open the store, and I may have to get my vehicle fixed first. This could turn out to be another 'Donny-adventure.' I wish I could go with you, but I don't want to hold you back."

I stared into the fire, considering the new possibility of using Donny's snowshoes. At the moment, I felt good. The cold swim had rejuvenated me and the mountain called me. "I could do it," I said.

But then I thought about putting my pack on again – the weight bearing down onto the straps, digging into my shoulders and numbing my leg. It brought back memories of a painful five-mile cross country race in my sophomore year at Colgate University. I had pushed myself too hard, running it in 28 minutes and 40 seconds. I hyperventilated for 10 whole minutes afterwards. The pain had been too much. During the race I had promised myself that I didn't have to run that fast ever again. And I didn't. This memory haunted me, and I feared my mind's ability to handle pain.

"Well, that's generous of you Donny. But I think that it's too risky. This pack is killing me, and I'd rather not put myself through all that pain if I can avoid it. Anyway I'm not here to prove how tough I am. I'm here for the wildlife."

They flashed before my eyes as I imagined where they might be: grizzly and black bears, wolves, cougars, bobcats, Canada lynx, coyotes, wolverines, fisher, marten, mink, weasel, badger, skunk, river otter, white-tail and mule deer, elk, moose, bighorn sheep, and mountain goats. As the night slowly fell, I remembered so much that I'd learned about wildland connectivity and the life and death issues that it holds for all these animals.

Often used in discussions of connectivity, "metapopulation" is a term that describes the way species naturally exist on the landscape – in a population of populations. Most species live in geographically isolated patches separated by unsuitable

habitats. These separated populations support each other with occasional movements of individuals between the populations. The scientific term, “metapopulation,” made me smile, both because it sounded very technical and because I got a kick out of words with double meanings. I thought up a sketch with bears in mind:

Met a population, I did. They were very nice... brought me to the cool hangouts – secluded meadows, clear babbling brooks, and berry patches. It took a while to get to know all of them. Then I noticed that one or two of the young males would leave every several years bound for another population. They said they needed to go for the greater good of the metapopulation.

Of the 19 wolverines captured and radio-collared by Jeff Copeland in the Sawtooth Mountains, four males made long movements upon reaching sexual maturity. The wolverine that crossed the Salmon River connected populations of the Sawtooth and Selway Mountains within the metapopulation. Similarly, Pluie, the female wolf whose movements through British Columbia, Alberta, Montana, Idaho, and Washington encompassed an area ten times the size of Yellowstone National Park, must have encountered many wolf packs, linking wolf populations with her movements.

“Wild nature is full of movement and interchange, often on a scale of hundreds and thousands of kilometers,” wrote conservation biologists Michael Soule and John Terborgh in the first chapter of Continental Conservation. Habitat fragmentation occurs when contiguous blocks of habitat are broken into pieces with the pieces being separated by human development. The addition of anthropocentric unsuitable habitats creates more and more difficult barriers to the ever-present movement found in wild nature. Soule and Terborgh describe fragmentation:

The metaphor of fragmentation... fails to convey the quivering isolation of animals, energy, and nutrients in a degraded landscape... In effect, each isolated remnant of nature is caught in a tightening tourniquet of civilization. Initially the tourniquet is made of roads or small subsistence farms. Gradually the constraining band broadens outward as more habitat is converted to farms,

clearcuts, and villages. Eventually highways, dams, intensive agriculture, and cities become impervious barriers in the landscape, permeable only to aerial flyers and drifters.

When intermixing is not possible, populations are isolated from the metapopulation and face extirpation through demographic, genetic, and environmental difficulties. A population depends on a balanced demographic of males and females as well as young and sexually mature ages. A small population can blink out due to random changes in sex or age ratios. In addition, over the long-term, isolated populations can suffer from a loss of genetic variation. This is when the individuals from an isolated population cannot mix genes with other populations, resulting in less genetic diversity and over time a weak population. Environmental stresses such as a harsh winter, fire, flood, food shortage, or disease can fatally weaken the population. If the habitat is not linked to another population, the species cannot recolonize the area.

Connectivity is essential for conservation. But Soule and Terborgh caution against “the willy-nilly creation of artificial corridors:”

Not all so-called corridors benefit nature. Some—such as utility corridors, equestrian and bicycle paths, and greenways—facilitate the travel of invasive exotics, human beings, and their pets, seriously hampering the viability and movement of native plants, animals and the vital flows of materials and energy that constitute the circulation of wildlands.

The restoration and conservation of effective “wildlife movement corridors” and “habitat linkage zones” will benefit the linkage of populations and habitats, reestablishing some of the connectivity present in wild nature. However, these steps should be well thought out. Soule and Terborgh further clarify:

Connectivity, per se, is not the goal we advocate. The goal is to reverse the terrible consequences of fragmentation at the habitat and landscape scale—to restore the effective exchange of individuals and materials among sites for genetic maintenance, for demographic stability, for migration, and for the sake of other ecological processes. But, as critics have pointed out, connectivity is not analogous to an elastic bandage: one size does not fit all. Nor does one kind of

connectivity solve all problems. The kind and scale of connectivity must fit the context and address the goals of the project at hand.

Because it is impractical to design a reserve system to protect all the biodiversity contained in an area, conservationists focus on a set of species of special ecological importance, such as endemic, rare, keystone, indicator, umbrella, or flagship species. While I hiked, the Yellowstone to Yukon Conservation Initiative continued to bring together various expert scientists to identify the critical core areas and habitat linkage zones based on the needs of grizzly bears and several bird and fish species.

The next day, Donny and I hiked the four-mile road from Stanley Lake, past the spot where John Stanley discovered gold only 138 years before, to Highway 21. I needed a short snack break and wanted to take pictures. Donny went ahead to get his truck, as he was anxious about getting back to Moscow. I was nervous about an injury from this heavy pack and the lack of circulation in my left leg. But eventually I put it on again. This time I did not tighten the belt quite as much.

On the highway, I headed north, my ski poles tapping concrete. Heat rose visibly off the road, blurring the yellow and white lines, fading into the horizon. Cars and trucks whizzed by at 60 miles-per-hour, often veering into the other lane to give me some room. The permeability of a highway for wildlife movement depends on its traffic volume and speed, and the highway's width. As traffic increases, highways evolve from gravel roads to paved two lane roads and from two lane highways to four lane highways. Bill Ruediger, the Endangered Species Program Leader in the Forest Service's Northern Regional office, said that "the eventual result of such a progression in the highway system on rare carnivores is the slow strangulation of viability due to population

isolation, loss of habitat, mortality of individuals and a decline in potential population size.” This is the case for the southern Selkirks grizzly bear population, south of Highway 3A and Nelson, British Columbia. Michael Proctor’s analysis of DNA collected from 160 grizzlies with hair-snag surveys in the central and southern Selkirks revealed a wide genetic difference between the populations. He concluded that no grizzly bears have moved between these populations in several generations, in large part due to Highway 3A and the continuous settlement east of Nelson along the highway

Moments of blue sky, hot concrete, and sweat strung together for 11 miles. Now and again I peered over my aching left shoulder for another arrangement of white peaks above timber, wolf teeth set in green gums. By 2001, the wolf population of central Idaho had grown to over 250, after their reintroduction by the US Fish and Wildlife Service in 1995 and 1996. However, wolves were reintroduced under the classifications of “experimental” and “nonessential.” This allowed the USFWS to remove wolves caught killing cattle and sheep more easily than normally prescribed by the Endangered Species Act. The entire Sawtooth Pack had been legally killed in 2000.

The pain in my shoulder reached a new level, and I tightened my waist belt. But eventually my left leg went numb. Finally, I found a midway point and endured a mixture of dulled aching. For many miles I hypnotized myself with my ski poles clicking on the pavement, the swaying of my limbs, and a Tibetan chant that I had memorized from a cassette tape, given to me by a former girlfriend. I found comfort in the rhythm and melody.

Namo Ratna Trayaya, Namah Arya Jnana Sagara, Vairochana,
Byuhara Jara Thathagataya, Arhate, Samyaksam Buddhaya,
Nama Sarwa Tathagata Bhyay, Arhate Bhyah...

With less than a mile to go to our meeting spot, I saw Donny's Landcruiser crest the horizon. He stopped long enough to yell that he was nearly out of gas and needed to keep going to make it the 15 miles to Stanley. I soon reached the campsite where his Landcruiser had been parked and spread out. Later, while I wrote, a VW bus pulled up and out jumped Donny. His truck was in Stanley and needed minor repairs. *Would I mind spending the night in a hotel in Stanley, Idaho?*

A night in a bed and a soak in the hot springs provided a nice unplanned break. My AAA membership paid for the tow to Stanley where Donny got gas and minor repairs. For the next two weeks I would be floating the Salmon River. The last four days in the Sawtooths had taught me more about backpacking and twisted me into shape. Two weeks on the river would allow me to heal from my mistakes.

Further Reading:

Soule, M.E. and J. Terborgh (eds.). Continental Conservation: Scientific Foundations of Regional Reserve Networks. Washington, D.C.. Island Press, 1999.

Chapter 2: Middle Fork of the Salmon River May 12-18 (120 miles)

Central Idaho – drained by the Salmon and Clearwater Rivers (the Selway and Lochsa form the Middle Fork of the Clearwater) – contains the largest block of wild country remaining in the Rocky Mountains of the U.S. The Frank Church—River of No Return and Selway-Bitterroot Wildernesses form a five million acre wildland (3.87 million acres designated wilderness; 1.45 million acres of adjoining roadless areas) broken by one dirt road called Magruder. This five million acre wildland is at the center of the Greater Salmon-Selway Ecosystem, also known as “the Big Wild.”

The Greater Salmon-Selway Ecosystem, a landscape of endless ridgelines and raging rivers, dry southland and wet northland, is a reservoir of healthy wildlife populations, including those of threatened species. A fisher population centers on the Clearwater National Forest. Over 250 wolves live in central Idaho. Wolverine populations center on the Sawtooth Wilderness and the Selway-Bitterroot Wilderness. Habitat exists for the return of grizzly bears, and the recovery of lynx and salmon. But mountainous protected areas were not always the habitat of choice for wildlife.

In the absence of humans, wildlife will, in general, utilize the rich valleys rather than the mountains. For example, grizzlies, wolves, and elk prefer valleys and plains. As the lowlands were settled, wildlife increased its use of the mountains. Large vertebrates whose survival decreases near human development do best in protected areas. Core areas that restrict human uses are where large vertebrates have survived best in the face of modern development.

Core areas must be at the center of any reserve system. In such areas, values such as the conservation of biodiversity, ecological integrity, and wilderness take precedence over other values and uses. These are places like national parks and wilderness areas on federal lands such as the Frank Church—River of No Return Wilderness. But they also include other public or private lands where biodiversity conservation or natural conditions are ranked as the highest priority in a management plan.

The five core wildland ecosystems of the U.S. Northern Rockies are the Greater Salmon-Selway, the Greater Yellowstone, the Northern Continental Divide, the Cabinet-Yaak/Selkirks, and the Hells Canyon/Wallowa. While these five ecosystems may seem big, each one on its own is too small to support the long-term survival of its wildlife populations. To plan for connectivity of wildlife populations among sustainable human communities, land managers and conservationists design reserve systems where core areas of habitat such as national parks, wilderness areas, and roadless areas are connected by wildlife movement corridors or habitat linkage zones and surrounded by transition zones. Transition zones allow the extraction of natural resources with an eye to habitat connectivity and wildlife conservation. If the connections between these five ecosystems are maintained and restored, we can hope for sustainable wildlife populations for many centuries. With connectivity, strong populations in central Idaho can in the long run support populations throughout the U.S. Northern Rockies and the Yellowstone to Yukon Region.

Marsh Creek begins as snowmelt from the northern tip of the Sawtooth Mountain Range and flows north through a wide valley of brown grasses. Highway 21 runs

alongside Marsh Creek till the ridgelines and forests close in on the creek and then the highway curves around the northern tip of the Sawtooths.

On May 11, Donny dropped me off by Marsh Creek in an open field north of the curve in the highway. The next day I would meet friends to begin our float. I stashed my pack and walked four miles back up Marsh Creek to where I had finished my march on Highway 21. I was connecting my footsteps to maintain the continuity of the hike. On my way, I looked on the north-facing slopes of the Sawtooths and the south-facing slopes of the Salmon River Mountains. I wondered how wildlife traveling between these refuges fared while crossing Highway 21.

On my way back to my pack, I met Scotty Phillips, a 30-year veteran of the US Forest Service. He was driving on a dirt road looking for me. "Are you the hiker?"

I nodded. "You must be Scotty."

"Have a beer. You want a beer? How far have you come?"

"Thanks . . . about 35 miles through wet sugary snow from Redfish Lake."

"It is just great what you are doing. Your hike . . . great idea."

Scotty had kayaked the Middle Fork 15 times. He had bought a cataraft especially for the Salmon River section of my adventure. But he got a rare staff infection at the base of his spine that nearly took his life. Still in recovery, he could no longer make the trip. Fortunately Scotty's two friends, Dave and Alan, whom he had met while running a river in California, were bringing their raft. That night Scotty fed me noodles and cans of Natural Light beer.

Scotty had received a call from my friend Charles Pezeshki. From the moment Chuck heard about my Sawtooths to Selkirks Hike, he wanted to help. He called me up

and told me that he was coming, too. Through working together on efforts to protect Idaho's roadless areas and restore Snake River salmon, we had become friends. Most notable of Chuck's conservation efforts is his book – Wild to the Last: Environmental Conflict in the Clearwater Country – and his large format pictures of the wild country that he loves. A professor of Mechanical and Materials Engineering at Washington State University, Chuck is happily married with two little boys. He acted like a god-father and main consultant for the route and organization of my hike. In particular, he had an eye for trouble-shooting, concerned with early summer formidable snow and late summer fires. Chuck put together the Salmon River section – legs two and three. He sparked Scotty's interest and followed up with Dave and Alan who were bringing Dave's raft.

A bright morning brought three sandhill cranes landing on the far side of the marshy field. The air brimmed with spring life. I stood on the edge of the five-million-acre wildland – the central feature of the Greater Salmon-Selway Ecosystem.

Dave and Alan arrived. They skeptically eyed the shallow 20-foot wide Marsh Creek before beginning to inflate the raft. Chuck arrived with two companions: Nathan, Chuck's student at WSU, and George, Chuck's buddy and geology PhD student at the University of Idaho.

There was a great organizing of gear.

Al and Dave marveled at how much stuff and how many people Chuck wanted to ride on the 12 foot raft: coolers of food, pony Grolch kegs of beer, more coolers of beer, Chuck's huge waterproof camera case – 3x2x2 feet. While packing the raft, Al exclaimed, "Are you SURE you need this?" In the end, everyone had to reduce their personal belongings, and one pony keg stayed behind.

With all the coolers and waterproof bags strapped into the raft, I asked, “Where do George and I sit?”

Perched on the bow with barely enough room for our feet, we pushed off at 11.30 a.m. The loaded-down 12-foot hot-pink raft quickly gained our affection. We named it Barney. Dave and Chuck, with close to 60 years experience between them, traveled in hard shell kayaks. Nathan, a motorbike rider, mountaineer, and former mechanic, had a flare for taking risks. In a rented inflatable kayak (IK) (two ten-foot banana-shaped tubes with a floor), Nate paddled down Marsh Creek – his first strokes ever in a kayak.

Around the first corner, we encountered an obstacle course of rocks. Al gave me a quick rafting lesson: “Lean against the outer tube when it hits a rock.” I quickly learned that this helps the raft bounce off the rock. George added, “Always hold onto the safety ropes.” We bounced and spun down the small creek as through a long pinball machine. At once I felt thankful for Al’s experience. He mentally mapped the rock locations and navigated smoothly, for the most part. However, in one instance, a shallow rock eluded our watch and sent me flying towards the water. My grasp of a safety rope held me inches above the current. George clasped my free hand and with a strong arm pulled me back in.

When the raft got stuck on a rock, George or I (sometimes both of us) jumped into the cold water to shove the boat off. At one point we had to go under a big ponderosa pine that lay across the whole creek except for a small triangle of space against the right side of the steep slope. George and I jumped into the waist-deep water and pushed Barney through the tight wedge between the tree and the side of the rocky slope.

During the few calm moments, George described the geology of central Idaho. Marsh Creek had eroded clear views of granite from the Atlanta batholith that rose and

crystallized 70 million years ago. George taught me that granite was made of feldspar crystals inter-grown with small numbers of quartz grains.

Ahead of us, Nate flipped in a shallow rocky section. When we caught up to him, Nate straddled a limb of a tree that had fallen in the middle of the narrowed, swift creek where it bent around a ridge. The rope from his IK had wedged deeply between branch and limb. Nate precariously held on with one arm and leaned forward sawing with Chuck's six-inch blade. This took the better part of an hour.

As we waited, I shivered in the sunlight with all my gear on. Growing up on Moore's Pond in Massachusetts, my lips would turn blue after an hour in the water – an early sign that I have difficulty maintaining my body temperature. Marsh Creek chilled my bean-pole 165-pound body, but it was a familiar feeling. However, Nathan's chill was worse. He lost his ability to regulate his body temperature. While he felt hot, his body temperature had, in fact, dropped, and he couldn't continue.

I jumped at the chance to try kayaking for the first time. I began where Bear Valley Creek matched the flow of Marsh Creek to form the Middle Fork of the Salmon River. I studied the paddle, tried some practice strokes, and received some quick advice – some good, and some bad. The bad advice was to take it easy

I slowly paddled, letting the river take me. I tried to stay behind Chuck, as instructed, but the river moved my IK faster than his hard shell kayak. I steered to the left to avoid hitting him and headed right for a rock. Sticking to the advice, I paddled calmly trying to avoid it. The nose of my IK rode up on top of the rock. The current took the IK's back around and dumped me into the water. I relaxed and floated downstream. I caught the IK. Chuck flew by me yelling, "Get out of the water." I floated into a log and

pulled myself onto it and out of the creek. On a big river that log could have trapped me underwater.

Around bushes and over rocks, I walked the IK down to Chuck who had retrieved my paddle. Handing it to me, he said, “Josh, listen carefully I want you to paddle like hell across the river to Dave and the raft, and you can’t fuck up.”

I felt cheated and poorly instructed. *Kayaking requires bursts of strong, hard paddling. Rocks must be avoided. Relax only when in a safe position.* With fast, hard strokes I glided over to the raft. I had learned my first kayaking lesson.

George, who had kayaked a few rivers, took the IK and I joined Nate in the raft. In this formation, we made it to Dagger Falls, which we portaged and camped above. We had made it through the most difficult part. We had come 14 miles, five on Marsh Creek, and nine on the Middle Fork. Nate suffered as our only casualty, nauseous from his cold swim and not in the mood for food.

Dave and Chuck discussed whether Dagger Falls rated five or six on the river rapid scale. Rapids scaled from one to six, with one being no rapid at all and six being impossible. Dave thought someone had run Dagger and survived, knocking it down to a five. Either way we weren’t going to do it.

Johnny Cash lulled in the background from the boom box of a cadre of young adults in the campground. They told us that they had repeatedly punctured and patched one of their two rafts in a harrowing, three-day journey from Marsh Creek.

After dinner I perched on a rock below Dagger Falls. Dave had seen a salmon, one that had made the journey from the Pacific Ocean, about 325 miles and four dams up the Columbia River, 190 miles and four more dams on the Snake River, another 190

miles on the Salmon River, and 100 miles up the Middle Fork Salmon. I wanted to see one jump up Dagger Falls – an unbelievable feat of nature. It looked impossible. The river divided into streams that cascaded over three successive granite walls winding around bare rock. But salmon evolved to perform miracles.

Salmon are anadromous – they hatch in freshwater, live as adults in the ocean, and return to freshwater to spawn. Their upriver migrations have earned them great fame. A female uses her tail to dig out a nest in a hard riverbed (or lakebed, as is often the case for sockeye salmon). She then lays her eggs, which her mate fertilizes with a cloud of sperm. Most adults die before their eggs hatch. Fingerlings – the size of your little finger – emerge from their eggs and cling to pebbles where they memorize the water chemistry of their particular stream or lake. They live in freshwater for nine months to two years. On their trip to the ocean their metabolisms transform to be ready for salt water. The river current carries these “smolts.” But today there are hundreds of miles of slack-water behind eight dams that Idaho salmon must negotiate – difficult because of increased predators and increased heat, and because without current direction is a mystery. In the ocean they travel enormous distances, as far as to Japan, and depths beyond radar detection. After roughly three or four years, they begin their return to the same high mountain lake or stream, choosing the correct turns up each stream to their birthplace.

Grizzly bears, birds, otters, and organisms at all levels of the food chain benefited from the multitude that salmon provided. Their bodies brought biomass and nutrients grown from the ocean. Animals that ate them spread this fertilizer out over the land. Thus the ocean enriched the mountain soil. Salmon have been a biological cornerstone of the

Pacific Northwest's mountains. In the early 1800's 10-16 million salmon returned up the Columbia River.

Today, the salmon runs bring about 1 million fish, of which 75 percent are hatchery bred. Five stocks of salmon – genus *Oncorhynchus* – once migrated up the Snake River to rivers in Idaho, Washington and Oregon. Sockeye spawned in lakes – such as Redfish Lake in the Sawtooth Mountains – while spring/summer chinook, fall chinook, coho, and steelhead (anadromous rainbow trout) spawned in streams and rivers. Overfishing in the Pacific Ocean and habitat loss in the river decreased the Columbia River salmon runs to 5 million per year by the 1960's. Four dams were constructed on the Columbia River in the early part of the century But it was the construction of the four dams on the lower Snake River – Ice Harbor 1962, Lower Monumental 1969, Little Goose 1970, and Lower Granite 1975 – that most precipitously decreased the Snake River salmon runs.

David James Duncan in My Story as Told by Water succinctly records their gloomy effect:

- 1986: all Idaho, Oregon, and Washington coho dependent on the Snake River migratory corridor, extinct
- 1990 through 1999: 20 sockeye, total, returned to the same vast system
- 1997: all surviving Snake system salmon and steelhead threatened or endangered
- 1998: 306 fall chinook returned to the system (down from 100,000 or more per run)
- 1999: Idaho spring/summer chinook, once the largest run of its kind in the world, down to 2,400 returning adults, leaving many key streams with no spawning for the first time in history
- 2017: system-wide extinction predicted

Hatcheries breed salmon from the eggs and sperm of healthy Pacific coast salmon runs and began on the Columbia River in the late 1800's to combat losses due to overfishing. They have failed to revive the Snake River salmon runs. Hatchery fish are

weak due to their inbred nature and foreign genes that are not adapted to local habitat particulars. For example, biologists introduced three million sockeye eggs from British Columbia into Redfish Lake in the Sawtooth Mountains for three consecutive years, sending millions of smolts toward the Pacific. But none returned. Idaho's mountain salmon have special adaptations to their environment. Somehow they "know" how to avoid getting frozen in iced over creeks, while introduced stock freeze solid when the ice forms. Somehow they "know" how to find cool spots in a deadly hot summer creek while foreign salmon die from the heat. Despite improved techniques that mix genes of resident salmon – conservation hatcheries – the wild Snake River salmon decline. If the wild fish die out, so will the strength of the salmon runs. Many say that hatcheries make the situation worse, because hatchery fish carry disease and mix their weak genes with wild fish.

The National Marine Fisheries Service (NMFS, pronounced "nymphs"; today they go by NOAA Fisheries) is the federal agency required to recover salmon under the Endangered Species Act. Because salmon spend much of their lives in the ocean, this marine agency is in charge rather than the U.S. Fish and Wildlife Service. Unfortunately, NMFS has not been the best of friends to the salmon. In 1993 NMFS released a biological opinion that said the Columbia/Snake hydro system "poses no jeopardy" to Snake River salmon recovery. However, Judge Malcolm Marsh concluded that NMFS's science was "arbitrary and capricious." As a result NMFS brought together state agencies, tribes, consultants and other interested parties to conduct a comprehensive study, which they called PATH. According to NMFS, the results of the PATH study would decide the direction of wild-salmon recovery.

PATH scientists found that breaching – removing the earthen portion of the four Lower Snake River dams – provided the only chance of recovery for wild Snake River salmon and steelhead; with breaching, the probability of recovery of Snake River spring/summer chinook was 80% and fall chinook was 100%, within 24 years; and with barging smolts to the ocean rather than breaching, the probability of recovery was less than 50%.

NMFS went back on their promise. Rather than follow PATH's conclusions, they pointed to other threats to salmon as reasons to not remove the dams. NMFS and the Army Corps of Engineers – responsible for managing the dams – released another document that drew attention away from the dams and PATH conclusions and implied breaching was not necessary. They summarized the factors affecting Snake River salmon and steelhead recovery with the 4 H's: Hydropower, Habitat, Hatcheries, and Harvest. A massive document presented four alternatives, two of which would breach the four dams; however, all alternatives supposedly recovered salmon. NMFS and the Corps sought public comment to choose the alternative and, in early 2000, held a dozen public meetings in the Pacific Northwest to take verbal testimony. My job then with Idaho Rivers United was to mobilize salmon and steelhead supporters to a hearing in Lewiston, Idaho.

The first thing Lewiston, Idaho, brings to my mind is Potlatch Pulp and Paper Mill – a visual and olfactory monstrosity that is also Lewiston's largest employer. Potlatch has a lot of sway over the town; they make a literal stink. In 1975 when Lower Granite Dam backed up the Snake River to Lewiston, making it an inland port, 500 miles and 740 vertical feet from the sea, Potlatch built a three-mile pipeline so that an increased

amount of waste could reach the confluence of the Snake and Clearwater Rivers. With an increased mixing zone, under the Clean Water Act, Potlatch could dump more pollution than it had previously done in the Clearwater River. If the lower Snake River dams are breached, that pipeline will be left in mid-air, dumping pollution for all to see – an eyesore and a public relations mess for Potlatch and the city of Lewiston. In addition, Potlatch benefits from the barging operation that, aided by federal and county subsidies, keeps shipping costs down. Given Potlatch and the port, it is no surprise that the Save Our Dams coalition hails from Lewiston.

Northwest grain shippers (80% of barge traffic) lobby powerfully to keep the subsidy and Idaho's two representatives and senators support them. However, this subsidy hurts taxpayers and salmon. And it does so without cause. Instead of barging, grain could be shipped, as it was before, via highway and railroad. Besides, most of the grain is brought from farms that are northwest of Lewiston. These farmers could just bring their grain the other direction – southwest to Pasco, Washington (where the Snake meets the Columbia River) – instead of southeast to Lewiston.

These four dams benefit a few and harm many. They provide no flood control as do other dams on the Columbia. Only Ice Harbor Dam, the first and lowest dam, provides irrigation for farms. Even this irrigation would be easy to replace by extending pipes down to the natural river. The most useful product of the lower four Snake River dams is electricity. Yet they produce only 3.5% of the region's hydropower. The four lower Columbia River dams produce much more electricity and have relatively healthy runs of salmon above them. The lower four Snake River dams are simply not strategic for the region. But the dam beneficiaries make a lot of noise. Most of them live in Lewiston.

Sensing a large crowd, NMFS moved the 2000 Lewiston hearing to a larger venue at a hotel in adjacent Clarkston, Washington.

At 7 a.m. I began the line for the 9 a.m. hearing. The line grew. I heard a disturbing statement insinuating blame on native people for the salmon's decline. It said natives should stop catching salmon – as if that would allow salmon to come back. Treaties guaranteed that there would be salmon in the river for native peoples to eat. The blame put on native fishing was again heard in testimony and in letters to the editor. This misdirected critique is more ridiculous when one considers that these treaties were forced upon natives, “trading” most of the land for the guarantee of salmon in the river. Now, the salmon – a way of life for native people – is on the brink of destruction. Nez Perce tribal members turned out in large numbers to remind the federal government of the religious significance of salmon as well as their nutritional importance to their people. Hearing the elegant speech of a colorfully dressed tribal elder, Horace Axel, gave me goose-bumps – so gracious and patient in the face of the disrespect, past and present.

River fishing guides also stood in line and spoke. They reminded us of the thriving economy that salmon once brought and has since been lost – an economy that could be restored. In 1999, the total economic impact of restored salmon and steelhead fisheries was estimated at \$172 million per year. This figure doesn't include the rafting and kayaking dollars that a free-flowing lower Snake River would bring in. Many Lewiston residents recalled the salmon runs of the 50's and 60's and how they had spoken then against dam construction on the lower Snake River. Opposition to this backwards, cold-war decision of the 1950's had included a regional majority, President Eisenhower, the Corps of Engineers, the region's 13 native tribes, the West Coast's

multi-billion-dollar fishing industry, and Oregon and Washington's departments of Fish and Game (list compiled by David James Duncan).

The twelve salmon recovery hearings around the Pacific Northwest demonstrated that an overwhelming majority supported breaching the lower four Snake River dams. However, Lewiston/Clarkston was neck and neck. At the evening hearing, I watched reporter Eric Barker tally testimony. The next morning his headline read, "Salmon Outscore Dams." Even at the hearings in Lewiston, a majority wanted the dams breached and felt that without this measure salmon were doomed. I felt proud to have been a part of bringing salmon supporters to Lewiston. Through workshops, phone calls, advertising, and a bus, I had rounded up about 100 brave souls.

But NMFS contradicted the will of the people as well as the clear conclusions of PATH scientists and almost every fisheries biologist including those from Idaho Fish and Game. NMFS chose an alternative that relied on more of the same failing methods: fish-friendly turbines, spilling water over dams, and barging.

An estimated 5-15% of salmon that go through fish-friendly turbines are killed by the force of current and pressure. With 8 dams to pass through, very few reach the ocean, so often the Corps try to spill the fish over the lip of a dam. When the river and its salmon are spilled over a dam, only 2% die (due to water getting super saturated with nitrogen). However, when water is spilled, electricity doesn't get generated. Often electricity is deemed more important than salmon, for example, during California's recent energy crisis.

Barging is the most common techno-fix. Smolts are sucked up into big fish tanks that are carried down the river on a barge or sometimes by truck. Most (98%) survive the

trip. However, barging seems to weaken them, because a very high number (40-60%) die soon after. NMFS's wait-and-see approach is leading the Snake River salmon closer to the extinction – wasting time that we do not have.

In 2001 the Idaho Fish and Game counted 366 redds, salmon spawning beds, from wild spring Chinook in Bear Valley Creek, Marsh Creek, Beaver Creek, and Cape Horn Creek, habitat that was upstream of Dagger Falls. That was a vast improvement from the 33 redds counted in 1999, all from Bear Valley Creek.

I watched for a spring Chinook to jump Dagger Falls but didn't see one. I found it sadly ironic that in the Salmon River, the longest river in the continental US without a dam, salmon was plagued by downstream dams. The abundant salmon that should characterize this River of No Return Wilderness were sorely missing.

I watched a river otter appear from behind a curtain of water with a fish in its mouth, scamper across the rocks, and dive into the water below. I imagined these falls once full of gyrating salmon – leaping out of the water to meet the cascading current into which they swam with powerful strokes.

On our second day, we traveled 14 miles from Dagger Falls to Sheepeater Hot Springs. Chuck and Dave insisted that George take the IK for the full day. The Middle Fork had many challenging rapids in this section including one that nearly tipped George. The day rolled by like a white water dream. The nose of the boat crashed into waves and splashed my face with cold water, again and again. Alan lost a weighted oar that sank to the bottom. We used our only spare. (The next day a friendly river runner lent us one of his four spare oars.)

After some tricky rapids, the river spread out, only a few feet deep. Chuck paddled slowly up stream as Al, Nate and I floated toward him. Chuck looked at ease in his red kayak, an extension of his body. At 260 lbs, Chuck came prepared for cold water – carrying extra insulation. Behind him the river narrowed and curved to the left as it hit a ridge dotted with trees. The massive ridge was hard to take-in with one glance. It deserved to be studied, starting from the red ponderosa pines lining the river banks, to the bare rock slides and green grass slopes with trees dotting it, to the forest that grows on top.

Chuck gracefully came within inches of our boat and addressed me. “What do you think? . This is the Big Wild, Josh.”

Unable to find a short answer, I saved my words for later.

May 12 – Sheepsteater Hot Springs, Middle Fork Salmon River, Idaho – I love the look of the land that we are floating through. The mountains rise steeply on both sides sometimes with the greens of lodgepole pine, Engelmann spruce, and Douglas-fir. In other places avalanches or rock slides have left bear rock or scree slopes. It looks too steep in some places for the trees to grow. The ridgelines forming the rolling horizon call to me. The mystery of what is on the other side intrigues me. The colors are so rich: the blue sky, white clouds, green forests, brown/tan steep bear slopes, and dark blue river. The land is spectacular... The hills rise to what looks like 1000 feet in places. They call to me: Come climb me. Scramble up my sides and see what's on the top. Pick your way between my boulders being careful not to set one loose. Steady yourself with the Douglas-fir and lodgepole that are like posts of a steep railing on my slopes. Watch out for the loose dark grey/black cliff rock.

Frank Church served as an Idaho Senator from 1957 to 1981. In 1980 the Central Idaho Wilderness Act designated the River of No Return Wilderness, the largest wilderness in the lower 48 states. He and others responsible for its passage took the largest step yet for protecting the habitat of the Big Wild. Even though airplanes land at several wilderness airstrips and cattle graze in several private in-holdings, I felt deeply indebted to these individuals. What might have been done to the land and its creatures if

they had not been protected? Shortly after Frank Church died (1984), the River of No Return Wilderness received his name.

After a soak in Sheepeater Hot Springs, named after the Sheepeater Indians (mountain Shoshone), George taught me some stars: follow the handle of the big dipper to Arcturus, a bright orange star; continue on that arc to Spica, the brightest star in Virgo. We stood barefoot on stones while the river rushed to the left and stars twinkled above the outline of trees on top of the steep ridge. A light breeze brought the scent of blossoming trees and flowers. On the hillside, avalanche-torn swaths dimly glowed between dark forests.

During the third day's 24 miles from Sheepeater Hot Springs to Upper Jack Ass Flats, the landscape changed from the very steep sloping canyon to a wider canyon with a more gradual slope. Also, the river dropped in elevation to the point where ponderosa pine became the dominant tree.

At Pistol Creek Ranch a backhoe – brought in via the airstrip – demolished the remains of structures burnt in last year's fires (2000). Chimneys stood where the cabins used to be – our first sight of private land that has been “grandfathered” into this Wilderness. Before Pistol Creek Rapids we stopped to assess its danger. Chuck imparted a bit of sage advice. He told us that his kayaking partners ruthlessly mocked each other's mistakes. However he emphasized that the teasing had a practical purpose: “It keeps you safe.”

Dave bounced smoothly through Pistol Creek Rapids. Nate followed and flipped in the colliding water but managed to “self-rescue” by climbing back into the IK. The

current bumped Barney into the cliff face from which Al spun us around and safely through the turbulence. I turned to watch the vortex of swirling water flip Chuck's kayak, followed by a motionless moment of his red underside. Then Chuck's head came popping back up like a weeble wobble, his face emanating a macho, unimpressed look. Bravado doesn't suit me. Nevertheless, while in the IK I felt it might keep me safe.

At Indian Creek we checked in with the Forest Service. Ranger Rick – that was really his name – gave us a welcome/clean camping talk. A Western Shoshone native, employed by the Forest Service, greeted us but said little. I felt so weird – like an alien in all my river gear. I felt like apologizing. It was not simply white-man's guilt. I felt the irony of wearing high-tech clothing and equipment to see the wilderness and the irony of the large numbers on this wild river for a piece of solitude. Rather than dwell on the irony, I turned my attention to eating – trail mix, almond butter, and dried bananas, pears, and plums. Soon I would get a second go at kayaking, and I wanted plenty of energy

In the afternoon, I paddled several miles of trouble-free river, building confidence. I learned to “eddy out.” An eddy is where a rock blocks the river flow, causing the current to flow upstream behind the rock. I practiced eddying out. I felt the tug of the water as I changed from downstream to upstream current. I leaned into the turn and pivoted around the paddle to face upstream. I reached the pocket behind a rock and paddled to keep my place, delighting in my stationary position as the oncoming waters sped by me. In and out of eddies, traversing the river side to side, I felt the joy and determination of a new student.

At Marble, my first rapid – a class three – the Middle Fork took a dramatic reversed-S-shaped bend. In other words, it bent first to the right, then the left. At the

center of the reversed-S sat a hole. A hole is where upriver water plunges so fast and deep that water from downriver and both sides rush in to fill the vacuum. Holes can hold (trap) rafts and kayaks. They have been known to trap people at the bottom of a river. The hole of Marble Rapids spanned $\frac{3}{4}$ of the river.

Dave and Chuck demonstrated the route and eddied out. On the approach I paddled to stay on the right, nearly getting stuck on its shallow stones. As I neared the hole, Chuck yelled, "Row! Row! Row!" and I emitted a sustained frenzy of strokes. Near exhaustion, I slipped by the monster; Chuck stopped yelling; I slowed my rowing. With horror, I felt myself being sucked toward the vortex. I gave one more blast of paddling and broke free from its grasp to flow downstream. Dave commented, "Nice rowing. You just saved your ass."

Directly before camping, I paddled swiftly over a four foot drop and then finished Jack Ass Rapids by following Dave between a wide rolling hole on the left and a rock on the right. A soft rain began as we unloaded the raft and set up camp.

The following day brought a change in topography from hills to high steep ridges. The geological features now included a pink granitic layer of the Atlanta batholith. In the afternoon, an uneventful river afforded more eddy practice. I increased my confidence in preparation for more white water tomorrow.

The 15 miles of river brought us to Hospital Bar – a flat on the inside of a river bend with big ponderosa pines (some charred at their base) and colorful flowers: lupine, arrowleaf balsamroot, pearhip rose, and several more I couldn't identify. Across from the bar the green slope rose drastically to a high ridge where several trees looked as if they would fall over momentarily. A merganser flew downriver.

On the fifth day, Nathan eased his IK over Tappan Falls, a big, washed-out, class-four rapid where the river dropped about 15 feet. I took over after lunch. Swifts darted overhead in the spring sun. Magpies also flew by. High standing waves challenged my balance. I reinforced my eddy turn, “reading” of the water, and my river traverse. We passed the Flying B Ranch and approached Haystack, a class three rapid.

The river became a maze of big rocks. I followed Chuck and Dave’s route on river-right around a hole. Beyond the hole, I looked up and found them far to my left making for a boulder that looked impossible to reach. With no time to lose, I ignored curiosity (not looking downriver), turned and dug in to my fastest traverse. I made it in time to turn on the rock’s pillow of water. Elated and exhausted, I could not hold back a huge smile as I rolled down the remaining waves of Haystack. I was getting the hang of this. I felt a part of the team.

At Last Chance campsite, I hiked up the steep canyon slope, grabbing onto shrubs and grass and intently placing my boots as I switched back through ponderosa and a field of yellow flowers: arrowleaf balsamroot. I climbed to a saddle. Tired and euphoric, I ate lots of trail mix. Further ahead, a ponderosa pine grove felt full of spirits. Burned wood and black rocks told of two previous campfires. In front sat chairs, rudimentary, cut from round logs.

I climbed up loose soil, rock, and short cliffs. I passed many curly-leaf mountain mahogany bushes growing from the sides of cliffs. Their branches, succulent green leaves, and trunk all twist to the height of a few feet. I stepped carefully, mindful of the plants, light green sage, and crumbly soil. Upon the ridgeline I walked along the ends of massive angular pink granite slabs that poked out from a thin layer of soil. Silhouetted

against twilight, a bird perched on the pink plutonic granite. I held in view the canyons of Big Creek to the west, then the Middle Fork Salmon to the south, and then north towards its meeting with the Main Salmon River – no lights, pavement, or motors.

Wilderness and unprotected wildlands give us the opportunity to get an idea of how the natural world would be without technology and civilization. Because ecosystems constantly change due to natural forces – fire, flood, erosion, glaciers – the vegetation of wilderness changes. In addition, Native Americans have played an active role in the landscape for thousands of years, setting fires to select for certain vegetation. Still wilderness provides freedom from technology. Only 2.3% of the land mass of the lower 48 states is protected as wilderness. Scarcity gives wildlands value. Fewer and fewer vistas are free from lights, pavement, and motors.

“These wild things, I admit,” writes Aldo Leopold in the forward to his 1949 Sand County Almanac, “had little value until mechanization assured us of a good breakfast, and until science disclosed the drama of where they come from and how they live. The whole conflict thus boils down to a question of degree. We of the minority see a law of diminishing returns in progress; our opponents do not.”

Scarcity also applies to creatures that once lived here – even in the largest wilderness in the lower 48 states. The large salmon runs of the Salmon River are a thing of the past (and hopefully, the future). Grizzly bears are no longer here (but may also return). In my senior year at Colgate University I took “Ecology, Ethics and Wilderness” to get at a burning question that I had: what should I do about the planetary environmental crises? My professor posed questions that challenged my concept of self.

Are we exclusively human beings? Do our roots start with human history or are they deeper?

When we lose a species, we are losing a companion on this earth that can never be replaced – one of God’s creations, one of our co-evolution buddies. We, humans, are causing an extinction period of geological proportions – the sixth great extinction period. What I hope for is the least damage possible. As such, the biotic community can recover most easily “The combined evidence of history and ecology seems to support one general deduction: the less violent the manmade changes, the greater the probability of successful readjustment in the [biotic] pyramid,” wrote Aldo Leopold. Preserving biodiversity, protecting habitat, and living lightly on the land will help life recover from our damage. Perhaps we will learn our limits. Wild places are needed to teach us. We must have places left to feel our ancient roots, and connect to all life around us.

In preparation for writing the Age of Missing Information, Bill McKibben taped a whole day of TV for all 93 channels in Fairfax, Virginia (93 days-worth of TV) and watched it. He spent 24 hours atop an Adirondack mountain and compared the lessons from each, concluding that we live in an age of missing information, as opposed to the Information Age. We are surrounded by unimportant information. We miss the important lessons once learned from being in natural areas. For some people it is hard to spend time in natural areas, because there are not many of them around.

While in “Ecology, Ethics and Wilderness,” I searched for greater understanding of my connection to the natural world. I camped alone in a forest opening at the top of Colgate’s hill. Confidence and a deeper appreciation for natural places arose in me. I felt a peace of mind and joy.

At ten years old, my Grandpa Robert Burnim died. I cried myself to sleep many nights for what seemed like a year. Death destabilized my young world and I could not accept my own mortality. I learned to cope. Later I found a deeper resolution from a piece of missing information.

Now, looking out on Big Creek and Middle Fork Salmon River, I saw life and beauty that will last forever (relatively). I imagined an eternity, compared to my life span – ice ages, continents moving, water eroding mountains and life adapting. While staring out at forests, mountains, free-flowing rivers, stars and ocean, I feel that all that is important and true is before me and that I've lived many lifetimes. In the life of these mountains and rivers I see myself. To know that life will go on relatively forever is for me to feel immortal. This, I think, is a piece of missing information and is reflected in Leopold's conclusions:

Ability to see the cultural value of wilderness boils down, in the last analysis, to a question of intellectual humility. The shallow-minded modern who has lost his rootage in the land assumes that he has already discovered what is important; it is such who prate of empires, political or economic, that will last a thousand years.

Wilderness and natural areas are of utmost importance to our society, because without them we forget where we came from. They give us a glimpse of what has come before our civilization and what will come after. Wilderness may yet hold more truth than our civilization.

After watching the sun drop behind Big Creek Canyon, I thought of the 1500 feet I had to descend without a flashlight. As I stepped down the ridge of pink angled rock, I watched the reds, oranges, yellows, purples, and pinks deepen. I said a prayer for my family, all peoples, all species, and wildlands. And I gave thanks for my journey

Still in a wild state, every ridge that I could see was in the River of No Return Wilderness, and it felt like home to me. As I walked I sang Jewish songs. My life experiences ran through me and blended, filling me with love, clarity and a depth of beauty

Further reading:

Duncan, David James. My Story as Told by Water. San Francisco: Sierra Club Books, 2001

Chapter 3: The Salmon River May 20-26 (45 miles)

I returned to our campsite at Last Chance on the edge of Impassable Canyon. A mere 30 feet of flat ground lay between the steep hillside and the Middle Fork Salmon River. A campfire held the gaze of Dave, Al, George, Nathan, and Chuck, each with mugs of Grolch beer.

“Interesting!” Chuck exclaimed with an unusual, emphatic tone.

George laughed and protested. “No, really, we saw mountain goats.”

I asked what was going on and what Chuck meant by his tone. Chuck launched into an explanation of the alternative meanings of “interesting,” “huh,” and “really.” He explained that they are appropriate responses, each with slightly different meanings, for when someone is telling you something that you don’t believe or think they’ve mistaken. He included examples for each. George insisted a couple more times that he’d seen goats, affording Chuck that opportunity to reply, “huh,” and “really.” He had us all laughing. *What were they then if they weren’t goats?* I wanted Chuck to get to the point, but he was having too much fun. *Chuck must think they were bighorn sheep.*

The Middle Fork is known as the Impassable Canyon from Big Creek to its junction with the Main Salmon. There is nowhere to stop, nearly continuous whitewater, and cliff-like high canyon walls. The next day, Nate braved the rough water of the Impassable Canyon in the inflatable kayak. He capsized twice before Chuck insisted that George take over. The rapids and dramatic canyon walls provided a fitting finale to the Middle Fork float.

As we approached the confluence with the Main Salmon River that afternoon, I repeatedly turned and looked long and longingly down the Middle Fork River corridor with its steep, green hillsides and thought “truly purple mountains majesty ” At the confluence the country looked different. The dirt road detracted from the wilderness character, the river was muddier, and the hills were lower. Already I felt nostalgic about the Middle Fork.

We rode the Salmon west for another couple miles to Corn Creek, a campground and the end of the forest road. We pulled our boats out on the north shore of the Salmon River at Corn Creek. Dawn Serra greeted us. As the publicity coordinator, Dawn played an essential role. She contacted newspaper, radio, and TV reporters and arranged slide presentations so that the public would learn about Y2Y The Wood River Journal (Ketchum, Idaho) and Lewiston Morning Tribune had already written articles in March and April. Tomorrow (Friday) morning, we would drive to Salmon and Challis for interviews with their town newspapers, followed by a slide presentation at Wild Idaho at Redfish Lake Lodge. On Sunday, Dawn would bring me back here where Chuck, Nathan, George and I would continue down the Salmon River.

We all helped carry the boats and gear up to a campsite. Then Chuck came to inspect the goods Dawn had brought in the back of her boyfriend’s red Toyota Tacoma pickup truck. Several coolers of beer and food, mostly meat, sat in the truck bed. Chuck had prepared the shopping list and was pleased. I realized again that I was the oddball on both the Middle Fork and Main Salmon floats. I brought my own instant veggie dinners. They ate pork sausage, sides of ham, and lamb chops, and lettuce and tomatoes were their only vegetables. That night Dawn and I ate some noodles and lentil couscous, while the

others consumed pork and got drunk on beer and liquor. After all, this was our last night together. Dave and Al had engineering jobs that called them back to California. They had been very generous with their raft and were letting us continue on with it.

In the early morning Dawn and I bumped along the dirt road between Corn Creek and North Fork. I was physically overtired and wanted to shower and lay flat on a bed. But this was a great moment for me. I was reunited with the media and logistical planning tasks of my adventure. Dawn had done an excellent job designing the pages of my Web site (using Chuck's pictures). At a Y2Y media training workshop (three weeks before), we had planned the first half of the media calls and visits, drafted a media packet, and practiced interviews. Now I read the first press release and finalized packet, and talked with Dawn about what to expect from my upcoming interviews.

We drove beside the Salmon River through hot, dry country. Ranches and farms filled the flat land within the narrow, curvy Salmon River valley. Highway 93 brought us to the towns of Salmon and then Challis, where I was wary of how my message would go over.

In the 1990s, hearings in Salmon and Challis drew the strongest opposition to the reintroduction of wolves and grizzly bears to the central Idaho wilderness. The State of Idaho and towns like Salmon and Challis often protest federal authority. Federal land is 64% of Idaho's land base. Some Idahoans feel unfairly burdened by the national will to recover wolves, grizzly bears, and other listed species. A clip from Candace Burns' article covering an anti-grizzly bear rally in Salmon, Idaho, illustrates this outlook:

"I'm sick of environmentalist yuppies with more calluses on their hind ends than on their hands," said Rep. Lenore Barrett, R-Challis. "We could end this farce by exercising our sovereign rights, but we can only save the sovereign rights we're willing to fight for." It was easy for the crowd to applaud. Endangered wolves reintroduced into the Frank Church Wilderness in 1995 have killed

livestock on private land and public range. Backcountry outfitters believe wolves have decimated elk calf crops. Resource extraction industries have been hog-tied by Endangered Species regulations for wolves and salmon. (Burns, Candace. Sept 30, 1999. "Salmon area says no to reintroducing grizzly bears." *Idaho Falls Post Register* Pg. A1.)

My message of connecting protected areas for wildlife (especially wolves and grizzly bears) with movement corridors might cause some alarm. After all, many local residents resist the existence of wolves and grizzly bears in the wilderness itself. I find it ironic that the wildlands around towns such as Salmon and Challis provide the greatest hope for wildlife, but its residents contain the greatest concentration of opinion against wolves and bears. Nevertheless, public opinion polls show that even Idahoans strongly support the recovery of wolves and grizzly bears. I felt certain that many Salmon and Challis residents would like to see the grizzly recovered in central Idaho.

In Salmon, the *Recorder Herald* had a substitute reporter who asked only a few questions. Her article bore a striking resemblance to our press release. In Challis, we met Anna Means at the *Challis Messenger's* office on Main Street. An elderly rancher talked with a reporter about his efforts to do something about the wolves.

Main Street looked like a town from an old western movie. Outside the *Messenger*, Anna noted the cross walk painted at an angle between two of the downtown bars. She said it had been painted one night as a prank, but had stayed. Dawn, Anna and I went to a bar/restaurant across the street where we met a friend of Anna's. We sat around a square table. Over our meal, I went over the basic details of the hike and its vision of wildlife connecting corridors. Then Anna asked me some tough questions.

"Are you going to shed any light on the controversy between recreationists who have the money to play and the guy who has to make a living off the land?" I thought

about this for a few moments, wishing I'd had time to practice with some media question and answer sessions. Instead, I winged it. In her article, Anna wrote:

Burnim said he hopes to extend his audience beyond the conservation community and depersonalize the gap between different groups with different ideologies. He said his message is not about individuals "with our attitudes and values," but about "common ground." He said the recreationists and resource users "have the love of the outdoors in common... This hike is celebrating what we've got – beautiful, wild country. We want to make sure our children can enjoy it." (Means, Anna. Thursday, May 31, 2001. *Challis Messenger*, "Man to trek from Sawtooths to Selkirks," Pg .16.)

Rather than talking about protecting wolf and grizzly bear habitat, I decided to appeal to a common love for the land with the hope that people would link that to the wildlife that make up the living landscape. After Challis, we drove Highway 75 up the Salmon River past Stanley to Redfish Lake where the Idaho Conservation League hosted Wild Idaho.

I was eager to see Katie Deuel of the Yellowstone to Yukon Conservation Initiative (Y2Y). Her excitement about my hike, her relaxed nature, humble intelligence, and beautiful smile made her really fun to be around. Soon we sat on the porch of my assigned cabin, lining up slides and writing our speeches for that night. Katie presented Y2Y, and I described the region of my hike and recounted breaking my snowshoes in the sugar snow of the Sawtooths and kayaking Marble and Haystack Rapids on the Middle Fork of the Salmon.

Saturday's speakers included Gloria Flora, famous for sticking to her principles despite high levels of pressure. As Supervisor of the Lewis and Clark National Forest, she chose a future for Montana's Rocky Mountain Front free from oil and gas leasing. In 1995 in Elko, Nevada, the one and a half mile South Canyon Road was washed out by a flood, and the Forest Service decided rebuilding the road would endanger the bull trout in

the Jarbidge River. The controversy around the road's closure grew. The Shovel Brigade used anti-federal sentiment to catapult the South Canyon Road into a symbol of government tyranny. In November 1999, Gloria Flora resigned her position as the supervisor of the Humboldt-Toiyabe National Forest to shine a spotlight on the hostility facing public employees. As she spoke at Wild Idaho, her expertise and passion produced a moving presentation that brought tears to my eyes.

The high point of the weekend was meeting Jerry Dixon. In the spring, Jerry had learned of my hike from the Wild Idaho events program. He called me up, and we arranged for him to join me on leg 8 along the Bitterroot Mountains to Interstate 90. In the afternoon, we walked beside Redfish Lake. An accomplished mountaineer, Jerry showed immense enthusiasm for my hike. Stories flowed from his decades of exploring wild country. He had recently traversed the Alaska Range to summit Denali with the first team to take that route this century. In his twenties during the 1970s, Jerry had been a smokejumper for six years and did long treks across Idaho to promote Wilderness designation. February 1979, with Ron Watters and seven friends, he had skied from Grangeville to Dixie completing the first ski traverse of the Gospel Hump Wilderness. With Erik Ryback in the spring 1975, he crossed the Salmon River Mountains, known as the Idaho Primitive Area, from McCall to Stanley during high water. In April 1980, he lobbied in Washington, D.C., for the River of No Return Wilderness.

In spring 1989, he was invited to a 25th anniversary celebration of the Wilderness Act in Idaho. At the time he lived at Shungnak in the NW Arctic, teaching and mushing his dog team into the Brooks Range. Instead of attending, he used his travel costs to start an endowment to bring bright young students to Wild Idaho that year. In 1992 he made it

an annual tradition. This fund had brought me to Wild Idaho in 1997. He named the scholarship after Nelle Tobias, a pioneer conservationist with whom he worked for the River of No Return Wilderness throughout the 1970's. On the beach Jerry told me, "Nelle Tobias is 97 this year. She was relentless and a wonderful role model. We stay in touch to this day."

After a late night working on a report for my first Y2Y grant, I arose at 5 a.m. on only four hours sleep to finish packing my food. I divided food, gear, books and papers into piles of what to pack, what to send with Dawn, and what to toss. We embarked at 6 a.m. for Corn Creek. I had told Chuck, George, and Nate that we'd be back by noon and wanted to honor my promise.

In the car I wore my black gloves, because I had sun bumps. During the 11-mile march along Highway 21, my hands had gripped my ski poles, exposing them to the blistering sun for nearly five hours. Small red bumps had appeared the next day, and despite consistent application of burn cream and sun block, they persisted. Katie had seen several such cases of sun bumps during her time as a backpacking instructor with NOLS (National Outdoor Leadership School) and found that the only way to cure them is to wear gloves all day. So I did.

We drove down the Salmon River through Stanley and Challis. We picked up extra oars and paddles outside of Salmon and found the only grocery store open in town on a Sunday.

It had about three aisles and a check-out counter like the ones you see in gas stations. There were two registers and cigarette packs on the wall behind. We were nearly the only ones in the store. Dawn pulled out Chuck's list, showed it to me and asked, "Do

we really have to get all this meat for Chuck? It's so gross! I don't even know what some of the stuff is. And I'm not sure what kinds to get."

In my sleep-deprived euphoria, I replied, "Well, I don't like buying it very much either, but Chuck is helping me out a lot." I pictured Chuck's vision, which he often related, where the great pig-god came to him and said, "Eat of my flesh, my lips, my anus, and assorted body parts, so that you shall become strong and shall be able to carry Josh down the mighty river." I continued, "I think whatever kinds you get are O.K. But do you want me to shop for it?"

"No, I'll do it."

She took a deep breath and marched off with basket in hand to get it over with. We met back at the check-out counter where a woman rang up our items. Dawn handed me the list and said, "I never want to see this again." I held back a smile. I feared that Dawn might quit her job.

For a while after Dawn's stern warning, I didn't say anything. Instead, as we drove the long, winding dirt road that follows the Salmon River out from North Fork to Corn Creek, I thought about how animal rights activists, environmentalists and hunters overlap out West.

The animal rights movement is stronger on the East and West Coasts. In the Rocky Mountain States, where hunting is very popular, environmentalists often find it more politically advantageous to align themselves with hunters, and actually many environmentalists are hunters themselves. For me, there is a clear distinction between eating meat from a wild population of ungulates or fish that is being sustainably managed through licenses by a state Fish and Game department and eating meat from factory farm

animals that are pumped with hormones and live painful horrible lives that pollute our environment with chemicals and manure, and eat up land and water resources. What Chuck, Nate and George were eating – the items we had just bought – definitely fell into the latter category, but at least it wasn't veal. I tried not to think about the small cages and polluted water, and rationalized that they'd be eating it anyway

At half past noon, we parked at the Corn Creek campsite of Chuck, George and Nathan – the meat eaters. I smiled when I saw them and said goodbye to the world of grants, presentations, phones, cars, and sound bites. I embraced the neutral world of the river and the company of these three jokers. Chuck expressed surprise at our nearly prompt arrival and at the thorough procurement of his list. He confessed, "I put a little extra on the list, because I thought you would skimp a bit."

Eager to put this part of her job behind her, Dawn hugged me and drove off. As the red Tacoma disappeared around a corner, I had that familiar strong feeling of unease of not having a car. Now the raft was our transportation down the river to my next re-supply of food.

We brought our waterproof bags down to the riverside. Nate and I handed them to George, who lashed gear into the boat. I relaxed into the front end of Barney, Nathan shoved us off, and George stroked back into the current of the Main Salmon River. We accelerated away from the sandy beach. Chuck led the way in his red kayak. My lack of sleep heightened the raw sensation of water splashing on my face. George and Nathan imitated the accent of a ranger who had come up to question them during their two days at the campground. She had warned about rattlesnakes but said that snakes were good

because they ate the rockchucks, also known as yellow-bellied marmots. This large rodent builds its burrow out of large rocks.

Chuck signaled that we were approaching a wave train. He told George to go straight over lest we get stuck in eddies on each side or get tipped at the edges of the waves. George took us right down the middle in a roller coaster ride of ten-foot standing waves. Nate and I perched at the top of the boat, gripped our paddles, and pulled us to the top of each wave.

Between wave trains, I relaxed against Barney's pink inflated vinyl fabric exterior, and watched the mountains to the south and north drift by, less dramatic and impressive than the Middle Fork's ridges. Besides the sparse tree cover and burnt areas, the mountainside had a short shrub or grass vegetation layer, though steep areas left grey Precambrian metamorphic rock exposed. The air smelled hot and dry like it had in Salmon and Challis. Over the next couple days the climate would grow wetter as we floated west to the first mountains that rain clouds meet after going over the desert of eastern Oregon and Washington. Chuck silently drifted by a cougar that lay in the sun by the shore, its long, tan, smooth body stretched out along the bank. Then we landed at Lantz Bar.

Several decades before, Lantz had cleared a field for crops and planted an orchard. It had since gone wild. We carried our waterproof bags and coolers up to a grassy spot where the vegetation met the river rocks. It was a chore to move in the heat. I dragged my feet. My brain was clouded and I felt the familiar depression caused by lack of sleep and being disappointed in myself.

I had not been able to write my Web site entries or get up early to take wildlife pictures. The physical task of hiking and camping consumed more energy than I had expected, and completing the mental tasks of the hike gave me the most trouble. For example, I hadn't made the time to call national news reporters to assist Dawn in catching their attention.

While preparing for our dinner, we discovered that, though Chuck had told me to plan for six days of traveling on the Main Salmon, it would only take three. They would drop me off Wednesday morning.

"I didn't realize Whitewater Ranch was so far east," Chuck said.

Though initially upsetting, this change of plans excited me. Now I would have some time alone. I could practice hiking without a pack to get in shape to avoid the trials of the Sawtooths.

In my tired, critical state, I needed space to concentrate on the simple task of cooking dinner. But I didn't get it. Chuck had to philosophize about something. Chuck's demeanor reminded me of my Dad – both aggressive powerful men with the ability to captivate an audience with their energy and conversation.

Out of the blue, he said, "Josh, did you know that I am your Bodhisattva."

I shook my head and frowned.

"Josh, I've come back from Nirvana to help you."

"Nirvana? Are you saying that you have reached enlightenment?"

"Yes, I went up to heaven and I was before the big elephant. I said, 'Your majesty, I know that I've lived a good life and deserve to stay in Nirvana, but I have to go back to earth to help poor souls like Josh get across the Salmon River Mountains.'"

I parted the clouds in my foggy head. “Wait, what? ... What religion are you talking about? What is a Bodhisattva?”

“You know the big elephant that has many penises – Hindu, I think. I told the elephant that I wanted to forgo Nirvana, like good Bodhisattva’s do, and I came back to help you.”

In my hot, tired state of delirium, I could not tell whether this was in jest or if Chuck really believed it. But it sounded too much like the latter.

“Chuck, I agree that you are a mentor of mine. I appreciate what you’ve taught me about activism, photography, kayaking, and that you are getting me through the largest wilderness in the lower 48 during May, when there’s lots of snow still in the mountains. But I don’t think you’ve reached enlightenment and you are not my Bodhisattva.”

George and Nathan were silent, but I detected suppressed smiles.

I seemed to have upset Chuck, which surprised me. I grew a bit worried when Chuck continued to mention the Bodhisattva thing.

Ten minutes later, while skillfully frying a piece of pork, he said, “Josh, when you’re tired of lugging that heavy pack of yours, and the straps are digging into your flesh, and you are bored with all of your over-serious companions like Gary and Bethanie, you will think back to when you were floating the Salmon with me and realize that I am your Bodhisattva.”

There wasn’t much to say, except perhaps, “Interesting!”

I turned my focus back to cooking. I burned my organic cornmeal biscuits while trying to fry them in olive oil and ended up eating an oily mess. After this, I was simply

too tired to cook the rest of my meal and ate some of their lettuce and tomatoes. I labored over cleaning my pan at dusk, and then felt tremendously relieved when all was done, and I was ready for my sleeping bag.

Standing by my tent in the field, I looked up at the clear night full of stars. George came up and shared the beautiful moment with me, teaching me some more stars: Summer Triangle – Lyra with its bright star Vega; Leo with its bright star Regulus; and the twins. I pointed out Arcturus and Spica. We said goodnight, and I savored being in this feral field in the wilderness, in my own space. It had been a long day I climbed into my tent and sleeping bag, jotted a few paragraphs in my journal, and fell asleep.

In the morning I filtered water from a two-foot wide stream that was shaded by black cottonwoods, and then relaxed, listening to the creek flow and watching the dynamic complex paths the water took around the rocks, each one unique. We were in no rush, which I really enjoyed. It was after 11:00 when we finally shoved off.

We ate lunch at a sandy beach in the shade where black and yellow butterflies congregated on geese poop, sticking their proboscises inside to extract nutrients and water. On this sunny, clear day, we took advantage of the good lighting for photography. Chuck was out with his large-format camera during many stops. I used my camera too, testing my artistic abilities to capture the story and the landscape.

In late afternoon, we passed the steaming rocks of Hot Fudge Hot Springs on our left, followed the river round the left bend, and landed on a sandy beach with good camping spots. George, Chuck, and Nate took a trail to the hot spring, while I set up my tent. Later I followed the trail through a forest of burnt trees. Bright green grass and

shrubs indicated that the fire occurred within the last five years. Near the hot spring, I passed the others on their way back, and George handed me a five-gallon bucket and a bar of soap.

The steaming water came out of the side of the slope and poured over the jagged rocks with clumps and strands of the algae – dark green/blue and brick red stuff – and mixed with the river. I took off my clothes and sat watching the steaming rocks, the river, and the darkening sky. I filled the bucket up with near boiling water, and walked up the trail a good distance from the river. There, I dug a small hole for the soapy water to go into, soaped up, and washed off in the cool evening air.

I climbed down the rocks, sharp in places, to the mixing zone that was a little harbor from the fast, strong river current. I slowly entered the water, being careful not to get burned or frozen. Far from a perfect mixing zone, the temperature often got dangerously hot before a wave of cold water would rush in, slightly shocking me. My sleep deprivation heightened the ecstasy of temperatures and my joy with the wildness of my surroundings.

Refreshed, I walked back to camp, boiled water for instant southwestern couscous, ate the yummy dinner, and had a beer with the fellas. Chuck was Nathan's advisor at Washington State University. Nathan recalled their first meeting. Chuck was in a rush to get back to saving the forest. He had told Nathan which classes to take, signed his blank form, and said, "Is that it?"

Chuck said that being a leader in the engineering field was difficult. He had to keep coming up with new experiments and grants to stay on the cutting edge. I got the

idea that he is a brilliant researcher and an animated and clear professor. After I had chatted for a respectable time, I said good night, looking forward to catching up on sleep.

Standing by my tent, I looked at the Salmon River roaring 30 feet away, and at the night sky, lit up with stars and the after glow of the sun. Halfway in my bag, I listened to the river and wrote in my journal, attempting to get in touch with my unsettled feeling. I spread out the north half of the Frank Church—River of No Return Wilderness map on the tent floor. I estimated mileages and elevation gains, and planned day hikes for my extra three days.

The Salmon River had grown wide and its wave size often reminded me of the ocean. Chuck described for us the toughest rapid of our Main Salmon journey Big Mallard Rapids, a class four, forced the right half of the Salmon to join the left half. A cliff face bordered the left side while the shoreline corralled the river from the right. At the base of the rapid a huge bolder divided the waters into two narrow torrents. The left torrent barely fit a raft. The right one could only be reached by battling across the left moving river. Behind the massive bolder sat a hole large enough to trap raft boats. To make matters worse, several holes and rocks lay scattered throughout the narrowing river. The high water of May created a different Big Mallard Rapids, more powerful and unpredictable. This would be George's first time rowing a class four rapid. Chuck led the way

We approached "the Duck," as we were calling Big Mallard Rapids, from left of center. Chuck abruptly turned right and emphatically signaled for us to also move to the center of the river. George turned the boat sideways and Nathan and I helped George

follow Chuck. We narrowly evaded a massive hole created by a rock that would normally be above water. A pillow of water had provided a blind before the river dropped 10 feet into the hole. Our boat dropped into roller-coaster waves and we looked left into this monster, a 20-foot vortex sucking everything to its center, and, in unison, exclaimed “holy shit.” We coasted to the left and rolled through the remainder of the rapid with ease, including the boulder in the squeeze at the bottom.

We passed Whitewater Ranch and camped below Campbell’s Ferry foot bridge for our last night together. They all had colds, especially Chuck and George. Perhaps it was their diet? Directly after dinner, I laid out my rain-fly and sleeping bag right on the beach and climbed in. We all slept outside, under clear skies. A merganser flew upstream, then down, and then back up, swinging around the river’s bend like a racecar. I felt the river waves rocking in my blood vessels as I fell asleep.

In the morning I rose early and organized my stuff. I tried to get rid of some weight. But my pack still felt damned heavy. Thanks to Chuck, Dave, Al, George and Nate, I had made it safely across the Salmon River in May. I had seen the river grow from the small tributaries of Marsh Creek in the Sawtooths to a raging river.

Not twenty minutes had passed since my companions left. I crossed the Salmon on the foot-bridge and walked through the vacant old homestead at Campbell’s Ferry – through a field, by the stables and wooden fence, and past a simple two-story house. I hung my food and stashed my pack in a spot off the beaten-path. Then I set out on my first day-hike, headed for Trout Point.

Twice Chuck had warned me that many rattlesnakes live along the Salmon River. “Listen Josh: watch where you walk. You don’t want to get bitten. This is serious. Out here on your own, you could be in a lot of trouble.”

I crossed the bridge at Trout Creek where snowmelt rushed down, frothing with white-water, and briskly walked through the dense lowland vegetation, and up the switchbacks on the grassy slopes. My daypack bounced on my sacrum. Close up, I saw that the mountainside was mostly dry earth held together by widely spaced tussocks of grass. From afar the mountainside had seemed to be covered with grass, but up close the soil looked fragile and dry like a desert. I touched my hot hat and clothes, stopping to take sips of water. By late afternoon I had only climbed 1500 feet. With 2500 feet to go, I realized that I would not reach Trout Point. Annoyed, I pressed on more quickly *Why am I so slow? I hate being in this funk where my mind works at a snail pace and every task takes eons. I want to accomplish my goal.*

In a patch of pine and Doug-fir forest, I jumped back in fear, scared by the sudden cacophony of a grouse flapping its wings. A couple more grouse fled as I continued up the long switchbacks. I rounded the sunny side of the mountain to the cool north side -- forested and shadowed from the late sun. I kept my eyes focused on the trail, but increased my pace to a jog. *Here I’m less likely to see snakes.*

I stopped one foot short of disaster. Time stood still and my body responded instantly. Eyes fixated, I watched trouble coil from its straight stretch across the trail. It hissed and rattled. Into strike position, it moved with seamless beauty, while my body pulsed with adrenaline. My side-ways retreat reminded me of drills in basketball practice, ten years ago.

My breath had quickened. *Don't make a sound. Am I safe? Might it lunge at me?* Its mouth had opened, showing its fangs when it hissed at me. Now its thin, long tongue slithered in and out. This was my first encounter with a poisonous snake. My New England childhood had not prepared me for this.

My eyes fixed on the snake; I took out my camera and inched forward until I stood only six feet away I couldn't go any closer. Any moment it might spring toward me. *Click... What should I do now?*

I backed up. With quick glances, I studied the shrubs above and below the trail, wondering if snakes hid beneath their branches or if this snake would sneak up on me if I took my eyes off it. Common sense told me that snakes wanted nothing to do with humans. I started up the hill to go above the snake, but its eyes followed me. *This is stupid. I should take this event as a sign and turn around. It's time to go back anyway. It's a long way down. I've still got to find my pack and a camping spot.*

I left the coiled snake darting its tongue in favor of a colorful return jaunt past ponderosa pine bark of a deep orange, and flowers of red, blue, yellow, and white. I retrieved my food bag, rope, and pack, and found a flat spot near Trout Creek to set up my tent. Night came as I boiled water for my instant split-pea soup. After dark I discovered that my headlamp was broken. I ate dinner by moonlight, with the forest illuminated by its soft white light, surprising in its brightness. A black sky held an infinite number of distant suns. Their light did little compared to the moon from which I could see trees, stones, leaves, and a gleam in my metal bowl. *I know the path back to my tent. Step by step, I will clean my bowl, hang my food, and then slide into my sleeping bag. I have everything I need.*

Sitting there, in a world that seemed very bright in the darkness, I wondered why I cared about this land. *Why do I feel kinship with the life that covers Idaho's rugged mountains: the beargrass, subalpine fir, northern goshawk, cougar, and elk?* As I searched for answers, my thoughts drifted backwards towards my childhood: the snake coiled across my mind, Chuck rolled his red kayak, my brother Jonah hugged me, I composed my grant application, I spoke before the audience, I walked the Forest Service road, my teacher deepened my connection, and Grandpa's hands put the worm on the hook as I sat in his lap on our dock at Moore's Pond.

Growing up in Warwick, Massachusetts, my family had transplanted hemlock and white pine saplings around our property and in a hedgerow by the driveway. At camp in Waterville, Maine, as a young teenager, I had excelled at the ropes course high in the trees. In Warwick we had played hide and seek in the forest of pine, hemlock, birch, maple, beech, and red oak. The 200-year-old whispering white pines that laid a soft carpet of brown pine needles had been my favorite, especially one whose branches nearly reached the ground. Every year I had climbed to last year's record, carving my name higher and higher in the tree. At age 16 I had reached where the trunk was as thin as my arm, only a few feet from the tip-top needles. I liked to be among the trees.

In my senior spring at Colgate, two forest activists had given a presentation, which introduced me to the U.S. Forest Service's intensive roadbuilding and logging of pristine forests – unprotected roadless habitat for bears, elk, and salmon. They had explained that in the Organic Act of 1907, Congress had entrusted this federal agency with 161 million acres, our National Forests. The Forest Service had broken this trust by

degrading our forest ecosystems. These forest activists had encouraged us to help, first and foremost, by traveling to central Idaho to stop the Cove/Mallard timber sales. Here, the Forest Service had planned to build 145 miles of new roads and cut 81 million board feet of timber from two roadless areas that they had named Cove and Mallard.

Cove/Mallard sat between the Gospel Hump Wilderness and the Frank Church—River of No Return Wilderness. Thus it was an important wildlife movement corridor in the largest core area in the lower 48 states. The forest activists had persuaded me that Cove/Mallard ranked very high on the list of ecologically damaging Forest Service activities. That summer, 1996, I had driven west to save the heart of the Big Wild.

And now, five years later, I walked directly below the Cove roadless area. A well-defined trail led me northeast up the Salmon River through a ponderosa pine and Douglas-fir forest. Still shaken from yesterday's rattlesnake encounter, I treaded carefully toward Whitewater Ranch where I would meet my friends in a couple of days. This morning I had taken the metal stays out of my backpack and bent them to fit the contours of my back. It fit like a glove. The weight felt manageable. Feeling it in my thighs, I walked deliberately down the path. I smiled and said, "Hey, I can do this."

The Salmon spanned the length of a football field from bank to bank. Submerged rocks created large pillows of water. Exposed rocks formed eddies. The white water at the tips of large waves contrasted with the dark blue river. In some places, talus came all the way down to the river. Standing on the trail of gray granite the size of beach balls, I thought of the crew that constructed this trail.

I carried a Forest Service field guide in my hand. While only a novice plant taxonomist, I could identify the bear grass, paintbrush, lupine, arrowleaf balsamroot, and huckleberries that decorated the trail. I liked having the time to stop to identify flowers and take pictures. “That looks like some sort of Umbel. Is it cow parsnip? Or licorice?”

On this day I crossed paths with two snakes. A tiny one slithered off the trail to get out of my way and a thick, yellow, red, and black one lay across my path. I cursed as panic momentarily stirred in me. Keeping ten feet between us, I stepped carefully around it, through the understory of huckleberry, ninebark, and oceanspray. The fear of rattlesnake encounters brought greater appreciation for being alive. It also slowed my hiking pace.

I felt privileged to walk here, beside the mighty Salmon River. The river canyon felt wild. Most rivers in the United States have roads beside them. Where the Salmon River flows through the Frank Church—River of No Return Wilderness, the canyon is roadless. Thinking about roads made me aware of how slowly I moved, and reminded me of my seclusion and simple survival tasks: food, water, shelter, and avoiding rattlesnakes. I had gotten a late start and had been moving slowly, identifying plants, taking pictures, and fixing my backpack. I wanted to discover and connect with this landscape, and in turn learn something about myself. But I needed to reach a flat spot by night fall. I found such a spot near Whitewater Ranch, ¼ mile from the Salmon River, on the edge of a meadow beside a creek and a trail.

The next morning, I stashed my backpack and began hiking up Churchill Mountain in the Cove roadless area. My daypack felt light around my waist. I sipped at

water from the dromedary mouthpiece and munched an energy bar as I walked. My eyes scrutinized the trail for snakes.

By the Salmon River, at 2400 feet, ponderosa pine and Douglas-fir dominated the forest. At 4500 feet, grand fir became dominant. At 5200 feet, lodgepole pines showed up in a big way. By 6000 feet, I saw almost exclusively subalpine fir, lodgepole pine, and Engelmann spruce. Scat appeared frequently on the trail – deer, elk, and black bear as well as some scat with hair and bones: mountain lion. Near the top of the mountain, a whitetail deer spied me and bounded away, disappearing into the trees.

Due to the level summit, trees blocked the view, even from the two-story boulder upon which I had lunch. The mellow mountains made for easier movement than the more rugged wilderness areas. Stormy gray clouds passed overhead and thunder rolled in the distance. I headed down the mountain, out of water and thirsty, but feeling at ease from my three days of hiking alone.

The next morning I packed my bag and hiked down to the beach at Whitewater Ranch to wait for Gary and Bethanie to drive down FS Road 421, which divided the Cove and Mallard areas. I spent the day writing, reading, and watching a flurry of river activity. Despite this being wilderness, at least eight jet boats motored by my watch. The Central Idaho Wilderness Act of 1980 allowed jet boat use to continue on the Main Salmon River with few restrictions. Much jet boat traffic returns rafters to their automobiles upriver. The Act also permitted the use of some airstrips. The Forest Service estimated that 5,500 aircraft land in the wilderness each year. Rafting brings 10,000 people each year to the Middle Fork and Main Salmon Rivers. While the Forest Service limits the group size to 19 and caps the number of launches per day, these

wilderness rivers are very busy, stretching the meaning of wilderness, both legally and culturally

I tried to take pictures of an osprey diving for fish. A mallard duck repeated a pattern of flying past me to land in the river and then floating for a while before doing it again. The day lengthened and the sun closed the gap to the horizon and still no Gary or Bethanie. I began to worry that Gary had not found a ride, and that Bethanie couldn't come. I filled my water, set up my tent, cooked and ate dinner, and finished my Leg 3 Web site entry I leaned against my bag, which lacked food, and closed my eyes, patiently awaiting their arrival.

Further reading:

Pezeshki, Charles. Wild to the Last: Environmental Conflict in the Clearwater Country. Pullman, WA. Washington State University Press, 1998.

Interlude: A Cove/Mallard Activist

August 1998: After midnight I met up with the others around a campfire. I had spent the last five hours disassembling my ineffective tree-sit – the last standing tree in a freshly cut road – and hauling it back to our campfire. Overtired physically and emotionally, I wanted sleep. But the tree-fellers and Forest Service law enforcement officers would arrive at daybreak. Tree-fellers cut large grand fir, Engelmann spruce, and Douglas-fir in the road's right-of-way, staying a day ahead of the excavator that stacked the bucked logs at the side and cleared the road.

Over the last ten days the tree fellers and roadbuilding crew had circumvented two tree-sits, altering the path of the road to veer around them. A third might halt construction where the pink flagging of the proposed road crossed a wetland. But they would soon figure a way around that tree-sit, too. Tomorrow, the fellers would cut down a particularly strategic place for a tree-sit. Everyone looked tired and dejected. We had seen dozens of giants fall. Echo said sweetly, "Monkey Boy, are you okay? Maybe you should get some sleep."

Instead, I drank a liter of coffee. *If I do not do this, who will?* I would keep pushing myself till something snapped.

I walked down the trunks of giants that stood tall only yesterday. They lay beside each other along the road-to-be. At the end of the line, I stood below a giant grand fir and studied it. I wanted to link it to a nearby tree-sit. First I had to climb it.

The safe way to climb trees was with two pieces of circular webbing around the back of the tree. When weighted, circular webbing cinches. I could clip one piece into my climbing harness and pull the other piece down for a foothold. However, small, dead

branches covered the grand fir for the first 40 feet. *The webbing will get caught up on too many branches. It will take too long to break off all those branches as I climb. I have to free-climb.* This meant placing my feet and hands where the dead branches met the tree trunk, and where I could feel the knots and grooves in the rough bark.

The controversy over logging on National Forests and endangered species protections had polarized communities in the Northwest. In the Pacific Northwest headlines had characterized the issues as spotted owls versus jobs. In Idaho and Montana, the survival of grizzly bears, wolves, bull trout, salmon, and steelhead came into conflict with the intensity of road building and logging. Small timber towns felt their sustenance attacked.

Before throwing myself into the fray, I had read and considered both sides. I didn't want timber towns to dry up or jobs to be lost, especially on account of me. But I was skeptical when interests argued that forests needed to be logged to keep them healthy – to prevent fire and rid them of insect epidemics – and that roads were needed to access the forests to keep them healthy. It made sense to me that fire naturally kept forests healthy and controlled insect epidemics. The vision of thinning forests on a large scale denied the grim ecological effects of roads. Many fish depended on drainages with low road densities. Elk, bear, lynx, wolverine, and other wildlife did best in areas with low road densities. I felt that the benefit of thinning to a forest within the roaded matrix of public lands was debatable. However, the ecological benefits of roadless areas and the ecological costs of building new roads clearly outweighed the benefits of thinning in roadless areas.

The timber industry and Idaho's congressional delegation of the 1980s maintained that logging on National Forests was sustainable. They lobbied for higher logging levels to prevent fire and insect epidemics. Interested in securing as much money as possible from Congress, the Forest Service tried to deliver. As Paul Hirt recounted in A Conspiracy of Optimism, the Forest Service had been warning Congress, for decades, that tree planting, road maintenance, and stream restoration were all way behind schedule. Instead of funding this necessary maintenance, Congress increased their budget for logging, road building, and fire prevention. The Forest Service was cutting too quickly for the matrix forests to grow back. For example, on the Clearwater National Forest in Idaho, it takes a minimum of 80 to 120 years for a forest to grow back. The high levels of timber harvest – 7-12 billion board feet per year coming off our National Forests between 1960 and 1992 – could not be sustained over the long-term. R. Max Peterson, Chief of the Forest Service from 1979 to 1987, conceded to agency employees in 1989 that “Anybody – on the back of an envelope – could have figured out that the rate of harvest cannot be sustained.”

The Cove/Mallard timber sales set records in the unsustainable category and, if completed, would decide the fate of two unprotected roadless areas, altogether 76,000 acres separated only by Forest Service Road 421. The Forest Service had a bad habit of building roads deep into these last candidates for wilderness. The fight to protect Cove/Mallard became a thorn in the side of the Forest Service and a national example of why roadless areas need protection. This largest road building and logging project in the history of USFS Region One called for building 145 miles of new roads in nine different drainages to cut 81 million board feet of timber in 200 clearcuts – enough to fill 26,000

log trucks. This “largest-ever” project would fragment a very important area for habitat connectivity within the Greater Salmon-Selway Ecosystem. Cove/Mallard provided a wildlife corridor, especially for lynx, wolverines, and other shy creatures, to move between the Frank Church-River of No Return Wilderness and the Gospel Hump Wilderness.

Typical of public lands logging, especially in far away backcountry places, taxpayer dollars financed the Cove/Mallard timber sales. While the project generated money for the Nez Perce National Forest, it would cost the American taxpayers six million dollars in road-building subsidies and deficit timber sales.

The excitement of spending a summer in these two roadless areas also drove me to act. The Coalition’s description of the area enticed me to visit:

The terrain is steep and rugged, with rocks and many downed trees. Altitudes vary from 2,300 feet on the banks of the Salmon River to nearly 8,000 feet. Drainages and meadows are quite swampy even during the driest periods... The scale of this landscape is what awes one most of all. The forests of the Greater Salmon-Selway go on and on and on... This is the biggest remaining wild place.

The road building, logging, and protests at Cove/Mallard had begun in 1992. I arrived in 1996 to find protestors blockading the road to the Jack Creek timber sale. They camped on platforms suspended from tripod pole structures, twenty-five feet in the air, and from a bipod pole structure supported by a cable, thirty feet up; and one locked his arm into the Jack Road in what was called a dragon. Support people cooked and camped on the dirt road or among the trees. This particular blockade lasted 40 days before Forest Service law enforcement officers used a cherry-picker and force to clear and arrest the protestors.

Dreadlocks, shaved heads, and nose rings mixed with rednecks-for-wilderness; vegans ate with hunters; and college graduates debated social theory with high school dropouts. Some had money to buy food and help the campaign financially. Many lacked funds and lived a lifestyle of traveling between campaigns that fed them. A collective called Seeds of Peace brought the kitchen equipment and cooking expertise. During the 1980's they had cooked for thousands of people protesting nuclear testing at the Nevada Test Site. Cove/Mallard protestors also came in search of a counter-culture experience and a way of life respectful of nature. Consensus circles lasted hours. Some seemed overly angry at the perceived military-industrial complex and wanted to destroy the current system. The Cove/Mallard protests gave them hope and a chance to make a difference.

In general, I try to avoid conflict. But I felt passionate about protecting Cove/Mallard. I felt overwhelmed by habitat destruction around the world. I wanted to set a good example in America.

During my readings before heading West, I had heard about tree spiking and machinery destruction. I would not be a part of that. Most activists condemned such tactics. The Cove/Mallard resistance prohibited weapons, illegal drugs, and any actions taken to damage personal property or machinery. In fact, the guidelines stated that "all of our actions will be nonviolent in intent and operation." Civil disobedience provided a nonviolent means of slowing logging and getting the attention of media and decision makers. As a nonviolence trainer, I steered people to this conclusion and tried to prepare them to defuse heated situations between loggers and protesters.

One such instance came in 1997 when my friend Martin and I lay on platforms each suspended 25 feet above ground from tripod tree-pole structures that blocked the Noble timber sale (the second Cove/Mallard sale). Three loggers drove up, got out of a small beat-up pick-up truck and approached. Two drank beer from cans. The third stood tall and broad with a sizeable pot-belly, and he carried a chainsaw. Sugar and Placenta walked down from the forested slope above the road. Sugar held a video camera. With calm, respectful tones, they tried to persuade the loggers that it would be better to let the Forest Service law enforcement arrest us. The big man started the chainsaw, revved it loudly, and held it next to one of Martin's tripod poles and began cutting. Our eyes widened. We held our breath. He cut through an inch, and then turned off his saw. They left, and we breathed again. The next morning the Forest Service came with a cherry picker and removed us, and then, in handcuffs, we rode to Boise for arraignment before a federal judge.

Later that summer a Jack Road blockade lasted 74 days before a multi-agency team of 20 personnel arrested five protestors in three bipods and two dragons; the arrests and blockade removal spanned dawn to dusk of one day and involved cherry pickers, jack hammers, and diamond grinders. That fall and winter they logged the Jack Creek timber sale's units, mostly clearcuts, finishing the third of the nine Cove/Mallard timber sales. Also, Federal Judge Lodge gave Martin and me each one year probation sentences with 50 hours community service and fines of \$500.

Lone Park and Rhett, the next two timber sales, planned more road miles and logging units than the first three sales. A movement of activists stood poised for action. Martin and I spoke, sang, and lobbied our way across the States on a four-month national

speaking tour of over 40 venues. We made a case to college students and activists that Cove/Mallard and other roadless areas needed to be protected. During our road show, the Forest Service announced their intent to make a rule about roadbuilding in roadless areas. Come summer, Lone Park and Rhett were not sold. Like other National Forests around the country, the Nez Perce N.F. waited for direction from the Chief's office in DC before selling projects that built new roads in inventoried roadless areas. The campaign's momentum went in two directions.

I led the monitoring of the Jack Creek timber sale, walking all 15 units and twelve miles of road, documenting violations – measuring stream buffers, and noting road failures, illegal cuts, snag and leave tree cuts, and trash left behind. Gary Macfarlane taught me how to monitor these timber sales and guided me in writing a report to the Forest Service.

Gary reminded me of Gandalf from Tolkien's Lord of the Rings trilogy. Like Gandalf, Gary appeared stoic, with long hair and expressions of deep thought when puzzling to decipher a problem. His piercing eyes held the complexities of environmental rules and regulations, the survival of sensitive species, and strategy to save Idaho's Big Wild. Mysteriously, Gary could hike at great speed for days on end with little food. Unlike Chuck, who brought me across the Salmon River Mountains, Gary had no reserves. While I walked the logged units of the Jack Creek sale, Gary advised others in the monitoring of a nearby sale, yet to be logged.

Mid-elevation forests of old growth ponderosa pine, western larch, and grand fir descended northward from the Gospel Hump Wilderness to the South Fork of the Clearwater. Johns, Otter, Huddleson, Wing, and Twentymile Creeks formed steep

canyons on their northward descent. Known as the Wing-Twenty mile Area, it should have been inventoried as a roadless area in the Roadless Area Review and Evaluation (RARE II) as had other National Forest roadless areas that were at least 5000 acres or that abutted wilderness. Instead, the Wing-Twenty mile Area was traded in 1978 for the wilderness designation of the Gospel Hump. A 1989 Environmental Impact Statement (EIS) planned four large timber sales in the Wing-Twenty mile Area, one of the last roadless areas on the South Fork Clearwater. By 1998, two sales had been logged and the third, the Otter-Wing timber sale, was about to begin. The Cove/Mallard Coalition felt that the upcoming Forest Service roadless rule should protect the remaining roadless portions of the Wing-Twenty mile Area, still greater than 5000 acres and abutting the Gospel Hump Wilderness.

The momentum shifted to Otter-Wing. I had completed the monitoring of the Jack Creek timber sale and had been helping monitor proposed roads and units in Otter-Wing's lush, steep forests. Based on our monitoring and their field visit, the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) required the Forest Service to drop two miles of road and two units that had been planned for a very wet area. Threatened Chinook salmon and bull trout in the South Fork Clearwater needed less sediment, not more. Yet according to the Forest Service, the fish would not be harmed, because mitigation projects in other parts of the South Fork drainage would decrease the amount of sediment overall. Road building for Otter-Wing began on Rainbold Ridge in mid-August. Activists came to stop it.

* * * * *

My watch read 3 a.m. I sat down and rested my back against the tree 15 feet in circumference, growing first at an angle, and then heading vertically to the sky. I closed my eyes for 10 minutes, drinking the sleep, hoping to wake up refreshed. The coffee didn't seem to do a thing. I knew that I was pushing myself too hard and did not have balance in my own life. I ignored my inner voice that shouted *go to sleep*.

Getting up, I turned on my headlamp and faced my task. *This looks impossible*. As I climbed, I tested the dead limbs, breaking them one by one. They were so small. But some branches held, and I made it up about 20 feet. When I had broken all of the branches in reach on this sloping side of the tree, my progress came to a halt. *I should climb down. This is too dangerous*. But I could not give up. There was too much at stake.

I headed around to the downhill side of the tree where there were more dead branches, but thicker branches. I began to shout, "I'm going to fall; I'm doing to die." My self-preservation needed a voice and found my vocal cords, but the rest of me would not listen.

For ten days, I had been climbing grand firs, *Abies grandis*, with limbs that fan out gracefully on all sides with flat green needles. I'd been sleeping every night in hammocks or on platforms high up in their branches. I knew their smooth grey bark with vertical grooves. I had negotiated passage through the brush while walking between campfires, streams, and poop holes. I didn't want to abandon the forest. I had made a promise to fight, to give it my all, and I wanted to win. The huge grand firs, spruce, and Douglas-firs had fallen 20 feet in front of my face. I felt powerless and angry *Does anyone care that our government is punching roads into some of the last wild forests?* This little band of witnesses felt quite alone.

As I climbed around to the back of the tree and up another five feet, I continued to yell, “I’m going to fall! I’m doing to die!” I had broken off the reachable limbs on this side of the tree as well, and I hung from two dead branches, my long legs dangling in mid-air. I looked round to the other side of the tree and plotted a safe course down. *Go back Josh.* I didn’t listen. I tried to lunge up with my right hand for a higher branch, but the one in my left hand broke. As I somersaulted downward, my headlamp illuminated a circle of branches, dark green fir needles, and the ground, all spinning before my eyes. White flashed in my head when I hit the ground. I deliberately rolled to lie flat on my back in response to my thought: *What are you supposed to do with a possible spine or neck injury?* But a tremendous sense of relief came over me, because I could finally rest. Spinal injury or not, it didn’t make sense to walk out in the dark.

Friends gathered around and they agreed: *I should wait till first light to try standing up.* My friend Lina Gooley sat beside me to make sure I didn’t fall asleep. (We knew that you don’t want to fall asleep with a concussion.) A slight numbness crept out from the center of my back as far as my thighs, hands, and neck. I did not want to die quickly, spending all my efforts at once. I wanted to live a full life.

In a couple of hours, the sky began to brighten. As I stood up – with surprising ease – the numbness drained from my body. Lina and I walked out on the horizontal trees – half my height in diameter. I felt giddy to be alive, and in a dream, as if I watched myself from above.

When I saw the four Forest Service law enforcement officers, I hesitated, thinking that I could walk the nine miles out on my own. Lina called them over, and we explained

my possible spinal injury. Addressing the other officers, Steve Didier commented, "Maybe this will shut them down."

Foe became friend for the time being, as Steve switched into his EMT role. They carried me out on a stretcher and lay me down in the back of a green Forest Service pick-up truck. Jill and Steve perched above my head for the better part of an hour, waiting for an ambulance. I thought how silly I must seem. Like a bad memory, the folly of last night's activities became clear. My use as a support person greatly outweighed the benefit of the traverse-line to the neighboring tree-sit. The truth was that I wanted to leave. I felt happy to be with Jill and Steve. We exchanged idle conversation, avoiding touchy topics like the Forest Service roadbuilding frenzy and my suspicious fall. After a painful, two-hour ambulance ride and a couple dozen X-rays, later that afternoon, I (accompanied by Lina) walked out of St. Joseph's hospital in Lewiston, Idaho. I had only bruised my bottom.

NMFS and USFWS approved the amended Otter-Wing timber sale in early September, one week after my fall and three weeks after road building had begun. Tree-sits continued to slow road building throughout the autumn, while I worked in the office, compiling the monitoring data from the Jack Creek timber sale and writing press releases for Otter-Wing protests. In January I started work in the deli of the Moscow Food Co-op.

In the March 1999, the Chief of the Forest Service announced a moratorium on road building in inventoried roadless areas. The Forest Service's road system was falling apart. Congress only gave the Forest Service 18 percent of the funding needed to annually maintain classified roads to planned service, safety, and environmental standards. The Chief estimated a backlog of \$8.4 billion in deferred maintenance and

capital improvement needs for the 386,000 miles of classified roads. This did not include the 60,000 miles of unclassified roads – unplanned or illegal roads created by ORVs and other forest uses. The Chief stated that it was fiscally and environmentally irresponsible to continue to build roads, especially into roadless areas, when our current road system was in such disrepair and decline. The moratorium would allow the Forest Service up to 18 months to study the situation and propose a course of action.

In April, I mailed the completed Jack Creek timber sale monitoring report with nine environmental groups signed onto the cover letter. The Nez Perce N.F Supervisor, Bruce Bernhardt, and the Elk City/Red River District Ranger responded promptly, accepting our offer of a field trip. I led the May trip with Gary and five employees of the Elk City/Red River Ranger District. After looking at Unit 401, a barren clear-cut (besides four small groups of trees), where two streams originated, carrying silt down to Big Mallard Creek, Supervisor Bernhardt addressed his employees, saying, “What was the purpose of this unit? How does this type of forestry benefit the land?”

From the top of Unit 43, I pointed east across Big Mallard Creek and said, “See the beautiful forested hillside in the sunlight? That is where the Lone Park timber sale would put in 15-20 miles of roads and log 20 clear-cuts.”

Later that summer and fall, the Lewiston Morning Tribune printed two articles that quoted Supervisor Bernhardt saying that the Nez Perce N.F would not proceed with the Cove/Mallard timber sales. This is what I had set out to accomplish. But there was more to do: Supervisor Bernhardt continued with Otter-Wing, and the larger conflict over the use of National Forests continued. However, I felt weary of strident tactics.

“Earth First!er, Josh Burnim, falls from tree at logging protest on the Nez Perce National Forest.” A Forest Service news bulletin had announced my folly to its multitude of employees. A friend who worked fire crew had reported it to me. What would Forest Service employees think: misguided idealist, young eco-warrior, or eco-terrorist? Were my actions doing more harm than good? The public and the press had a limited attention span when it came to civil disobedience stunts. How many road blockade and tree-sit headlines would it take before the story was old and the public lost interest? Meanwhile actions like this made it easier for the wise-use movement to paint all environmentalists as eco-terrorists, radicals, and tree huggers. The divisiveness of the Cove/Mallard campaign had been apparent from my first reading of the Cove/Mallard pamphlet:

Locals, Cops, Feds, and What You Should Know:

The first thing to bear in mind when you come to Idaho to participate in the campaign or attend the Round River Rendezvous is that most of the above mentioned entities do not like us Earth First!ers... Remember to bring enough food. It's a long three or four hour drive to the nearest friendly shopping area.

In the fall of 1999, I left the Cove/Mallard Coalition. Actions continued in the Wing-Twenty-mile Area – the timber sales were eventually cut – but I needed to work on something more positive and hopeful.

The Road Moratorium ended with the announcement that the Forest Service would conduct an administrative rulemaking process. They would take public comment on the level of protection for roadless areas during an unprecedented number of public meetings. To some extent their words justified our position. Roadless areas provide a sanctuary from vehicular disturbance under which many creatures thrive. Roadless areas produce clean drinking water and habitat for salmon, steelhead, bull trout, and other endangered fish. From March to July 2000, I organized for public hearings in Moscow,

Lewiston, and Orofino, Idaho. I began planning my Sawtooths to Selkirks Hike in September 2000. Through my hike and its publicity, I hoped to inspire people with a positive vision. I looked forward to the change in tone. I looked forward to walking Idaho's big wild and its northern connections.

Further Reading:

Hirt, Paul. W A Conspiracy of Optimism. Management of the National Forests since World War Two. Lincoln, NE: University of Nebraska Press, 1994

**Chapter 4: Salmon to Selway, Cove/Mallard and Meadow Creek Roadless Areas
May 27 - June 2 (62 miles)**

At twilight, Kelly Kingsland's peaceful, smiling face rolled up, framed by the driver's seat window of Bethanie Walder's truck. Standing in the circular dirt road parking lot by the Salmon River, I looked in to see Bethanie in the passenger seat and Russell Poe and Gary Macfarlane crunched in the back. They had come via FS Road 421. I could not stop smiling. *What were Kelly and Russell doing here?!*

In my first few days at Cove/Mallard, Russell had taught me how to camp and string-up a tarp for shelter. His comfort in the woods had impressed me, and I had looked up to him. Kelly, a massage therapist, had helped me heal from my fall. She also managed the deli at the Moscow Food Co-op where I worked. She crowned me "Foam Boy" for my skill with the espresso machine. Russell and I lived with my sister and her husband for a year, during which time my sister gave birth in our living room. My friendship with Kelly and Russell also grew around potlucks, saunas, campfires, and walks. Their house in Moscow, Idaho, served as a home base for my hike, lodging gear and numerous food buckets.

Kelly laughed and said, "Hi Joshua." I smiled back, shocked by joy. They were coming for an overnight hike and had kept it a secret. After hugs, we went to sleep.

I woke before daybreak. By the light of my headlamp, I set out my food for the next week and reduced the portion sizes. I also left behind Continental conservation: scientific foundations of regional reserve networks. I had been reading up on the science behind the purpose of my hike, but now I needed to lighten my load. By the time I had repacked, the others were ready. We hiked three miles up the Salmon River Canyon to

Yellow Pine Bar. The trail took us across beaches, through forests, over Big Mallard and other creeks, and up along sparsely treed hillsides covered by ground flora. The private land at Yellow Pine Bar held a few structures and the start of the 503 trail. When we reached a National Forest sign, we realized we had missed our path.

We consulted maps, retraced our steps, and found 503. Our delay proved important, as Lina Gooley, who had stayed by my side after my fall, arrived. Her left eye was swollen shut from an unknown allergic reaction. With minimal vision, she had been plodding along from deep within the Cove roadless area and had barely missed stepping on a thick rattlesnake. We gave her anti-histamine to counter the allergic reaction. She made plans to meet Kelly and Russell tomorrow and told me to keep my feet on the ground.

Our group of five circumvented a thick patch of poison ivy and found a faint trail, hardly distinguishable from a game-trail. *Was this really the 503 trail? It had to be.* We angled up the slope, rounded a downed ponderosa where the trail momentarily disappeared, and reached the top of a switchback. The slope eased and the trail faded into the forest floor of long tan pine needles, dark brown earth, clumps of grass and downed trees. We spread out to search for clues. Soon Russell shouted back from 500 feet ahead.

Up, up, and up went the old switchback trail. Kelly and Russell led the way scouting ahead. My camera was ready, recording the beautiful forest of orange, nearly glowing, Ponderosa pines, Douglas-firs, and wildflowers: arrowleaf balsamroot (yellow), lupine (blue), paintbrush (red), larkspur (purplish blue), and mariposa lily (white). Views of the other side of the canyon showed that fire had been selective: light green patches of young forest interrupted the dark green forest.

After two hours of hiking, we paused for a snack at a rock outcrop amid the open Ponderosa. We had come up so high, but judging by the map and my altimeter watch, we had only just begun. We continued higher and higher up this canyon along this vanishing trail. As the afternoon light began to dim, we saw elk bones in the trail and speculated about their owner's fate. Had it been a sick animal brought down by a wolf pack or by a cougar?

A creek trickled down a draw, across the trail, and disappeared underground. We crossed it, and then thought twice. After consulting a map, we decided to find the closest workable campsite. Around the next switchback appeared a gorgeous park-like stand of large ponderosa pines: deep orange in the horizontal sun rays beaming through the trees. The trail disappeared under a fallen half-decayed pine. Many unwieldy, waist-high shrubs filled the lighted gap in the forest, making it difficult to walk around. We each found flat tent spots under towering pines.

In the fading light I set up my tent, laid my sleeping pad and bag inside, and divided my stuff into three piles: 1) food, 2) items to go in tent, and 3) items to stay in my backpack. I had a big smile on my face. I felt silly with joy

I navigated the obstacles of this fantasy grove to Kelly and Russell's tent. They laughed at my expression, happy to see me happy. Yellow, blue, and red flowers complimented the pervasive hues of green. The stately orange columns of pine met the slope at an angle that emphasized the steepness of our spot in the Salmon River Canyon.

I woke in the middle of the night to a violent wind storm. Loud gusts brought images of huge limbs crushing me in my tent. The morning revealed that indeed several big branches had come down. At breakfast Kelly and Russell fed me chocolate and rich

garlic pesto on bread. After hugs and kind words, they retraced their steps to the Salmon River. Gary, Bethanie, and I each shouldered a week's worth of supplies and headed uphill.

We took turns leading, each of us losing the trail. Another would find it. We guessed that the trail hadn't been maintained since the 60's or 70's. Topographic maps were a must. Wildflowers, backlit by the morning sun, enticed us to stop for pictures. I learned several new flowers, especially from Bethanie, and wrote them in my journal: scarlet gilia, mariposa-lily, mountain death-camas, wild onion, larkspur, blue violet, Oregon-grape, and wild ginger. We climbed over downfall and parted waist-high shrubs that covered the old trail. Pushing aside a large tuft of beargrass, I revealed an elegant orchid with a white slipper and purplish veined petals – a mountain lady's slipper, the rare queen of the Rocky Mountain orchids.

Around the next bend, we lost the trail completely. After puzzling over maps, debating, and looking around, we headed straight uphill to where we thought the trail should be. Eventually, after much sweat and 400 feet elevation gain, we found it. I had barely spent a day with Bethanie, but she already felt like an old friend.

At five foot two, Bethanie had been wary of our long legs and quick hiking paces. However, not only did she keep up, she helped us find our way in a notably calm and collected manner. In the early 90s Bethanie had paid her way through the University of Montana's Environmental Studies program by organizing and leading outdoor trips in Alaska and the West. After graduating, she became the director of the Wildlands Center for Preventing Roads, a national environmental non-profit group situated in Missoula.

Gary thought very highly of Bethanie, and once stated, “Bethanie is one of the most intelligent and effective activists in the movement.”

We pushed on till we reached a well-worn trail that went from Road 421 to Boston Mountain. We dropped our heavy packs and shared trail mix and energy bars. *Wow, I'm relieved to see a well-defined trail. Is it a feeling of security and a connection to civilization? Maybe, I'm just looking forward to relaxing my brain.* Gary was happy that a few trails were disappearing, providing more habitat security for wildlife. On this trail, we made better time, especially after Bat Point where the terrain leveled out. We quickened our pace through the lodgepole-spruce-fir forest, aware of the ground we still meant to cover today

Along the wilderness boundary and that of the Mallard Roadless Area, we came upon trees marked with vertical stripes of light blue paint. These “boundary trees” marked the edge of a cutting unit of Bat Creek – one of the six remaining Cove/Mallard timber sales. I imagined the hot dry clear-cut that would have been here had the thousands of people not taken action. Like me, Gary probably also had an inner smile, happy for the relative success of the years of work put in to stopping the Cove/Mallard timber sales.

We slogged through our first patch of snow at about 6000 feet, and our hopes of hiking over Boston Mountain (7648 ft) faded. Without snowshoes, it might prove too arduous. We forded Myers Creek and slogged through several more patches of snow. To avoid Boston Mountain, we took a hunters' trail marked with orange and pink fluorescent flagging. But the flagging became intermittent and hard to follow and the trail disappeared. *Not again!* We crossed an old fire break – a long clear-cut used to stop a fire

– and followed something that resembled a trail to a large, sopping wet meadow that was west of our route. I pointed my compass north and our feet followed till I thought I would panic from the approaching darkness. But then something unexpected happened: a well-defined trail appeared. Out came the maps. I scouted west and Gary east. Finally certain of our location, we left the trail and continued north to a flat camp spot. Lone Park Creek flowed 300 yards west of our tents, situated in the lodgepole pine forest. Fading blue paint spoke of the Forest Service's change in plans.

The Cove/Mallard Campaign had the impact of putting the heat of public attention on the Forest Service and helped lead to the end these sales. But as Charles Pezeshki wrote about in Wild to the Last, people inside the Forest Service created a flexible future for Cove/Mallard. Tom Kovalicky, the Supervisor of the Nez Perce National Forest from 1982 to 1990, oversaw the revision of the Jersey/Jack timber sales, which had been stopped in court, into the Cove/Mallard sales. Of these sales he told Chuck:

It was a trade-off for the Gospel Hump and the Dixie Tail. We were obligated to do the analysis. We were trying to follow the intent of the court, direction of the forest plan, and trying to honor the political trade-offs made in both the 1979 and 1980 wilderness bills. We believed that the EIS for that area should be written with the maximum amount of flexibility, and it should leave options for the future open. It was never mandated for us to sell every sale. It was O.K. to not develop the area. We were trying to reduce political pressure on the outside and still not give away the farm.

As I walked through the Cove/Mallard roadless areas, I thought of Tom Kovalicky I believed that his concern for the future combined with his political savvy made it possible for the Cove/Mallard sales to be abandoned.

Gary and I each carried a rope and looked for tree branches that would support the weight of our food. I tied the long rope around a rock, and we took turns trying to pitch it

over a tree branch. Finally, Gary got it, and the rock brought the rope to the ground, and I tied it around another tree. The second rope, a thick white rope, was threaded against the pulley's wheel. Gary threaded the long rope's free end through the pulley's metal loop. I tied the long rope's free end around our rock and lobbed it over the branch of yet another tree. Gary untied the rock, pulled the rope tight, and tied it to another tree. Both ends of the thick white rope hung from the pulley suspended from the taut rope strung between the branches of the two trees.

After dinner, I tied one end of the white pulley rope around our food bags and lifted the bags above my head. Gary pulled on the other end of the white rope, the wheel of the pulley turned, and the bags rose to meet the pulley. Gary tied off the white rope. The long rope had sagged between the trees, but at 10 feet above the ground, the bags were out of a bear's reach. To prevent a bear from associating us with food, we had hung it over 100 feet from our tents. At the end of leg 4, Gary lent me his rope and pulley. His scheme seems bear-proof, and I used it for the rest of my hike.

In the middle of the night, a big windstorm howled and knocked the lodgepole pines together. I opened my eyes. I had forgotten to check for widow-makers. I unzipped my tent and rose into a blustery cold dark night. My headlamp beam searched the area. Sure enough, right by my tent, a dead lodgepole swayed violently. Freezing, I got back in my tent and sleeping bag. *Please stop.* I couldn't sleep. With each loud gust of wind, I jolted left and right in my tent, expecting a 500-pound tree to land on me at any second. *This is ridiculous.* I resolved to move my tent. With determination, I put on every article of clothing and found a safe tent spot. I took the stakes out, moved the tent as one piece, and re-staked it. Warm in my sleeping bag and with peace of mind, I fell asleep.

In the morning, I knocked snow off my light blue, sagging ceiling. The cold air seeped through my clothes as I greeted the morning. Bethanie and Gary's heads poked out of their snow covered dwellings. Later, I sang James Brown, dancing to keep myself warm, while I ate hot, tasty oatmeal and packed my backpack. "Get up!-a, get on up."

A day behind, we forfeited our rest day, forgot our sore muscles and spent energy from finding our way up 4000 feet, and forged ahead through wet meadows and snow patches. We followed Lone Park Creek to trail 586 and the South Fork of Big Mallard Creek, forded the South Fork wearing sandals, and found an ideal location to forsake this east-west trail for a northward bearing to the Magruder Road, four miles ahead.

I relished disappearing into the forest; I looked back till I could no longer see the trail. Climbing over deadfall in deep patches of snow and slogging through wet meadows slowed our progress. For hours on end we thought that we were almost there. This, of course, was unnerving, despite the beauty, and Bethanie named this section the "snow swamp slog."

May 29 – Mallard Roadless Area, Idaho – We are surprised at how much water is up here. There are so many marshes and creeks running so full and water running in little tributaries everywhere. It is really beautiful. The Engelmann spruce, their trunks with a chipped bark pattern, have their bases covered with cones eaten and broken apart by chipmunks. Fallen lodgepole, spruce, and subalpine fir - all in different stages of decay – make for a natural obstacle course with an infinite number of channels of water flowing under and by them, with moss growing and bulbs coming up.

This was my first visit to Lone Park's beautiful hillside, the same one that I had pointed out to Supervisor Bernhardt from Unit 43 of the Jack Creek timber sale.

An activist had once described Cove/Mallard as a big green marshmallow: the banks of the Salmon River rose steeply like the sides of a marshmallow to a green plateau of marshes, creeks, and fluffy ridges. This gentler terrain made for important wildlife habitat and easier movement, often preferred to the higher elevations found in wilderness.

New roads would disrupt the habitat by giving easier access for hunters on off-road vehicles, and less habitat security for bear, wolves, lynx, wolverine, fisher, and goshawk. Building 145 miles of roads and logging 81 million board feet would increase sediment to the streams, thus threatening fish like the bull trout, west slope cutthroat trout, steelhead trout, and Chinook salmon. The dwindling numbers of Snake River salmon was due in part to the dams, but also to the degradation of upstream habitat.

Salmon return to their place of birth where they are greatly affected by the habitat conditions. The well-being of each creek's population depends on what happens upstream. Over the years, roads, logging, mining, and livestock grazing had sent greater loads of sediment into streams where salmon spawned. Silt smothered eggs, killing them, and individual stream populations declined. For example, heavy logging and roadbuilding in the South Fork Salmon River, which meets the Main Salmon River across from Cove Mountain of the Cove roadless area, led to catastrophic blowouts the winter of 1964-65, almost completely killing the summer Chinook salmon. Prior to this tragedy, the South Fork had boasted one of the best summer run Chinook fisheries in the West. In the South Fork, logging roads cut the subsurface flow and the water came out onto the surface, soaking the roadbeds, and causing them to collapse. Heavy rains have always brought periodic slides in the South Fork. The road caused the rains to be catastrophic. Roads also channel sediment to the creeks. When cattle trample through streambeds, they cause erosion, widen the channel, and kill streamside vegetation. This shallow, wide streambed results in a warmer stream, which can be lethal for fish. Also, the holes where fish hide and feed are filled in with the sediment. Habitat restoration for salmon will involve

removing old roads and re-contouring the land; easing the harmful effects of cattle grazing, logging, and mining; and restoring stream habitat.

We crossed Big Mallard Creek where it curved through yet another wet meadow. Gary and I each took a running leap over the creek. Bethanie waded through it. Her boots were already so wet that a little more water didn't matter. Soon after came the first sign of the Magruder Corridor - an old, dry clear-cut with young trees.

It had taken eight hours to cover the last four miles. On the Magruder road, we covered two miles in 40 minutes. Bethanie pointed out that one sees more detail the slower one travels - flying, driving, biking, walking, and off-trail hiking. I welcomed the ease of walking on a road, but I disliked the road's detrimental effect on wildlife - fragmenting habitat through vehicle use and habitat disturbance. This road and its associated development bisect the Selway-Bitterroot Wilderness and the Frank Church-River of No Return Wilderness.

My plan had been to walk across the Magruder Road and plunge back into the woods and down 500 feet to the headwaters of Meadow Creek. However, we were behind schedule and the thought of a day and a half more slogging did not appeal to me. On our brisk stroll westward, a few trucks passed us. Their passengers gave us curious looks: *Where the hell did you come from?* At Mountain Meadows, a heavily used camp spot with trees ringed from so many tied horses, we made good use of the hour of sunlight by setting up tents, a bear line, and cooking a big dinner of split pea soup. We ate in the dark, and I dreamed of climbing over deadfall.

* * * * *

One mile west on the road at trailhead 505, in the morning light, Gary pulled out a clipboard, monitoring forms, a pen, and a camera. The trail sign forbid automobiles but allowed snowmobiles, all-terrain vehicles (ATVs), and motorcycles. Visibly energetic, Gary understood the ecological impacts that these off-road vehicles (ORVs) could have, and he wanted to help the Forest Service keep track of their impacts and which trails were open to them. Indeed, as Forest Watch Director of Friends of the Clearwater, this was part of his job. In No Place Distant David Havlick introduces ORVs and summarizes their ecological impacts:

In ways and shapes that were undreamed of even thirty years ago, ORVs are now surging to the fore-front of a land manager's headache known as "access management." True to their name, ORVs are designed specifically for motoring beyond graded and surfaced roads for automobiles... With technological advances in engine design, plastics, carbon fibers, metal alloys, and other materials, ORV manufacturers create lighter and more powerful machines every year .. The ecological consequences of ORVs range from soil compaction and erosion to noise, air, and water pollution. In many ways approximating the impacts of roads... ORVs directly and indirectly damage vegetation and wildlife, fragment habitat, displace sensitive species, introduce and distribute invasive species, and provide extensive access to legal hunting and illegal poaching of wildlife.

Gary took pictures of trail signs, deep ruts, and places where, due to ORV use, the trail was wider than a truck. Bethanie' group, Wildlands Center for Preventing Roads, worked closely with the Forest Service and researchers to produce monitoring forms. Gary consulted Bethanie several times. Sometimes I wondered: what was the harm of ruts and a widened trail? Bethanie explained that tracks pool water, increasing its erosive power to create channels and gullies that can carry soils well beyond the original zone of vehicle use.

There are practical ways to lessen the ecological impacts of ORVs. Phasing-out the louder two-stroke engines, which discharge about 25 percent of their oil-gas fuel mixture directly into the environment, for cleaner four-strokes would make a difference.

Frequently inspecting the undercarriage of ORVs for invasive weeds would help, too. But as Havlick explains, access itself is an issue for many creatures:

Ultimately, motorized access and not just the presence of a road is what undermines habitat security... For animals that are commonly shot out of fear or prejudice or for sport – such as bears, wolves, coyotes, rodents, and nongame “varmint” – heightened access often leads swiftly to heightened mortality.

At the Magruder Road, we had left the Salmon Drainage, where I'd been since May 7, and entered the Clearwater Drainage. Trail 505 ran on the divide between two tributaries of the Clearwater River. To our left the Red River flowed into the South Fork Clearwater; to our right Meadow Creek flowed into the Selway River. A couple miles ahead on the left an old clear-cut afforded a spectacular view of where I'd be in a week. White peaks – the Selway Crags in the northwest portion of the Selway-Bitterroot Wilderness – defined the northern horizon and contrasted the green forests of the Red River drainage. Closer up, a few clear-cuts in the Red River Drainage reminded me of a song called “Red River ” The artist, Robert Hoyt, had come to Colgate in the spring of 1996 with another forest activist. His songs had carried me to Idaho. Now, his lyrics of salmon runs lost to the silt of upstream roads and logged hillsides sang in my mind:

How did the Red River come by its name?
Did it run red with salmon when the salmon runs came?
But now all that has come to an end.
Will the Red River run red again?”

Exhausted, I gladly agreed to a lunch break. Obsessed, I stuffed as much food in my mouth as I could before lunch time was over I felt really dehydrated and irritable, but we could only continue hiking.

At another clear-cut view, I heard Bethanie singing and asked her what it was.

“Have you heard the song about the ant and the rubber tree plant?”

“No. How does it go?”

Without hesitation, Bethanie took a page from Frank Sinatra and sang:

Everyone knows that an ant can't move a rubber tree plant.
But he's got high hopes, he's got high hopes, he's got high apple-pie in-the-sky hopes.
So anytime you're feeling low, 'stead of letting go, just remember that ant.
Oops there goes another rubber tree, oops there goes another rubber tree, oops there goes another
rubber tree plant.

That ant inspired me all day. I would keep singing about it for the rest of my hike.

The 505 trail dipped into the Red River drainage and through a massive, old clear-cut that took 20 minutes to walk through. Though trees grew back in most places, it looked ugly. Former skid trails channeled sediment downhill and large chunks of mud had slid in places. Thin trees grew tightly together, impossible for a large mammal to walk between in order to seek cover. Clear-cuts decreased the ability of a landscape to hold water, leading to more flooding and erosion. Fire returns biomass to the soil, enriching it for the next tree crop. Clearcuts removed this biomass, leading to weak trees after a few generations, depending on the soil and climate. The Red River Drainage had been hit fairly hard right up to the boundary of the Meadow Creek Drainage, which was still predominantly roadless.

After nine miles along the 505 trail, we veered east from a trail junction to camp near water at Butter Creek, a tributary of Meadow Creek. I stumbled around deliriously for half an hour before finding a safe tent spot. Dinner and sleep felt gorgeous. In the morning, determination got me up. A rest day was not possible.

With little conversation, we glided along the ridgeline, observing elk tracks in snow, coyote scat next to grouse scat three times on snow, and cougar poop later during

our descent. The ridgeline dropped from 6700 feet to Tamarack Saddle at 5200 before climbing to Sable Hill at 6000. As we descended to Meadow Creek (3100 feet), we saw the forest change from lodgepole, subalpine fir, spruce, and beargrass to ponderosa pine and Douglas-fir that grew on the south facing slopes of Sable Hill. I also noted the first western redcedar of my hike. A red-tailed hawk rode the air current high above Sable Creek, and a grouse perched motionless in a limb above our trail. During this 11.5-mile day, we hadn't come across water. By the end, we took small sips to make it last.

We descended to a beautiful grove of very tall western redcedars, grand fir, and spruce in a flat by Meadow Creek. I felt exhausted but thrilled by the dank grove and full creek, so clear that I could see straight to the stones on the bottom. From our Mountain Meadow's campsite of two nights ago, Meadow Creek had wound for miles through forests of spruce and subalpine fir down to the old-growth around us.

The hairs on the back of my neck rose. I looked up. One hundred meters away, a hunter stood fully clothed in camouflage with a rifle slung over his shoulder and his eyes on us. Fourteen miles from the trailhead, he was getting a real backcountry hunting experience. He turned and walked up the way we had come.

"It's black bear season," Gary reported.

The next day, we hiked six miles down Meadow Creek to where Lark Creek meets it. Along the way, we saw a Forest Service cabin and some bear scat that looked big enough to be from a grizzly, though few exist in central Idaho. Western redcedars, pacific yew and the funky, drooping, spongy club moss that hangs from these trees marked the change in plant communities from the drier country in the Salmon River Canyon and Southern Idaho.

An F16 jet thundered overhead at 11:15 and then another even closer at 11:25. I threw my hands up to cover my ears. The second flew so near that I thought my heart would stop. Probably they flew from the Mountain Home Air Force base east of Boise, Idaho. My ears hurt.

Lark Creek neared, and I yearned to take off my pack. When a campsite didn't appear at first, I nearly panicked with the anticipation of resting for half of a day, finally. I bathed, noticing the poison ivy on my lower legs which had replaced my hand's sun bumps, and then washed my socks and underwear away from the river. Meadow Creek felt cold but much warmer than Stanley Lake did three weeks ago. I watched it flow, reading the water for rocks and reminiscing about floating the Salmon River.

"The timber industry wants into Meadow Creek," wrote Chuck in Wild to the Last. "But it is still intact, remaining the last, unlogged, unroaded major drainage on the Nez Perce unprotected by wilderness designation." During my years in Cove/Mallard, various people had spoke of Meadow Creek reverently, as very important roadless country abutting the Selway-Bitterroot Wilderness. We helped protect Meadow Creek, they reasoned, by slowing the Cove/Mallard timber sales.

The next day, our trail climbed up high above the river for a view of steep cliff drops, white water, and dark green forests that climbed up ridges and filled creek drainages. We saw the white flower of Queen's cup bead lily, false Solomon's-seal, wild rose, and many ferns: sword, maidenhair, and mountain woodfern. The trail came down to meet the creek and went through a lush, old-growth forest of cedars and pacific yew.

We passed a couple with daypacks. Besides the people in pickup trucks on the Magruder Road, we had seen no one since the Salmon River. A mile later, we stopped to

talk with a tall, skinny, wide-eyed man. He said he was from Kamiah. “Where are you coming from?” he asked.

“We’ve hiked from Whitewater Ranch on the Salmon River,” I replied, “but I started in the Sawtooths.”

An awkward silence ensued, while he looked us over. “Cabbage,” he said to me. “It keeps your knees strong. I hike a lot. My family -- he motioned to his three daughters and wife wading in Meadow Creek and son standing on a rock -- comes up here every year. My advice to you is to eat plenty of cabbage. It will keep your knees strong and healthy Cabbage.”

Russell surprised me again. There he was, standing by his truck when we walked up, just beyond where Meadow Creek spilled into the Selway River. He had come for a hike to the Lochsa River. Russell explained that Lee Mercer, my planned companion, had to cancel due to a broken tooth. While Gary, Bethanie, and I had been hiking from the Salmon to the Selway, a flurry of phone calls had searched for a new companion. With nobody else able to go, Russell had agreed. Kelly would have to care for their market garden on top of running the deli and giving massages. So Kelly had come to my rescue, too.

My journey was still in its infant stages. I began to comprehend what I was going to feel like for the next four months. Bethanie cautioned me that in all her years of backpacking, the pain of carrying a pack never goes away. You don’t get in such good shape that it doesn’t hurt anymore. I let this reality sink in, throwing out the hope that the

next few months would be a breeze. Grateful for the breaks that I'd planned into the itinerary, I realized even more than ever before that I had to pace myself.

Chinook salmon were trying to jump up Selway Falls. Several people watched from the road, and we joined. Salmon launched into the air again and again, falling short of the descending water. One reached the crest of the waterfall. Especially considering all the curve balls we humans throw at them, their journey from the Pacific Ocean suddenly made my endeavor seem so small.

Further reading:

Havlick, David G. No Place Distant: Roads and Motorized Recreation on America's Public Lands. Washington, D.C.. Island Press, 2002.

**Chapter 5: Selway-Bitterroot Wilderness: Selway River to Lochsa River
June 3-10 (63 miles)**

We slept by the junction of Meadow Creek and the Selway River, with the moon illuminating the mixing waters, and woke before dawn. Tired but determined, I ate and packed. As the sun greeted the day, Russell and I said goodbye to Gary and Bethanie before they drove away

Last night, Gary had imagined difficult creek crossings and deep snow as he helped Russell and I decide between two routes through the Selway-Bitterroot Wilderness. The contour lines on the topographic maps showed a mountain pass that brought back memories of the sugary snow in the Sawtooths. We didn't want to carry the weight of snow shoes, and chose the long way, which followed the Selway River, Moose Creek, and Rhoda Creek, to avoid hiking through deep snow and getting lost.

Striding through the rain, Russell and I watched kayakers, rafters, gnarly rapids, and flying mergansers. A pair of osprey screeched at us to move on and leave their riverside tree roost alone. The rain brought out profound greens in the trees and shrubs and kept the rattlesnakes hidden. We covered the well-defined trail at a steady pace. By 3 p.m., we'd come 13 miles. We crossed a creosote-sealed Forest Service bridge to the south side of the Selway River and found some campsites, amid dripping alder, maple, birch, and other broad-leaf bushes.

Delirious from nine straight days of carrying a heavy pack, I moved around with great effort. I hung a food line between some low branches of two large ponderosas that stood at the edge of a sand and rock beach. The rain let up for a nice dinner but started up

again, and we retired early for a well-earned sleep. Russell, economical with weight and money, didn't bring a tent but used a tarp to stay dry

I awoke breathing 100 percent humidity. The constant pitter-patter said this weather was here to stay. We agreed: rest day! I fell asleep. I came around to more rain. I sang Jimmy Hendrix in celebration: "Lay back and groove on a rainy day."

I slept most of the day. I also caught up on my journal and learned more shrubs and forbs from my plant identification book. While Russell explored a trail up the creek to the north, I drank up the sleep and was still able to fall asleep again that night.

We had not brought a stove, because of Russell's adroit fire-building skills. We cooked our dinner on Russell's little fire, built between two carefully chosen rocks. On this night, he proved his abilities, despite the pervasive moisture. Never complaining, Russell was one of the hardest physical workers I'd ever met, up early at his task, working with speed and, what seems to me, love. Russell wanted land for a market garden and had been saving his earnings from packaging market trees, farming, and pine cone picking to buy land to farm.

Like Russell, Gary and Bethanie lived simply, reducing their impact on the planet by biking to work and eating local, pesticide free food. In wilderness areas like the Selway-Bitterroot, you could not forget that you are part of something much larger than humankind. Russell, Kelly, Gary, and Bethanie carried that lesson around with them wherever they went.

On the third day, we stopped a run-away raft that someone had flipped in a rapid. We passed the Moose Creek Ranger Station and its airstrip, and headed north, leaving the Selway River. Our path took us through a lush forest that contained a mix of trees and

forbs, including western redcedars, ponderosa pine, grand fir, and Douglas-fir as well as starry Solomon seal, Queen's cup bead lily, huckleberry, mountain woodfern, yarrow, penstemon, and scarlet gilia. The cedar often grew in patches, its overlapping branches shading out most of the ground cover, leaving brown forest floor.

Near the end of our 12-mile day, my left thigh felt slightly numb and strained. In addition, the sharp pain in my neck around the C6/C7 vertebrae, which I'd felt in the Sawtooths, had returned. I adjusted my pack and hoped that some sleep and arnica salve would repair both ailments.

In the morning, we crossed a bridge over the East Fork Moose Creek and headed up the North Fork. Between the forks, spotted knapweed covered sections of a wide meadow, big enough for a town. We guessed that past livestock grazing had brought the knapweed. It was sad to see weeds had penetrated so far in to a wilderness area.

Due to the decrease from rain to a fine mist, Russell and I took off our rain gear and walked in shorts. But our boots became soaking wet. Ferns, thimbleberry, alder, huckleberry, and serviceberry sent water trickling down our legs, filling our socks like wet rags, uncomfortable and a danger for blisters. We stopped and wrung out socks and put on gaiters, to cover the top of our boots and socks. Now water ran down our gaiters to the forest floor instead.

Russell sensed our need to cover lots of miles, yet I wanted to take pictures, or eat another bar and take another break. I wanted to look up several flowers in my guide. He set the pace, and I tried to keep up. The mileage on the land took longer than I expected. The terrain grew lush, wilder, and more rugged, and the creek pulsed with more whitewater.

I stopped at the junction of Rhoda Creek with the North Fork and eventually found a good angle for a picture. When I arrived at the North Fork creek crossing, Russell had his sandals on, shoes around his pack, and stick picked out. Without discussion, he walked straight into the waist deep swift current, which flowed from our right to left, and steadily plodded across. After ten feet he turned and pointed upstream. Above the roar of the current, I heard “Face upstream!”

I nodded and bellowed, “Okay ”

He was across the formidable distance – 50 feet of snow-fed creek - by the time I was ready to begin. He made it look easy

I stepped out into the current and my legs rapidly began numbing. Step after careful step balanced with my ski poles, I shuffled out one quarter of the way. *This is much harder than I thought it would be!* I paused leaning into the creek’s constant force high on my thighs, feeling my tenuous balance on the slippery rocks and the weight of my backpack. I looked to Russell waiting on the other side, then down into the water. I chose stable spots and carefully filled them with my feet. Halfway across, I lost my balance. I leaned hard on my left ski pole and blindly stepped back. My foot slipped around on the rocks before reaching a secure place, while I directed my fall into the current. The current pushed strong against my waist and splashed on my chest. *This is cold.*

For a few seconds of fear, I thought that I’d lost it and had visions of being swept away downstream toward rocks and whitewater, while struggling to get my pack off. I replaced those visions with angered determination. I actually thought of Chuck, remembering flipping the rubber ducky on the first day of the Middle Fork journey. Now,

I felt the same tenacity as when I had paddled with all my strength to avoid the hole in Marble and the rock in Haystack Rapids. I regained my balance, by using the force of the current on my waist, and stood up with the help of my poles. After several more steps, the same thing happened again, but my resolve kicked in quicker this time.

Safe on the other side and shivering, I bumbled around, changing into warm clothes and eating an energy bar, while Russell waited for me. Concerned about hypothermia, I knew that time spent now would avoid an injury *Hey, my left thigh no longer feels strained.*

Between the two creeks, we walked a path to Rhoda Creek, where an old wet forest spread over several acres of flat ground. Pockets of large cedars grew with Pacific yew and hanging lichen, and nearby grand fir, Douglas-fir, and even ponderosa pine stood. Trees of two to three people's arms length around were common and continued up the slope to our right. We breathed deep, taking in the beauty, trying to remember to close our mouths after they opened in awe.

"Russell, this feels like a secret, enchanted forest!"

He smiled. "Let's keep it a secret."

"Even if people knew about it, only a few would come. It takes three days to get here on foot."

Sharp pain distressed my neck when I turned my head. Instead, I pivoted my whole body to absorb the abundance of this lush forest. Up and around the bend, shelf after shelf of more acres of dank mixed forest appeared. It went on for miles. I kept arnica salve handy in my pocket and rubbed it into my neck, periodically as we hiked. Despite the beauty, we pushed on quickly now. Light was fading, and we needed to find

camp. Beyond tired and with a numb mind, I trudged on, focused on keeping up with Russell and avoiding sharp pains in my neck.

Beside a 200-foot section of Rhoda Creek, where it dropped and roared in nearly complete whitewater, we found flat spots under towering cedars, on a brown cushion floor of little cedar cones and decorative needles. I searched for branches to throw my rope-rock over and I imagined pine marten (*Martes americanus*) and fisher (*Martes pennanti*) climbing trees. These related species in the mustelid family prefer or need old forests with continuous canopy cover. Jumping from tree to tree along the canopy of the forest, the fisher, which is about the size of a house cat, can travel rapidly and secretly through the forest. But its secretiveness has made it difficult to study, and it may be quite rare. Martens, about half the size, can be trapped for their pelts between November 1 and January 31

Created with the passage of the 1964 Wilderness Act, the Selway-Bitterroot Wilderness is the sixth largest wilderness area in the lower 48 states. Rugged, snow capped peaks of the regionally famous Selway Crags in its northwest portion and the impressive jagged white 10,000-foot peaks of the southern Bitterroot Range that form its eastern boundary characterize its wilderness skyline. The secluded Selway River enters the Selway-Bitterroot Wilderness from the south after a spur of the Magruder Road follows it north to Paradise, the “put-in” for rafters and kayakers. The Selway River harnesses nearly all the water from the 1.3 million acre wilderness. Many clear high mountain lakes reside there, especially in its northern and eastern mountains. The Forest Service has built many miles of logging roads up beautiful river canyons to other far back places. The large trees of some of its drainages could have been reached by logging roads

along the relatively gentle rise of the Selway River and Moose Creek. But at least in this wonderful place, the restraint that exists in all of us has prevailed. With Rhoda Creek rushing beside me and large cedars towering over me, I felt blessed with a large measure of solitude.

I awoke at 5:30 a.m. and wrote for half an hour before I heard Russell starting a fire. I rose, knowing the many westward miles yet to cover up Rhoda Creek to the drainage divide. Russell fed a small fire under the pot of nearly boiling water between two rocks. He sat back on a thick cedar root, looking totally at home, though a little impatient to get going. We dried our boots and ate breakfast in the trail, where Russell had built the fire. Sipping hot tea and eating warm cereal on this sunny morning, I brightened to the idea of a 10-mile day.

Up the trail, we left the cedar-dominated forest. Douglas-fir, grand fir, Engelmann spruce, and ponderosa pine returned to the mix. More light filtered into trillium, false and starry Solomon's seal, and yarrow. We crossed Wounded Doe Creek on a slippery log, and gained elevation. We found the forest quickly changed into a mix of subalpine fir, spruce, and lodgepole pine. Several plants like trillium spanned the transition, but beargrass became much more plentiful in this higher subalpine forest.

Clouds darkened the sky As we put on rain gear and gaiters the rain resumed. Sandals aided several more creek crossings. Along the trail, we saw lots of bear scat, a subalpine fir with deep, long claw marks, and a few bear prints. The scat and tracks of elk, deer, and moose spoke of the abundance of ungulates. With all the bear and moose sign and the wet marshy forest habitat, we proceeded with caution. High brush hugged

the trail, screening the view ahead. We announced our presence with shouts and clapping. Something rustled loudly in the brush to our right. Looking carefully, we made out the shape of a moose through the trees. It moved again, but then stood still. We trudged through the rain, ascending over 1000 feet up Rhoda Creek. Brush closed in on our trail, and often streams, flowing down the trail, carved deep channels.

The rain passed and the sun came out, prompting us to break in a meadow. I lay my wet tent to dry and Russell filtered some water from a little, meandering stream. A ground squirrel darted up from a hole and stood erect with its neck extended. Eyes wide, it stared and yelled at us. Next, a red-tailed hawk screeched from atop a large subalpine fir. The hawk and squirrel insisted that we move on.

Not much farther ahead we came to a series of wet, green meadows divided by pockets of subalpine fir and spruce trees. The meadows marked the end of the gradually inclining Rhoda Creek drainage. Surrounded on three sides by a high ridgeline, the drainage looked like a peninsula. Snowy East Peak of the Selway Craggs stood to the south. On the hillside, light green clumps of aspen shone in the slanted sunlight like green pears on white sticks.

We walked through the meadow along the trail looking for a place to camp. As the trail brought us from one meadow to another, a herd of elk grazing on the green grass came into view, 100 feet to our left. The late afternoon sun illuminated their white rumps. I snapped pictures as an elk cow went around to the others. Many seemed complacent and returned to grazing as if getting a few last bites. Some casually walked, then trotted off, while others responded by running. Russell counted 14 cows.

Seeing the elk so close gave me a burst of energy. When it passed, I felt desperately exhausted. We investigated the meadows for dry tent spots, and then searched the patches of forest, before settling on damp ground in a meadow. Soon clothes lines, strung between small firs and spruces, availed socks, long underwear, and just about everything to the late afternoon sun. While Russell retrieved water and started a fire for dinner, I set up our food rope. With bears around, I was glad to have honed this skill.

At dinner, we sat looking north across the meadow at the slope down from the ridge. Despite having consumed several servings of tabouli mixed with energy rich olive oil, I still felt hungry. Clearly, I burned more calories than I did around town. We'd finished eating and darkness had nearly descended, when Russell emphatically pointed. Effortlessly, yet swiftly, sauntering towards us, down the grassy hillside of sparse shrubs, subalpine fir, and lodgepole pine, was a big black bear. Russell clapped. It stopped and sat looking at us for several minutes. We stood up and made ourselves look as big as we could by extending our arms above our heads. I also raised my ski poles, which I used as walking sticks. Eventually, the bear stood on its hind legs to scratch its back on a nearby aspen. Turning, it carved black claw marks into the white bark. To our relief, the bear ambled off along the hillside to the east. Cold air seeped into my skin and I shivered. Once our food was hung, I went to sleep, half-expecting to be woken by the black bear. Instead, I dreamed of grizzlies.

For thousands of years, the grizzly bear ranged from Alaska to Mexico and from California to the Great Plains of the United States and Canada. Habitat loss and killing by humans reduced their numbers. Their population in the lower 48 states dropped from over

50,000 to less than 1000 bears. Today, estimates range from under 1000 bears (Predator Conservation Alliance) to over 1200 bears (USFWS). They occupy only 2% of their former range (in the lower 48) and live in four or five populations in Montana, Idaho, Wyoming, and Washington. The Greater Yellowstone Ecosystem (350-600 animals) and the Northern Continental Divide Ecosystem (400-600) are not in immediate danger of extinction. However, the Cabinet-Yaak (<50), and Selkirks (<50) populations have been called the “walking dead.” The North Cascades Ecosystem might also have several bears (<20). The fact that these are the last grizzly bears outside of Alaska and Canada raises the stakes for conservationists. It also points out that many people didn’t want to live with them.

Settlers feared predators – wolves, coyotes, cougars, wolverines, lynx, and bears – and set out to eradicate them. Government programs and ranchers poisoned them with strychnine. Compound 1080 at coyote and cougar bait stations also poisoned bears. In the Salmon-Selway/ Bitterroot, the grizzly bear faced a similar fate.

Bud Moore, a trapper and former Forest Service Ranger, wrote a chapter in The Lochsa Story about the demise of grizzlies in the Bitterroot:

To secure safe space for their farming and ranching operations, those pioneers waged an aggressive war of extermination against the grizzlies. Nonetheless, the little-explored interior retained the habitat and isolation needed by the bears. But many settlers had their eyes on the resources of that land, as well. A conservative estimate is that trappers operating around the turn of the century probably killed twenty-five to forty grizzlies in the Bitterroots each year... Bear losses due to trapping and hunting were compounded by the grazing of thousands of sheep... [and] cattle on the mountain meadows... These stockmen feared bears, especially the grizzlies, and killed every one they saw near their bands.

Salmon and steelhead runs on the Clearwater River’s tributaries plummeted after 1927 when a dam was built on the Clearwater River in Lewiston, Idaho. With a major food source gone, the sparse bear population roamed farther in search of food. This

increased human-bear meetings and bear deaths. In 1931, Bud Moore and his father trapped and shot one of the last grizzlies in the Bitterroots. It had killed 30 of their sheep. He wrote that the last grizzly track was seen in 1946. That year Idaho Fish and Game closed the hunting season on grizzly bear – too little, too late. Moore lamented the loss of the grizzly bear

By the mid-1940s, that most noble animal had disappeared. I sensed from experience and from my own killing, that everything in those mountains was, indeed, linked to everything else. All life in the land of the Lochsa would thus shift in some way or other in reaction to the bears' passing... The Bitterroots had become a lesser place... Those silvertips, you see, were a special part of the mountain's wildness. And, so far as I was concerned, no conceivable change short of their return could replace the emptiness left behind by last of the great bears.

Grizzlies have the best chance of recovery in large undisturbed areas, making the Salmon-Selway/Bitterroot an obvious choice for recovery. This is because each grizzly bear needs a large territory and because, as omnivores, they will eat human food and garbage – the first of a deadly chain of events for a bear. Recovery of grizzly bears is difficult, because they are very slow to reproduce. Females don't have cubs until they are four or five years old, they take two years to raise a litter, each litter contains an average of two cubs, and some don't survive to reproduce. Making matters worse, the strongest male grizzlies defend the best territories and push out (and sometimes kill) weaker bears.

The U.S. Fish and Wildlife Service (USFWS) proposed to reintroduce at least 25 grizzly bears over a 5 year period to the Bitterroot Ecosystem. The recovery goal of 280 bears was projected to take 50-110 years. The Idaho congressional delegation, Idaho governor, one Montana senator, and elected officials in some surrounding towns (not Missoula) adamantly opposed reintroduction. In 2001, Idaho's Governor Kempthorne sued to stop the plan two days before Bush took office. They settled out of court.

Secretary of the Interior Gale Norton proposed to drop the reintroduction plan. Presently, the 2000 plan awaits implementation.

The conflict over Bitterroot grizzly bear recovery has been dealt with through the National Environmental Policy Act (NEPA) process, scientific research, and through adversarial interest group politics in media and public hearings. In addition, two national environmental groups, a timber workers organization, and two timber companies formed a coalition that met regularly, starting in late 1993.

As Sarah Van de Wetering describes in Across the Great Divide, Dan Johnson of ROOTS (Resource Organization on Timber Supply) attended a USFWS function in 1993 to discuss the upcoming NEPA process. When it came time for him to speak, he said, “We don’t want *any* damn Bears.” He added that if bears were going to be reintroduced then his group wanted a voice in how it was going to be done. Tom France of the National Wildlife Federation (NWF) and Hank Fisher of Defender of Wildlife (Defenders) approached him, and they started meeting to see if there was common ground. They came to the table for different reasons. Timber interests wanted a steady timber supply NWF and Defenders wanted bears on the ground, with the support of a coalition of traditionally opposing viewpoints.

Meanwhile, the USFWS started the NEPA public process. The USFWS’s preferred scoping alternative would reintroduce grizzly bears to the Bitterroot as an experimental nonessential population, which, in their words, would allow wildlife officials to “ease concerns about excessive government regulation on private lands, uncontrolled livestock depredation, excessive big game predation, and lack of state government and local citizen involvement in the program.”

Over many months, the ROOTS coalition hashed out the details of the Citizen Management Committee Alternative. The 15 committee members would come from Idaho (7), Montana (5), the Nez Perce Tribe (1), the USFS (1), and the USFWS (1). The USFWS took the proposal to legal experts who made some minor changes. The Secretary of the Interior needed to retain ultimate authority over the reintroduction, but could authorize the committee to make certain types of decisions. If the Committee's decisions didn't lead towards the recovery of the grizzly bear, the secretary could ultimately disband the committee and resume the lead.

At the same time the Alliance for the Wild Rockies (AWR) led a coalition of conservation groups that developed the Conservation Biology Alternative (CBA). This alternative would reintroduce grizzly bears as a threatened population with habitat restoration and the full protection of the Endangered Species Act. The CBA called for extensive habitat protection and enhancement to promote natural recovery. A scientific committee of ten members would define needs for additional research and develop strategies for reintroduction. The CBA became alternative 4. Alternative 2 was no action (natural recovery) and alternative 3 would prevent recovery.

The USFWS held a comment period from July 1 to December 1, 1997, which included public hearings and open houses in Challis, Lewiston, Boise, and Salmon, Idaho, and in Hamilton, Missoula, and Helena, Montana. The 1998 USFWS Executive Summary of Public Comments tallied the 294 public hearing statements supporting or opposing grizzly bears in general as pro/con/unknown. Overall, 53 percent were pro grizzly bear, 35 con; Idaho, 42 percent pro, 45 con; Montana, 69 percent pro, 22 con.

In Boise, I spoke in favor of the Conservation Biology Alternative. I did not trust the Citizen Management Committee, with 12 of 15 members recommended by Idaho and Montana's governors. Plus, I wanted full ESA protection for the bear and a recovery area that included the wild Clearwater country and other important unprotected roadless areas. Like me, most pro grizzly speakers favored the Conservation Biology Alternative. In Missoula, where 88 percent were pro, "most speakers favored full protection and broader habitat designation," wrote Wetering in Across the Great Divide. "Alternative One seemed to be left hanging in the void between [the] two ends of the opinion spectrum."

The trust built within the ROOTS coalition had not spread far enough to dispel the dominant theme of polarization over grizzly bear recovery. I witnessed the division within the conservation community during a meeting in the Bitterroot Valley in 1999. Hank Fischer, Tom France, and Sterling Miller argued that Alternative 1 provided the best chance to get bears on the ground and increase trust. Howie Wolke and Mike Bader countered that under the Citizen Management Committee the newly transplanted bears might not be around for very long. Larry Campbell spoke of his work to locate grizzlies in the Bitterroot and said it would be wrong for an ESA grizzly to wake up the next day as experimental/nonessential. Gary Macfarlane of Friends of the Clearwater had brought me to represent the Cove/Mallard Coalition. However, I felt like a fly on the wall. Stewart Brandborg, Charles Jonkel, and John Craighead Jr. also attended.

Section 10(j) of the Endangered Species Act says experimental populations must be "completely separated from other populations and be geographically separate as well." The Conservation Biology Alternative argued that since the Bitterroot recovery zone is less than 40 air miles from another recovery zone, these populations are not

geographically separate and cannot be experimental. They also believe that there are grizzly bears there now Melquist (1985) reviewed 88 grizzly bear observations in the Clearwater National Forest and concluded that at least a few grizzly bears possibly continue to occupy the area. They also say Groves (1987) reviewed 86 reports south of I-90 and concluded that a small number of grizzlies likely inhabit the area. In response, the USFWS clarified the definition of a resident population to include at least two female bears with young. Also, they maintained that there had been no verified tracks or sightings documented in more than 50 years.

The atmosphere in the room had felt tense and super-charged. The gulf between the coalitions seemed huge, despite the fact that they both wanted grizzly bears to recover in the Bitterroot. The coalition around the Conservation Biology Alternative did not seem to like Fischer, France, and Miller. Afterwards, I found myself confused and aware that I was influenced by my fear of being accused of selling-out.

It seemed clear that there weren't enough grizzly bears in the Bitterroot for a population to recover. And a grizzly population was not likely to develop from grizzlies walking to the Bitterroot. While male grizzly bears have wandered from the North Continental Divide Ecosystem to the Bitterroot, female grizzlies are not known for making long movements. Thus, I felt that reintroduction was needed.

However, just as the ROOTS coalition had not unified the conservation voice, it also failed to moderate various Idaho and Montana politicians set against stopping Bitterroot grizzly recovery "This is perhaps the first federal land-management action in history likely to result in the injury or death of members of the public," Idaho's Governor Dirk Kempthorne told USFWS grizzly recovery coordinator, Chris Servheen, in a letter,

and reported the Spokesman Review in 2000. Montana Senator Conrad Burns framed the Bitterroot grizzly reintroduction as “being shoved down the throats of an unwilling public,” as quoted by the Associated Press in 1999.

The perception of an oppressive federal government drives the conflict over grizzly and wolf recovery. Most western states suffer from chronic conflict with the federal government over decision-making power, especially with environmental issues on federal lands. The Endangered Species Act has kept grizzlies and wolves from disappearing from the lower 48 states. Nevertheless, I began to think that the long-term prospects looked better for predator recovery if it was more palatable to those who lived closest to them. As quoted by Wetering, grizzly bear recovery coordinator Chris Servheen believes that the “[r]ecovery of the grizzly bear is not a biological problem.” He says, “It’s a social problem.”

Tim Clark and others stressed in an August 1996 Conservation Biology article that in order to craft effective solutions to the large carnivore conservation problem, a comprehensive problem definition was needed. “A good problem definition will take into account the interests of all concerned people, those whose lives are affected by the problem or the solution and those who must implement the selected alternative.” While public hearings and comment periods resulting from NEPA provide an unprecedented venue for public participation and a mechanism for airing a range of viewpoints, the problem definition is still performed by the agencies or experts in what Jonathan Poisner calls “synopticism, decision making through bureaucratic expertise.” In addition, the “hearing” format encourages political sparring not listening. At best, interest groups influence decisions through political bargaining. Poisner argues for a deliberative

decision-making process that aims to “create” the common good. Deliberative bodies of stakeholders embedded within NEPA and the current system of governance can (and have in some cases) improved upon given NEPA decision-making process for federal lands by coming up with their own problem definitions and creative solutions.

Despite the failures of the ROOTS coalition, they made significant achievements such as gaining the support of the National AFL-CIO and the Missoula County Commissioners. Alternative 1 garnered the most support in the petitions category, with NWF and Defenders getting 14,794 of the 21,362 total petition signatures. The Conservation Biology Alternative petition had 1566 signatures, and petitions against grizzly reintroduction brought 5002 signatures.

A 1997 poll done for Defenders and NWF surveyed 254 people – 17 percent from the three Montana counties bordering the Selway-Bitterroot and the rest from throughout Idaho – to find that 46 percent supported reintroduction while 35 percent opposed it. As reported by Ken Olsen, support increased to 62 percent when clarified that reintroduction would include “relocating bears if they wander into populated areas, using a citizens committee to manage the experimental population, limiting reintroduction costs to \$250,000 a year, and not imposing new restrictions on human activity to protect the bears.”

The Citizen Management Committee also helped convince Montana’s Republican governor, Mark Racicot, to offer his conditional support. At a governors meeting covered by the Spokesman Review in 2000, he said “I disagree with Dirk [Idaho’s governor] on grizzly bears. They listened to us and created a citizen management

approach.” Racicot added, “If it hadn’t been for the state of Montana, we wouldn’t have grizzly bears in the lower 48 states.”

The new Bush Administration appointed Gale Norton as Secretary of the Interior. She proposed to drop the reintroduction and held a 60-day public comment period. The results of the comment period were astounding. Of the 28,222 comments, 98 percent opposed Norton’s dropping of the plan and called for the reintroduction. Barker of the Lewiston Morning Tribune reported that only 362 comments agreed with Norton’s decision and that in Idaho, only 68 of 3,130 respondents agreed with Norton.

I now believe that the Citizen Management Committee Alternative is the most likely way to accomplish grizzly bear recovery in the Salmon-Selway/Bitterroot, because long-term recovery will ultimately depend on the level of local support. Based on the 1997 poll and Mark Racicot’s comments, citizen management and experiment status gave local support an important boost. The major role of the Citizen Management Committee embedded in the USFWS recovery mandate could build trust while reintroducing at least 25 grizzly bears. The deliberative nature of the Committee affords the opportunity to create common solutions and that is what grizzly bears and people need.

My eyes opened to a sopping wet world of dew. Cold, beaded moisture covered my rain-fly, the grass, and just about everything else. I climbed back into my sleeping bag and slept till the sun crested the horizon. There had been no point in moving until things dried out some. The morning sun brought wildlife. While getting water, Russell saw a moose. White-tailed deer snorted and checked us out from a distance. Three mule deer took a circuitous route to our campsite, arriving as we were almost ready to leave.

They came within ten feet of us. We threw snowballs and ran at them. I made an all out sprint really trying to reach the most aggressive one, prepared to dive to touch it.

However, it took three leaping bounds and was half-way across the meadow *Impressive*.

As we left, they honed in on where we had peed, in search of salt, a scarce resource.

We hiked up switchbacks to a snowy saddle, which was the dividing ridge between the Selway and Lochsa River Drainages as well as the boundary between the Nez Perce and Clearwater National Forests. Whereas snow had lain in scattered patches in the valley, here it was a several feet deep. We dropped our packs and hiked through deep snow to a summit on which lodgepole pine, subalpine fir, and two young whitebark pines grew. Several twisted wind-blown whitebark snags told of harsh winters. The glacially torn peaks of the Selway Crags stood to the south. In the distance to the east was the Bitterroot Range that had held extensive glaciers in the last ice age, 10,000 years ago. Molten granite of the Bitterroot batholith had risen 75 million years ago and pooled at a depth of 10 miles providing a slippery layer. The mountains slid east to create the Sapphire Range in Montana. I looked along the Selway/Lochsa River divide, a route that the Nez Perce had taken to hunt the plains buffalo in the summer.

The Nez Perce historically lived from present day eastern Washington and Oregon throughout central Idaho to western Montana. A peaceful tribe, they helped Lewis and Clark cross the rugged mountains north of the Lochsa in 1805.

In 1855, the Nez Perce signed a treaty with the U.S. that gave them an area five times the size of the present day reservation. The US Army broke this treaty. Chief Joseph led a group of the Nez Perce in a series of battles in 1877 where the Nez Perce routed the pursuing U.S. Army in many battles. Finally Chief Joseph surrendered. The

Army forced the Nez Perce to sign another treaty that created the present day reservation. The insignia of the Nez Perce Tribe is a picture of Chief Joseph within a red circle. Inscribed at the bottom is “The Treaty of 1855.”

The strength of the Nez Perce people is reflected in their elders. I’ve had the pleasure of working a little bit with one Nez Perce elder, Levi Holt. Levi is a former Nez Perce tribal council member and the former tribal liaison and area manager for the Wolf Education and Research Center in Winchester, Idaho. While organizing around the roadless initiative and Snake River salmon recovery, I met with Levi on several occasions. The Nez Perce Tribe endorsed the Roadless Initiative and turned out many tribal members to testify in favor of bypassing the lower four Snake River dams to the seaport town of Lewiston, Idaho.

The Nez Perce tribe has played a large role in wolf recovery. When the State of Idaho’s legislature prohibited Idaho Fish and Game from cooperating with the USFWS on wolf recovery in central Idaho, the Nez Perce Tribe agreed to partner with the USFWS. The tribe has played a critical role in monitoring the growth of wolf populations reintroduced into central Idaho in 1995 and 1996. As the USFWS prepares to delist the wolf from Endangered to Threatened and turn over more management power to the states, the continued involvement of the Nez Perce Tribe as a major player is very important.

Listening to Levi speak, standing next to him, and looking him in the eyes has benefited me greatly in my heart. He has the very positive and peaceful demeanor of a wise person. He represents his people and the wolves well. The wolves have lots to teach us, and with the work of the Nez Perce and Levi, wolves will find their place. While the

Nez Perce have a deep history tied to the land, I've gained a greater appreciation for them as a present day people living in Lapwai and other small towns in Idaho. While looking in Levi's eyes and listening to his words, I learned that the Nez Perce people are here to stay

Snow melts slower on the north side of the divide. So for our descent into the Cliff Creek drainage, we didn't bother trying to find the trail. Instead, we slid down the side of the hill on our boots, like small skis, flying down the open slopes and picking a way through the brush and trees. Further down Cliff Creek, we found the trail with a stream running in it. After the open sparse forest and meadows of upper Cliff Creek, spruce and firs crowded in and the creek grew in size, and we had to cross it. Anticipating several creek crossings, we hiked the remainder of the wet afternoon in sandals.

At dusk while we ate dinner, we heard two gunshots.

"Black Bear," announced Russell.

I looked up from the fire and into Russell's eyes and nodded. I felt a little sick. I wasn't fond of black bear hunting, but what could I do?

That night a thunder and lightening storm passed directly above us. Repeatedly, thunder crashed forcefully within one second of the illumination of my light blue tent, disquieting and thrilling me all at once.

The next morning, yellow ribbon marked a spot in the trail that led into the woods. Presumably, the ribbon marked where the hunters had shot the bear. Russell was angry. The U.S. Park Service prohibits hunting in national parks, while the Forest Service allows hunting in wilderness. Both avenues had their merit, but I wondered if the Idaho

Fish and Game managed for too small a black bear population. Russell hunts deer and elk, but he disagreed with those hunters that pressure the Fish and Game to manage for low populations of bears, cougars, and other predators. From his perspective, there are not enough carnivores on the landscape. By taking the weakest individuals, predators select for stronger ungulate populations, regulating the ecosystem from the top-down.

Eager to reach Stanley Hot Springs to relax, I had gotten up before Russell at 5:30 AM. Still, he had been ready before me. The trail crossed Cliff Creek a couple more times, then Surprise Creek, and then Boulder Creek, a dangerous crossing. I began to trudge and tire of Russell's boundless energy and quick pace, letting him get far ahead of me on the three-mile hike down Boulder Creek. After an uneventful second crossing of Boulder Creek, where it was spread-out and shallower, and then a short jaunt, we reached Stanley Hot Springs at noon.

At Stanley, the forest opened up to three steaming pools of constructed rock and heavily used camp sites. Huckleberry Creek flowed 100 feet below. My first thought was "back to civilization." Being a weekend, there were quite a few people, about 20. At first, I wished they were not there. But I got used to seeing people and so did the mamma and baby moose that came up and drank from whichever pool was vacant.

A young couple gave us their campsite near the pools. After a soak with a moose, our mutual friend Chris Norden, an English professor at Lewis and Clark State College, and his dog Luna arrived with apples, spicy soy jerky, mango juice, avocado, onion, jalapeño, crackers, oranges, pepper, garlic, ginger, carrots, zucchini, and mushrooms. I indulged in juice and fresh fruit, followed by a delicious stir-fry over couscous.

On the five-mile hike out in the morning, we met several groups headed in: a troop of boys, mixed couples, more youth, and a thirty-something woman who asked me if I was the one doing the big hike.

In a walking dream, I rounded a corner and saw highway 12 and the pavement of the Wilderness Gateway campground. In that split second, fear hit me before I recognized the change in scenery. The contrast between the wild forest and pavement, especially the road, was stark.

June 10 – Wilderness Gateway, Lochsa River, Idaho – Standing by the Lochsa River, I feel the intrusion of the road even without the traffic. I know I'm not alone and that any moment a truck may come around the bend, and when it does, the atmosphere will be totally changed by the noise. The Lochsa is a raging river beautiful to behold, and the south facing hillside with sparse trees and the north facing bank filled with trees is similar to what I saw on the Selway River. However, the road gives a much different feeling. It is as if the landscape has been violated. A person crossing Highway 12 has to be careful. You don't cross on a blind bend in the road. You must walk to a spot where both directions can be seen for a ways. This is a lot for wildlife to figure out. Highway 12 is the third road that I've had to cross, and couldn't have avoided. First was Highway 21, then the Magruder Corridor. With its 18-wheeler traffic, Highway 12 affects wildlife movement between the Selway-Bitterroot Wilderness and the northern roadless areas of the Wild Clearwater Country.

Four lane highways like Interstate 90 that have well over 4000 vehicles per day are certainly barriers to wildlife. Wildlife needs an adequate way to cross these highways. Highways 12 and 21 are not barriers to the same extent. However, action is prudent given that their traffic volumes may keep increasing. Crossing structures provide a possible solution to the high traffic barrier, and they have been utilized in Banff National Park to cross the Trans Canada Highway, in Florida to cross Interstate 75, in Montana's Glacier National Park to cross Highway 2, in Washington State to cross Interstate 90, and in Europe. The Federal Highway Administration's "Critter Crossings" website shows examples of badger tunnels in the Netherlands, fish passage archways in Washington State, desert tortoise underpasses in California, black bear underpasses in Florida, and

small mammal drainage culverts under Interstate 90 in Washington State. In the Northern Rockies of the U.S., deer, elk, moose, black bear, bighorn sheep, cougar, hares/rabbits, rodents, pets, and other common creatures are most often hit by cars. Because species do not live in isolation, but as part of ecological systems, it is important to try to make highways permeable to as many creatures as possible.

Compared to most underpasses, overpasses are less confining, quieter, maintain ambient conditions of rainfall, light and temperature, and can serve both large and small animals. However, they are generally more expensive. The two 50-meter-wide overpasses in Banff National Park each cost \$2-3 million. Underpasses cost less, about \$30,000 for 4 by 6 foot metal pipes or concrete box culverts and about \$120,000 for 12 by 22 foot ones, according to Skillings-Connolly, Inc., plans for the Highway 93 expansion on the Flathead Indian Reservation in Montana. In many cases, they already exist as drainage culverts. Dr. Anthony Clevenger, a biologist studying crossing structures in Banff National Park, asserts that underpasses should be placed as frequently as possible with various dimensions for different sized animals. In Banff, 22 underpasses and 2 overpasses were constructed. Between Evaro and Polson, Montana, on Highway 93, 34 underpasses, seven open-span bridges, and one 150-200 foot overpass (one open span bridge already exists) are planned.

When asked if grizzly bears would use a crossing structure over Interstate 90, Dr. Craighead asserted that "Overpasses need to be wider and more secure than the ones in Banff. Elevated spans of highway, about 30-40 feet up or higher and ¼ mile or longer would work [even] better. If they can cross without being frightened by traffic it should be no problem." In addition, due to their expense, after locating either overpasses or

raised sections of highway at the prime areas (near wildlife movement routes and away from human disturbance), wise placement of multiple underpasses of varying sizes will add to the connectivity of the landscape for all sizes of wildlife.

The morning's walk had brought several vistas, where I looked back, trying to take it all in, hoping to comprehend the Selway-Bitterroot Wilderness. But I couldn't. When I look at a map of the Wilderness, I am struck by its vastness. There are enough lakes, creeks, and mountains to fill a lifetime of hiking trips. I can understand how people think that there are enough wilderness areas. However, that is a human perspective of visiting wilderness. A landscape seems so vast when traveling on foot; however, by car its length can be traveled in 2 to 3 hours. The needs of sustainable populations of species are greater than even this 1.3 million acre wilderness can provide.

Given the needs of wildlife and humans, a linked landscape of reserves is a beautiful vision of sustainability for both wildlife and human communities that acknowledges that while we are a part of nature, some of creation can't live directly side by side. This vision includes core areas for wildlife and core areas for humans (cities and towns) both with transitional zones and both connected by travel corridors – wildlife movement corridors and roads, respectively

Further reading:

Moore, Bud. The Lochsa Story: Land Ethics in the Bitterroot Mountains. Missoula, MT: Mountain Press Publishing Company, 1996.

**Chapters 6-18: Clearwater to the Cabinets to the Selkirks
June 16 - October 7 (575 miles)**

In a similar fashion, chapters 6-18 will relate my personal experience hiking with my companions. Interludes in towns will provide opportunities to relate the nature of the human communities. Along the Bitterroots, I will introduce the concept of source and sink populations. When I cross I-90, I'll look at crossing structures and their effectiveness. At the British Columbia border, I'll discuss transboundary conservation issues. Looking over the South Salmo River, I will tell how the dam in Washington on the Columbia River killed all of the salmon that had spawned in 1140 miles of the upper Columbia River system, including those in the Kootenay River system. Throughout I'll present conservation challenges, examples of successes (and failures) in connectivity such as common ground found with ranchers, developers, hunters, loggers, and municipalities, and suggest ways to implement the Yellowstone to Yukon vision combining top-down and bottom-up strategies.

Prospective Book Outline

Prologue

Chapter 1 Sugar Snow in the Sawtooth Mountains

Chapter 2: Middle Fork of the Salmon River

Chapter 3. The Salmon River

Interlude: A Cove/Mallard Activist

Chapter 4. Salmon to Selway, Cove/Mallard and Meadow Creek Roadless Areas

Chapter 5: Selway to Lochsa, Selway-Bitterroot Wilderness

Interlude: Kamiah, Winchester, Orofino, Lewiston, and Moscow

Chapter 6: Wild Clearwater Country: best carnivore habitat in Y2Y region; *Wolves*

Chapter 7: Kelly Creek to Bitterroots: world-class cutthroat trout fishery; *Fisher*

Chapter 8: Bitterroots to I-90: Linking wildlands; crossing logging roads and highways

Interlude: Spokane, Coeur d'Alene, Kellogg, the Silver Valley, and Missoula

Chapter 9: Bitterroots to Clark Fork River: crossing towns; restoring damaged Forests

Chapter 10: Cabinet Mountains Wilderness: Rock Creek Mine; Grizzly's southern range

Chapter 11 West Cabinet Mountains: unprotected roadless areas, Scotchman Peaks; 3 great pals

Chapter 12. West Cabinet Mountains: moose abound in high mountain lakes

Interlude: Priest River, Sandpoint, Bonners Ferry, and Noxon

Chapter 13: U.S. Selkirks: the crest, Long Canyon; two tough women

Chapter 14. U.S. Selkirks: upper Priest Lake, clear-cuts and roads; *Grizzly bear*

Chapter 15 International Selkirks: Salmo-Priest; *Mountain caribou, lynx*

Interlude: Stopped at the border in Porthill

Chapter 16: Canadian Selkirks: solo trek during 9/11, private timberland; best route possible; clearcuts

Chapter 17: Canadian Selkirks: clearcuts and roads; West Arm PP; Harrop-Proctor Project;

Interlude: Harrop, Creston, Crawford Bay, Grand Forks, and Nelson

Chapter 18. Canadian Selkirks: Kokanee Glacier, the end of a long journey; my brother's recovery; family comes together

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