MARKETING THE MOUNTAINS: AN ENVIRONMENTAL HISTORY OF TOURISM IN ROCKY MOUNTAIN NATIONAL PARK

BY

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Introduction

In 2005, Colorado generated more than eleven billion dollars in mineral production. That same year, the farmers and ranchers of the state contributed more than seven billion dollars to the state's economy. Although such figures speak to the importance of traditional resource extraction and production in the economy of western states like Colorado, over the past century another economic sector has increasingly challenged their dominance. During that same fiscal year, the Centennial State was the beneficiary of nearly nine billion dollars in economic activity directly related to tourism. Contributing significantly to that figure were the some three million people that visited Rocky Mountain National Park (RMNP).

Tourism in Colorado has roots stretching at least as far back as the 1860s, when boosters of the territory touted its great fishing and health benefits. Over the past one-hundred and fifty years, tourism in Colorado—and indeed across much of the American West—has supplemented local and regional economies. Given the past and present importance of tourism in states like Colorado, it stands to reason that it would be the subject of historical study, and indeed it has. Although the historiography of tourism in the American West is broad and diverse, the works of

Earl Pomeroy, Marquerite Shaffer, Anne Hyde and Hal Rothman have been especially important.

Marking the first in-depth investigation into the relationship between tourism and the American West was Pomeroy's 1957 *In Search of the Golden West: The Tourist in Western America*. To Pomeroy, the tourist "is capital." More than strangers in an unfamiliar land, they represent income as "consumers of gasoline and ice-cream cones and real estate."[1] Laying the foundation upon which Shaffer, Hyde, and others would later build, Pomeroy was one of the first to delineate the democratization of tourism in the West through a series of technological and sociological developments. Once the purview of only the wealthiest Americans (and Europeans), the American West steadily invited visitors of every social class to romp across the landscape as trains, later automobiles, and finally airplanes brought more people to and through the region.[2]

Pomeroy offers valuable insight into the complex processes through which the "toured upon" assume roles that reflect the sort of authentic Western experience tourists sought. According to Pomeroy, the West "plays West," as it "acts out a kind of Easterners view of the West based more on the testimony of television than of history."[3] Since tourism is an endeavor predicated on selling an experience, and since a goodly number of those traveling West were non-Westerners who came with specific preconceived notions about what exactly an authentic Western experience

[1] Earl Pomeroy, *In Search of the Golden West: The Tourist in Western America* (New York: Alfred A. Knopf, 1957), vi.
[2] Ibid., 223.
[3] Ibid., 225.

entailed, westerners have often reshaped and repackaged themselves to conform to such expectations.

Pomeroy also makes mention of the impact of the tourist upon the places they trod. Given that the field of environmental history was yet to develop in 1957, this insight was especially prescient. According to Pomeroy, the touring aristocrat of the nineteenth century was content to stay separated from nature, admiring its beauty from afar. As such, their impact upon the natural West was limited. Not until hoards of "American" tourists of the mid-twentieth century arrived with their desire to climb mountain peaks, breathe the bracing air, and the experience home with them was the natural world transformed. Pomeroy is right about the transformative power of tourism, but incorrect about the innocuous nature of nineteenth century tourism. As the following chapters will demonstrate, the mere act of accommodating and attracting Eastern tourists initiated more than a century of significant environmental change in the American West.

Historians have continued to build upon, refine, and expand many of the ideas first explored in Pomeroy's work. Anne Farrar Hyde's *An American Vision: Far Western Landscape and National Culture, 1820-1920* also marks an important contribution to the understanding the connections between national identity, the American West, and tourism. Of central concern to Hyde is the process through which Americans sought to make sense of and define the American West. Hyde discovers that Americans of the early 19th century lacked the tools to define the region on its own terms. As such, they turned most frequently to European references

to explain and define it. As the nineteenth century progressed, however, Americans cast about for a source of national identity—indeed national greatness—that transcended European comparison. In this sense, the promotion of the American West became part and parcel of the creation of a distinct American identity.

In short order those who had a vested economic stake in the West, especially railroad companies, began creating a unique western architectural style that reflected the region's nascent identity. According to Hyde, railroad companies found that "American tourists responded with enthusiasm to the packaging of wilderness, deserts, and Indians in a luxurious yet rustic setting."[4] Central to the development of an architectural style that was distinctly American was the creation of great Western national parks like Yellowstone and Yosemite, where the rustic Western American architectural style was embodied in its fullest form.

Reinforcing the findings of Pomeroy, Hyde also finds that over time tourism in the West has undergone a democratizing process. Hyde argues that railroad companies initially held sway over the earliest years of the development of western tourism both in their control of wealthy clientele and of how the West was presented to tourists. As the twentieth century approached, however, their control waned. Driving this democratizing impulse were national parks—great swaths of land that were to serve as playgrounds for all Americans, not just the well-to-do. The development of parks, argues Hyde, was in no small part driven by the recognition of the importance of great Western landscapes in shaping national identity, and the

[4] Anne Farrar Hyde, *An American Vision: Far Western Landscape and National Culture, 1820-1920* (New York: New York University Press, 1990), 296.

subsequent understanding that they must be protected. The second democratizing tool in Western tourism was the arrival of the automobile, which "signaled a defeat for the railroad in their quest to control access to the far western landscape."[5]

Less interested in the West in the formation of national identity and more interested in the costs of tourism is Hal Rothman. Through his *Devil's Bargains: Tourism in the Twentieth-Century American West*, Rothman investigates the hidden costs associated with the growth of tourism. The most significant of Rothman's contributions is his contention that the transition to tourist-based economies comes with a slew of significant socioeconomic costs often paid by locals who lack access to capital. Although many communities like Sun Valley and Steamboat Springs turned to tourism to supplement their economic base or to escape the bonds of extractive industry, Rothman finds that the growth of modern commercial tourism resulted in the loss of local control of economic development and the dilution and diminution of local identity. In short, argues Rothman, "Regions, communities, and locales welcome tourism as an economic boon, only to find that it irrevocably changes them in unanticipated and uncontrollable ways." Moreover, contends Rothman, "[t]ourism transforms culture into something new and foreign; it may or may not rescue economies."[6]

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[5] Ibid., 301.
[6] Hal Rothman, *Devil's Bargains: Tourism in the Twentieth-Century American West* (Lawrence: University Press of Kansas, 1998), 10. For more on the cultural dimensions of tourism, see Hal Rothman, ed., *The Culture of Tourism, the Tourism of Culture: Selling the Past to the Present in the American Southwest* (Albuquerque: University of New Mexico Press, 2003).

In this sense, a good deal of Rothman's book concerns itself with the aspect of tourism that was first struck upon by Pomeroy nearly fifty years prior. Specifically, through the process of attempting to attract tourists, westerners find themselves in the oftentimes odd business of not acting as authentic westerners, but rather dressing themselves and their businesses in the trappings that tourists associate with an authentic western experience. Played out over time, argues Rothman, this behavior results in the loss of western identity and its replacement with one that is essentially *faux*.

Just as troubling as the loss of local and regional identity to Rothman is the loss of control over economic development concomitant with the development of tourism. Here, Rothman argues that "tourism promises much but delivers only a little," as "[i]ts local beneficiaries come from a small segment of the population, 'the growth coalition,' the landowners, developers, planners, builders" and others. In both of the above instances, Rothman's work stands as a major contribution to the field because it was one of the earliest works to challenge the widely accepted notion that tourism provides a way out of the boom and bust cycles of extractive economies.[7]

An important corollary to those interested in the growth of tourism in the American West are those scholars dedicated to understanding the development and growth of national parks. In this regard, the works of Roderick Nash, Alfred Runte, and Richard West Sellars mark important developments in national park historiography. One of the first historians to think deeply about the creation of the

[7] Rothman, *Devil's Bargains*, 10.

national park system—and by extension their deeper significance relative to the development of the United States—was Roderick Nash. Although he notes that national parks required vast tracts of land and a democratic tradition that viewed that domain as property of the people, Nash argues that urbanization and affluence were also significant contributing factors to the development of parks. The rapid urbanization of the nineteenth century separated many Americans from a harsh frontier existence. Once segregated from the hard-scrabble life tied to the land and resource extraction, Americans began looking at wild spaces differently. No longer savage wastelands in need of taming, wild places came to be seen by urban Americans as loci of inspiration, truth, and respite not often found in the nation's bustling urban settings.

Just as important in the formation of the national park idea, argues Nash, was the rise in affluence of the late nineteenth century. It was, after all, only the wealthiest of Americans that had the means to travel to the mysterious Yellowstone or Yosemite prior to the democratization of tourism of the early twentieth century. Wealthy, eastern urbanites spearheaded much of the movement to create national parks.[8]

Historian Alfred Runte has also added significantly to our understanding of national parks.[9] At the heart of Runte's account is his contention that the widely accepted notion that parks are best understood as symbols of our nation's willingness to forgo economic development in order to protect our nation's natural heritage is

[8] Roderick Nash, *Wilderness and the American Mind*, 3rd ed. (New Haven: Yale University Press, 1982).
[9] Alfred Runte, *National Parks: The American Experience*, 2nd ed. (Lincoln: University of Nebraska Press, 1987).

deeply flawed. Instead, Runte demonstrates that national parks have always been shaped by economic concerns. Specifically, he argues that central to the creation of our earliest parks—especially Yellowstone—was the fact that much of the land included within proposed parks had little or no immediate economic value. This so-called "useless lands hypothesis" challenged decades of writing on national parks that held them up as reflections of an especially forward looking, enlightened society.

Also contributing greatly to our understanding of national parks is the work of Richard West Sellars. Through his *Preserving Nature in National Parks*, Sellars seeks to understand the forces shaping the management of flora and fauna within the highest ranks of the National Park Service (NPS).[10] Stripping away layers of romanticization, Sellars clearly argues that parks were first and foremost a function of the national development of tourism. Nearly all of the Service's resources, personnel, and expertise during its formative years were put to work at promoting and facilitating tourism. Far from useless land, Sellars demonstrates that the NPS and its supporters recognized early that parks had an economic value all their own.

Sellars's work offers more than an institutional history of tourism via the NPS; it also adeptly traces the impact of science in reshaping how the NPS envisioned its mission and subsequently sought to manage its resources. What emerges is a complicated story in which those interested in the growth and development of tourism through the NPS came to be challenged by a different way of

[10] Richard West Sellars, *Preserving Nature in the National Parks* (New Haven: Yale University Press, 1997).

managing park resources. While it is safe to say that the NPS of today is still predominantly a purveyor of tourism, it must also be said that the arrival of science has greatly complicated how they accommodate tourists.

Pomeroy, Hyde, Rothman and many others have provided a great deal of information about the cultural aspects of tourism and its unique role in shaping the American West. Likewise, over the past three decades historians such as Nash, Runte, and Sellars have used national parks as avenues into the formation of national identity, the shifting place of nature in American culture, as well as the role of science in complicating and altering how public agencies function. Historians concerned with the growth and development of tourism and national parks have greatly expanded our understanding, but there is much yet to learn about both.

Although hundreds of books have been written about the development of tourism and the history and meaning of national parks, no one has yet undertaken a truly environmental history of either, in which the emphasis is on material changes in the natural world caused by humans. Employing such an approach, I argue, has the power to greatly add to our understanding of both. Although we know a great deal about the cultural components of tourism, historians have written almost nothing about its relationship to the material world. The question is more than academic. Across the American West, indeed across a good portion of the globe, eco-tourism is a growing industry. Although many towns, cities, states, and even nations embrace tourism as a "green" way out of intensive extractive industries, historians know little about its ability to alter those places where it predominates.

This is not to say, however, that other fields have not concerned themselves with the current impact of tourism on the environment. Recreation ecology is growing field in which biologists and others apply modern scientific principles in their effort to gauge the impact of tourism and recreation upon the natural world. The knowledge this field has generated regarding the power of tourism to transform the natural world, and the tools and practices needed to mitigate such changes, is substantial. The field has developed to the point where entire textbooks are dedicated to understanding the "mechanical wear" of bicycle tires upon plants, animals and the soil, as well as the impact of litter upon the soil, boating upon lakes, and the like. [11] What is lacking in this growing field, however, is the historian's voice.

At present, tourism in Rocky Mountain National Park exerts a great deal of pressure upon its soil, plant, animal, and aquatic communities. About this there is no doubt. What is just as certain, however, is that decisions and processes of generations past continue to shape both the policy-making arena and the natural world of this place. Any full appreciation of all of the factors that contribute to tourism's ability to transform the natural world must include a historical dimension. The roads that bring humans in direct contact with the park, the non-native fishes that dominate park waters, and the overgrazed meadows and trampled riparian areas within RMNP are all developments that began many decades in the past, not necessarily functions of tourism today. More than five decades after the NPS stopped stocking non-native fish, and nearly one hundred years since they exterminated predators in their effort to

[11] Michael Liddle, *Recreation Ecology: The Ecological Impact of Outdoor Recreation and Ecotourism* (London: Chapman and Hall, 1997).

grow ungulate populations, the park still bears witness to such programs. Biologists have the tools and methodologies to tell us how the natural world has changed through tourism. Historians have the capacity to tell us why.

One of the greatest challenges in structuring research that traces, measures, and analyzes the environmental impacts of tourism across the twentieth century is segregating tourist activities from those of non-tourists. To help overcome this hurdle, this study focuses on a particular landscape that has, for the better part of the past century, functioned almost exclusively as a space for the tourist—Rocky Mountain National Park. The reasons for this choice are many. Rocky Mountain is a logical choice because of its prominence as a leading western national park. Since its creation, it has often attracted more visitors than Yellowstone, Yosemite or the Grand Canyon. tens of millions of Americans have made the pilgrimage to this breathtaking landscape and experienced first hand the spender of the Rockies.

Although RMNP is a major western park, historians have paid scant attention to it. In fact, over its nearly one-hundred year history only one monograph attempts to capture its rich and diverse history. In this basic sense, the time is nigh for another historical investigation into this park. Rocky Mountain is also a logical choice for such a study because Colorado and Denver both have deep historical connections to the growth of tourism in the American West. In fact, tourism—not "preservation"—provided the main impetus for this park's creation. As such, the Estes Park region provides a window into the growth of tourism in Colorado while enabling the historian to trace its evolution across the twentieth century. Also making RMNP a

useful subject of study is the wealth of scientific data generated within the park. The park archive is stacked from wall to wall with scientific investigations into the park's soils, water, plants, and animals. To an environmental historian interested in understanding something about the interaction between humans and the natural world, the wealth of scientific information available on Rocky Mountain National Park is invaluable.

National parks provide a good opportunity to study tourism for another reason as well. At their very core they represent examples of socially constructed spaces. Within their borders we codify, regulate, and encourage a very particular set of behaviors. Similarly, within parks a range of behaviors such as hunting, logging, and mining are typically forbidden. National parks represent places where environmental protections are relatively high, and profit incentives are relatively low. As such, they offer valuable laboratories to analyze the environmental impacts of tourism under the very best of circumstances. If tourism is going to function in an environmentally sustainable way, it ought to be able to do so within America's great national parks.

Further narrowing the field of inquiry, the following chapters focus upon driving, fishing, and wildlife viewing within Rocky Mountain National Park. Each of these activities represent a significant reason tourists have come to the park, and managing for each has brought about widespread—in some cases irreversible—environmental change. As Pomeroy, Hyde, Rothman and others have demonstrated, how Americans have defined the West has played a direct role in shaping the region itself. With this in mind, each section begins with analysis of advertisements used to

draw tourists to RMNP. More than a means to attract tourists, these advertisements have the ability to tell us something about what advertisers and tourists thought a trip out West *should* entail. On this point I am not interested as Rothman, Pomeroy, and others have been with how westerners transformed themselves and their communities to conform to the expectations of the tourists. Rather, I am interested in how locals, business owners, and the NPS transformed the natural world to conform to such expectations. Well before the state of Colorado was even a state, a handful of boosters promised great fishing, wildlife viewing, and later driving in and around Estes Park. Such advertisements, I argue, put specific pressure on locals, communities, and the NPS to meet those expectations. In part reacting to and fostering these expectations, the NPS and others built smooth and wide roads, planted desirable fish species in nearly every body of water within the park that would hold them, and took sometimes drastic measures to grow the park's elk herd. In meeting such expectations, however, the NPS unwittingly brought about significant environmental change in the very place they were charged with protecting—truly a devil's bargain.

But the history of RMNP offers more than a story of tourism run amuck. As Sellars clearly demonstrates, ecology arrived within the NPS in the 1930s in a real way and began the process of challenging and changing how parks like Rocky were administered. Through decades of scientific study, the NPS became increasingly aware that managing solely for the pleasure of the tourist was, in fact, undermining the ecological integrity of the park. Although Sellars provides detailed analysis of how these changes took place within the management of the NPS, the reader gets

very little sense of what the arrival of ecology meant to the plants and animals within parks, nor does the reader get a sense of how science impacted the interaction between tourists and the park itself. In Rocky Mountain I find that the arrival of more ecologically-based management provided a competing social definition of what this space was and how it should be administered. Reflecting the rise of ecology within the NPS and its redefinition of what constituted appropriate management, the NPS reduced its elk herd, stopped stocking non-native fish, and eventually embraced voluntary mass transit in a broader effort to restore portions of the park's plant and animal communities. In these and other ways, ecology brought change to the plants and animals of the park just as it altered how visitors came into contact with them.

Rather than standing in judgment of the NPS for management decisions that brought about ecological degradation, this work attempts to understand how and why they managed the resource as they did. Doing so makes it clear that what parks have meant to Americans has changed greatly over the course of the past century. As Sellars and others argue, parks were first and foremost created as pleasure grounds for Americans. As such, both visitors and the NPS were primarily interested in protecting and enhancing the visual appeal of the parks. To blame the NPS for building roads, growing elk, and planting fish that satisfied park patrons because such activities eventually caused environmental damage is not historically fair or helpful. Rather, we must always work to place decisions within their historical context. Only when we begin to understand the complex factors that shaped policy decisions will we be able to apply the lessons of the past to the management challenges of the future.

Chapter One
Making a National Park

Introduction

For millennia we have scratched, etched, stippled and chipped our stories on stone, painted them on animal hides, and written them in glorious and sanctified books. Storytelling offers us an opportunity to make sense of our worlds, our communities, and ourselves. Among the tales told over the past century are stories about the creation of America's national parks. These stories too, whether we know it or not, have shaped some portion of our individual and national identities by adding meaning and complexity to both.

Many hail national parks as one of the chief accomplishments of a highly moral and civilized society. We have, so this version goes, evolved to a point where we recognize and take steps to protect forever sweeping and irreplaceable vistas, pristine waters, towering trees, and the like. Taken to heart, this rendering instills a sense of pride, accomplishment, and satisfaction in knowing that in a world where nearly everything is valued first and foremost by its economic utility, we have had the foresight and self-control to place portions of nature above our own economic self interest.

For nearly a century, historians, newspaper reporters, and magazine editors have been telling the story of Rocky Mountain National Park (RMNP) in this fashion. And why not? It is a hell of a story, and it goes something like this:

At the age of fourteen, a sickly boy from a poor Kansas family worked his way to the salubrious mountains of the West in the hope of saving his own health, maybe his life. Once removed from the repressive heat of the Kansas prairie, the screaming cicadas still fresh in his mind, he settled almost naturally into the thin brittle air of the Colorado Rockies. With the sweat of his brow and the blood of his muscles, the boy built a cabin and began a life all his own. While tramping about the West, he met the Apostle of Nature, John Muir, and was forever touched by their stirring encounter. From that day on, the young Enos Mills dedicated himself to knowing, loving, and saving his natural world. This life of learning and loving nature yielded a bevy of books, scores of articles, a lecturing stint with the newly fashioned United States Forest Service, and national acclaim.

Later, as he came to see the greed, corruption and collusion of that federal agency, the then middle-aged Mills turned his considerable energy to the creation of a national park, which would forever protect his beloved Longs Peak region. What he envisioned was a lofty sanctuary where the flowers, animals, and mountains about which he so lovingly wrote would forever be spared the grasp of greedy timber men, hopeful miners and raucous pioneers. Instead, what he got was a bureaucracy little interested in beauty or democracy, but rather fixated on tourism, concessions and the almighty dollar. In what would be the final years of his life, the indefatigable Mills battled mightily in his attempts to get the National Park Service to recognize and correct their mistakes, making trips all over the nation to convince others of the importance of his message. On what would be his last trip, Mills suffered a freak

accident on a subway and later died of his wounds. Headlines read, "Father of Rocky Mountain National Park has died today, of a Broken Heart."

Worthy of Frederick Jackson Turner or Joseph Campbell, this emotional and moral *story* contains at least as much fancy as it does fact. A more balanced reading of the sources and a less romantic view of Enos Mills will yield a complex, colorful, and satisfying *history*—one that offers insight into how and why a great park came into being, while also shedding some light upon why we have, for so long, clung to mythical rather than factual historical interpretations of this park's creation.[1]

Over the past few decades historians have cast an increasingly critical eye toward the meaning and function of our "national playgrounds." Rather than cathedrals of natural beauty or symbols of a nation's grace, many have come to regard national parks as manifestations or reflections of our political and economic systems. Parks, these historians argue, have more to do with town, state and bureaucracy building and promoting tourism than we had thought. Taken to heart, these interpretations lead to dismay as we come to see that indeed nothing is sacred—nothing has, or ever will escape the heavy hand of market incentive.

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[1] Three earlier works shed light upon the origins of the park. The earliest, Patricia Fazio's *Cragged Crusade: The Fight For Rocky Mountain National Park, 1909-1915* (master's thesis, University of Wyoming, 1982), establishes a correct chronology of the major events in the park's creation, but accepts from the outset the notion that Mills was an impassioned preservationist, working against all odds, to create the park. C.W. Buchholtz' *Rocky Mountain National Park: A History* (Boulder: Associated University Press of Colorado, 1983), contains good information regarding the early settlement of Colorado, and the creation of the park, but the author often falls prey to the romantic view of Mills and places him, wrongly I argue, at the center of the story. Alexander Drummond's *Enos Mills: Citizen of Nature* (Boulder: University Press of Colorado, 1995), is the most comprehensive and thoughtful biography of Mills to date. However, as was the case with Fazio's work, Drummond limits his research to the Denver area, failing to utilize federal records, which indicate more clearly who and what was truly driving park creation.

One of the earliest departures from the laudatory interpretation of park history came with Alfred Runte's *National Parks: The American Experience*.[2] Central to Runte's account is the claim that rather than an appreciation for the inherent value and beauty of wild places, economic concerns chiefly governed park creation. His so-called "useless lands hypothesis" holds that prior to the creation of any given park, promoters had to convince all relevant economic interests (mining, timber, grazing) that the creation of said park would in no way impinge upon their economic goals and opportunities. Far from symbols of the high and the good, parks were leftover land, odd curiosities with no realizable economic potential—a feather in the cap, maybe, but a crow's feather at best.

Revising Runte, Chris Magoc has more recently argued that the creation of Yellowstone National Park in 1872 had less to do with the relative uselessness of the place and more to do with a growing awareness that it held a different kind of economic potential.[3] Rather than users and abusers of the landscape begrudgingly stepping aside and "giving up" some odd or useless tract of land, boosters, developers and corporations were awaking to the idea that tourism was a resource all its own. It was for this reason, Magoc argues, that the Northern Pacific Railroad so ardently supported and advertised Yellowstone. In the end, it was the interest and power of the railroad that made the difference between park and no park, and it was the railroad that began the tradition of selling the idea that parks were exalted places well above

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[2] Alfred Runte, *National Parks: The American Experience,* 2nd ed (Lincoln: University of Nebraska Press, 1979).
[3] Chris Magoc, *Yellowstone: The Creation and Selling of an American Landscape* (Albuquerque: University of New Mexico Press, 1999).

the grime of daily life. This account gives little credit to aesthetic values and lofty ideals that the term "national park" so often conjures.

Which of the above interpretations holds promise for understanding the creation of Rocky Mountain National Park? Was it a single stalwart man filled with a love of nature and hope of a better tomorrow—a Muir of the Rockies who fought selflessly on behalf of nature? Was it merely the acquiescence of resource developers, the giving up of "useless land" in a larger political process? Or was it the result of a self-interested, self-promoting corporation that created parks to make a profit? None of the above, I will argue, provides by itself an adequate explanation. What we need instead is a more complex, multi-causal history. There certainly were a few central actors in this process, though I would argue they are not those that historians have traditionally credited. The "useless lands" hypothesis also applies to RMNP. Initial proposals encompassed too much territory and threatened too many potentially enriching resources to be palatable to locals and national politicians. Only after its boundaries were significantly reduced to exclude areas of even marginal economic potential, did it come into being.

Although the above do deserve a place within this narrative, their importance is secondary to the strong thread of economic self-interest and promotion that characterizes the birth of this crown jewel. Individuals, Chambers of Commerce, conglomerations of real estate developers, park officials, and politicians all saw in the park idea an opportunity to further economic growth through the promotion of tourism. Here, the geographic, economic and political nature of Denver was of crucial

importance. The Longs Peak region, though beautiful in its own right, lacked the sort of geological or cultural curiosities requisite of our longest standing parks. Instead, the idea of a park nestled at the foot of Longs Peak was attractive because it held the promise of drawing tourists, generating revenue, and providing respite and relaxation to a growing middle class of urbanites eager to momentarily escape the city's whirr. In the final analysis, the creation of Rocky Mountain Park offers a subtle reflection of the urbanization of the West and the nation—without Denver, without the swelling desire of millions of Americans to escape the harsh angular world of the city, Rocky Mountain National Park would not have come into being.[4]

Growing Denver

First settled by whites as a series of isolated and competing gold camps in the late 1850s, east central Colorado was early on a rough place to be. In the late 1860s some twenty-seven freighting firms stretched across the Midwest, turning Denver into a sort of storage bin for westward-bound goods and eastward-bound natural resources. In 1870, the completion of the Denver Pacific and Kansas Pacific Railroads linked Denver to Cheyenne, Kansas City, and St. Louis, thereby making it easier yet to move resources from Denver's hinterlands through the city itself, and then to faraway urban centers. These rails and roads, argues geographer William Wyckoff, facilitated the flow of people, information, and capital to and from eastern

[4] Theodore Catton, *National Park, City Playground: Mount Rainer in the Twentieth Century* (Seattle: University of Washington Press, 2006). Catton also finds a strong connection between growing urban of Seattle and Tacoma and the growth of national parks.

cities. The influx of capital, feeding off of and into the budding rail system, created an interconnected web of mines, smelters, and supporting industries, which brought alternating cycles of economic prosperity and desperation to the newly-formed state. [5]

Over the course of just a few decades, the flow of goods, money and people drastically altered Colorado's leading city. From a population of about 4,000 in 1870, Denver grew to some 130,000 residents by 1900 and more than 250,000 by 1920. Gone for good were the dusty mining shacks and musty canvas tents that once characterized the city. By 1920 Denver claimed about one fourth of the state's total population and "was unchallenged in its urban dominance, not only in the Piedmont, but across the interior of the American West." It had achieved the same sort of market "gravitational pull"[6] of Chicago, making it a natural location for "eastern capitalists and nearby mining magnates to locate their offices and investment." By the turn of the century it had become the unchallenged "business center of the state."[7]

Coinciding with Denver's demographic and economic growth were significant changes in its urban geography. The city grew more sophisticated as gas lamps and finely crafted buildings, such as the Tabor Opera House and Windsor Hotel, popped up around town. Just as the its urban landscape was becoming more sophisticated, it also became more expansive. Key to the suburbanization of Denver, argues Wyckoff, was a "close and profitable working relationship between the city's real estate

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[5] William Wykcoff, *Creating Colorado: The Making of a Western American Landscape 1860-1940* (New Haven: Yale University Press, 1999). See especially chapter 3, "Mountain Geographies."
[6] The concept comes from William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991).
[7] Wyckoff, *Creating Colorado*,106.

developers and those who invested in and promoted the city's expanding street and cable car systems."[8] Together, those interests altered the shape, size, and function of Denver, while making tidy profits for themselves.

Through the process of pushing their city to the center of economic activity in the state, Denver businessmen had grown acutely aware of the potential value and importance of tourism. Americans had long believed that the cleansing air, crisp blue skies, and sulfurous bubbling hot springs of the Rocky Mountains provided cures for a wide variety of physical ailments. By the 1880s Colorado boosters and "outside journalists could agree that, despite some overselling, the now familiar advantages of Colorado had proved the state to be a 'great and beneficial sanitarium' for sufferers from pulmonary diseases." Not only could a stint in the Rockies combat tuberculosis, it also promised to "'broaden the chest,'" foster a "'cheerfulness and contented frame of mind,'" and perhaps even ease the stress "'on the class of overworked brains, which, in the intensity of political, professional and business life is quiet numerous nowadays'"[9] Although Colorado Springs and Glenwood Springs surpassed Denver as Mecca's for the unwell, the capital city nonetheless benefited mightily from the unhealthy multitudes.

As towns and cities across Colorado sought to capitalize on their cool clean air by luring the unhealthy from across the nation, they also actively attracted healthy

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[8] Ibid., 117,118.
[9] Charles Denison, *The Influence of the Climate of Colorado on the Nervous System* (Denver: Richards, 1874), as cited in Carl Abbot, Stephen Leonard and David McComb, *Colorado: A History of the Centennial State* (Niwot, Colorado: University Press of Colorado, 1992), 230-231.

and wealthy patrons: gold, businessmen found, was often easier to dislodge from the tourist's pocket than from the stubborn quartz of the nearby hills. Some 25,000 tourists were spending time and money in Denver annually by the late 1870s.[10]

But the trip across the plains in a Pullman Palace car was a spendy event, out of the reach of the common person. This changed, however, with the calamitous economic decline beginning in 1893. Especially hard hit by the downturn were Colorado's silver mines and the railroads that fed them. Seeking to replace lost revenue, several railroads began offering reduced rates while ramping up advertising campaigns to supplement their dwindling revenues. Reflective of this trend, the Denver and Rio Grande Railroad marketed an affordable four-day, one-thousand-mile tour through the most breathtaking portions of the Rockies for just twenty-eight dollars.[11] Adding incentive for railroads to continue reduced railroad rates were the increasing numbers of the middle class, who craved affordable travel and adventure in the American West.[12]

First drawn west by cheaper accommodations on transcontinental rails, the nascent middle class increasingly sought access to and through the West by way of automobile. As was earlier the case with rail travel, the automobile initially provided travel only for the wealthy. In 1908, however, things took a dramatic turn as the Ford

[10] Wyckoff, *Creating Colorado*, 111.
[11] Abbot, Leonard and McComb, *Colorado*, 233.
[12] Wyckoff, *Creating Colorado*, 84.

Intrepid auto tourists near Estes Park, circa 1913.
(Courtesy of National Archives, College Park)

Motor Company introduced its $850 Model T. Over the next couple of years Ford continued to streamline production techniques, and by 1914 the company could produce one car every hour and a half and sold more that 250,000 of them that year alone.[13] Early realizing the economic potential of automobile tourism, the Denver Chamber of Commerce and Denver Automobile Club successfully lobbied for the creation of a State Highway Commission in 1909.[14] A wide range of commercial interests in the area also actively sought to bolster the city's auto appeal by building a system of roads and parks to better serve and attract the driving public.

[13] Marquerite S. Schafer, *See America First: Tourism and National Identity, 1880-1940* (Washington: Smithsonian Institution Press, 2001), 137.
[14] Abbot, Leonard and McComb, *Colorado*, 238.

Such was the character of Colorado and its leading city on the eve of the creation of Rocky Mountain National Park. This park, as we shall see, required more than any single devoted and impassioned individual; it required a city with deep pockets and political clout, the very name of which had the power to conjure evocative images in the minds of American tourists. Indeed, this park required city folk with money to spend, and a desire to spend it in the wilds of Colorado.

Muir of the Rockies

Credit for the park idea usually goes to the sometimes quixotic, confrontational and fascinating Enos Mills. While I certainly do not question his zeal or his significance as a supporter of the park, I am less willing to accept him simply as an altruistic and enlightened preservationist. A brief reconstruction of his life in the years leading up to 1909 (when he first raised the idea of creating a park) will reveal a complex man passionate about nature, but also one who wrested his livelihood from it. Understanding Mills as both a lover and user of the natural world will open new doors to understanding the motivations and meaning behind his early support of a national park.

In 1884, the state of Colorado not yet a decade old, the fourteen-year-old Mills began his journey westward. Upon arriving at Estes Park, a hamlet of only 150 residents at the time, the plucky young man worked for two years building himself a "little log cabin on the slope of Longs Peak, and in this locality" he lived much of his adult life. Often, when the weather turned cold or work became scarce, the untethered

Mills packed his scant belongings and tramped about the West where he "spent great days with the old prospector, the trapper, the capable cowboy and the Indian." [15] More often than not, Mills worked at least part of the year as a miner in Butte, Montana, or in Cripple Creek or Ward, Colorado.[16] His mining experiences, which were "full of red blood, excitement and real characters from every mining region of the earth," also opened the door for his chance meeting with John Muir.[17]

After underground fires at Butte's Anaconda mine halted production in the fall of 1889, the nineteen-year-old Mills set out for San Francisco.[18] By Mills' recollection, he was walking aimlessly across a San Francisco beach December of 1889, when he saw an older man surrounded by an interested crowd. As he drew near, the young Mills realized that "the small gray bearded little man," John Muir, was intensely describing the inner workings of the plant and animal world. Fascinated as much by the speaker as the message, Mills stuck around and eventually introduced himself to Muir. The two then embarked upon a "four mile walk across the sand hills and through Golden Gate Park."[19]

The chance meeting between the young man and the Apostle of Nature seems to have been a life-changing event for Mills. In Muir, he found a father figure (never having had an especially close relationship with his biological father), a mentor, and

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[15] Enos Mills, "A Bit of Autobiography," unpublished manuscript, Western History Collection 236, Denver Public Library, Box 1, ff 23, 7.
[16] Alexander Drummond, *Enos Mills: Citizen of Nature* (Boulder: University Press of Colorado, 1995), 57.
[17] Mills, "A Bit of Autobiography," 7.
[18] Drummond, *Enos Mills*, 57.
[19] Enos Mills, "A Chance Meeting With John Muir," unpublished draft, Western History Collection 236, Denver Public Library, Box 1, ff 18, 3.

an avenue to gain and sharpen his public image later in life. Muir apparently urged Mills to learn as much about the natural world as possible while sharpening his literary skills. Following that advice, Mills spent a semester at Heald's Business College in San Francisco, and then set out to see "some of the wilder sections of America," including the Yosemite, Kings Canyon, and various portions of Alaska. Before his death, Mills claimed to "have been by a campfire alone and unarmed in every state in the Union and also in Mexico, Canada and Alaska."[20]

Following his contact with Muir, Mills continued working in mines across the West while endeavoring to learn more about the natural world. By 1902, he had traveled across much of Europe, gained a new appreciation for the value of tourism, all while saving enough money to purchase Longs Peak House from his mother's brother, Carlyle Lamb. After changing its name to Longs Peak Inn in 1904, Mills intensified his efforts to hone his skills as a nature guide, writer, and speaker—all of which served nicely to draw guests to his rustic little inn.[21]

In early June of 1906, while Mills was away at a speaking engagement, a fire ravaged the Longs Peak Inn, leaving little standing in its blackened wake. Determined not to let the fire get the better of him, he endeavored to rebuild his inn bigger and better than ever. Using fire-damaged trees, boulders, and stumps, Mills and his contractor rebuilt the Longs Peak Inn in a fashion that fit well with the enlightened naturalist persona he was laboring to create. Once completed, his new hotel boasted more than 100 rooms and was accompanied by a constellation of cabins, many of

[20] Drummond, *Enos Mills*, 59; Mills, "A Chance Meeting With John Muir," 3-4.
[21] Drummond, *Enos Mills*, 124-129.

Longs Peak Inn, 1918.
(Courtesy of the Denver Public Library, Western History Collection)

which could accommodate several families simultaneously.[22] By 1906 Mills was more than emotionally invested in the Rocky Mountains.

Through a combination of self-promotion, determination, and persistence, Mills had made himself familiar to many important people 1907. Among those acquainted with his reputation as a public speaker and nature writer were Chief Forester Gifford Pinchot and President Teddy Roosevelt. Seeing in Mills a man who might work well to publicize their conservation efforts, Pinchot offered, and Mills accepted, an appointment as an official lecturer for the United States Forest Service in 1907.

For nearly two years the relationship between Mills, Pinchot and the Forest Service benefited all parties. Mills received a steady wage, the opportunity to promote the ideals of the Forest Service, to which he had no objections at the time, and notoriety, all the while dropping hints to audiences that the Longs Peak region offered almost unparalleled opportunities to hear the call of the wild.[23] For their part, Pinchot and the Forest Service found a tireless and effective speaker willing to travel untold miles to spread the gospel of conservation. Mills gave in the neighborhood of two hundred presentations in the months between October, 1908 and May, 1909 as he traveled to dozens of states across the nation. His message, though varying somewhat

[22] Henry Pederson, *Those Castles of Wood: The Story of the Early Lodges of Rocky Mountain National Park and Pioneer Days of Estes Park, Colorado* (Estes Park, Colorado: Published by Author, 1993). 80-81.
[23] Jack London's *Call of the Wild* was published first in 1903, and on several occasions Mills drew upon its imagery in his writing.

according to his audience, emphasized the importance of science, education and governmental regulation in assuring healthy forests for future generations.[24]

Mills used one of his most common presentations, entitled "Our Friends the Trees," to impress upon listeners the importance of enlightened silvaculture. Only through the tempered use of our woodlands, he said, could we hope to prevent the ravages of flooding, maintain year round irrigation water, and "supply lumber for the cottage, good cheer for the hearthstone, beauty to the landscape, climate and health for everybody, and scenery for all." There was a time, in the not so distant past, counseled Mills, that the "[p]rimitive people and pioneers could depend upon wild products for a living," but "civilized people cannot depend upon the scanty and unreliable wild sources, but must sow if they are to reap. Civilized people must domesticate and improve the plants and animals which they need. A complete domestication of both birds and trees is now necessary."[25]

In another version of the same address, Mills defined forestry as a method of "harvesting your woodland without destroying the forest. It means using the annual increase of the forest and no more…Scientific forestry and scientific bee keeping," he

[24] "Itinerary of Enos A. Mills," Western History Collection 236, Denver Public Library, Box 1, ff 11. Judging from a multitude of newspaper accounts from several states, Mills spoke more often of the economic value of trees and timber to audiences made predominantly of men. When speaking to groups of women, however, Mills chose instead to emphasize the "sentimental" importance of trees. Not only does his flexible message reveal a bit about what was important (or supposed to be important) to men and women, but it also demonstrates Mills' less than concrete connection to a single ideology.

[25] Enos Mills, "Our Friends the Trees," unpublished draft, Western History Collection 236, Box 1, Envelope 3, 4-6.

claimed, "are simply good business methods."[26] Practicing these methods would ensure "the perpetuation of the forests" while at the same time "having more timber to use." To Mills, proper forest management involved not only "the planting and protecting of the tree," but also working to "improve the production of trees [for] their cutting and using."[27]

In a circular earlier published under the title "An Arbor Day Souvenir," Mills clearly laid out the role of America's forests, stating that a forest "reserve is not to be simply looked at. It invites the camper, prospector, miner, forester and the lumberman. It calls for a fireman, the forest ranger. A reserve means a place where one forest is harvested and another planted and protected. A forest reserve means the end of anarchy in the forest."[28] To Mills at least, science, management and regulation—not preservation—ensured a happy and prosperous future for all.

By April of 1909, Pinchot and the United States Forest Service no longer required Mills' services. He had broadcast Pinchot's brand of conservation across the nation, giving a friendly, weather worn face to the Chief Forester's environmental policy. In his last lecture for the Forest Service, which he delivered on April 28, 1909, Mills said nothing derogatory about either Pinchot or the Forest Service. Both of them, however, he would later venomously attack.[29]

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[26] Enos Mills, untitled document, Western History Collection 236, Denver Public Library, Box 1, Envelope 3, 4.
[27] Ibid., 5.
[28] Enos Mills, WGM Stone, *Forests and Trees: An Arbor Day Souvenir* (Denver: Denver Chamber of Commerce, 1905), 13.
[29] Drummond, *Enos Mills*, 202.

Making a National Park

In September of that same year, the Estes Park Improvement Association was searching for ways to bolster tourism in its area. To aid them in their investigation, they called upon Herbert N. Wheeler of the Forest Service to offer an opinion. Wheeler proposed the creation of a game preserve, which would improve and increase wildlife in the area and thereby, he thought, strengthen Estes Park's appeal to the cash-laden tourist. The Estes Park Improvement Association thought Wheeler's idea a good one and just days later, Mills broadened Wheeler's plan calling instead for the creation of Estes National Park. Agreeing that a national park would better serve to make popular and profitable the Estes Park region, the Association threw its support behind Mills' idea.[30]

Initially, Mills proposed a swath of territory stretching more than forty-two miles east to west and twenty four miles north to south be set aside as Estes National Park. This territory, which included more than sixty peaks over 12,000 feet, dozens of glacial lakes, and majestic stands of douglas fir, ponderosa pine and aspen, had long been used to support hunting, mining and cattle enterprises. Coinciding with, and driven by, the growth of Denver, many sought early to cash in on the area's bountiful elk populations. Decades of market hunting for Denver's hungry masses, however, had so devastated the elk population that they had become scarce by the turn of the century. In part as an attempt to bolster tourism in the area, elk were later shipped in

[30] Ibid., 226.

from Montana in 1913 with the hopes that increased patrols and hunting regulation enforcement would allow them to repopulate.[31]

As many strove to capitalize on the area's abundant wildlife, others tried to squeeze their livelihoods from the elusive ore-bearing stone of the Rockies. Although prospectors unearthed many valuable deposits of gold and silver in Colorado, the territory around Longs Peak held little in the way of precious metals. Forever optimists, many locals firmly believed that the riches had only yet to be discovered. This optimism, perhaps combined with interminable winter days in solitary cabins, bred countless tales of treasures found, and lost. Most locals were familiar with harrowing stories of prospectors stumbling into assayers' offices, packs filled with rich ore, only later to be unable to re-locate the deposit. Despite the lore, and the hundreds of mineral claims in the region, prospecting in the Longs Peak region often failed to repay the prospector's optimism.[32]

Where some sought their future in hunting—either for elk or for gold—others hoped that wandering herds of bovine would put bread on the table and money in the bank. For decades some, like the Earl of Dunraven and the Abner Sprauge family, grazed thousands of head of cattle in the picturesque valleys near Estes Park. Over time, many of these operations sought to draw more aggressively tourists to their pastures with the promise of experiencing an authentic western ranch. [33]

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[31] Buchholtz, *Rocky Mountain National Park,* 132, 87.
[32] Ibid., 88-101.
[33] Ibid., 101-102, 66-72. See also Lawrence R. Borne, *Dude Ranching: A Complete History* (Albuquerque: University of New Mexico Press, 1983).

Decades of unchecked, largely unregulated resource use came to an end in 1905 with the expansion of Wyoming's Medicine Bow National Forest deep into the heart of Colorado's Rockies, renamed the Colorado National Forest in 1910. Stewardship of this national forest, out of which Mills hoped to carve "his" park, fell to forester Herbert Wheeler. Using a handful of range policemen, Wheeler set about the difficult task of regulating the use of the area's natural resources, often in the face of local opposition.

With a national park plan stirring in his mind and heart, Mills worked to muster as much local and public support as possible. In this endeavor, his relationship with J. Horace McFarland, president of the American Civic Association and devoted preservationist, was of crucial importance. From 1910 to 1916 McFarland proved to be a steadfast and loyal supporter, more than willing to use his strong public voice and deep political connections to help ensure creation of the park. Although his relationship with Mills later soured, McFarland wrote Mills often, offering moral and political support while attempting to stay Mills' frequent public and private tirades against all those who showed even the slightest disagreement with his "vision."

Mills' fluid mix of progressive optimism, love of nature, and commercial self-interest together explain his support of Estes National Park. Understanding McFarland's willingness to participate in its creation, however, is a bit more difficult. Based on the correspondence between the two, McFarland was clearly interested in protecting worthy "pleasure grounds" for future generations of Americans. He wrote often of nature's ability to revive the spirit and purify the mind, but he was also

acutely aware of the economic potential of a park at Estes. In a letter to Secretary of the Interior Richard Ballinger in 1910, McFarland anticipated a crucial chord in the movement's eventual success. "Having gone directly from Estes Park to Yellowstone National Park," he stated, "I am in a position to say that while it in no sense compares with the Yellowstone in respect of natural wonders, it does compare most favorable [*sic*] in respect of its availability as a great accessible and beneficent pleasure ground." At the time there was "no available national park in the large sense east of the Yellowstone," and "Estes Park has long been known as a sort of summer resort, available in four hours by train and automobile from Denver."[34] By McFarland's reckoning, a national park near Estes was needed, not because of its inherent wilderness or aesthetic value, but rather because of its prime location and potential as a resort for traveling Americans.[35]

Mills and McFarland were not alone in early recognizing the economic potential of a park in the region. In December of 1910, the Denver Chamber of Commerce gave its wholehearted endorsement to the plan and "appointed a live

[34] Horace McFarland to James Ballinger, 20 July 1910, NARG 79, Entry 6, Box 159, ff "Estes," 1, 3.

[35] At the same time McFarland was aiding in the creation of RMNP he was also actively involved in protecting Hetch-Hetchy, Niagara Falls and creating an independent National Park Service. Though no single statement of McFarland clearly indicates it, it is likely that besides creating a "pleasure ground" for the people, RMNP would add notoriety and popularity to the national campaign to create national parks. This interpretation is supported by McFarland's advice to the newly created Denver Chamber of Commerce National Park Committee to place their resources not behind a park in Colorado, but rather throw their support behind the creation of a national parks bureau. Horace McFarland to Thorndike Doland, 19 December 1911, Pennsylvania Historical Museum Commission, State Museum Building, Harrisburg, Pennsylvania. Manuscript Group 85, J. Horace McFarland Papers, File 80, ff "National Parks-Enos Mills." On file at Special Collections, Rocky Mountain National Park. Hereafter referred to as MF Collection.

national park committee" to aid in the process.[36] Led by Frederick Ross, a local real estate mogul, the Denver Chamber of Commerce, more than Mills or McFarland, was primarily responsible for the final passage of the bill. Shortly following the formation of the Chamber's National Park Committee another wing of the same group threw its support behind the plan. Representing "some two hundred …retail firms of the City of Denver," the Retail Association of the Denver Chamber emphatically urge[d] that Estes Park be thus set aside" as a national park.[37] The "retail merchants and the other business men of Denver [were] extremely anxious" to see a park created because such "would be of incalculable benefit to the business interests of the city and state, besides assuring the control and preservation of one of the most beautiful spots in the world."[38] Not to be left out, the Denver Real Estate Exchange also heartily endorsed the idea.[39]

As details of the plan crystallized, so too did opposition to it. Initially, Boulder and Grand Counties, both of which stood to lose a large portion of their territory if the initial proposal went through, heartily opposed the plan, claiming that it threatened "many thousands of acres of undeveloped agricultural land" and several active mining projects, including the "finest grade of Gilsonite known." Furthermore, county commissioners "confidently believed" that "every one familiar with this territory" knew "that it is liable at any time to become one of the greatest mining

[36] Thorndike Doland to Horace McFarland, 10 December 1910, MF Collection.
[37] Edmond Sholtz to Fisher, 17 January 1911, NARG 79, Entry 6, Box 159, ff "Estes II."
[38] Edmund Sholtz to President Taft,17 January 1911, NARG 79, Box 159 ff "Estes II."
[39] Chester Hitchings to Fisher, 11 January 1911, NARG 79, Entry 6, Box 159, ff "Estes II."

Districts yet known."[40] Echoing similar concerns, the Boulder County Metal Mining Association objected to taking "119 square miles of the 440 square miles of our mountain and mineral bearing area...and making a play-ground…out of what we believe will become one of our most highly productive mineral sections in the near future." [41]

By the summer of 1911, several concerned citizens had banded together under the auspices of the Front Range Settler's League (FRSL) to demonstrate their opposition to the park idea. Comprised mainly of citizens of Estes Park and neighbors, relatives, and former employees of Mills, the FRSL fought tooth and nail to the end, writing sheaves of oppositional letters to state and federal politicians, Department of Interior administrators, and two sitting presidents. Although the reasons for their opposition were many, a few chief complaints regularly surfaced. Mills, they charged, was not only a man of questionable character (he had earlier been convicted of assault and perjury), but worse yet he was "not sincere in his pretended love of nature." According to the FRSL, Mills was interested in little more than "making a nature faking shrine out of his summer hotel." The League also claimed that many of his "hair-raising personal reminiscences" were written while "destroying, pioneer fashion, the scenic beauty about him by cutting the finest trees

[40] "Resolution of the Board of Country Commissioners and Citizens of Grand County," 18 January 1911, NARG 79, Entry 6, ff "Estes."
[41] Boulder County Metal Mining Association to President Taft, 8 August 1911, NARG 79, Entry 6, Box 159, ff "Estes."

and otherwise using the best of everything in the public domain."[42] Lastly, League members believed the land in question to be "imperishable" and thought United States Forest Service management more than adequate to protect and manage the region."[43]

Whereas the FRSL lauded the Forest Service for the fine job they had done managing and protecting these public lands, Mills had come to believe that the Forest Service, and its many representatives, posed a threat. Although three short years earlier Mills had been a spokesmen and champion of the USFS, he turned his pen most viciously upon his former employer making a wide array of fantastic and sometimes shameful claims.[44] When local forester Herbert Wheeler failed to demonstrate the sort of zeal for the plan Mills thought appropriate, he concluded that "higher ups" in DC directed Wheeler to fight him on the matter.[45] More and more he grew paranoid about the Forest Service, intimating to J. Horace McFarland that the agency's opposition was "largely under cover" and would be "difficult to absolutely prove."[46] Nonetheless, Mills was confident that if you "[s]cratch[ed] any old Forest

[42] H. Bitner to President Taft, 30 December 1911, NARG 79, Entry 6, Box 159, ff "Estes II," 1; Ibid., 2.
[43] RW Johnson to President Taft, 3 January 1912, NARG 79, Entry 6, Box 159, ff "Estes II."
[44] Explaining Mills' complete reversal on his position toward the USFS is a difficult matter. Most recently, author Alexander Drummond explains the flip as driven by Mills' increasing dissatisfaction with the message of the USFS. Essentially, claims Drummond, Mills was really a preservationist at heart and only gradually came to see the policies of the FS as ultra-utilitarian. I however, reject this rendering. Rather, I view Mills' attacks on the Forest Service as reflections of a central component of the man himself—he was an opportunist. He only turned on the FS after his employment had ended and he realized a park would benefit him economically. Furthermore, early in the push for a park, he had clearly and plainly stated that grazing, mining and timber cutting be allowed should a park be created.
[45] Enos Mills to Horace McFarland, 7 February 1911, MF Collection.
[46] Enos Mills to Horace McFarland, 19 February 1911, MF Collection.

Service man…you will find a Traitor who is opposed to all National Parks."[47] Although he offered no evidence to support his claims, he stood poised to "attack them before the public at any moment."[48]

The last two months of 1911 turned out to be crucial ones for the national park idea at Estes. After months of cordial but insistent letters, the Denver Chamber of Commerce and the Real Estate Exchange were finally reaching and convincing the right people in Washington.[49] Central to their message was the claim that all they needed to make the park a success was "the proper sort of publicity, coming from reliable sources to attract the tourist."[50] Soon, the Department of the Interior awakened to their case, concluding that

> apparently there will be a strong effort made by the people interested in this proposed park to have it created during the coming session of Congress, and we had probably just as well prepare therefore. I suggest that we send these papers to the General Land Office with instructions to prepare a map, using township sheets, if necessary, covering the lands proposed to be included therein.[51]

The following day, the above memorandum was forwarded to the General Land Office with a letter from the Chamber, claiming that "all of the best and most

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[47] Enos Mills to Horace McFarland, 20 March 1911, MF Collection.
[48] Enos Mills to Horace McFarland, 19 February 1911, MF Collection, 2.
[49] Frederick Ross to Fisher, 1 November 1911, NARG 79 Box 159, ff "Estes"; Robert Speer to Fisher, 2 November 1911, NARG 79, Box 159, ff "Estes"; Denver Chamber of Commerce to Fisher, 3 November 1911, NARG 79 Box 159, ff "Estes"; Denver Real Estate Exchange to Fisher, 25 November 1911, NARG 79, Box 159, ff "Estes"; Crescent Realty and Investment Co. to Fisher, 25 November 1911, NARG 79, Entry 6, Box 161, ff "Miscellaneous."
[50] Denver Chamber of Commerce to Fisher, 7 September 1911, NARG 79, Box 159, ff "Estes."
[51] Memorandum GEO Ward, 27 November 1911, NARG 79, Box 159, ff "Estes," 2.

influential citizens of our state are heartily in favor of the park."[52] Concluding that it seemed "probable that an effort will be made by the persons interested to have the proposed park created during the coming session of Congress," the General Land Office took steps to prepare a map of the area.[53] It is worth pointing out that the Department of the Interior and the General Land Office eventually sent Chief U.S. Geographer Robert Marshall to prepare the crucial map not because of the pleas of an impassioned preservationist, but rather because they heard, understood and agreed with the economic argument of Denver's business class.

As word got out that Marshall would soon visit the area, those opposed to the plan redoubled their efforts. Senator Simon Guggenheim cautioned Secretary of the Interior Walter Fisher about the park proposal. Not only had he "received a number of letters and telegrams from Colorado protesting against the establishment of Estes Park as a National Park," but he also believed that much "of the land said to be included in the contemplated change is mineral land" where "extensive mining operations have been conducted in the territory for many years." Reflecting the sentiments of Grand and Boulder counties, the Metal Mining Association and many of the FRSL, Guggenheim also "feared that such a proclamation or order would work irreparable injury to the mining industry, as well as to the agricultural settlement of

[52] Denver Chamber of Commerce to Fisher, 18 November 1911, NARG 79, Box 159, ff "Estes," 2.
[53] Chief Clerk Department of the Interior to Commissioner of General Land Office, 28 November NARG 79, Box 159, ff "Estes."

the country." For these reasons he urged that a "full investigation of conditions in that section be made and full hearing accorded before final action" was taken.[54]

Not to be left out, the Front Range Settlers League planned and executed "an aggressive campaign against the Denver Chamber of Commerce" and against Mills, both of whom constituted their chief opposition.[55] In an attempt to demonstrate that Mills was playing the "Department of the Interior against the Forestry Bureau," the FRSL prophetically argued that they had "no satisfactory assurance, but that Mr. Mills will in due course of time, if the proposed Bureau of National Parks is established, be declaring, just as he now is of the Forest Service, that they were abusing their powers in an effort to strengthen their bureaucratic prowess."[56] Although the Department of Interior proceeded with extreme caution, proponents were rapidly gaining the upper hand, and the opposition knew it.

Much to the chagrin of those laboring to stem the tide of park support, the formation of the Colorado Mountain Club in April, 1912 heralded yet another major victory for park supporters. The organization, whose founding members dedicated themselves to raising local awareness and support for a park in Colorado's Rocky Mountains, played an important part in the political process of park creation. Almost immediately, the club began "a series of public lectures on mountain themes, published and circulated bibliographies of Colorado alpine literature, pamphlets on

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[54] Simon Guggenheim to Fisher, 6 January 1912, NARG 79, Box 159, ff "Estes II."
[55] Hewes to Fisher, 6 January 1912, NARG 79, Entry 6, Box 159, ff "Estes II."
[56] Hewes to President Taft, 29 March 1912, NARG 79, Entry 6, Box 159, ff "Estes II." Shortly following the park's creation, Mills did viciously attack the Park Service. See NARG 79, Entry 6, Box 165, ff "Privileges and Protests 1-8." Many of that agency were so taken aback by his behavior that they wrote to each other in code, lest their harsh words "get out."

birds and such." Perhaps just as important as the club's community activism was the fact that it boasted some well-connected members, including "a young lawyer named Morrison Shafroth whose father was a leading Democratic senator in the Wilson administration and who was ready to travel to Washington with boxes of lantern slides and portfolios of photographs" to sell the park idea.[57] Early leadership of the organization fell to James Grafton Rogers, a handsome young attorney whose legal and political acumen were of incalculable benefit to the cause of park creation. Not only would Rogers craft and redraft numerous iterations of park proposals, but he also understood the value of working with—not against—interested parties.

As Geographer Marshall's visit drew nearer, the Chamber, Mills, and the Front Range Settler's League each insisted that he meet, stay, and tour the area with them. Realizing the potential volatility of the offers, especially prior to his surveys, Marshall wisely demurred. In his reply to Mills' offer of assistance, we see yet another indication that even though Mills may have raised significant local support, policy makers and administrators in Washington, D.C. were listening more to the Chamber of Commerce and Real Estate Exchange. Marshall stated that he would be "very glad indeed to confer with the Chamber of Commerce, the Real Estate Exchange, etc., or anyone interested in the Estes Park proposition, provided they do not take too much of my time." It appears that Marshall was under the impression that both the Chamber and the Real Estate Exchange represented the heart of the

[57] James Grafton Rogers, "The Creation of Rocky Mountain Park," *Trail and Timberline*, (June 1965), 99, 100.

movement, while a visit with Mills would have fallen under the category of "anyone interested in the Estes Park proposition." [58]

As park supporters had hoped, Marshall's visit went swimmingly. Following his survey, he willingly and openly listened to the concerns of the Front Range Settler's League, Mills, Senator John Shafroth, Governor-elect Elias Ammons, Frederick Ross and former Senator Thomas Patterson. To Marshall's ears, the crux of the opposition's argument lay less with the creation of the park and more with concerns over its size. In an early effort to quiet opposition, he proposed boundaries that encompassed far less land than initial suggestions, omitting as many private holdings as possible without violating the integrity of the park.

Park supporters later read with delight Marshall's official report, which claimed that, although there were no "commanding natural feature[s]" as was the case in other national parks, the "region as a whole is as beautiful as any to be found in the United States, or, indeed in the world." Although Marshall lauded the area's beauty, he found it of secondary importance to what was "[p]erhaps the most attractive feature of the plan to create this park...from both the National and State standpoints," which was the "accessibility of the area." Apparently won over by the words of the Denver Chamber of Commerce, Marshall repeated their refrain that "Estes Park can be reached from Chicago in about 30 hours and from Denver by automobile in about 3 hours." Moreover, the effusive Marshall believed that since Denver was "the center of practically all the railroad systems west of the Mississippi River, the number of

[58] Robert Marshall to Enos Mills, 7 August 1912, NARG 79, Entry 6, Box 161, ff "Miscellaneous."

visitors that may be expected annually in the proposed park will add enormous revenues to the State of Colorado and will make this one of its most productive sections."[59] Making the park idea even more palatable was the paucity of other realizable resources in the area. Although the proposed area was flush with sweeping vistas, "spread[ing] before the eye a gorgeous assemblage of wonderful mountain sculpture[s]," it contained "little merchantable timber" and "no well-developed mines." Thus, those who feared the park would forever "sew up" valuable resources could rest assured that the park would do no harm to their bank accounts.[60]

From a purely business standpoint, a park at Estes had many things going for it, including a solid reputation as a great vacation destination, a potentially profitable location, and relatively few other usable natural resources. Still it lacked something. Where was Estes Park? Did the name "Estes National Park" have the same sort of curb appeal as the "Grand Canyon" or the "Grand Tetons," both of which send the mind on a fantastic journey to faraway places? Not really. Realizing this, Marshall proposed changing the park's name to something more evocative and marketable. By his reckoning, this national park "should bear a name of broader significance. This striking section of the Rocky Mountains—the backbone of the country," should be named Rocky Mountain National Park.[61]

On the heels of Marshall's visit, and upon his recommendation, the Denver Chamber of Commerce cast about for someone to draft a bill for the proposed park.

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[59] "Rocky Mountain National Park, Colorado," Report to Accompany S. 6309, 63rd Cong., 3rd sess., House Miscellaneous Document 1275, 21.
[60] Ibid., 22.
[61] Ibid., 22-23.

To both Marshall and the Chamber, James Grafton Rogers seemed the perfect candidate for the task. The young Yale graduate was enthusiastic, a skilled negotiator, and well-connected. Willing to provide his services, Rogers began the arduous task of collecting and synthesizing the legal details of previously created parks.[62] Over the next three years, he diligently shaped a bill that satisfied the demands of most parties involved.

Rogers' first stab at legislative glory came with the introduction of his bill in February of 1913. Much to his dismay, Senate Bill 8403 and House Resolution 28649 "An Act to Establish Rocky Mountain National Park," made little progress in the 62nd Congress. Undeterred, Rogers sought to isolate and to negotiate with those who opposed it. At the center of the debate lay Section Two of the document, which essentially sought to protect private holdings within the park, reserve the water within the park to the state of Colorado, and preserve limited rights for mineral exploration. Not only was this section of the bill raising eyebrows in Washington, but also many individuals and organizations of the Centennial State held reservations.[63] In a partial defense of the section, Rogers explained that he hoped it would "still local opposition in Colorado," stating that the section was "not really of very much importance." Candidly, Rogers admitted that he simply "desired to get a bill through, even if it contain[ed] some awkward minor clauses. When the wedge is once started," he added, "no one will be readier that I to urge the most complete restrictions in the

[62] James Grafton Rogers to Chief Clerk of the Dept. of Interior, 26 September 1911, NARG 79, Entry 6, Box 159, ff "Estes II."
[63] James Grafton Rogers to Ross, 17 February 1913, NARG 79, Entry 6, Box 161, ff "Miscellaneous, 1"; Ibid., 2,4.

park." [64] By October of 1913, after countless exhaustive conferences "between the members of the joint committee of the Denver Chamber of Commerce and the Denver Real Estate Exchange…Governor Ammons, Senator Patterson,"[65] and local mining, grazing, and timber interests, Rogers again held in his hand a new park bill. His willingness to work with a wide array of interests produced a bill that won the support of those listed above—a harbinger, hoped Rogers, of things to come."[66]

Although Rogers successfully mollified much of the plan's opposition within Colorado, many in Washington were still concerned that as much as one-eighth of the land within the proposed park would remain as private holdings. Making matters worse, many within the Interior Department were ill-at-ease with the language regarding water rights and mining claims within the proposed park. Assistant Secretary to the Secretary of the Interior Adolph Miller curtly informed Rogers that "if the region out of which it is proposed to create the Rocky Mountain National Park is of great value for mineral development, than it is not a suitable recreation reservation." [67]

Over the next seven months Rogers patiently worked to isolate and placate opposition while making minor adjustments to his proposal. His patience and skill began paying real dividends by the summer of 1914 as Senator Charles Thomas of

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[64] James Grafton Rogers to Robert Marshall, 15 March 1913, NARG 79, Entry 6, Box 161, ff "Miscellaneous."
[65] James Grafton Rogers to Frederick Ross, 14 October 1913, NARG 79, Box 160, Entry 6, ff "Legislation," 1-2.
[66] James Grafton Rogers to Thomas Patterson, 2 October 1913, NARG 79, Box 160, Entry 6, ff "Legislation."
[67] Adolph Miller to James Grafton Rogers, 22 January 1914, NARG 79, Entry 6, Box 159 ff "Estes IV."

Colorado introduced S 6007 and Representative Edward Taylor introduced HR 17614 to establish Rocky Mountain National Park. As passage of a bill seemed closer than ever, local opposition to the plan again emerged. A portion of the attacks came from the beleaguered Front Range Settler's League, to whom Rogers and others had long grown accustomed. Rogers was less prepared, however, for a vicious personal attack from within the ranks of park supporters.

Although he had never marshaled any evidence to support his claim that the USFS opposed the park, and though he received several letters clearly stating their support, Mills steadily defamed the Forest Service and most of their associates. For months, Rogers had been holding conferences with the Forest Service to work out an equitable and passable proposal. Soon, Mills began suspecting that Rogers was not the man he had thought, and by the summer of 1914 Mills could not hold his tongue. With clenched jaw and balled fist, Mills could no "longer remain silent while the President of the Colorado Mountain Club exhibits the Forest Service on one shoulder and the Park on the other." Although Mills rightly claimed that the "overwhelming majority of the Colorado Mountain Club desire to see the Rocky Mountain National Park established," he contended that Rogers had not "given adequate expression to this opinion." Mills went on to demand that Rogers cease "further conniving with the Forest Service in this connection." Misinterpreting the situation, Mills closed his letter stating that it represented "a last effort to arouse you with the hope that you will see your way clear to frankly cooperate with us in securing the Rocky Mountain National

Park."[68] Six months later, in a candid letter to Horace McFarland, Mills admitted that "I went after Mr. Rogers directly and vigorously" in part to "prevent my work being discounted."[69] Although this tirade doubtless set Rogers on his heels, less surprising was a last ditch effort on the part of the Front Range Settler's League to stall the bill.

Not willing to relent, the Front Range Settler's League launched one final campaign in the hopes of again torpedoing the bill. This time, however, their efforts only worked to solidify the bill's support. Grasping at straws, the FRSL claimed that a new park would cost the federal government twice as much to administer as the Forest Service was spending there. Moreover, they pleaded, the park would be only a "great advertisement," drawing tens of thousands of visitors from places far and near, at the taxpayer's expense. The FRSL concluded that this plan was little more than a "selfish scheme concocted for the benefit of certain parties, in which it is proposed that Uncle Sam shall act as an advertising and press agent."[70]

Whereas the FRSL cast the bill as an economic burden to the federal government, officials within the Department of Interior saw things differently. Mark Daniels, general superintendent and landscape engineer, found in the pleas of the FRSL "not a single good argument." What's more, Daniels felt that Rocky Mountain National Park need not in any way create an extra charge upon the federal government. Quite the contrary, he argued that if the parks were "administered along

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[68] Enos Mills to James Grafton Rogers, 3 May 1914, MF Collection, 2-3.
[69] Enos Mills to Horace McFarland, 31 December 1914, MF Collection, 3.
[70] "Bulletin from the Front Range Settler's League," 7 December 1914, NARG 79, Entry 6, Box 159, ff "Estes IV"; Charles Edwin Hewes to President Wilson, 7 December 1914, NARG 79, Entry 6, Box 159, ff "Estes IV"; Hewes to Lane, December 7, 1914, NARG 79, Entry 6, Box 159, ff "Estes IV."

the lines now being outlined, they will produce revenue rather than be a charge upon the Government."[71] At a time when many, both within and without the Department of Interior, were working to create a separate and self-sustaining National Park Service, Rocky Mountain National Park took on new significance. What better way to bolster the bottom line of a blooming agency than with a park that had the potential to draw 100,000 or more tourists annually?[72]

As the cold winter winds swirled tightly around the nation's capital in January of 1915, passage of the bill was finally at hand. Representative Edward Taylor, standing staunch and proud before Congress on January 18, 1915, announced that it was through the good works of himself, Senator Thomas, Frederick Ross of the Denver Chamber of Commerce, the Denver Real Estate Exchange, and a handful of interested politicians that Rocky Mountain National Park had Congressional approval. Although Taylor was quick to point out the physical beauty of the place, citing its more than sixty peaks above 12,000 feet, a "thousand varieties of wildflowers," and countless other interesting life forms, the park's value transcended its physical beauty. According to Taylor, the Estes Park region already attracted some 10,000 automobiles from outside the state, but with the moniker of National Park attached, it could pull in more than 125,000 annually. Believing that "the American people have never yet capitalized our scenery and climate, as we should," he felt the time was ripe to "cultivate the 'See America First' movement." Providing well-publicized, easily

[71] Mark Daniels to Edwin Gillette, 22 December 1914, NARG 79, Entry 6, Box 159, ff "Estes IV."
[72] "Rocky Mountain National Park, Colorado," Report to Accompany S. 6309, 63rd Cong., 3rd sess., *House Miscellaneous Document* 1275, 21.

accessed parks would compel Americans, now largely unable to travel Europe due to World War I, to spend their hundreds of millions of dollars not in Switzerland, but here at home.[73] In the end, that economic argument carried the day as President Woodrow Wilson signed into existence Rocky Mountain National Park on January 26, 1915.

On a glorious afternoon in early September, 1915, hundreds of Colorado residents and other honored guests gathered at the newly created Rocky Mountain National Park to offer thanks to its supporters and to enjoy the fruits of their labor. The day's events included coffee at twelve noon followed promptly by the fine musical stylings of the Fort Collins Band. With bellies full of coffee and hearts filled with patriotic songs, Enos Mills, Steven T. Mather, Governor George Carlson, Mrs. John D. Sherman (President of the Conservation Department of the General Federation of Women's Clubs, and F.O. Stanley (inventor of the "Stanley Steamer" and local hotel owner) all gave brief speeches in praise of the new park.[74] The words they offered, however, were more than speeches. They were attempts to understand how and why the park came to be—attempts to understand its meaning through the telling of stories.

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[73] Edward Taylor, "Rocky Mountain National Park, Colorado," *Congressional Record*, S. 6309, 63rd Cong., 3rd sess., 2644-2646.
[74] Enos Mills, *Rocky Mountain National Park* (New York: Doubleday, Page and Company, 1924), 92.

Rocky Mountain National Park Dedication, September 4, 1915.
(Courtesy National Archives, College Park)

Conclusion

Americans have long had a choice in the stories we have told about the creation of Rocky Mountain National Park. Rather than rallying around Edward Taylor's account—one of politicians, tourists and revenue—we have instead chosen to tell, retell and accept the more heroic, romantic, and altruistic tale of a single man successful in his crusade to protect his beloved mountains. The latter certainly leaves the reader with a sense of pride in knowing that a devout and principled individual can, against nearly all odds, make the world a better place. Although it swells the chest with pride, it is little more than a good story.

Admittedly, it is tempting to read past his work for the Forest Service, and the fact that he was more than a little economically invested in the Longs Peak region, and interpret Mills later "crusade" for RMNP as a reflection of an impassioned and moralistic preservationist. Rather than forcing Mills into one of two distinct, concrete and rather superficial categories, however, perhaps we would do better to understand him as a man who did love and care for the natural world, but who also became tangled in the alluring material riches it held. If Mills defies easy categorization as either a preservationist or as a utilitarian conservationist, how should we attempt to understand the primary motivation behind the man who first proposed a national park near Longs Peak?

Most useful in clarifying this point are the words of Mills himself. While serving as a committeeman for the Estes Park Improvement Association in July of 1910, he drafted a circular stating clearly that within the proposed park, "[t]imber cutting and grazing on public land should be allowed to continue for local use, and mining and prospecting allowed to go on, but all these should be under Federal control."[75] If the Forest Service, an agency Mills once steadfastly supported, was already charged with regulating the timber cutting, grazing, and mining in the area, what did he hope to achieve by transferring jurisdiction to the Park Service? If Mills believed, as many have since claimed, that National Park status would bring an end to extractive endeavors, why did he early condone such practices? It is apparent that

[75] Enos Mills, "The Estes Park and Game Preserve," unpublished circular, 14 July 1910, MF Collection, 1.

Mills' desire to preserve the natural world was more fluid, more easily permeated by development, than historians have yet been willing to admit. They also indicate that from its very inception, the idea for Estes National Park contained strong elements of economic use, not only because its "father" was vested in the economic vitality of the area, but also because he early supported commercial enterprises far beyond his own.

Although Mills rightfully and naturally deserves a place within the history of Rocky Mountain National Park, we must move beyond him if we are to truly understand the forces and principles behind its creation. The fact that Denver was, by the turn of the century, a well-connected, well-known health resort in a nation itching and able to travel was crucial to the park's creation. In this regard, Rocky Mountain National Park was partially a product of the urbanization of the American West. At a time when city life often dehumanized, rationalized and sterilized the human experience, this park held the promise of peace, solitude, and rapture that so many urban Americans craved.

Enos Mills, Horace McFarland, James Grafton Rogers, Robert Marshall and several politicians and government employees all experienced and responded to this sentiment. Though their personalities and professions varied widely, they all agreed upon one simple fact. This park, if created, had the potential to draw a crowd, and that was a very good thing for everybody. Yes, parks protect sweeping vistas; yes, they protect fragile plants and animals; yes, they protect vital watersheds; but in this case protection was not granted solely, or even primarily, for such purposes.

Understood thus, the history of this crown jewel takes on a new meaning. More than a reflection of a nation's willingness to rise above money to forever save our irreplaceable natural wonders, Rocky Mountain National Park is a monument to a specific time and place in America's history—a time, not so different from our own, when tourism and revenue drove environmental policy only to be draped later with heroic stories of stalwart preservationists and pure intentions.

Chapter Two
A Vast Moving Caravan

Introduction

More than one hundred million travelers have crossed the gates into RMNP over the past century. For many, perhaps even most of these millions, RMNP would first and primarily be a sensory experience had from the seat of an automobile—truly a "windshield wilderness."[1] The deep connections between RMNP and driving, however, are not the product of historical accident. Rather, they are the result of specific and direct efforts by a range of individuals and organizations seeking to make it so. The creation of RMNP in 1915 intensified the promotional efforts already afoot as the NPS sought to grow its constituency in its bid to build a large and stable bureaucracy. In this sense, linking driving to the park experience was a complete success. With each passing year park superintendents witnessed a strong correlation between road building and rising annual visitation.

But as the Service has always known, roads offer more than a simple means to move people from place to place. In the hands of landscape architects roads became powerful tools in shaping and mediating the park experience. In other words, roads provided park planners and managers an opportunity to present the park as they thought it should be presented. More than just building roads through the park, the NPS built roads to sites they deemed important. They built these roads in a manner that amplified what one landscape architect called the "crescendo of natural features"

[1] David Louter, *Windshield Wilderness: Cars, Roads, and Nature in Washington's National Parks* (Seattle: University of Washington Press, 2006).

that characterized the park. They conducted roadside cleanup to improve the view from the road, selectively thinned trees to create views that did not naturally exist, and razed historic structures all in an effort to shape a particular experience. The landscape architects that spearheaded the design, construction and maintenance of roads in parks saw themselves as artists of a sort. Through their understanding of human psychology and their clear sense of what constituted natural beauty, landscape architects played a significant role in shaping how visitors interacted with, and understood, Rocky Mountain.

As the landscape architects of the NPS demonstrate, roads stand as something more than a means to move people from point A to point B; they offer primary sources that reflect and reveal much about American society and the discourse that this country has had with, and about, the natural world. They reveal our hopes, anxiety, and the vast power of intention to shape the natural world. Before addressing the "history" of roads in the park, however, it is instructive to know something about how and why roads have come to play such a central role in this park's history.

Logic of Good Roads

In Rocky Mountain National Park, as we have seen, the desire to promote tourism provided the fulcrum in creating the park. Promoters knew from the very beginning that for the park to realize its full potential, rails and roads would serve as

the arteries delivering throngs of nature-hungry visitors to the park.[2] The National Park Service, local businessmen, and larger corporate entities like the Union Pacific Railroad all had business interests in promoting the construction of a good and popular road system.

Since its creation in 1916, the NPS has striven to demonstrate to the American public and Congress that national parks matter. The desire to do so, however, was more than a bureaucratic attempt to pat itself on the back. In fact, demonstrating tight connections between the NPS and the broader American public held the keys to the very existence of the Service, not to mention any hopes of future expansion it harbored. Over the life of the NPS, directors and individual park staff have worked diligently to demonstrate that Americans value their "living museums" by facilitating the highest visitation possible, and by publicizing high visitation in annual reports, local and national newspapers, and official Park Service publications.

The NPS's desire to build and maintain a broad coalition of public support was partially a function of their desire to protect parks from future development. To the directorate of the NPS, the construction of dams in places like Hetch Hetchy and Glacier were violations of the spirit of national parks.[3] To protect them from such development in the future, the NPS needed to generate as many public allies as

[2] For more on the connection between infrastructure construction in national parks and the growth of parks themselves, see Mark Daniel Barringer, *Selling Yellowstone: Capitalism and the Construction of Nature* (Lawrence: University Press of Kansas, 2002).
[3] Robert Righter, *The Battle over Hetch Hetchy: America's Most Controversial Dam and the Birth of Modern Conservation* (Oxford: Oxford University Press, 2005), 196-197.

possible. This, in turn, put the NPS in a position to "sell" vigorously the national park experience to the public.

As part of its strategy to build a broad and growing clientele, the NPS used roads and ease of access to promote parks, thereby initiating the institutional practice of connecting roads to the national park "experience."[4] In this sense, the early policy direction of the NPS showed great foresight. Standing on the cusp of what would become an automobile revolution, Horace Albright, Steven T. Mather and others rightly gauged that the NPS's institutional success and longevity would greatly increase if they could link parks and automobiles in their patrons' minds. Of course, diverting a rising tide of humanity to Rocky Mountain required higher and more regular budget appropriations, and more and better roads. To a nation first enamored with the automobile—and later beholden to it—roads meant a stronger, more stable bureaucracy. For these and many other reasons, the NPS has understood roads, both within and without the park, as essential to its mission statement and existence.[5]

Corporate entities like the Union Pacific Railroad saw a network of smooth and interconnected roads to and through the park as a prime opportunity to generate revenue. Although Rocky Mountain National Park never received a railroad terminus, the neighboring communities of Lyons and Fort Collins did. From these depots, especially in the earliest years of the park, tens of thousands of tourists stacked their

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[4] Ronald A. Foresta, *America's National Parks and Their Keepers* (Washington: Resources for the Future, 1984). See especially chapter 2, "The First Fifty Years" 9-57.
[5] Peter Blodgett, "Selling the Scenery: Advertising and the National Parks, 1916-1933," in David Wrobel and Patrick Long, eds., *Seeing and Being Seen: Tourism in the American West* (Lawrence: University Press of Kansas, 2001).

grips in rented cars and headed toward Estes Park. Without smooth and reliable roads to the park, and without good roads throughout, the Union Pacific faced a difficult task in convincing tourists to use its rails to visit the region.

Local businessmen—as much as the NPS and Union Pacific—also looked to a good road system as essential for their future prosperity. Although some percentage of visitors to the park did not mind bumpy roads or a ride atop a sweating steed to reach the Fall River Lodge or Stead's Guest Ranch, many did. To local businessmen, better roads meant more people. More people meant more business. The history of roads in the park and the exponential increases in park visitation between 1915 and the present bear out the lucidity of this simple equation.

So why does it matter that a coalition of interests existed to build and promote roads through the park? The reasons are threefold. First, this coalition of local, national, and governmental entities fostered a broad and sustained publicity effort aimed at introducing the traveling public to the many "motoring" opportunities to be had in RMNP. Second, their efforts fostered certain expectations about what people could and *should* be doing while in this national park. Third, these expectations, over the course of the last century of management, have brought sometimes vast ecological changes to the very region the park was created to protect. In short, a century of promotion and management intended to draw tourists from around the world to RMNP have succeeded in doing so, but also succeeded in promoting a behavior and activity that altered the very nature of the park and brought forth a host of management conundrums.

The history of two of the park's most popular roads, Bear Lake Road and Trail Ridge Road, offer the best opportunities to examine the historic relationship between tourist expectations, park management, and the park's ecosystems. Bear Lake Road existed in a rudimentary state even before the park was created. Beginning in 1916 and accelerating rapidly thereafter, the NPS built, extended, and refined the road to facilitate a higher volume of traffic to Bear Lake. The NPS was successful in this endeavor, and by the 1950s Bear Lake's only vehicular artery was clogged with cars, trucks, and camper trailers. The problem was eventually addressed through the implementation of a busing system, which has, in turn, created a host of management and ecological problems of its own.

The NPS initiated construction of Trail Ridge Road in 1929 and opened it in 1932. Unlike Bear Lake Road, which delivers tourists to a single point, Trail Ridge Road was designed so driver and passenger could ascend to the heavens, breathe in crisp cool air high atop the Continental Divide, and plunge down the other side. Trail Ridge came to symbolize man's triumph over nature and offered a pleasurable means to take part in this triumph, not to mention a matchless unfolding panorama of mountain majesty.

Simply building great roads, however, would not be enough to draw sufficient numbers to the park. The public needed to associate Rocky Mountain National Park with the freedom, excitement, and convenience of the open road. The co-evolution of a "driving park" and the rise of the automobile nation is no coincidence. The two are bound together in complex ways. Building a bridge between them—linking

America's love affair with driving to the natural world—required advertising, and lots of it.

Selling Good Roads

Even prior to the park's official creation in 1915, the Union Pacific (UP) relied upon accessibility and good roads to entice travelers to use its rails. Take, for example, a Union Pacific brochure published in 1911 entitled *Colorado: For the Tourist*. Under the heading "Colorado is the Playground of America," the UP claimed that "[t]he higher altitudes of Colorado are more easily accessible than in any other mountainous country," and that "Colorado is awakening to her possibilities as a tourist state. The great city of Denver and nearly every other city and county in the state are building fine roads to make the glorious mountains, with their natural parks and their unmatched hunting and camping grounds, still more easily reached." The Union Pacific wanted to make it clear that they were catering to more than those wishing to send freight to distant markets. Railroads were also being built "to places from which points most attractive to the tourist can be found with least trouble," the best example of which was the "Union Pacific from Denver to Fort Collins." From here it was "but a 30 mile ride into the heart of Estes Park, acknowledged to be the most rugged region of the Rocky Mountains." [6]

[6] Union Pacific Railroad, *Colorado for the Tourist* (*n.p.*, 1911). Estes Park Museum, Box Railroad Advertisements and Souvineers.

More than a trip aboard a comfortable train or an exciting jaunt in an open air car, an excursion to the Rockies of Colorado offered travelers the opportunity to see the commingling of past and present. Here, according to the publication, the

> Old West of romance rubs elbows intimately with the great West of power and conquest in Colorado today. Here are still to be seen the Indian and cowboy, the prospector and the plainsman, but here also are great electric power transmission lines, the highest railroads and the greatest gold producing mines of the United States."[7]

The West, according to the Union Pacific, offered access to both a heroic past and an exciting technological future.

In addition to the laudatory prose used to drive home the region's ease of access, the Union Pacific also relied on a wide range of photos in *Colorado: For the Tourist* to achieve the same end. Of the 53 photos of non-urban areas that appear in the pamphlet, twenty contain one or more roads. The pervasiveness of roads in the brochure is a curious matter. Perhaps the UP was doing their part to balance their depiction of the West as a wild place of gunfighters and savages with a West replete with all the amenities of the modern era. The line that the UP attempted to walk was razor thin. The exciting West of yesteryear, that place of wild women and roughhewn men, was so because it lacked modern contrivances. Rails, roads and all they bring with them, however, threatened the very existence of the romantic West that drew millions to the region to begin with. The dilemma the UP faced in balancing the wild with the modern was little different from that the NPS later faced in creating a

[7] Ibid.

parkscape where the human imprint was nearly imperceptible, but where tens of millions would trod.

As the park movement gained momentum in Estes Park in 1913, the Union Pacific created a travel brochure solely for the little hamlet. *Where the Rockies Reign Supreme* again boasted the fine hotels, great fishing, hiking and viewing around Estes Park, but paid particular attention to the "motoring" opportunities in the region. The traveler, assured the Union Pacific, would find the ride from Fort Collins to Estes Park most enjoyable. The scenery was unparalleled, the roads were wide and smooth, and only expert drivers were allowed to operate automobiles. Here again, the UP made good use of photos to get its point across. Of the 21 photos that appear in the brochure, 11 of them either contain or feature a road. The UP, however, was not alone in recognizing and amplifying the "motoring opportunities" in and around Estes Park. The *Estes Park Trail*, which was a steadfast booster of the region, carried articles that looked to automobile tourism as the future. According to the paper:

> A vacation trip in an automobile is no longer a fad, but everything considered, is a cheap and enjoyable way of taking the whole family and having a good time. Year by year this way of seeing the country is growing, and once a successful trip has been made, never again the stuffy Pullman for the man who owns a machine. [8]

It was true that Colorado had long been known as a state containing vast natural resources, but according to the *Trail*, "its greatest asset, the one thing that will yearly add to it (sic) permanent wealth, is good roads."[9] To promote the region and draw the

[8] *Estes Park Trail*, June 27,1913.
[9] Ibid.

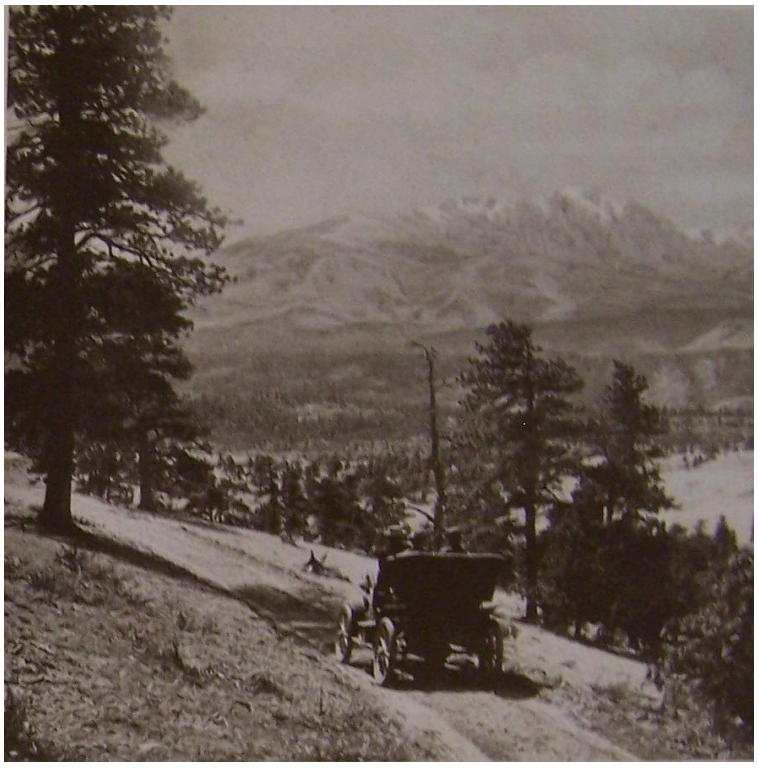


Image of car motoring near Estes Park.
(From *Colorado: For the Tourist)*

driving public to the park, the Estes Park Business Association published ten thousand copies of a "very attractive booklet," which were distributed across the United States.[10]

Focusing upon the availability of good roads in and around RMNP was no fleeting phenomenon. In a 1925 *New York Times* article entitled "Curtain Rises on Nation's Park Show," columnist William Du Puy rightly stated that some significant changes were afoot in National Parks. In the heady 1920s, accurately penned Du Puy, America's natural wonders had become accessible to "a vast moving caravan." The seemingly endless line of autos heading to and through national parks was indeed

[10] *Estes Park Trail*, September 7, 1912.

"something new under the sun" and of vast importance to the future of parks. No longer forced to choose between lengthy and expensive railroad vacations or no vacation at all, evermore people toured National Parks in automobiles. According to Du Puy, total National Park visitation jumped from 100,000 in 1910 to 1.1 million by 1924. In Rocky Mountain alone, more than 250,000 passed beneath its entrance gates in 1924, up from an estimated 31,000 during its first year of operation.[11] "The automobile," concluded Du Puy, "having brought so many parks to the door of the citizen, now goes in search of offerings for its devotees."[12]

Another organization seeking devotees for its offerings was the Rocky Mountain Transportation Company (RMTC). Whereas the businessmen of Estes Park and the Union Pacific Railroad viewed motoring opportunities in and around the park as a means to supplement their income, the RMTC's entire business derived from shuffling curious onlookers from point to point around Estes Park. Roe Emery, who had operated a successful touring company in Glacier National Park since 1914, consolidated the Stanley and Osborn transportation lines in 1916 with his own and began offering service to and through Rocky Mountain National Park.[13] By 1918, Emery operated one of three official companies moving people to the park. His competition included Denver Herdic Transportation and Boulder Transportation. During 1918 alone, the three companies delivered more than 600 car-loads of tourists to RMNP. Of the three, however, the RMTC was by far the most successful, driving

[11] Superintendent's Annual Report, 1915.
[12] *New York Times*, May 31, 1925.
[13] James Pickering, *America's Switzerland: Estes Park and Rocky Mountain National Park, the Growth Years* (Boulder: University Press of Colorado, 2005), 185.

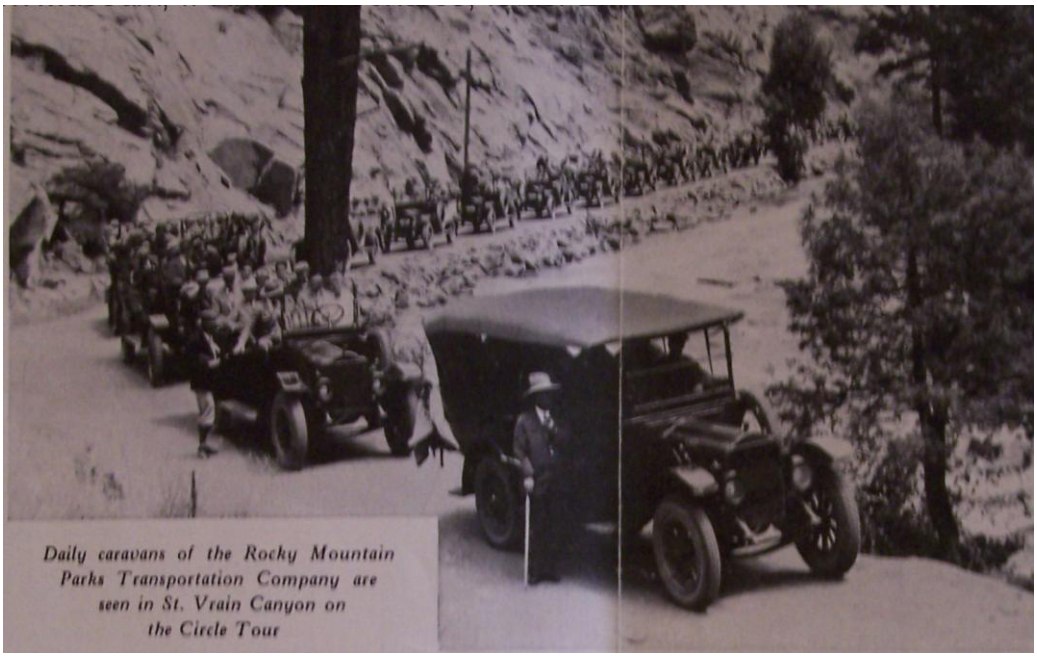
more than 400 tours through the park.[14] In addition to experience and capital, Emery also enjoyed close connections to Director Stephen Mather and key railroads, which served several stops in Denver and across the Front Range.[15]

The volume of Emery's business in RMNP, his close personal relationships with Stephen T. Mather, and his experience and success in Glacier made him a frontrunner to receive an exclusive franchise to operate a touring company in the park.[16] Emery's savvy decision to work closely with the thinly-manned park staff in times of need only strengthened his bid for the franchise. In 1918, for example, RMNP staff responded to eleven fires, and according to Superintendent Way, they "received the heaviest cooperation from the Rocky Mountain Parks Transportation Company," whose assistance "prevented disastrous fires, the largest area burned by any one fire being seven acres."[17] More than aiding in times of distress, the RMTC, held Superintendent Way, offered steadfast service in a variety of adverse conditions, including times when roads between railroad terminuses and Estes Park had washed out, and never turned a customer away.[18] To an agency looking to build a stellar public image, associating itself with a private business was a risky proposition. The consistency, courtesy, and capability of the RMTC, however, made the marriage more palatable.

[14] Superintendent's Annual Report, 1918.
[15] Pickering, *Switzerland,* 184.
[16] Ibid., 185-186. Pickering goes so far as to claim that Emery was in Mather's "inner circle."
[17] Superintendent's Annual Report, 1918.
[18] Superintendent's Annual Report, 1919.

By the summer of 1919 the RMTC was well-positioned to receive exclusive franchise rights to bring tourists to the park. In a move that shocked and appalled many locals (including the ever-vocal Enos Mills), Rocky Mountain National Park offered the transportation franchise to Emery's company in May of 1919, thereby excluding all others from taking paying customers by automobile through the park.[19] The partnership between the RMTC and the park benefited both parties. From the park's perspective, having a relationship with a reliable business dedicated to bringing as many visitors to the park as possible meant only good things. Not only was the skeletal crew of the park not responsible for offering such services, but through the work of the Transportation Company, thousands of Americans who may not have had the opportunity to visit the park, contact its personnel, and come to understand the importance of the nascent agency, did. For their part, the RMTC was permitted to operate a business *sans* competition—a mere dream to most entrepreneurs—and was allowed to advertise their business within official national park publications. Doing so trimmed advertising costs and lent weight and credibility to the business. As was the case with the Union Pacific, the businessmen of Estes Park, and the National Park Service, the RMTC also had a vested interest in drawing explicit linkages between the park and driving.

[19] Ibid.



String of cars on "circle tour."
(Rocky Mountain Transportation Company Pamphlet)

In an effort to further introduce the public to motoring opportunities in the park, the Rocky Mountain Transportation Company published a series of informational brochures on the subject. More than offering rate and schedule information, these brochures went out of their way to extol the many driving opportunities in and around the park. One the most popular—and expensive—trips promoted by the RMTC was the so-called circle tour. Prior to the construction of Trail Ridge Road, the circle tour began in Denver, slid northward along the front range to Loveland, snaked along the Big Thompson to Estes Park, ascended the Fall River Road to the continental divide, slipped southward between Grand Lake and Georgetown, and finally coasted east to Denver. The entire 240 mile trip cost $25.50 and spanned two days. For those not willing or able to spend the time or money to

experience the circle tour, the company offered shorter, more economical routes as well. Such routes included a simple trip between Denver and Estes Park at a price of $10.50, a $6.00 High Drive tour, a drive to Long's Peak for a mere $2.50, and a Bear Lake trip for $3.00.[20]

Beyond designing and disseminating their own advertisements, the RMTC benefited greatly from their connections to the Union Pacific and the National Park Service, as both often sold space for the services the RMTC offered in their promotional brochures. For example, the Union Pacific's 1924 *Colorado Mountain Playgrounds* devotes three full pages to a description of Emery's circle tour, describing in detail the steady stream of breathtaking scenery that awaits the paying customer.[21] Likewise, a NPS pamphlet entitled *Colorado: Rocky Mountain National Park* also offers the RMTC as the only means to reach the park by rented car, regardless if one left from Fort Collins, Longmont, or Loveland. The brochure was quick to point out that in addition to "splendid trout fishing," golf and tennis, RMNP also offered over "150 miles of good roads radiating in all directions, winding through canyons, over mountain passes, to beautiful mountain lakes and roaring waterfalls. The motorist," boasted the pamphlet, would find "this a pleasant way to see nature in all its grandeur and splendor."[22]

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[20] Rocky Mountain Transportation Company, *Rocky Mountain National Park, Colorado,* (*n.p.*, [1929]). Estes Park Museum, Box General Advertisements, ff "RMNP Brochures Folder 2."
[21] Union Pacific Railroad, *Colorado Mountain Playgrounds* (*n.p.*, 1924) 14-16. Estes Park Museum, Box Railroad Advertisements and Souvineers.
[22] National Park Service, *Colorado: Rocky Mountain National Park* (*n.p.*, [1925]). Estes Park Museum, Box General Advertisements, ff "RMNP Brochures Folder 1."

As was the case with the Union Pacific, Estes Park businessmen, and the Rocky Mountain Transportation Company, the National Park Service also had a vested interest in drawing connections between driving and the park. Through its brochure *Rocky Mountain National Park, Colorado*, for example, the National Park Service sought to inform prospective visitors of the rules and regulations of the park (that was the official intent of the forty-seven page document) and entice them with the great variety of activities the park offered. After a brief primer on the region's natural history, the booklet again echoed the chorus of the park's founders under a section entitled "Accessibility." Here, states the NPS, "One of the most striking features of the Rocky Mountain National Park is the easy accessibility of these mountaintops." Not only was it a mere 30 hours from Chicago and St. Louis, but upon arriving at the park, one could "motor" from one side of the Continental Divide to the other in just four hours.[23]

In addition to touting the park's great location, the publication also offered detailed information on how to best experience the park under the section entitled, "Seeing Rocky Mountain." Although this section offers information on hiking and horseback riding in the park, the section opens with a detailed description of the roads connecting the park to the Front Range, and then follows with four pages offering detailed descriptions of automobile travel through the park. Here again, the NPS, like those mentioned before, had specific motivations for promoting the "motoring

[23] Department of the Interior, *Rocky Mountain National Park, Colorado* (Washington: Department of the Interior, 1927), 4. Estes Park Museum, Box General Advertisements, ff "RMNP Brochures Folder 1."

opportunities" in and around the park. Doing so, hoped the NPS, would increase annual visitation and strengthen its pleas for higher and more stable congressional appropriations, thereby resulting in institutional stability and longevity.

More was at work here, however, than the NPS's desire to build a solid and reliable constituency. According to Marquerite Shaffer, the national parks were used to build a sense of patriotism through the promotion of the unique landscapes of the United States.[24] The formation of the NPS itself, argues Shaffer, stands as a reflection of the growth of the state through a rapid period of urban and industrial growth. Moreover, contends Shaffer, tourism "embodied a unique and symbolically powerful double-edged sword: it represented a from of consumption that depended on and supported the growing infrastructure of the nation state, and it offered a means of generation patriotism, thus reinforcing the democratic ideal of the nation."[25] Although the NPS had specific institutional motivations for promoting tourism, Shaffer reminds us that their behavior must also be understood within the broader social, economic, and political atmosphere of the early 20th century.

Without knowing it, however, the NPS was also constructing expectations about how best to interact with the natural world within the park. Certainly visitors were offered information on hiking, fishing, and horseback riding, but the NPS clearly encouraged visitors to drive through the park. Such efforts, combined with those of the Union Pacific, Estes Park businessmen, and the Rocky Mountain

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[24] Marquerite S. Shaffer, *See America First: Tourism and National Identity, 1880-1940* (Washington: Smithsonian Institution Press, 2001), 93-94.
[25] Ibid.

Transportation Company, did more than raise awareness about the newly created national park. Through photographs, maps, and detailed descriptions, each of the above made it clear that driving in this national park was not just possible, but recommended.[26] These expectations, in turn, brought further pressure to bear upon park management to build and maintain a first class system of roads.

Regardless of the words of the Union Pacific, Estes Park Trail, or any other booster, however, Rocky Mountain National Park did not have much in the way of roads—either to or through the park—upon its creation. These would have to be built. How, where, and when they were built tells us much about what park officials thought "worthy" of a jaunt through the woods.

Building Good Roads

Bear Lake Road has historically been one of the most heavily-used roads in Rocky Mountain National Park. Winding its way from the Beaver Meadows entrance on the Park's east side, the road now skirts Moraine Park and then meanders along the picturesque Glacier Creek before reaching its final destination. Along the way motorists may look upon grazing elk, a roiling brook, and a towering crescent of majestic peaks. Today, the road is wide, smooth, and expeditious, delivering visitors to a range of destinations including Sprague Lake, the Glacier Gorge Trailhead, and Bierstadt Lake Trailhead. Traffic during the summer months can be intense as bikes,

[26] *Rules and Regulations Rocky Mountain National Park, Colorado* (Washington: United States Department of the Interior, 1927), 12-16. Estes Park Museum, Box General Advertisements, ff "RMNP Brochures Folder 1."

cars, and the park's many shuttle-buses pulse toward one of the Park's most popular destinations—Bear Lake. Although park managers and visitors have long appreciated the physical beauty of the little lake, delivering oneself to its shores was not always as effortless as it is today.

Upon the Park's creation in 1915, no reliable road existed to deliver visitors to Bear Lake. Instead, there stood a patchwork of privately constructed roads and trails, which under the best of circumstances could deliver one to within a mile of its shores but not in the comfort of an automobile. Abner Sprague likely built the first leg of the road, which ran parallel to Glacier Creek for 1.5 miles and brought patrons to his "summer resort." West of Sprague's Lodge, a rudimentary "road" climbed an additional two miles toward the lake. By the estimation of the Park's first Superintendent Charles R. Trowbridge, an allocation of one hundred dollars was needed to repair the road to Sprague's, and another three hundred dollars to construct a bridge at the resort and make the two miles of road between it and the resort "passable for automobiles."[27] Although such sums seem almost laughable today, the park's skeletal budget and staff made such improvements nearly impossible. In his first annual report to the Director of the NPS, Trowbridge stated flatly that upon assuming "charge of the Rocky Mountain National Park as acting Supervisor on July 1st, 1915, I was unable to accomplish as much as I desired owing to the fact that I was unassisted, no appointments of employees being made until August 10th, when one ranger was appointed, consequently there has been little progress made this

[27] Superintendent's Annual Report, 1915.

season toward improvements in the Park."[28] In short, send more money and men, and then we'll get to work.

As resources began flowing toward the park in the years following 1916, park staff earnestly worked to make the park accessible to the driving public. Rightly realizing that "a great number of tourists[…]would not undergo the hardship of a horseback trip" to Bear Lake, Trowbridge continued allocating resources for improving the condition of the road. Although much work remained to be done, the summer's improvements brought "considerable automobile traffic" toward the destination. In its first real season of roadwork the park staff learned two important lessons. First, they linked the existence of good roads to the tourist's ability to see the park, and they recognized that roads, once built, would facilitate evermore visitation.[29]

Of course, much work remained to shape Bear Lake Road into thoroughfare capable of carrying thousands of automobiles daily. Between 1917 and 1919 more resources were earmarked for the road, and by the close of the 1918 season it was raised one foot, crowned, graded and "placed in first class condition."[30] Recognizing the surge of automobile use in the parks, Superintendent L. Claude Way implored the director of the NPS to be "prepared to supply the needs of the people" as travel by automobile was "increasing by leaps and bounds."[31] To meet the demands and expectations of a rapidly growing clientele, road crews added and improved 13 scenic

[28] Ibid.
[29] Superintendent's Annual Report, 1916.
[30] Superintendent's Annual Report, 1918.
[31] Superintendent's Annual Report, 1919.

turnouts, and built an additional 600 feet of road to the newly built Glacier Gorge Campground in 1919 alone.[32]

As the road stretched its way toward Bear Lake, annual visitation to the park continued to grow. During the 1919 season an estimated 169,492 people in 33,638 cars came to Rocky Mountain National Park. Of that number, the RMTC brought nearly one fourth through the park's gates in more than one thousand individual tours.[33] To meet growing demand for their services, RMTC enlarged its operations and boasted a fleet of thirty five ten-passenger cars, eighteen seven-passenger cars, eighteen seven-passenger touring cars, two 3.5 ton trucks, and four two-ton trucks by 1920.

Superintendent Way, cognizant of the rising importance of Bear Lake to the park experience, reported to the Washington, D.C. office that Bear Lake Road was "destined to be one of the most traveled roads in the National Park" and directed crews to dedicate the bulk of their efforts to placing it in "good condition" for the 1920 season.[34] Adding to the road's popularity was the construction of a makeshift wagon road from Glacier Basin to within a half mile of Bear Lake. Although the road was not intended for automobile use, many brazen drivers nervously perched atop their machines as they reached the "heart of some of the wildest and most beautiful country in the Park."[35] The arrival of the first automobiles at Bear Lake stands a watershed in its history and the history of the park. For the first time since the

[32] Ibid.
[33] Ibid.
[34] Superintendent's Annual Report, 1920.
[35] Ibid.

mountains thrust themselves skyward, humans would come to dominate the landscape and reshape many of its natural processes. A continual program of road improvement was central to this process.

Roger Toll, who took the reins of superintendecy from Way in 1921, also recognized the importance of good roads to the future of national parks. Astutely realizing that the automobile was changing how visitors experienced the park, Toll commented that a "[c]ertain proportion of visitors seem to be interested primarily in the opportunities for automobiling," and their "stay in this park is usually brief." To Toll, the shift toward more cars heading to and through the park was troubling, especially given that the "total length of roads in the park is 68 miles. Aside from the Fall River road," lamented Toll, "there are less than thirty miles of road within the National Park and all of these are within ten or twelve miles of Estes Park." In addition to relatively few miles of road in the park, "several of these roads [were] not such as to tempt a motorist who is not trying to reach a definite point, but is out for a pleasure ride."[36] In short, to meet the growing desire and expectation to drive through national parks, RMNP would have to dedicate more resources to building and maintaining roads.

Looking back over the progress made on the Bear Lake Road in 1924, Toll reported that just "two years ago, sufficient work was done on the road to Bear Lake to make it barely passable for automobiles. This year additional work has been done,

[36] Superintendent's Annual Report, 1923.

and the road is now being used very extensively."[37] Responding to the public demand to visit the lake and to use it as a jumping-off point for hikes to a wide variety of breathtaking (both literally and figuratively) locales, Toll projected that "there is no question that the region around Bear Lake will receive an increasing number of visitors each year, because of the many attractive trips that can be taken from that point." To open fully the region to tourists, Toll believed that "the road must be further improved, a camp ground developed, more parking space provided, and additional trails constructed[…]in order to keep pace with the demand."[38]

The Rocky Mountain Transportation Company played a significant role in generating the rising demand that Toll mentioned. By 1924 the company's fleet had grown to include "76 eleven-passenger buses" and "25 seven-passenger touring cars." In that year alone they carried nearly 6000 visitors over the perilous Fall River Road, 1,200 on the short loop between the High Drive and fall river, and 1,500 people on special "service trips" through the park. Capitalizing on a rebounding national economy, the company ushered more that eleven thousand people through the park in 1924 alone.[39]

By 1926 Congress was becoming increasingly aware of the rising popularity of national parks and dedicated more money to support and expand them. Beginning in 1926, Congress allotted Rocky Mountain National Park, which had a road budget of $3000 for its first fiscal year, a three year sum of $445,000. Toll, who had long

[37] Superintendent's Annual Report, 1924.
[38] Ibid.
[39] Ibid.

harbored the desire to bring the Bear Lake Road up to the highest of standards, earmarked the 1926 allocation of $140,500 for the Bear Lake project.[40] Hoping to make it one of the premier destinations in the park, RMNP quickly advertised for construction bids, and by fall the firm of Shields and Flat had earned the $122,000 contract to rebuild and relocate 6.9 miles of the road, primarily between Sprague's resort and the lake.[41] Here again, park managers knew that building ever-better roads through the park would generate more visitation. The new road, hoped Toll, would make Bear Lake "accessible by an excellent road," and thereby ensure that "the travel in that portion of the park will be very greatly increased."[42]

As the Shields and Flat steam shovel rent the earth and churned its way toward Bear Lake, park staff did witness a sharp increase in the number of cars ambling toward the lake. As crews neared completion of the road in 1928, an estimated 21,593 made their way to the Glacier Gorge campground.[43] Due to the newly finished road, 1929 witnessed still more visitors upon the shores of Bear Lake. Although total park visitation increased by 20% over the previous year, and though all "gateways report increased motor travel," the "most noticeable gain," said superintendent Toll, "has been counted at the Bear Lake entrance where an increase of 72.3 %" had occurred. In the first full season of use the road delivered more than 37,000 people to Bear Lake in more than 10,000 automobiles. Rightly interpreting the

[40] Lloyd K. Musselman, *Rocky Mountain National Park: Administrative History 1915-1965* (Washington: U.S. Department of the Interior, 1971) 6.
[41] Superintendent's Annual Report, 1926.
[42] Superintendent's Annual Report, 1927.
[43] Superintendent's Annual Report, 1928.

situation, Toll commented that the incredible increase in visitation to the Lake was "due to the completion of the new primary road from the park boundary to Bear Lake, which makes it possible for the motorist to drive to the high, rugged country over a standard 18 foot, graveled road on which the maximum grade is 7 percent."[44] Although visitation to Bear Lake would never again be so low, it is important to note that only nine years had passed since the first automobile chugged its way to the destination. Through greater and more reliable appropriations, the NPS was able to build itself a premier destination. In doing so, however, they began to face the management consequences of that decision.

Higher annual visitation demanded more upkeep, and the expansion of facilities to handle the crowds. Primary to the care and maintenance of the new road was managing the contrails of dust produced by the churning wheels of thousands of automobiles. To treat the problem and to ensure the smoothest possible roads for the summer season, the NPS initiated a program of regular road maintenance in 1929, which included applying an estimated .3 gallons of oil per square yard to the road's surface. Given that the width of the road was contracted at eighteen feet, and that the portion treated was seven miles in length, the NPS spread roughly 66,528 gallons of oil atop Bear Lake Road each time crews oiled it.[45]

Through the application of money, technology, and sweat, the NPS had transformed the Bear Lake Road from a dusty horse trail into "decidedly the best road in the park," but in doing so they created yet another problem for themselves. More

[44] Superintendent's Annual Report, 1929.
[45] Superintendent's Annual Report, 1929; Superintendent's Annual Report, 1931.

people—and more cars—demanded more parking. To further accommodate the driving public, the NPS built parking areas at Glacier Gorge and Bear Lake to accommodate 100 and 350 automobiles respectively.[46] As early as 1929, then, the staff at RMNP began to witness and experience a recurrent management theme—better facilities bring more people, but more people require more resources and place a greater demand on the park itself. For the better part of the twentieth century the park staff would implement a variety of management strategies to deal with this conundrum, often with little or no success. By 1932 visitation to the lake had surpassed 80,000 with no end in sight.[47]

As RMNP poured money into the construction and refinement of Bear Lake Road, it launched a more public—and in some ways more important—road building campaign. Unlike Bear Lake Road, which was built to deliver drivers to a primary destination, Trail Ridge Road was conceived, designed, and built to bring drivers to a variety of destinations as they motored *through* the park. The appeal of the road has always laid in its breathtaking views, the variety of ecosystems it made accessible, and the sheer novelty of commanding an automobile to elevations in excess of 12,000 feet.

Responding to popular demand to drive to the spine of the Continental Divide, Grand County began construction of Fall River Road in 1913. Although Fall River offered motorists a harrowing drive and an opportunity to stand where the nation's waters divide east and west, it suffered from a variety of shortcomings. In general, the

[46] Superintendent's Annual Report, 1929.
[47] Superintendent's Annual Report, 1932.

road was not designed with the same sensitivity to "vistas" that the National Park Service would later find so important. Instead, as one climbs Fall River Road, lodge pole pine and spruce often obstruct the view, and most of the trip is spent traversing the north side of the Fall River Canyon. Although the drive offers striking views of the south side of the canyon, opportunities to behold the mountain majesty of RMNP are limited primarily to the portion of the road near the Continental Divide itself. Given that park managers have always placed a great deal of emphasis on making the park experience an evocative visual experience, Fall River Road left much to be desired.

The road suffered in other regards as well. Its engineers built many sections too steep and several of its corners required backing to and fro to make them. This, coupled with steep grades and often precipitous drop offs, provided too much stimulation for many drivers. To address the problem of drivers too frightened to continue, the NPS posted a permanent patrol on the road to assist the overwhelmed to lower ground. In addition to Fall River's lack of "great vistas" and rugged construction, it suffered perennial land and snow slides, which required great effort and expenditure to remedy. In short, after several years of management experience, the staff of RMNP knew well the deficiencies of the road by the mid-1920s.

Hoping to strengthen their ability to build good and appealing roads, the NPS partnered with the Bureau of Public Roads in 1926. Through this cooperative agreement the NPS undertook construction of some of its most heroic roads. For their part, the Bureau of Public roads provided technical and engineering advice while the

National Park Service and its many landscape architects concerned themselves primarily with the aesthetic aspects of road construction.[48]

More than simply building roads through parks, the NPS labored to construct roads that amplified, illuminated, and made accessible spectacular natural scenery. Employing techniques that originated in a tradition of landscape architecture and gardening stretching well into the nineteenth century, the NPS employed rigorous theory and years of practical experience to build the most spectacular roads possible.[49] The Blue Ridge Parkway, Going to the Sun Highway, and Trail Ridge Road all reflect their ability to do so. Beginning in 1927, when Director Stephen T. Mather established a new headquarters in San Francisco to advise the NPS on matters of engineering, education, forestry, and landscape architecture, the NPS devoted increasing resources to building parks that were especially appealing to the eye. Central to these efforts lay the talents and ambitions of Thomas Vint.[50]

Vint, who was trained in a variety of fields including landscape architecture, took control of the landscape division at the new field office in 1927 and earned the official title of Chief Landscape Architect in October of 1928.[51] Beyond assembling a talented and energetic staff, Vint also helped craft construction standards and practices to minimize disruption and damage to natural areas adjacent to roads. The

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[48] Linda Flint McClelland, *Building the National Parks: Historic Landscape Design and Construction* (Baltimore: The Johns Hopkins University Press, 1998), 187.
[49] Linda Flint McClelland, *Presenting Nature: The Historic Landscape Design of the National Park Service 1916 to 1942* (Washington, D.C.: U.S. Government Printing Office, 1993), 115-137.
[50] McClelland, *Building the National Parks,* 195-196.
[51] Ibid., 198.

new standards, for example, stated that all "holes left by the removal of stumps and roots were to be backfilled. Borrow pits were to be located in areas not visible from the completed road." Further, contractors were not allowed to use longstanding blasting practices that marred the landscape.[52] Following Vint's lead, and employing his new road construction standards, the NPS and Bureau of Public Roads turned their attention to Trail Ridge Road.

Although preliminary investigations into the feasibility of a road over Trail Ridge began in 1926, construction did not begin in earnest until 1929. Over the course of that summer a cadre of engineers and landscape architects from the National Park Service and officials from the Bureau of Public Roads (BPR) worked in RMNP to plan the new road. In June of 1929, Merel S. Sanger, Assistant Landscape Architect from the San Francisco office, spent three weeks in the park and "made a study of the Trail Ridge Road construction project."[53] Later that summer, Highway Engineer L.A. Hamilton from the Bureau of Public Roads also spent several days going over the Trail Ridge road project with Superintendent Rogers and Resident Engineer Lafferty of the Bureau of Public Roads.[54] After this preliminary planning period, Chief Landscape Architect of the NPS Thomas Vint also visited the park and consulted with Chief Engineer Frank Kittredge and Charles V. Dunn, Assistant Engineer of the NPS.[55]

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[52] Ibid., 202-203.
[53] Superintendent's Monthly Report, June 1929.
[54] Ibid.
[55] Superintendent's Monthly Report, August 1929.

By summer's end, the NPS had a vision of what the new road would look like. Careful not to repeat the mistakes of the Fall River Road, the new Trail Ridge Road would wind its way from Deer Ridge to the Continental Divide along a new route that broke frequently upon incredible views of the park's many mountain ranges and peaceful valleys. Along the way the motorist would not face grades in excess of seven percent nor would they be forced to see-saw around dangerous hairpin curves. The new road would be wider, smoother, and allow for faster automobile travel.

Central to NPS efforts lay the desire to build a road that helped the visitor "understand and enjoy a crescendo of carefully composed pictures." In the capable hands of a trained landscape architect, properly conceived roads enhanced the driving experience by allowing the viewer to evaluate the natural features "in relation to each other," and revealed them "as parts of larger compositions to preserve and enhance the relative scale of near and distant objects." More than quotidian components of engineering grades, bar ditches, and curvets, these were "matters involving knowledge of human psychology, of natural history, and appreciation of harmony, sequence, line, and color."[56] After months of striving to lay out a road that offered the "proper" panoramas to drivers, the NPS was poised to initiate construction of its iconic Trail Ridge Road.

A little more than a month prior to the stock market crash of 1929, the NPS advertised bids for the construction of a 17.2 mile highway, 18 feet in width, from

[56] Charles Eliot 2nd, "Landscape Problems in Rocky Mountain National Park," NARG79 Box 400, ff "Rocky Mountain Administration and Personnel Reports," 3 July 1930.

Deer Ridge to Fall River Pass.[57] The new road would feature "more scenic qualities, in that it follows the crest of the ridge while the present road follows the valley."[58] In short, the new road was designed and built to meet the expectations of the "vast moving caravan" of tourists who demanded both good roads and evocative scenery. By year's end, W.A. Colt and Son, who had earlier worked on surfacing the newly built Bear Lake Road, had earned the contract with a bid of $393,747 and began clearing the right of way for the new road.[59]

Through the first months of the endeavor, Colt had enlarged his workforce and added two steam shovels to the project. In all, the work proceeded apace and by January of 1930, crews had completed a great amount of work.[60] For the first time since initiating the project, poor weather conditions halted the crews for 22 days in late March and early April. Determined not to lose ground, Colt brought in yet another steam shovel and let it loose upon the earth.[61]

As winter gave way to spring, W.A. Colt and Son operated at capacity. Drawing from the muscle and expertise of a growing crew, the company operated two 1.4 yard gas shovels, one 5/8 gas shovel, five compressors, twelve trucks, and boasted an average crew of about one hundred men by June. Laboring through the hot, dry mountain summer of 1930, W.A. Colt and Son made substantial progress, completing

[57] Superintendent's Monthly Report, April 1929.
[58] Superintendent's Annual Report, 1929.
[59] Superintendent's Annual Report, 1929.
[60] Superintendent's Monthly Report, January 1930.
[61] Superintendent's Monthly Report, March 1930.

some 55% of the project by summer's end.[62] Although early snowfall in September briefly halted construction, the crews had finished clearing most timber and undergrowth to the end of the road, fine grading between Stations 820 and 994, and installing the majority of the hand-laid embankment. By the close of September, the average crew dedicated to the project included one superintendent, five shovel operators, five oilers, five cooks, three blacksmiths, two mechanics, and 125 laborers.[63] With completion of the east side of Trial Ridge proceeding on schedule, the NPS advertised for the reconstruction of the road west of the Continental Divide. In the end, L.T. Lawler of Butte, Montana, earned the contract and "took immediate steps to establish camp near Phantom Valley Ranch."[64]

The winter of 1930-1931 provided challenges for both Lawler and Colt, as each struggled to meet his construction schedule. On November 15, poor weather forced Colt to sideline three of the steam shovels laboring at higher altitudes. Resuming work on the 25th, however, Colt's men pushed ahead, aided by two shovels and an average crew of seventy-five until the end of the month, when persistently poor weather further slowed operations and the crew was cut to just 35. Meanwhile, adverse weather also presented difficulties to Lawler and his workers. Adjusting to the situation, Lawler halted operation of two of the gas shovels working near stations 354 and 547 on the 18th, and transferred all men "except shovel crews and truck drivers," to the clearing crew, who burned and cleared brush. Further bad weather

[62] Superintendent's Monthly Report, May 1930; Superintendent's Monthly Report, May 1930; Superintendent's Monthly Report, June 1930.
[63] Superintendent's Monthly Report, October 1930.
[64] Ibid.

forced eventual cessation of all work on November 26, not to be resumed until May of the following year.[65]

After waiting for fair weather for more than four months, crews on both sides of the divide eagerly resumed work in April of 1931.[66] As the weather warmed across the park and the summer season advanced, both Lawler and Colt again expanded their crews. By June, Colt and Son had steadily employed a crew of seventy men as they rapidly approached the end of their project, while a larger force of about one-hundred men labored on the west side.[67] Increasing his force throughout the summer, Colt hoped to complete his contract before the cold winter winds and drifting snow again halted work.[68] Although his crews were closing rapidly upon completion of their project, poor weather again retarded progress in September. By that month, however, the east side project was complete all the way to Forest Canyon Pass, leaving only the highest portions of the contract remaining. By year's end, Colt and Son had completed 90 percent of their contracted work, and Lawler approximately 55% of his. Given that only 35% of Lawler's contracted time had passed, his progress was especially pleasing to park officials.[69]

Also pleased with the progress on the new road was the *Estes Park Trail*. As the 1931 season drew to a close, the *EPT* looked ahead to the great benefits this "eighth wonder of the modern world" would bring to the region. According to the

[65] Superintendent's Monthly Report, December 1930.
[66] Superintendent's Monthly Report, May 1931.
[67] Superintendent's Monthly Report, July 1931.
[68] Superintendent's Monthly Report, September 1931.
[69] Ibid; Superintendent's Annual Report, 1931.

paper, "Beautiful big country that has been absolutely inaccessible to the motor traveler is opened up now making possible of more majestic vistas than any other road in the world." Hoping to further lather reader imaginations, the paper exclaimed that any

> oldtimer (sic) in the region will tell you that it takes plenty of intestinal fortification to attempt the trip up Forest canon (sic). Probably fewer persons have made this trip than any other in this area. Yet Forest canon with all its mystery is opened to the traveler though the region via the Trail ridge road (sic) with no effort other than a slight pressure of the right foot on the throttle and an occasional, but very infrequent shift of the gear lever.[70]

Here, the paper put its finger squarely upon much of what is important and interesting about roads through national parks. Not only would such roads throw open vast reaches of the park that only the most devoted outdoor enthusiasts had known, but would do so to such a degree that all seeing them now entailed was a "slight pressure of the right foot on the throttle." Such a radical shift in how people interacted with the natural world, coupled with steady and persuasive advertising, indeed held the promise that the completion of the "monumental engineering feat will bring thousands of tourists" to the park.[71] In the end, the NPS and a host of business interests could hope for no more.

The summer of 1932 brought renewed excitement in the steadily unfolding Trail Ridge Road. Although poor weather further delayed resumption of construction on the west side, Colt and Son resumed work in late June on the uppermost reaches of the road. By July, construction on the east side was complete. Excited,

[70] *Estes Park Trail*, September 18, 1931.
[71] Ibid.

View of newly constructed Trail Ridge Road and surrounding mountains.
(Photo by Charles V. Dunn, 1932)

superintendent Edmund Rogers commented in his monthly report that the "outstanding event of the month was the opening of the Trail Ridge Road (East Side) to travel on the 16th." To further expedite the flow of traffic to the continental divide, travel on Fall River Road was routed one way.[72]

Ecstatic about the 16 July opening of the fresh two-million-dollar road, the *Estes Park Trail* hailed the achievement as a "culmination of almost three years of hard work performed under adverse conditions." Ebullient, the paper stated that "at no point is there a steeper grade than 7 percent and many cars make the trip from the village to the 'top' without changing gears." Hoping to allay fears that the new road

[72] Superintendent's Monthly Report, August 1932.

would present narrow passages and hairpin corners that characterized the Fall River Road, the paper claimed that Trail Ridge Road is "amply wide for four lanes of traffic." In addition to a speedy ascent into the heavens, the new road offered views of "range after range of the high, rugged peaks of the Rockies," which are "spread in wonderful panorama before the driver." The paper was also quick to point out that "everything possible has been done to preserve the beauty of the terrain through which the road leads. After each blast of dynamite, workmen have cleaned up all 'country rock' thrown over the landscape so that there would be no unsightly white rock among the lichen covered boulders that contribute to the scenery."[73]

Park managers also wasted little time in extolling the virtues of the newly opened section of the Trail Ridge Road. In an October press release, Superintendent Edmund Rogers stated that the "spectacular Trail Ridge Road which was opened late in 1932 was the lodestone for many visitors." Again hammering home the park's great location, and perhaps hoping to attract cash-strapped tourists, Rogers continued, arguing that the "accessibility of the park and the comparatively small financial outlay required to reach it" were also attractive features of the region and explained its continued popularity.[74] In his annual report to the Director of the NPS, Rogers also drew linkages between the new road and unusually high annual visitation, stating that "despite a general decrease in visitors to other recreational centers through the country, travel to Rocky Mountain was greater than in previous years. The opening of the east side of the Trail Ridge road," opined Rogers, was one of the contributing

[73] *Estes Park Trail*, July 15, 1932.
[74] Superintendent's Monthly Report, November 1933.

factors drawing people to the park. As was the case earlier with Bear Lake, NPS managers seemed to have solid evidence that good roads almost automatically translated into higher annual visitation. Supporting this claim were the some 282,980 visitors and 81,359 automobiles that filed through the park in 1932 alone.[75]

By the conclusion of the 1933 season, the construction, promotion, and refinement of the new road continued drawing visitors to the park, and enabled the Fall River entrance to surpass the Bear Lake entrance as the park's most popular gateway.[76] Again, the coincidence of high visitation rates and road construction and promotion compelled Superintendent Rogers to conclude:

> the steady increase of travel to the Park during the last three years is regarded as remarkable and it is certainly one of the very few recreational areas that can boast of such a record during the worst of the depression. Such figures are the most conclusive arguments for the bringing of all the Park roads and trails up to high park standards just as rapidly as the work can be pressed.[77]

Throughout the remainder of the 1930s, Civilian Conservation Corps and others continued refining the park's roads and building spur or connecting roads, but never again would Rocky Mountain National Park witness the expansion of roads it did during its first eighteen years in existence. But the work was largely complete. Between 1915 and 1933 the National Park Service, Union Pacific Railroad, Rocky Mountain Transportation Company, and a host of local business interests had succeeded in connecting the national park experience with driving. By the close of the

[75] Superintendent's Annual Report, 1932.
[76] Superintendent's Monthly Report, November 1933.
[77] Superintendent's Annual Report, 1933.

1930s—the nation's economy still very much on uneven ground—more than 650,000 people found their way to RMNP in more than 200,000 cars. Both numbers all the more impressive when compared to the 31,000 people who came to the park in 1915.

Framing the View From the Road

More than building fine roads and expanding parking facilities to accommodate drivers, RMNP officials also dedicated significant time, effort, and financial resources to shaping the roadside into a more pleasing visual experience. Although the reasons for such projects were many, at their heart lay the desire to shape the parkscape into something that mirrored the NPS's understanding of what constituted "natural." In the hands of properly trained landscape architects, roads enabled the NPS to act as artists of the natural as they framed views, painted over unsightly abandoned roads, and erased evidence of heavy human resource use.

As early as 1921, crews worked to erase older portions of the Bear Lake Road no longer in use. Certainly, thickly planting those portions where the old road left "unsightly[…]open swaths" did much to refine the visual appeal to the park. But more here is at work than simply replanting cutover areas so as to better blend them with their surroundings.[78] As would later be the case along Trail Ridge Road, efforts directed at replanting old roads reveal an inclination toward creating a space that reflected a certain aesthetic. For the millions who have traveled through the park, casting a gaze upon a "pristine" nature is of primary importance. Visible remnants of

[78] Superintendent's Monthly Report, September 1921.

old roads mar the landscape and raise obvious questions about just how pristine the landscape actually is.

Following completion of the new road to Bear Lake in 1928, park staff redoubled their efforts to enhance the aesthetic appeal of the roadside. During the summer and fall of 1930, for example, a crew of some twenty men conducted "roadside cleanup" along Fall River Road, Bear Lake Road, and between the Phantom Valley Lake Road and between the Phantom Valley Ranch and the Grand Lake Ranger Station.[79] By season's end, the efforts of the crew produced what Superintendent Rogers called a "very desirable effect in the appearance" of the roads.[80] The clearing of underbrush and dead and dying trees no doubt provided park officials with a tool to reduce available fire fuels along the roadside—a perennial concern to park staff. In addition to safety, however, park managers were also keenly interested in making the roadside more aesthetically pleasing. Following an especially successful season of roadside cleanup in 1933, superintendent Rogers candidly admitted that the "limits of the cleanup is more or less determined by visibility" of the detritus.[81] If fire fuel management provided the sole logic for roadside cleanup, the "visibility" of debris would be of little or no concern.

As crews continued with fine grading and other finish work on the west side of Trail Ridge Road in 1933, the NPS directed significant resources to shaping the view of the park from the new road. For instance, twelve men working under the

[79] Superintendent's Monthly Report, December 1930.
[80] Superintendent's Monthly Report, September 1930.
[81] Superintendent's Monthly Report, July 1933.

supervision of landscape architect Benson began "vista work" to open views of Horseshoe Park from Trail Ridge Road. This "vista" enhancement, which was part of the original construction plan for the road, consisted mainly of selectively thinning trees that obstructed the panoramic views. By July, the crew was done with its work and created "a good view of Horseshoe Park."[82]

To Landscape Architect Charles Eliot, opening views of serene mountain meadows was of primary importance to shaping the "proper" parkscape. "[V]alleys are enormously important to the scenic and recreational values of the area," claimed Eliot, as "they constitute the ideal foil to the mountains and therefore constitute the ideal foreground for mountain views." If a trained and loving human hand was needed to reveal such beauty, so be it.[83] Here again, it is important to bear in mind that the sweeping vistas one experiences along Trail Ridge Road have to some degree been manufactured. Certainly the valleys, mountains and streams one sees on a drive up Trail Ridge are "natural" in the popular sense, but what most drivers are not aware of as they ascend the heavens via this engineering miracle is the degree to which NPS officials shaped the experience with their own hands—a feat that is a credit to both their skill and desire.

Beyond the selective thinning of trees and general roadside cleanup, the NPS undertook other projects to further amplify the visual appeal of the park as seen from the road. For example, a plot of land in Hidden Valley visible from Trail Ridge Road

[82] Superintendent's Monthly Report, August 1933; Superintendent's Monthly Report, September 1933.
[83] Eliot, "Landscape Problems."

Before and after roadside cleanup in beaver pond area near Hidden Valley.
(From Superintendent's Monthly Reports, September 1933)

revealed the previous handiwork of timber crews who had left some ten acres of stumpage and other debris. Following park superintendent orders, crews set about the laborious task of removing the stumps and backfilling the holes the lumbermen left behind.[84] The stumpage did not present a fire hazard, nor did it interfere in any material way with the construction of the road. Rather the presence of ten acres of stumpage raised the same sort of questions about "nature" in the park as did evidence of old roads and visible borrow pits. Sensitive that remnants of such activities would contradict and challenge the pristine, human free landscape the park tended to favor, the NPS did what it could to conceal the stumps.

As the work of shaping the view from the road continued, the NPS turned its attention to another matter that had long given pause to park managers. Since its creation in 1915, superintendents at RMNP had grown increasingly concerned over the patchwork of privately-owned land that dotted the park. Beginning under the superintendency of Roger Toll in the 1920s, RMNP initiated a decades-long program of purchasing plots of privately owned land that lay within park boundaries. This program, which provided a means to unify, rationalize, and simplify park management, also reveals a substantial bias toward fashioning a park that obscured the region's human history and amplified its pristine qualities.

In 1932, for example, after the NPS acquired a number of properties within the park, crews "immediately" set about "obliterating" all evidences of "development

[84] Superintendent's Monthly Report, September 1932.

on private property purchased during the past year," which included the removal of all buildings and barbed wire. "After the buildings have been wrecked and fences removed," recounted Toll, the "region certainly present[ed] a different picture (one we have all been wishing for)."[85] Here, Toll's language is insightful. Not only were crews "immediately" directed toward the work, but their efforts rectified a situation that had been an obvious bother to park management. A similar scenario played out in 1933, as park crews again set about "wrecking several of the old buildings" that the park purchased in 1931 as part of the Moraine Lodge property. Superintendent Rogers was confident that "[w]hen complete this obliteration will greatly improve the lower Moraine Park Valley."[86] Here again, demolition of any and all signs of a permanent human presence in the park marked, as Rogers put it, an "improvement.

The selective thinning of trees along the roadside, the removal of dead and dying trees, stump removal, and the demolition of human settlements within the park boundaries all speak to the efforts to present the park in a manner that matched well what both the NPS and the American public defined as natural. The construction of roads themselves—perhaps the most obvious reflection of human presence in the park—presented managers with a host of decisions about how and where they should be built. Employing the skills of a team of landscape architects, the NPS demonstrated that they had the capacity and desire to blend roads *into* the natural. More than that, they also demonstrated their belief that roads, if harnessed as a medium for generating certain emotions, could actually enhance the "natural" appeal

[85] Superintendent's Monthly Report, July 1932.
[86] Superintendent's Monthly Report, September 1933.

Before and after stump removal in Hidden Valley.
(Superintendent's Monthly Reports, September 1932)

of a park. The management of roads also offered managers an opportunity to participate in a broader discourse about the meaning of "natural" and the place of humans relative to it.

Conclusion

The completion of Trail Ridge Road marked the end of the first major period of road construction in Rocky Mountain National Park. Between 1915 and 1933 the NPS steadily expanded and refined a system of roads that nearly guaranteed ever-higher annual visitation. The promotion, construction, and refinement of Bear Lake Road and Trail Ridge Road, however, offer more than simple tales of heroic and stalwart men applying muscle and technology to conquer the natural world. A drive along the Bear Lake or Trail Ridge Road offers an opportunity to investigate the intricate and interesting relationships between tourism, national parks, and the natural world.

It would be an overstatement to claim that national parks, particularly Rocky Mountain, played a significant role in the development of our automobile nation. That said, the combined efforts of the NPS, Union Pacific Railroad, Rocky Mountain Transportation Company, and local businesses certainly amplified the possibility and *desirability* of driving through Rocky Mountain National Park. To each of those named above, the presence of a good and well publicized road system was of central importance to future success and stability. Other national parks bear witness to the same process. National Park Service historian David Louter found that Mount Rainer

National Park, established in 1899, reflects the early optimism that many felt about the ability of automobiles and roads to enhance the human interaction with nature. According to Louter, park managers initially believed that roads and automobiles could make "nature seem real; they afforded many the closest contact with the natural world they had known, and perhaps would ever know."[87]

But simply building roads was not enough to make "nature seem real." Once new roads were built to premier destinations, the NPS endeavored to cover up abandoned roads, selectively thin trees to amplify the views, conduct roadside cleanup, remove stumps and "obliterated" historic structures all in an effort to fashion a pristine parkscape not complicated by its human history. By the close of the 1930s the work of linking the park with "motoring opportunities" was largely complete. Through their persistent advertising campaign and the road building it prompted, the National Park Service and others fostered and encouraged a behavior that would later threaten the pristine parkscape they worked so hard to create. Following World War II—the nation's economy rebounding from more than a decade of slumber—RMNP would have to face the consequences of their success as millions of Americans pointed their automobiles at the park.

[87] Louter, *Windshield Wilderness,* 21.

Chapter Three
Thinking Big

Introduction

By the close of the 1930s, the NPS, Union Pacific Railroad, RMTC and others had successfully connected driving and Rocky Mountain National Park. The promotion, construction and maintenance of roads all encouraged a specific means of experiencing the park. As long as demand for the park was held in check by limited numbers of privately owned automobiles (as it was during the 1920s), or economic depression (as it was during much of the 1930s), or the demands of world war, facilitating driving in the park seemed to produce only positive results. Beginning in 1915, park superintendents witnessed a close correlation between advertising, road building, growing visitation, and larger budgets. Larger appropriations, in turn, enabled the NPS to dedicate evermore resources to expanding the infrastructure so that the cycle could continue.

The successful conclusion of World War II, however, removed each of the above checks upon visitation and greatly expanded the desirability and ability to visit parks. Almost immediately the NPS found itself in a precarious situation. Historically low wartime budgets and a long maintenance backlog combined with a renewed ability to drive to and through national parks produced nearly disastrous results. By the early 1950s, visitation was increasing dramatically and the National Park Service confronted the consequences of their previous efforts to encourage high park visitation via the promotion of driving.

To Director Conrad Wirth, who led the NPS through much of this tumultuous era, more visitation—not less—held the keys to future survival for the parks. To a nation deep in the throes of a consumer revolution and still lacking the environmental sensitivity that characterized later decades, the answer seemed clear: build more roads and make room for more people. This response reflects a longtime institutional behavior of the NPS. From its earliest days and spanning a good deal of the twentieth century, the NPS sought to make many of its parks accessible to the driving public. It is not surprising then that, following World War II, the NPS turned once again to the expansion of infrastructure to meet the demands of the day. Unveiled in 1956 as a ten-year program of park infrastructure rebuilding and rejuvenation, Mission 66 provided the funds, motivation, and institutional direction needed to save the parks for the people.

The history of roads in Rocky Mountain, however, offers more than insight into the institutional responses of the NPS to the demands of rapid growth. As landscape architects had long known, roads provide one of the fundamental means through which the NPS could "frame" the national park experience. As shown in the previous chapter, the Service conducted roadside cleanup, thinned trees, and "erased" old roads all in an effort to give visitors a specific impression of the park. Between the end of World War II and the end of the 1960s the NPS relied even more heavily upon roads to offer a more expedient park experience. Doing so, in turn, brought about the need for more parking, wider roads, fewer interpretive staff, more roadside signage, and the removal of historic structures that constituted roadside "eye sores."

Although most hailed Mission 66 as necessary and prudent upon its initiation in 1956, the expansionist philosophies it reflected were soon challenged. By the conclusion of the program many came to the opinion that Mission 66 symbolized much of what was wrong with parks and America. At the heart of rethinking roads in national parks lay two interrelated developments: rising scientific awareness of the power of roads to transform the natural world, and the wilderness movement's appreciation for roadless areas. Together, these two forces complicated the place of roads and automobiles within parks themselves. Facing evermore evidence that roads were causing significant damage to the park's flora and fauna, and facing a constituency that increasingly questioned infrastructure expansion as a viable solution to growth-related issues, for the first time in its history RMNP was forced to look beyond infrastructure expansion as a solution to growing park visitation.

Worlds at War

In many ways the Depression stands as a highpoint in the history of RMNP. Though a difficult time for millions of Americans, the economic calamity delivered to the federal government the power, courage, and public support to expand government agencies. During the Depression, RMNP benefited greatly from the four Civilian Conservation Corps camps and the hundreds of men they employed. These men, paid largely through emergency funds, built additional campgrounds, expanded and refined its utility area, planted tens of thousands of bushes and trees, conducted roadside cleanup, fought fires, and treated thousands of trees for insect infestation. As

the 1930s came to a close and an aggressive Germany pushed its way across Europe, however, dark days loomed on the horizon for RMNP.

In his monthly report for May, 1940, Superintendent David Canfield correctly drew connections between world affairs and park visitation. According to Canfield, "[b]y the end of the month it was evident that the continued sensational military successes of the German armies against the Allies were having a telling effect on tourist travel in this country." Most troubling to Canfield was the cancellation of reservations at several large hotels in the region. Letters written to the hotels indicated that cancellations where largely because of the uncertainty created by the war in Europe.[1] "Whether we like it or not," Canfield admitted, "it must now definitely be admitted that the condition of the world at the present time is going to seriously affect travel in this country, regardless of whether the United States becomes actively involved in the conflict or not."[2]

Canfield was correct. Following the bombing of Pearl Harbor and the full engagement of the military and industrial forces of the United States, RMNP began losing resources on a regular basis. In addition to loss of rangers, clerks, and others to the draft, the park was also forced to close its CCC camps during the summer of 1942.[3] Reflecting the difficult times was the drop in the number of Americans willing and able to travel to the region for pleasure. Whereas 663,819 people in 194,581

[1] Superintendent's Monthly Report, May 1940.
[2] Ibid.
[3] Superintendent's Monthly Report, July 1942.

automobiles shuffled through the park in 1941, only 392,565 people in 109,191 cars came in 1942.[4]

As the war raged on in 1943, the park continued facing shortages of men and equipment. In December of 1943, the park was forced to give up its Snogo snowplow, which was crucial to keeping open the park's roads in winter, to an air base in Rapid City, South Dakota. By the summer of 1943, the CCC camps had been stripped of all usable equipment by the Army, Navy, and the Civil Aeronautics Authority.[5] Reflecting on the difficult year, acting Superintendent George Miller lamented that 1943 represented "a period of retrenchment of the administration, protection, maintenance and improvement in RMNP." Overall, it was characterized by "changes in personnel, decline in travel, reduced or curtailed work programs and activities."[6]

Looking forward from 1943, the future of the park looked little better than the past two years. Beginning on December 1, 1943, the federal government mandated a system of gasoline rationing, thereby causing late season travel to take "an immediate nose dive."[7] Subsequently, the end-of-the-year tally did show a precipitous drop in visitation as only 311,455 visitors in 83,636 cars crossed the gates into the park. In addition to losing seven permanent employees in 1943 alone, the park also lost its superintendent, David Canfield, who reported for Naval duty in May of that year. [8]

[4] Superintendent's Annual Report, 1942.
[5] Superintendent's Monthly Report, May 1943.
[6] Superintendent's Annual Report, 1943.
[7] Superintendent's Monthly Report, December 1943.
[8] Superintendent's Annual Report, 1943.

By the summer of 1944, the park had lost a total of fourteen of twenty-four permanent employees and witnessed sizable increase in the number of backlogged projects.[9] More than siphoning off men and machinery, World War II also had a negative impact on park budgets. Between 1941 and 1943 alone, RMNP saw its operating budget cut from $196,095 to $105,665—a reduction of more than forty-five percent.[10] Although the cuts in manpower, machinery, and money greatly circumscribed RMNP's ability to meet its management directives, far more difficult times lay ahead.

Perils of Popularity

It is no great secret that following World War II, Americans became buyers of stuff *par excellence*. During the war years, largely due to the simultaneity of rationing, high employment, and relatively high wages, Americans managed to save billions of dollars. The end of the war unleashed more than a decade of pent-up consumer demand, and in relatively short order Americans bought millions of washing machines, television sets, automobiles, houses, and the like.[11] Concomitant with this spending spree Americans also increasingly looked to tourism as an exercise in consumption.[12]

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[9] Superintendent's Annual Report, 1943.
[10] Superintendent's Annual Report, 1931 Superintendent's Draft Annual Report, 1943.
[11] Adam Rome, *The Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism* (Cambridge: Cambridge University Press, 2001).
[12] Hal Rothman, *Devil's Bargains: Tourism in the Twentieth-Century American West* (Lawrence: University Press of Kansas, 1998).

Collectively, the return of American economic prosperity, the increasing popularity of the automobile-centered family vacation, and the desire on the part of millions of Americans to visit national parks put enormous stress on National Park Service and its administered lands. To get some sense of the strain put on the park system, a brief look at the visitation record is instructive. In 1935, 7,676,000 Americans visited a national park or monument. By 1950, however, that number had surged to 33,250,000, and by 1955 park visitation exceeded 56,573,000.[13]

Acting Superintendent of RMNP John Doerr commented that the "heavy increase in travel and visitor use during 1945 have helped focus our attention on the probable impact of use that the park will receive following the war. We recognize our responsibility in preventing overuse that may result in the permanent impairment of park values."[14] Doerr's concern is important for two reasons. First, he rightly read the situation and began voicing concerns about the health of the park if high visitation coincided with meager budgets, scant park personnel, and a backlog of maintenance.

Doerr's comment was insightful for another reason, too. Here, tucked inside pages of statistical data about visitation, weather, and the like that characterize the annual reports, his concern that overuse may "result in the permanent impairment of park values" stands as the first written expression by a superintendent of RMNP that high visitation could actually pose a threat to the park. From its founding in 1915 to the close of the war, the desire to facilitate ever-higher visitation predominated. If

[13] Conrad Wirth, *Parks, Politics, and the People* (Norman: University of Oklahoma Press, 1980), 261.
[14] Superintendent's Annual Report, 1945.

carried to extremes, the logic of continual growth posed serious questions about the NPS's charge to protect parks unimpaired for future generations, but few were willing or able to see it. A year later, the situation looked little better as VJ Day and the "lifting of gasoline restrictions in August" initiated a swell in visitation. Fighting an uphill battle, "the wartime staff of employees was not able to prevent some damage to park facilities and features," lamented Doerr.[15] Visitation in February of that year eclipsed the previous February's visitation by 650 percent.[16]

Fiscal year 1947 brought little relief as Superintendent Canfield, returned from military service, reported that the "shortages of funds and personnel" contributed to the park's difficulties.[17] What's more, complained Canfield, "working class" families were increasingly seeking respite from their "forty hour" weeks in Rocky Mountain where they expected to enjoy "splendid" illustrated talks, guided hikes, and auto caravans. Meeting their expectations, flatly stated Canfield, was not possible under "war year operations."[18]

Without proper supervision and accommodations, the throngs of "working class" vacationers flooding into the park threatened the park's already flagging infrastructure. Since the park's creation, the staff at RMNP had applied considerable effort in supplying the campgrounds with sufficient fuel stores to meet campfire needs. Doing so not only made folks feel welcome in the park, it prevented them from appropriating nearby benches and railings to keep their tent-side fires burning.

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[15] Superintendent's Annual Report, 1946.
[16] Superintendent's Monthly Report, February 1946.
[17] Superintendent's Monthly Report, July 1947.
[18] Ibid.

Lacking sufficient manpower to provide this service during and following the war, Canfield was certain that "unless the campground fuel problem is solved in a quick and certain manner, we can expect that the complete demolition of the guard rails and tables in the park campgrounds will be completed within a two year period."[19] In all, more than 800,000 people came to the park in some 224,215 cars in 1947 alone. Of that number, more than 350,000 visitors traveled up the Trail Ridge Road.[20]

By 1951 a record 1.33 million people made the trip to RMNP—nearly double any previous year's number.[21] The confluence of widespread economic prosperity, rise in consumption of goods and services, and lagging appropriations created a serious public relations issue for the NPS. Not only was firewood scant and roads in poor condition, but the volume of visitors traveling daily through the park put public toilets and campgrounds in a wretched state. Year by year the staff at Rocky Mountain received an increasing flow of letters complaining about various aspects of the park.

Longtime park supporter and historian Bernard Devoto wrote a sort of expose on national parks for *Harpers Magazine* in October of 1953, entitled "Let's Close the National Parks."[22] To Devoto, there were two options: either give the NPS the money needed to meet current demands, or close the parks. Outraged, Devoto went so far as

[19] Ibid.
[20] Superintendent's Annual Report, 1947.
[21] Superintendent's Annual Report, 1951.
[22] Bernard DeVoto, "Let's Close the National Parks," *Harper's Magazine*, 207 (October 1953), 49-52.

to characterize some parks—like Yellowstone and Rocky Mountain—as "true slum districts." It was clear to many that national parks were in great peril.

Letters from visitors also spoke to the poor conditions in RMNP. Mrs. Veit of Corpus Christi, Texas, for example, wrote a passionate letter to Congressman Lyndon B. Johnson regarding her family's vacation to RMNP in 1957:

> Every summer my family and I go on…camping trips to one of our many National Parks. For a number of years the crowded conditions have consistently worsened and after this year's trip to Rocky Mountain National Park in Colorado I feel compelled to write you my opinion about the Parks and hope to see some legislation in the near future.

Not only was Veit dissatisfied with the cramped conditions (a sentiment thousands of park visitors echoed), but she was also upset by the lack of accommodations available in RMNP. The fireplaces in the campgrounds were in poor repair, the ground was badly in need of "leveling off," and the restrooms were deplorable. Veit lamented,

> None of these areas have showers which to me seems very primitive for our progressive America. Many, many thousands of persons from every state in the Union visit these campgrounds every summer and it is time some improvements should be made to better the conditions for these thousands of middle class American's hard-earned vacations. The revenue taken in by the Parks comes from us Middle-class vacationers and in my opinion should not be turned over to the Treasury for various and sundry uses (especially overseas improvements) but belongs to the Parks Department to be used for the benefit of those vacationing and spending their money there.[23]

In the space of a single handwritten letter, Veit captures much of the complexity and tension that characterized both the National Park Service and RMNP in the years

[23] Mrs. Veit to Lyndon B. Johnson, 28 July 1957, National Archives, Kansas City, Record Group 79, Box A2, Book 1, September 1952-January 1960, ff "ROMO." Hereafter cited as NAKCRG 79.

following World War II. Parks *were* in serious danger of collapsing under the strain of postwar demand. Visitors from across the nation urged the NPS to build wider roads, increase the number and modernity of restrooms, and construct more comfortable camping facilities. In this sense, the democratization of tourism first enunciated by Pomeroy and echoed by historians ever sense posed significant challenges for the NPS. Furthermore, in RMNP at least, the growing popularity of the summer vacation would force them to make difficult decision regarding how they presented the park to the public.

As evinced by letters from park visitors, reports of the National Park Service generally, and the management of Rocky Mountain National Park specifically, postwar Americans increasingly traded lengthy traditional park vacations—once characterized by long hikes and in-depth educational tours— for breezy "day trips" to the park. By the end of the 1940s and increasingly throughout the 1950s, millions of Americans demanded that parks become places where they could sit comfortably behind the wheel of an automobile and glide across the landscape—a behavior that the Park Service had promoted and facilitated in RMNP since its founding. Many Americans strongly implored the NPS to take action and redesign parks in a way that better conformed to needs and desires of a rapidly rising middle class. Under the leadership of Conrad Wirth, this is exactly what the National Park Service attempted to do through a ten-year development program called Mission 66.[24]

[24] C.W. Buchholtz, *Rocky Mountain National Park: A History* (Boulder: Colorado Associated University Press, 1983). Most recently, National Park Service historian Sara Allenback has completed a study on the relationship between Mission 66 and shifting patterns in

Mission 66

Facing a daunting task, National Park Service Director Conrad Wirth envisioned, planned, and initiated the most ambitious building program in NPS history with the hope of protecting the parks from the depredations of hordes of adoring tourists. Presenting Mission 66 only as a response to postwar tourist demands fails to capture the complexity, and one might even argue the historic value of the program. It was a massive construction project reflective of the ambition and optimism of postwar America. But the story is more complicated: Mission 66 also reveals a great deal about the rising tensions surrounding what constituted "proper" behavior in (and thereby the deeper meaning of) our national parks. To perhaps a majority of Americans—and a powerful cadre of NPS officials—park development and widespread use were seen in the late 1940s and 1950s as not only acceptable, but *necessary* for the future of the national park system. This progressive ideology, best embodied in the person of NPS Director Conrad Wirth (and directly reflected in the letter from Mrs. Veit), played a central role in formulating the Mission 66 program. Of equal importance in shaping Mission 66 in Rocky Mountain National Park was the decision to use the program to recast this park as primarily a "day-use" area.

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architecture in national parks. Especially helpful is her chapter regarding the construction of three new visitor centers within Rocky Mountain National Park. Although her study is rather complete, her interest lies less with RMNP and more with the broader trends within the NPS as related to Mission 66 architecture. Sara Allaback, *Mission 66 Visitor Centers: The History of a Building Type* (Washington, D.C.: Dept. of the Interior, National Park Service, 2000).

Together, these two ideas brought significant, though not uncontested, changes in how park patrons interacted with and understood the natural world.

By Wirth's reasoning, the Bureau of Reclamation, Army Corps of Engineers, and other of the NPS's institutional cousins generally had much better luck in the appropriations games than did the beleaguered Park Service. Though the reasons for their relative success were many, Wirth understood that part of it was attributable to the fact that they often proposed multi-year, multi-layered programs, which made them appealing to a wider range of congressmen, and thus less likely to get trimmed from the budget.[25] Drawing on his most trusted and experienced employees, Wirth put together a steering committee and gave them just seven months, until September of 1955, to draft a comprehensive, forward-looking plan to save the national parks.[26]

Over the next seven months the steering committee collected and compiled a vast assortment of information from many of the 181 NPS administered lands, and it worked diligently to flesh out general trends and needs. By September of 1955, the NPS not only had a solid proposal, but also a catchy slogan that they hoped would help sell their idea to the public—*Mission 66*. According to Wirth, the "Mission" reflected the sense of duty that NPS employees felt regarding the rebuilding of the parks, and the "66" represented the end point of the program—intelligently selected to coincide with the fiftieth anniversary of the National Park Service. On a more personal level, it seems clear that Wirth wanted America to know that it was he who had saved the National Park system. And there was no better way to chisel his name

[25] Wirth, *Parks*, 239.
[26] Ibid., 241.

in NPS history than to have a grand celebration that connected the history of the NPS to the reign of Conrad Wirth.

At the heart of the proposal lay fourteen key points that outlined the NPS philosophy and posed solutions to the current crisis. The most important and strikingly ideological of the fourteen stated, "[s]ubstantial and appropriate use of the National Park System is the best means by which its basic purpose is realized and is the best guarantee of perpetuating the System."[27] In short, the key to saving the "system" lay not in curtailing visitation, but facilitating more of it. Under Wirth's confident leadership, this federal agency was going to organize and present itself to Congress and the American people as the most important purveyor of tourism in the nation. Other provisions outlined in the initial proposal called for the rebuilding of staff quarters, expansion of camping and picnic sites, and wherever possible, the elimination of private concessions/in-holdings in parks.

Amidst this reform, Conrad Wirth ordered the Superintendent of Rocky Mountain National Park, James Lloyd, to draft a prospectus outlining the Mission 66 program for his park. Lloyd, who had served with the NPS for more than thirty years, was well-equipped to handle the task. Over the course of his career, he had worked in some of the nation's most iconic parks, including Yosemite and Grand Canyon. Lloyd had held a variety of jobs with the Service, including Ranger, Assistant Superintendent, and Park Superintendent. He had also served as the regional chief of concessions for NPS region 3 from 1949 to 1950. Lloyd had come to see firsthand the

[27] Ibid., 258.

tremendous challenges and changes the NPS experienced before, during, and after WW II. His insights, his ability to work well with other interested parties, and his own personal philosophy regarding the mission of the NPS aided him in shaping a plan that reinforced the assumptions and direction of the broader Mission 66 program.[28]

Drawing upon more than three decades of NPS experience, Lloyd began the planning phase by asking the staff of RMNP for their insights. Collectively, they raised three significant areas of concern—roads and trails, interpretation and education, and land acquisition. Perhaps overwhelmed by the challenge at hand, one employee candidly admitted, "By and large, we can see no way in which we can cope with the increasing public use of our parks without expecting that the natural conditions along developed sites and routes will suffer, and there seems to be little which we can do to prevent this." To this employee at least, the NPS now had to choose between conserving the natural character of the place and providing for the full enjoyment of the same. In his eyes, the answer was clear: "It might well be that we shall have to get into the recreation business on a large scale."[29]

As the staff of RMNP braced themselves for the peak of the season in June, 1955, Regional Director Baker visited the park and held a meeting to outline the meaning and thrust of Mission 66. Echoing the words of Wirth, Baker stated that "substantial visitor enjoyment of the Parks is the best means of protecting them from

[28] *Estes Park Trail*, April 14, 1961.
[29] James Lloyd to Conrad Wirth, 3 August 1955, NAKCRG 79, Box A98, 3-8-55 to 2-8-56, ff "Mission 66."

exploitation or encroachment" and that "proper development is an essential protective device in Park use." To Baker, as was the case with Wirth, unprecedented annual visitation only posed a problem if the Service was unprepared to handle it. With proper staffing, better roads, and a more effective interpretive apparatus, however, high visitation offered an opportunity to effectively remake the NPS and its lands. Baker made clear that all planning for the Mission 66 process was based on the assumption that park visitation would continue to increase. For Rocky Mountain, Baker instructed park management to assume that park travel would increase by sixty percent in the following decade, which meant an annual visitation of 2.281 million by 1966. Prior to closing the meeting, James Lloyd encouraged his staff to think creatively. For Lloyd at least, the Mission 66 program presented more than an opportunity to rebuild the sagging physical plant of the park; it was a chance to "start from scratch in this area. Just as if there were no National Park here. We must think ahead," James implored. "THINK BIG."[30]

Over the course of the following months, the staff at Rocky Mountain drafted a prospectus that adequately addressed the challenges faced. At the core of their efforts lay the basic assumption that "Rocky Mountain National Park is truly an outdoor museum with unsurpassed accessibility for the full enjoyment by the public." Not only was the park unsurpassed in its accessibility (and would become more so through Mission 66), but park management had come to believe that "the visitor need not penetrate far into the mountain vastness of the Park until the feeling of remote,

[30] James Lloyd, "Mission 66 Meeting," 23 May 1955, NAKCRG 79, Box A98, 3-8-55 to 2-8-56, ff "Mission 66."

primeval conditions becomes distinctly apparent." The conclusion that "a visitor to the Park may have a truly significant and enjoyable visit in the space of one day" had replaced nearly a half-decade of the NPS urging the public to explore in some detail the hidden natural wealth and spiritual rejuvenating forces of this park. Based on the above two assumptions, Lloyd and his team labored to recast RMNP primarily as a "day-use" area—a place where travelers were encouraged to experience, in the space of a single day, the beauty and grandeur of the region.[31] To Lloyd and others, rebuilding the Trial Ridge Road provided a good opportunity to institutionalize this "day use" philosophy.

Rebuilding Roads

Superintendent Lloyd witnessed firsthand the changing nature of travel through the park following World War Two. Commenting on the phenomenon, Lloyd stated that more people were "making use of their private vehicles and less use of their legs." As a whole, Americans were making more "hurried trips," as the "American family continues to boast of how many miles they traveled and how many National Parks they entered on their vacation trip."[32] Hoping to gain a better understanding of how exactly postwar Americans interacted with the park, RMNP conducted a brief study at one of the park's most popular destinations, Bear Lake, in

[31]"Final Rocky Mountain National Park Mission 66 Prospectus, 1957," NAKCRG 79, Box A98, 3-8-55 to 2-8-56, ff "Mission 66," 5-6; James Lloyd to Frank Cooper, 23 October 1956, NAKCRG 79, Box A98, 3-8-55 to 2-8-56, ff "Mission 66."
[32] "Draft Mission 66 Prospectus," 20 July 1955, NAKCRG 79, Box A98, 3-8-55 to 2-8-56, ff "Mission 66."

1956. Through a multi-day traffic study, park staff collected information on the number of cars entering the lot, the number of riders per car, and the duration of their stay. Their study supported the conclusions Lloyd reached the previous year: more people were making quick auto-tours of the park than those who partook in more in-depth investigations beyond their automobiles. According to the study, an average of 66% of visitors spent less than 30 minutes at the Bear Lake parking lot, while 33.5% stayed longer than thirty minutes.[33] Armed with such information, rebuilding the park's roads in a manner that better facilitated a smooth and rapid flow of traffic became one of the central components of Mission 66 in RMNP.

In the fall of 1957, landscape architects and engineers began the process of laying out plans for a new and improved Trial Ridge Road and for more efficient entrance stations. Keeping with Mission 66's emphasis on maximizing visitation, managers of RMNP called for the construction of new parking areas at the Forest Canyon Overlook, Lower Tundra Curves, Little Rock Cut, Rock Cabins, and in Horseshoe Park. [34] By July of 1959, these parking lots were nearly complete as was the work of rebuilding, reshaping, and realigning portions of the Fall River Road at a total cost of some $60,000. Two additional parking areas were also built in Phantom Valley during the 1957 season, and further parking created at Aspenglen Campground. Under Mission 66, crews also set about the work of rebuilding many of the park's entrance stations to better accommodate the flow of increased traffic. In

[33] "Bear Lake Traffic Study," 30 August 1956, National Archives Denver Record Group 79, Numerical Subject Files 1953-1965, Box 2, 8ns-079-97-437, ff "Travel Studies and Stats RMNP," 1-2. Hereafter cited as NADRG 79.
[34] Superintendent's Monthly Report, September 1957.

Director and RMNP staff reviewing Bear Lake Cutoff Proposals, 1958.
(Superintendent's Annual Report, 1958)

addition to rebuilding and improving the High Drive entrance road, crews refashioned the Beaver Meadows entrance station, which was 50% complete by the winter of 1959.

Not content to simply expand parking facilities and streamline entrance stations, managers of RMNP also called for the reconstruction of the Deer Ridge cutoff road, which provided a connection between the Beaver Meadows and Fall River entrance stations. Siegrist Construction of Denver was awarded the contract and began preliminary work in January of 1963. In all, the project called for improving a

3.9 mile stretch of the road at a cost of some $570,000.[35] By October of 1963 the project was nearing completion as evermore automobiles traveled through the park.[36]

In addition to finding suitable parking, park patrons also required access to public restrooms. To meet the requirements of its visitors, RMNP also expanded and rebuilt a number of "comfort stations" across the park. In Glacier Basin, the NPS installed a new sewer system, septic tanks, and diversion box to service three new comfort stations.[37] The NPS also contracted the construction of an additional two comfort stations at the Stillwater Campground in 1957. The total cost of the projects amounted to more than $45,000.[38] Anticipating increasing visitation, the NPS also installed six new comfort stations at the Moraine Park Campground at a cost of some $66,000 in 1963, and expanded and rebuilt the campground's roads.[39]

Not only did Lloyd desire to transform park roads into modern thoroughfares replete with wide shoulders and plenty of parking; but also he and his staff saw the importance in adding numerous picnic spots along the roadside. The addition of turnouts and picnic spots both reflected and reinforced the growing trend in day trips through the park. According to Lloyd, only "two developed [picnic] locations with a capacity of 12 parties each" existed in the park in the mid 1950s, and many more were needed to accommodate the "large numbers of picnickers" who were asking for

[35] Superintendent's Annual Report, 1963.
[36] Superintendent's Monthly Report, October 1963.
[37] Superintendent's Monthly Report, October 1957.
[38] Superintendent's Monthly Report, November 1957.
[39] Superintendent's Annual Report, 1963; Superintendent's Monthly Report, February 1963.

places to "spread their lunches along the roadside and adjacent to trails."[40] Already by 1963 the NPS had added eight additional picnic areas containing a total of 140 individual sites.

By 1963, with the bulk of the Mission 66 improvements completed, RMNP must have viewed their accomplishments with a sense of pride. In addition to adding two new miles of roadway and reconstructing three more (at a cost of more than $200,000), they had also added 594 additional parking spaces (cost $198,000) with plans to add 181 more. Moreover, they had upgraded and reconstructed five miles of roads within campgrounds and built an additional 2.5 miles of trails. In their efforts to accommodate more overnight visitors, they had built an additional 410 camping sites, making a total of 887 overnight designated spaces. Hoping to deal with larger groups of tourists, the NPS had built two new campfire circle/amphitheaters, capable of seating a total of 600 persons at a time. The newly fashioned RMNP boasted a total of seven campfire circles and amphitheaters, with a total seating capacity of more than 1700.[41] By 1966, the NPS had allocated more than $5,196,000 for road construction within the park, a sum that represents a little more than the half of the total $9,167,945 spent for all Mission 66 projects there.[42]

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[40] "Final Rocky Mountain National Park Mission 66 Prospectus," NAKCRG 79, Box A98, Book 3, ff "Mission 66," 12.
[41] Memorandum Acting Superintendent Rocky Mountain to Regional Director Midwest Region, 29 August 1963. NADRG79 Numerical Subject Files 1953-1965, Box 2, 8ns-079-97-437, ff "A9819."
[42] "Summary of Mission 66 Objectives and Program for Rocky Mountain National Park," 22 March 1956, NAKCRG 79, Box A98, 3-8-55 to 2-8-56, ff "Mission 66."

Reinterpreting Nature

Revamping the park's roads to better accommodate larger crowds meant that the NPS would have to make difficult decisions regarding other aspects of park management. One area that increased visitation significantly impacted was RMNP's interpretative and educational apparatus. "Interpretation" had always been near the heart of the National Park Service mission. NPS directors, superintendents, and the general staff all realized that nothing was more effective in endearing the NPS to Americans than a strong and personal interpretive program. Scores of letters from around the country abound in NPS files congratulating the Service on the work that rangers and naturalists were doing in educating and enlightening the public.

By the mid 1950s, however, the park found itself increasingly unable to make such strong, personal connections with the public. Not only were there too few park employees to regularly take visitors on guided day hikes, but fewer and fewer people were interested in such activities, choosing instead to not wander far from parking lots and Packards. According to James Lloyd, the park's trails "receive much greater use for a short distance from the nearby parking lots, but in the high, back country, only the stout hearted hiker is to be found."[43] Although the raw percentage of "interpretive contacts" had risen from just 7.7 percent in 1934 to 13.8 percent in 1955, the number of travelers who had no contact whatsoever with staff had jumped from 337,363 to an overwhelming 1,250,806 during the same time. Although park visitation had increased by hundreds of thousands, about the same number of people

[43] James Lloyd to Conrad Wirth, 20 July 1955, NAKCRG 79, Box A98, 3-8-55 to 2-8-56, ff "Mission 66."

chose either half or full day guided tours as in previous decades. In short, too many people were moving through the park without being exposed to the NPS "message."[44] To an agency historically self-conscious about its image—and always striving to make clear to the public the importance of their role in safeguarding national treasures—something had to be done.

To the management at RMNP, the solution seemed clear: revise the interpretive program to better meet the needs of those traveling through the park in their cars. Accomplishing this meant reducing the number of staff dedicated to personally guided tours, planting a large number of interpretive signs and information stations across the park, and making a more concerted effort to "contact" travelers at entrances. Through each of the above, the function and character of RMNP was knowingly and willing transformed from a personal landscape where travelers came to know park staff and learned directly from other human beings, to a less personal one that lent itself more easily to the demands of commercial tourism.

In 1955, facing increased demands and a thin staff, James Lloyd decided to cut drastically the number of guided tours and hikes. Given their popularity, it comes as no surprise that the reduction upset a great many of the park's travelers, not the least of which was Bill Ladd of the *Louisville Times Courier*. Ladd had been a longtime patron of RMNP and had always appreciated and enjoyed the personal and extensive contact with rangers and naturalists. While visiting the park in the summer of 1956, however, Ladd was shocked to find that park officials had drastically

[44] Ibid.

reduced the availability of guided nature hikes. Ladd was so upset, in fact, that he traveled to park headquarters to discuss the matter with Superintendent Lloyd. During their discussion, Lloyd informed Ladd that "the former interpretive program was unrealistic in that it was tailored to the long-term visitor while the average visit was a day and a half and a huge percentage of visitors simply drive through the park and had no contact with the interpretive program at all." As Ladd's demeanor mellowed, Lloyd observed that "while a ranger-naturalist was taking 75 people on a ¾ day hike on the Fern-Odessa trail, 1,000 visitors were going through the park with no contact with the interpretive service." After hearing Lloyd out, Ladd conceded that the Superintendent had a point, but wanted to make clear that the park management was making a big mistake. As Ladd saw it, the "hiking party led by a ranger-naturalist is made up of the people who are most valuable to the park system and the park service. These are the people already fired with a desire to learn something about the park, its animals, flowers, trees, geology and place in the natural picture."[45] These were the people, Ladd argued, that would become future conservationists and "battle" for the NPS in the "crises which are always coming in the park service program." Most regrettable to Ladd was plopping down highly trained and capable scientists at "information stations" for the "gang of stampeding tourists who eat breakfast at Loveland, throw their lunch papers off the Rock Cut and have an early dinner at Hot Sulphur Springs."[46] To Ladd, the park was best served not by having such personnel

[45] Bill Ladd to Conrad Wirth, NAKCRG 79 Box A2, Book 1, September 1952-January 1960, ff "ROMO," 1.
[46] Ibid., 3.

hand out flyers at the gates, but rather employing them to lead educational tours through the park.

When faced with the decision to maintain the personal service and "small town" atmosphere that once characterized the park (one in which Ladd argued—maybe correctly—led to more engaged visitors and thereby greater grassroots support), or to rebuild the park into a place where a maximum number of visitors had at least *some* contact with the park's "interpretive mission," James Lloyd chose the latter. The demands of skyrocketing visitation were also reflected, so very subtly, in the number of interpretive stations and placards sprinkled around the park.

Over the course of Mission 66, park staff constructed eight new "information/orientation" stations around the park. Placed at entrances and major scenic overlooks, these stations were intended to offer in-depth interpretation of key aspects of the park, including the processes of glaciation and the interaction of plant and animal communities. An additional thirty-two placards (smaller in stature and less thorough in explanation than information stations) were similarly scattered across the park to further help visitors properly understand and interpret what they were seeing.[47] If geographer John Stilgoe is correct, the abundance of signage along any given roadside stands as a sort of barometer of the human interaction taking place along it. Stilgoe holds that roads with few signs either reflect that most travelers have an intimate knowledge of a place (hence no need for direction), or that travelers are willing, and welcome, to ask locals for direction. On the other hand, roads with ample

[47] "Final Prospectus," 18-19.

or excessive signage speak both to general unfamiliarity with a place, and a lack of opportunity to ask others for direction. In Rocky Mountain, both of the latter appear to be the case. Read this way, the proliferation of signage across Rocky Mountain does indicate that the parkscape was in the process of becoming less personal and more amenable to an expedient individual experience.[48]

Perhaps the most visible effort on the part of the NPS to increase "interpretive contacts" was the construction of three new visitor centers. According to Conrad Wirth, the older museum-like structures that parks (like Rocky Mountain) had used were no longer serving the needs of the NPS. In an attempt to stimulate more interest and use, the NPS endeavored to replace the outmoded museums with modern visitor centers in which a tourist could find clean restrooms, interpretive exhibits, rest areas, curio shops, and food services.[49] Reflective of this broader NPS trend, RMNP eventually planned and built three new visitor centers—one located near the Beaver Meadows entrance, one at the Grand Lake entrance, and one near the top of the Trail Ridge Road.[50]

Aesthetic Parkscape

The decision to transform Rocky Mountain into a day-use facility through Mission 66 had one final significant consequence. Ever since the park's creation, a

[48] John Silgoe, "*Landschaft* and Linearity: Two Archetypes of Landscape," in Char Miller and Hal Rothman, ed., *Out of the Woods: Essays in Environmental History* (Pittsburgh: University of Pittsburgh Press, 1997), 64-78.
[49] Wirth, *Parks*, 268-270.
[50] Allaback, *Mission 66*, 2.

handful of privately owned lodges and guest ranches had provided homely—if not luxurious—places for tourists to stay within the park. While staying at the Sprague Ranch or the Stead's Guest Ranch, vacationers could ride horses, while away rainy afternoons under the protection of open porches, or discuss with fellow travelers the day's events while sitting beside a crackling fire. As tourists cast a lazy gaze from the cozy porch at Stead's or Sprague's, they likely saw any one of dozens of small cabins and other rustic buildings that dotted the landscape. Lodges and cabins both constituted an honest, if not entirely intentional, admission that this park had a deep natural history that was inseparable from its human history. Beginning in the early 1930s and accelerating rapidly under Mission 66, however, reflections of the park's human history were removed in an attempt to create an image and experience within the park not complicated by human history.

In 1931, under the leadership of Roger Toll, RMNP began a decades-long program to purchase private in-holdings within the park.[51] Initially the Depression, and later the onset of WW II, hamstrung these efforts. The cash infusion Mission 66 brought, however, allowed Rocky Mountain to redouble its efforts and purchase a large percentage of the remaining privately owned property within the park. According to the "Master Plan for the Preservation and Use of Rocky Mountain National Park Mission 66 Edition," the first listed guideline for administrative direction under Mission 66 was to "restore to their original condition any natural

[51] Howard Beale to Conrad Wirth, 5 October 1953, NAKCRG 79 Box A2, Book 1 September, 1952-January 1960, ff "ROMO," 2-3.

features that have been disturbed by man."[52] As such, removal of most human structures within the park received top priority.

In one sense, park officials' desire to consolidate NPS holdings is understandable. Administering a patchwork of private and public land had long been a tricky—and often less than successful—balancing act. Much of the land purchased under Mission 66 was bought to prevent owners from launching development programs that conflicted with the NPS mission and philosophy. In other cases, RMNP acquired additional acreage to expand winter range within the park for its growing elk herd, as was the case when the park purchased portions of Moraine Park in 1962.

Through the land acquisition program, however, RMNP also sought to purchase all remaining privately-owned cabins. Many of these had been long abandoned, their graying walls sagging under the weight of collapsing roofs and heavy winter snows. Others were used seasonally and still in good repair. The desire on the part of NPS officials to buy such properties raises the question of why? If it was evident that either no commercial development was proposed or had taken place, why spend the hundreds of thousands of dollars to acquire such properties?

The answer is clearly reflected in a land acquisition report completed in 1956. This report, which offers a complete list of all property the NPS intended to purchase in the park, was presented in tabular form, broken into eight categories, including priority, name of owner, tract number, description, explanation, method of

[52] "Master Plan for the Preservation and Use of Rocky Mountain National Park Mission 66 Edition," NADRG 79 Numerical Subject Files 1953-1965, Box 2, 8NS-079-97-437, ff "Protection of Areas of Public Enjoyment," 8.

acquisition, acreage, and cost. Under the column dedicated to "explanation," a long list of "cabins" were slated for purchase because they were "an eye-sore along Moraine Park Road," or they "spoil[ed] scenic view from Bear Lake Road," or "spoiled scenic view from Moraine Park Road," or "spoil[ed] scenic view from Trail Ridge Road." In all, some $422,800 was set aside to purchase and destroy these "eye-sores"; a figure that represents roughly 10 percent of the overall Mission 66 budget for land acquisition.[53]

To Lloyd and others, such obvious reminders of human history complicated and detracted from the park "experience." Here again, the ubiquitous statement that RMNP was best understood as a "natural museum" is instructive. In their *natural* museum, anything that reflected a human past or present became an "eye-sore," needing to be destroyed. In the words of Lloyd himself, "an increased sense of the wilderness character will accompany the elimination of manmade intrusions" including hotels, lodges, and cabins."[54] To the management of RMNP at least, there existed a distinct line between nature and culture. It is ironic that the cabins constituted eye-sores, but the roads dotted with signage from which such views were sullied, did not.

The land acquisition program was also intended to bring to an end, wherever feasible, the existence of private concessionaires within the park. Here again, the reasons for such purchases were many, but by and large, Lloyd's desire to transform

[53] "Proposed Land Acquisitions," 30 January 1956, NAKCRG 79 Box A98, 3-8-55 to 2-8-56, ff "Mission 66," 1-17.
[54] James Lloyd to Frank Cooper, 23 October 1956, NAKCRG 79, Box A98, 3-8-55 to 2-8-56, ff "Mission 66."

Rocky Mountain into a "day-use" park was a driving force. The previously mentioned works of Buchholtz and Musselmen do a laudable job in outlining the details of how and when the NPS bought and then destroyed the Stead's Guest Ranch, Moraine Lodge, Sprague's Inn, and countless others, so these points need no further elaboration. Needless to say, each of the above had operated in the park for some time (Sprague's Ranch was an offshoot of the Sprague family homestead of the 1870s) and enjoyed a loyal and devoted following. As news spread that these and other overnight facilities would be bought and destroyed, longtime patrons rose up in protest. Their letters show yet again that the NPS, through its Mission 66 program, was making a conscious effort to reform how park visitors interacted with the park itself—an effort that did not go uncontested.

Howard Beale, Professor of History at the University of Wisconsin, wrote a passionate letter that clearly captures the above process. On the surface, Beale was angry because he had been staying at the Sprague Ranch intermittently since 1914, and was distraught to hear that it was to be closed by 1958. But his letter offers more than a simple complaint about the closing of a guest ranch. Beale also speaks directly, though perhaps unknowingly, to the shift in clientele to which the NPS was catering. To Beale, there were "two kinds of people using Rocky Mountain National Park. You have the people, thousands of them, who crowd the many auto camps and motels and rooming houses that have made the big Thompson Canyon hideous and which have made Estes Park Village…loathsome." And there were others who "walk on the trails, or ride horses on the trails, or sit in isolated, unspoiled spots like the porch of

the old Moraine Park Lodge…and quietly enjoy the beauty. These are the people who climb mountains, these are the people who genuinely enjoy the wildness of the place."[55] Beale then stated that "these are the people that the National Park Service now wishes to drive out by tearing down the lodges in the Park itself." To Beale, these lodges did not mar the landscape as the NPS contended, but rather "fit into" it.[56] Beale, and likely the "thousands" he claimed to speak for, were casualties of Rocky Mountain's attempt to create an a-historical landscape, a place void of the complexities of human inhabitation—a place where humans visited, but did not linger.

Challenging Tradition

Upon its conclusion, few could claim that Mission 66 did not bring significant change to Rocky Mountain National Park. Through the program, the NPS built and rebuilt roads and expanded parking facilities in their attempt to welcome more tourists to into the park system. In this basic sense, Mission 66 was a complete success. Headed by bureaucrats like Conrad Wirth, the NPS obtained an incredible amount of capital to bolster its infrastructure, meet current visitation demands, and anticipate future growth. Although the program did much to improve the sagging physical plant of the park, its architects failed to anticipate the consequences of the program's success.

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[55] Howard Beale to Conrad Wirth, 5 October 1953, NAKCRG 79 Box A2, Book 1 September 1952-January 1960, ff "ROMO," 2.
[56] Ibid., 3.

By refining roads and enhancing parking structures, picnic sites, and roadside interpretive exhibits, the NPS took part in a pattern of management decisions that reached all the way back to the early days of the Service. Although there was little doubt by the middle of the 1950s that Americans "loved" their national parks, Conrad Wirth wagered that the NPS could never have too much public favor. Rather that running the risk of turning away patrons, Wirth and the NPS followed a longstanding NPS tradition that held that the best way to protect the lands administered by the Park Service was to encourage—not retard—use.

There were, however, two significant problems with pursuing this management direction. First, facilitating visitation via the construction and maintenance of an automobile-centered parkscape only brought more tourists, and within less than fifteen years the NPS again faced a situation similar in kind, if not in scale, to that which they encountered following World War II. The second problem, which stemmed in part from the development of the first, was widespread and significant environmental change brought about within the park by the construction and presence of roads, and the cars and humans they delivered through the park.

As crews expanded roads and parking lots in RMNP during Mission 66, changes were already underway that greatly complicated the management of the park. Among those forces was the five-year research program of Beatrice Willard. Although scientific studies of various aspects of the park had been conducted as early as the 1930s, they were relatively few and far between. Moreover, none of them addressed specifically the impacts of visitors themselves upon the park itself.

Willard, who was a plant ecologist specializing in alpine plant ecology, worked in the United States and Europe and earned a contract with the NPS to study the variety of ecological impacts people had upon the places they trod. Her final report, "Effects of Visitors on Natural Ecosystems In Rocky Mountain National Park," comprises more than four hundred pages of data and analysis and offers a wonderful window into the park just past mid-century. Making Willard's report even more valuable is the fact that she was able to witness first-hand many of the environmental consequences of Mission 66 as several of her study areas coincided with locations recently expanded and enhanced through the rebuilding effort.

Willard carefully selected a range of study plots including locations along Trail Ridge Road at the Rock Cut, Little Rock Cut, Forest Canyon Overlook, and Iceberg Lake, in addition to Bear Lake, and the system of trails that connected it to Nymph and Dream Lakes. She then set about compiling quantitative data on the various plants found at each. To accomplish this, she relied heavily upon the use of the "quadrate method," which entailed constructing a grid on location, and then counting and classifying the plants within the grid.[57] She also examined historic park photos, as well as those she took while in the field, to ascertain degrees and types of environmental change over both long and short term intervals.[58]

Willard also drafted a scale of "visitor use impact" to quantify environmental change. Under degree one vegetation evidenced impact, but no visual effects were yet

[57] John Marr and Beatrice Willard, "Effects of Visitors on Natural Ecosystems In Rocky Mountain National Park, Final Report 1958-1959" (Institute of Arctic and Alpine Research, University of Colorado, 1959, mimeographed) 4.
[58] Ibid., 5.

apparent. Under the second degree, vegetation was affected and growth normal, but vitality reduced. Degree three correlated with altered vegetation, little or no blooming, and portions of the soil's humus layer exposed and eroding. Progressing up the scale, degree four represented areas where the vegetation was largely gone, and the humus layer was exposed and eroding. According to her scale, the fifth and most dramatic degree represented those areas of no vegetation, exposure of mineral soil, and erosion.[59]

Armed with modern scientific methods, her camera, plant keys, and a means to measure environmental change, Willard conducted primary investigations throughout the 1958-1959 season. Although she tempered her conclusions with the fact that they were based on only one year's observation, she held firm that "with the construction of Trail Ridge Road began the significant impact of visitors on the alpine tundra, for never before had such large numbers of people had ready access to these eight miles of tundra region." Moreover, she found that visitor impact was "most pronounced on the tundra immediately adjacent to designated parking areas at Rock Cut, Iceberg Lake, and Fall River Pass, and in 1958, the Forest Canyon Overlook."[60] Willard was the first to convey in an official report that the construction of roads through Rocky Mountain held the potential to bring about significant environmental change. Four additional years of fieldwork buttressed this basic conclusion.

Being an expert in alpine plant ecology, the opportunity to study the variety of ecosystems along Trail Ridge Road was no doubt exciting to Willard. Not only did

[59] Ibid. 5-6.
[60] Ibid., 7-8.

"Trail Ridge [support] most of the types of ecosystems that occur in the alpine tundra of the Front Range," including seventeen distinct types, Willard found that many of them had "received little or no visitor use" and were arguably "less altered by man's activities than any other tundra in the central Rockies."[61] Standing in stark opposition to such "pristine" units, Willard quickly found that Trail Ridge also contained areas where the construction and maintenance of the road and its many parking lots had swiftly brought about significant environmental change. Those areas that "received heavy visitor use have been drastically altered," a process that could "begin within hours after an area becomes exposed to heavy use," with "significant changes be[ing] produced within less than a week."[62] To a person as well-versed in the fragile nature of tundra ecosystems, the rapid destruction of areas that took "[h]undreds and possibly thousands of years" to develop "soil with a thick humus layer, such as in the Kobresia meadow originally found at Rock Cut" was of great concern.[63]

In harsh environments like those found along much of Trail Ridge Road, deep snow, ice, bracing winds, intense sun, and a short growing season combine to make the existence of plant life difficult. Over thousands of years, however, a variety of natural processes produced a rich layer of soil (humus) and duff (top level detritus) to the point where plant life could grow. Over time, plant communities extended over much of the tundra, forming a thin plate of armor over the soil. When the system operates as it should, the plants are generally able to hold fast to the soil below and

[61] Ibid., i.
[62] Ibid.
[63] Ibid., ii.

Degree five visitor impact at the Rock Cut.
(Photo by Beatrice Willard, 1958)

protect it against the erosional forces of wind and water. When the top layer of life is disturbed and a "chink" in the armor develops, however, erosion and deterioration of the ecosystem can be rapid.

Spanning her five year study, Willard found time and again that the most significant and lasting visitor wrought changes were tied directly to upsetting the plant and soil dynamics described above.[64] For example, if an area received enough foot traffic, especially during spring runoff when the plants of the tundra are most vulnerable, plants could be trampled to the point of death. Over a short period of time, dead plants could allow erosional forces and the processes of ecological transformation begin. The removal of rocks, either unintentionally by kicking, or

[64] Ibid.

intentionally by rock "collectors," often had the same effect. Once a rock was moved or removed water, wind, and heaving frost could quickly wheedle its way through the tundra's topsoil.[65] "Thus," concluded Willard, "trampling and other visitor activities, together with natural environmental forces interact to bring about the continued erosion of areas laid bare by removal of rocks."[66]

Not far into her first research season, Willard found at the Rock Cut alone a host of ecological transformations underway. The area, which was made accessible by the construction of a parking lot, reflected widespread environmental change. Specifically, Willard found an overall reduction in vegetative cover, amount of upright growth and size of flowers, seed production, permanent damage to plant bodies, as well as compaction and erosion of the topsoil, changes in soil moisture and temperature, and changes in ecological processes, such as plant succession. No doubt wincing at the rapid despoliation of a fragile ecosystem, Willard also found that humans—not animals—were responsible for making informal trails around the Rock Cut, thereby extending and deepening the scope of change.[67]

Although her observations at the Rock Cut provided valuable insight into the relationship between roads, humans, and environmental change, her findings at the Forest Canyon Overlook were arguably more significant. Whereas the Rock Cut and Fall River Pass parking areas had been in operation for years, thus enabling Willard the opportunity to measure the impacts of visitors compounded over time,

[65] Ibid., 18.
[66] Ibid.
[67] Ibid., 17-18.

construction of the Forest Canyon Overlook was part of the Mission 66 program and completed in 1957. Although the Overlook had been open the year prior, it received very little use and thus was essentially intact when Willard began her study. In essence, the Forest Canyon Overlook site gave Willard the opportunity to measure, in real time, the impacts of opening a new parking facility within the park. By mid-July, just two weeks following the opening of Trail Ridge for the 1958 season, Willard reported that "two distinct paths had formed on the previously undisturbed vegetation immediately adjacent to the parking space; one led directly south and was the more distinct, the other led to the west and eventually to the knoll."[68]

As she found consistently throughout the park, the relationship between visitor impact and various ecosystems depended upon a variety of factors. In places like the Overlook where a boulder-strewn landscape restricted and "channeled" visitor use, the rate and intensity of informal trail development accelerated.[69] Another factor mediating human-induced ecological change was distance from roads and parking lots. According to Willard's first year of fieldwork, the "amount of damage to plants decreased proportionately with the distance from the edge of the parking space."[70]

The formation of informal trails was a perennial concern in the park, and RMNP staff undertook a variety of means to control them. Perhaps the most common approach involved putting in place a properly constructed trail consisting of a

[68] Ibid., 20-21.
[69] Ibid., 21.
[70] Ibid.

Informal trail and blacktopped trail at Forest Canyon Overlook.
(Photo by Beatrice Willard, 1958)

hardened surface and countermeasures to curtail erosion. Hoping to control the movement of people between the parking lot and Forest Canyon Overlook, for example, the NPS built a blacktopped trail in 1958. The path did not cut directly from the parking lot to the Overlook, but rather provided a sweeping path to the scenic location. In less that one week's time, reported an exasperated Willard, a "path developed as a shortcut across the loop in the blacktop."[71]

Not surprisingly, Willard found ecological change at the Fall River Pass similar to that along Trail Ridge Road. According to her first year's report, the "south and east of the parking area is conspicuous in the lack of vegetation except adjacent

[71] Ibid.

to the larger boulders." Whereas trampling at the Forest Canyon Overlook had just begun, the area adjacent to Fall River Pass revealed "the ultimate effects of trampling over a long period of time and with a larger number of visitors concentrated in a relatively small area."[72] Through her scientific analysis, Willard concluded that upwards of 80% of the Fall River Pass study area demonstrated a visitor impact degree of 5 (the most severe on her scale), while 10% stood at a degree of 4, 5% degree of 3, and the rest falling in categories 1 and 2.[73]

Willard's first year of fieldwork yielded a great deal of information on a range of park ecosystems, but she was careful to point out that further study was needed to determine with a greater degree of certainty the relationship between visitor use and ecological change. To accomplish this, Willard conducted a series of traffic studies in the park during the following year's field season. According to her observations, a large percentage of people stopped along Trail Ridge Road to admire the scenery, take in the cool mountain air, and stretch their legs. In all, Willard found that 33% of all cars in a given day stopped at Forest Canyon Overlook, and some 340 people exited their cars and walked around. At the Rock Cut, 38% of all cars stopped with some 455 people moving beyond their automobiles. Lastly, at the Fall River Pass, nearly half of all cars (46%) stopped, and some 513 passengers ambled around.[74]

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[72] Ibid., 12.
[73] Ibid.
[74] John Marr and Beatrice Willard, "Effects of Visitors on Natural Ecosystems In Rocky Mountain National Park, Final Report 1959-1960" (Institute of Arctic and Alpine Research, University of Colorado, 1960, mimeographed), 9.

To better ascertain the correlation between visitor use and ecological change, Willard constructed one "exclosure" at the Forest Canyon site and one at the Rock Cut in 1959. Essentially, exclosures were areas of varying dimensions (both 100 square feet) fenced off from the public. Inside the exclosures, Willard was able to study "ecological rebound" in the absence of human traffic. Many of the exclosures also provided her with a baseline against which she could compare and measure change.[75] Further, each exclosure contained a range of visitor impact degrees, ranging from degrees five to one.[76]

By the end of the season, Willard concluded that "with the exception of the cushion plants…all species in the area of the exclosure were observed to respond positively to the release from impact." In all, the "only species that were totally eliminated by the action of visitor impact were the soil lichen."[77] Although it bode well that the majority of the plants rebounded rather quickly following release from foot traffic and disturbance, the failure of the cushion plants to do so was troubling. For within these tundra ecosystems, the cushion plants played a critical role in thwarting erosion.[78] With the cushion plants damaged and or dead, some of the topsoil was "removed by the ecological process of attrition set in motion by trampling and augmented by the wind, water, and needle ice." Over time, found Willard, "[t]rampling continued to loosen the soil surface exposed by damage of the cushion,

[75] Ibid., 19.
[76] Ibid., 20.
[77] Ibid., 24.
[78] Ibid., 28.

giving the wind ready access to the soil surface. The net result was that up to one inch of soil had been removed from some microsites by the end of the 1958 season."[79]

To the average visitor, the loss of cushion plants might have been visible, but few would have guessed at the ecological transformation such a loss brings about. When an area knit together by a ground patch of cushion plants loses the protection those plants provide, a cascade of ecological changes follows. For example, once a cushion plant is removed, the process of soil erosion begins almost immediately. In relatively short order, the "duff" layer (essentially that layer comprised of decomposed or decomposing organic material) begins to erode. In a seasonally dry environment like the tundra along Trail Ridge Road, duff plays a critical role in "the maintenance of a favorable water balance" in dry "sites which have little source of water in summer other than melting water from late spring snows and the frequent, but light, summer showers."[80] As the duff washes and blows away, so too does the soil's humus layer, further impairing its ability to support plant life.[81] "Therefore," concluded Willard, the "loss of any portion of the duff and humus from the ecosystem alters environment factors of vital importance to the major vegetation components of the plants."[82] Over time, as the soil's ability to retain moisture declines, its average seasonal temperature increases, and a "favorable environment for colonization by other plants" is created.[83] After two years of extensive survey, Willard concluded that

[79] Ibid., 29.
[80] Ibid., 28.
[81] Ibid.
[82] Ibid.
[83] Ibid., 43.

Parking along Trail Ridge Road.
(Photo by Beatrice Willard, 1960)

the nature of the processes set in motion by visitor impact in tundra ecosystems are complex, having a multiplicity of interacting factors operating in them. Three of the more prominent processes are attrition and crushing of plants, reduction of the vegetative cover, and erosion of topsoil as vegetation cover decreases."[84]

By the close of the 1960-61 season Willard had studied some 95% of the tundra adjacent to Trail Ridge Road.[85] Trends of the previous two years continued, including the formation and persistence of informal trails, and the trampling of fragile plants. Of growing concern during the 1960-61 season, however, were the taking of souvenirs by visitors. The most popular mementos collected along Trail Ridge Road included flowers and rocks, both of which did considerable—if widely

[84] Ibid., 77.
[85] John Marr and Beatrice Willard, "Effects of Visitors on Natural Ecosystems In Rocky Mountain National Park, Final Report 1960-1961" (Institute of Arctic and Alpine Research, University of Colorado, 1960, mimeographed), 4.

unappreciated—damage to the tundra. The picking of flowers, which occurred with such regularity that Willard set up a study to quantify how many flowers were picked during a given day, not only stripped the roadside of much of its seasonal beauty, but it also greatly impaired those plants ability to reproduce, thereby feeding into the cycle of groundcover loss and erosion.[86]

The collecting of rocks by visitors also came at a significant environmental cost. According to Willard, the "collecting of rocks continued in sizable and significant quantities" around the Rock Cut in 1960-61, left behind numerous holes that were noted and followed throughout the summer. By season's end, Willard firmly concluded that "[t]his activity reduces natural tundra to impact degree 4-5 immediately" as the fragile tundra undersoil is exposed to the forces of erosion.[87]

As evidence mounted linking roads, visitors, and ecological change at older established roadside stops like the Rock Cut and Fall River Pass, Willard grew alarmed at the rapid transformation of locations opened through Mission 66 building programs. In addition to the Forest Canyon Overlook mentioned previously, RMNP also built a parking lot at the Little Rock Cut in 1957. As was the case at the Overlook, a high volume of foot traffic, the collecting of rocks and flowers, and the forces of wind, water, and ice wrecked havoc upon the fragile tundra.

By the end of the 1960-61 season, Willard sadly concluded that "[a]t the rate of damage observed during the last three summers since the parking area was

[86] Ibid., 5.
[87] Ibid., 7.

constructed, it will only be a few more years before the major portion of the vegetation in the northeast end of this area is reduced to degree 4 and 5."[88]

Once damage had occurred, recovery was far more complicated than simple reseeding efforts. Although Willard's first year's report optimistically found that plants rebounded remarkable well once protected from foot traffic, she discovered in 1960-61 the difficulties inherent in re-colonizing denuded areas with native plants. For example, previous studies conducted at Niwot Ridge, Colorado (the closest comparable location to Trail Ridge) demonstrated that reseeding success rates averaged about 88%. In each of the enclosures at the Forest Canyon Overlook, however, reseeding efforts yielded only a 48% survival rate—a number significantly lower than Willard had hoped for. Such a low success rate meant, among other things, that reestablishing native vegetation once it was lost was very difficult, if not impossible, over relatively short periods of time.[89] The longer the tundra remained open to the effects of visitors, the more difficult it would be to restore it to something approaching its natural condition.

Revealing the irony of roads in natural places, Willard concluded at the end of the season that the "tundra adjacent to places where visitors stop is showing considerable alteration and semi-permanent damage; especially where the use had extended over a number of years. Therefore, most of the tundra which visitors see close up cannot be considered natural and undisturbed by man."[90] Ironically, the

[88] Ibid., 10.
[89] Ibid.
[90] Ibid., 55.

extension of roads into places of amazing natural beauty brought about enough environmental change that many aspects of that natural world could no longer be classified as natural. In a national park like Rocky Mountain, a place created and managed as a "natural museum," much of the nature that visitors witnessed and experienced was, in fact, a byproduct of their presence and not solely a reflection of a "naturally" functioning environment.[91]

After four seasons of extensive research in the park, Willard set forth a spate of recommendations in her report for the 1961-62 season. In addition to channeling "visitor activity in such a way that they will not be invited to walk on the tundra," she also implored the NPS to "[a]nticipate the patterns of snow accumulation in areas of development and provide for snow removal where needed, so visitors will not have to walk on the tundra to detour snow banks."[92] Moreover, advised Willard, the Old Fall River Road leading up to Fall River Pass should be converted into a horse trail, and the NPS should "[r]efuse all proposals concerned with reconstruction of this road, on the basis of the irreparable damage to the ecosystems and glacial features of the valley that would result."[93] Willard also advised the NPS to disseminate her findings to all people involved in park management and "[e]mploy a plant ecologist with intimate knowledge of the Park to participate in decisions on new developments and

[91] Ibid.
[92] John Marr and Beatrice Willard, "Effects of Visitors on Natural Ecosystems In Rocky Mountain National Park, Final Report 1961-1962" (Institute of Arctic and Alpine Research, University of Colorado, 1960, mimeographed), v.
[93] Ibid.

to maintain a constant survey of the entire park."[94] In an effort to reach those having the most impact upon the tundra—the daily visitor—Willard crafted a pamphlet entitled Tundra Trail to enlighten them about the sometimes drastic impacts of thoughtless actions.[95]

The work of Beatrice Willard is remarkable in many regards. The fact that Rocky Mountain National Park agreed to fund the project reflects a degree of institutional self-reflection not generally present in the earlier years of the park. Willard's study and conclusions also stand as a reflection of the changing nature of environmental thought following World War II. Well before the first Earth Day, Beatrice Willard and many of her colleagues were part of a fundamental shift in how millions of Americans understood the natural world and the human place within it.[96] Challenging more than a century of environmental thought predicated upon the ideology of the "greatest good," Willard questioned through rational and scientific means how Rocky Mountain National Park was managed. Although visitor satisfaction continued to play a significant role in shaping policy, the decision-making process was increasingly becoming a matter of public debate as concerns over environmental health and sustainability became part of the management dynamic.

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[94] Ibid., vi.
[95] Ibid.
[96] For a comprehensive look at the changing nature of environmental thought in the postwar era see Samuel P. Hays, *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985* (Cambridge: Cambridge University Press, 1989).

Beyond Mission 66

Another significant step in the process of self-reflection and evaluation RMNP underwent during the sixties is captured in a 1969 report entitled, "A Study to Develop Criteria for Determining the Carrying Capacity of Areas Within the National Park System."[97] Coauthored by a team of scholars from Colorado State University, this report offered an early attempt to balance the social, biological, economical, and ecological aspects of park management. Recognizing that "absolute preservation is not possible if any volume of use is permitted and certain losses must be accepted as a matter of course," the authors reasoned that the fundamental charge of the NPS was to establish equilibrium between visitor demands and the carrying capacity of the park.[98]

Finding a level of "equilibrium" between visitor use and park health, however, was no simple task. At the heart of the matter was the fact that the

> satisfactions and enjoyment that use of a natural area can provide for many people must be weighed against the losses suffered by the biota as a consequence of use and development, the subsequent loss of satisfaction from the visit for some persons, and the visitor stress and discomfort which increases with increased volumes of use.[99]

In other words, the management problem lay on a spectrum. At one end of it lay complete ecological integrity and zero visitation, and at the opposite end of the spectrum lay complete visitor use and the literal consumption of the park's natural

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[97] R. Burnell Held, Stanley Brickler, Arthur T. Wilcox, "A Study to Develop Criteria for Determining the Carrying Capacity of Areas Within the National Park System, Final Report" (Department of Recreation and Watershed Resources, Colorado State University, 15 November 1969, mimeographed).
[98] Ibid., a.
[99] Ibid.

resources by its patrons. The National Park Service, reasoned the scholars, had a mandate to establish a rational and practical balance between those two poles.

But the matter was even more complicated than that, as no agreement upon who should define how much use and or degradation was acceptable, existed. In grappling with this question, the scholars asked, "Whose values should be accepted in defining carrying capacity—those of the Park Service, or those of the public? And if concern is to be given to a public viewpoint, which public, for the parks serve more than one public."[100] Bear Lake served as a good example. According to their findings, Bear Lake attracted a large percentage of all park visitors. "With luck," they opined, a visitor is able to find a place to park but on busy days cars parked illegally along the roadside were a common occurrence.[101] In a strictly numerical sense, the carrying capacity of Bear Lake was a direct function of available parking.

If, however, carrying capacity sought to balance tourists and ecological integrity, the above calculation was unabashedly one-sided. Here, the scholars opined that although the parking lot was not a "visual affront to some visitors," those who sought "unspoiled, little-frequented" alpine lakes should go elsewhere. Along Bear Lake's shore, the scholars found excessive wear evident in exposed tree roots and denuded soil. From an aesthetic point of view, "[t]he freshness of the area [was]

[100] Ibid., 6-7.
[101] Ibid., 2.

gone.[102] If carrying capacity was determined strictly from this aesthetic point of view, Bear Lake had far exceeded it.[103]

Further complicating matters was the fact that different visitors chose different methods of experiencing the park. Although the vast majority of tourists reported that sightseeing was their primary objective, how visitors chose to see the sights varied widely. In managing a landscape for its visual appeal, the rate of speed, depth and field of vision and general setting were all factors that determined the emotional appeal of a given landscape—facts of which landscape architects had long been aware.[104] "While all may be moving much of the time," found the researchers, "it is one thing to see the park through the windshield of a vehicle moving at a rate of 35 miles per hour and seeing it along the identical route from a bicycle or on foot at a much slower rate of movement."[105] The differences in how one experienced the park, in turn, meant that "the same user is likely to demand a higher standard of landscape and environmental quality when he is hiking than when he is riding though a natural area in an automobile."[106]

After reasoning through the complex set of variables involved in determining carrying capacity, including social, economic, aesthetic, and ecological components, the team put forth its recommendations. The team recommended that park managers craft a definition of carrying capacity as the point at which "[t]he capacity of an area

[102] Ibid., 2-3.
[103] Ibid., 3.
[104] Ibid., 23.
[105] Ibid.
[106] Ibid., 24.

in terms of man-days (or man hours per day) of recreation use that can be tolerated without irreversible deterioration of the physical environment," and then managing just shy of that point.[107] Doing so, they contended, would protect the park's natural systems from irreversible harm, while maximizing the range of visitor use.

The findings of the Burnell *et. al.* may not sound radical today, but placed in their historical context, they marked a significant shift in how RMNP was conceptualizing its mission. Just three years following the completion of Mission 66, a program that overwhelmingly valued visitor use over anything approaching sustainable environmental practices, the NPS began to recognize that previous management solutions to longstanding park problems were no longer tenable.

As researchers were making painfully clear to park management just how difficult future park management was going to be, other shifts were afoot that further complicated management of the park. At the forefront of this process was the wilderness movement, which Paul Hirt analyzes in *Driven Wild*. According to Hirt, the wilderness movement was born first and foremost in response to the proliferation of roads and automobiles in natural places. Between the 1930s and the passage of the Wilderness Act in 1964, evermore Americans came to value the existence of vast expanses of territory where human impacts were imperceptible. The successful culmination of the movement as embodied in the Act clearly reflects its anti-road heritage. Under the Wilderness Act, cars and roads were strictly forbidden. Although the legislation did not deal specifically with National Parks, the Director of the NPS

[107] Ibid., 4-5

called upon national parks to conduct studies to determine how much, if any, land contained within the system was suitable for wilderness designation.

Following the orders of the Director of the National Park Service, Rocky Mountain National Park Superintendent Roger Contor and his staff identified five units "totaling 238,000 acres, or approximately 91 percent of the Park as suitable for inclusion in the National Wilderness Preservation System."[108] The five areas included 87,700 acres of the Mummy Range, 9500 acres of the eastern slopes of the Neversummer Range, 4300 acres between Fall River and Trail Ridge Road, 138,000 acres south of Trial Ridge, and 2,200 acres in the southwest corner of the park.[109]

The first hearing on the issue reflects the tension in American society regarding the extension of roads in national parks. Some citizens and groups interested in park management in terms of ecological health and diversity supported wilderness designation, while others more closely aligned with the tourist industry opposed it. The Estes Park Chamber of Commerce (EPCC), which had a direct economic stake in the day-to-day operation of RMNP, represented well the opinions and attitudes of those opposed to wilderness designation. Speaking on behalf of the Chamber, Ron Railand stated bluntly,

> The fact that the Park has the authority to maintain, protect, and preserve the land within the perimeters of the Park, and the fact that the past Park Administrations have both preserved and actually improved upon the natural scenic beauties therein has caused many to wonder if we need to include 91 percent of Rocky Mountain National Park in the Wilderness Preservation System. There are

[108] "Hearing on Proposed Wilderness in Rocky Mountain National Park," 26 January 1974, Rocky Mountain National Park Library, 8.
[109] Ibid., 9.

> presently fewer horses and concessionaires in Rocky Mountain National Park now than at any time in its history.[110]

In the estimation of the EPCC, the NPS had done enough to protect the ecological integrity of the park, and little else needed to be done. Furthermore, continued Railand, "[b]y Park statistics, a very small percentage of those using Rocky actually use present wilderness land…therefore, the Chamber wholeheartedly endorses a reduction in the lands being proposed as wilderness."[111] The Chamber's opposition to wilderness designation stemmed not from an ideological opposition to what wilderness areas were, but rather from a fear that the good of the many who use the park's roads and built environment was being subverted for the pleasure of a small contingent of patrons.

William Van Horn from High Country Stables also opposed wilderness designation, but for more specific economic reasons. According to Van Horn, wilderness designation violated RMNP's organic act because wilderness did not provide for freest use and recreational opportunity of the park.[112] "In fact," concluded Van Horn, "putting 91 percent of the park into wilderness would prohibit the Park Service from providing the needs of the public for which it was established."[113] At the heart of Van Horn's concern was the fear that designating so much of RMNP as wilderness would curtail his ability to make a living running his livery operations in and around the park.

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[110] Ibid., 22.
[111] Ibid., 23.
[112] Ibid., 26.
[113] Ibid.

Whereas Van Horn, Railand and others vehemently opposed wilderness designation, there were many present at the hearing that supported the plan. For example, Raoul Bates of the National Parks and Conservation Association moved well beyond the NPS's proposals. To Bates, the best course of action included the closure of Fall River Road to all but mass transit and the obliteration of the road through Moraine Park.[114] In calling for the removal of roads and the implementation of mass transit in the park, Bates's testimony belied much of what the EPCC and others found objectionable about wilderness designation. If the NPS and its supporters had their way, massive tracts of the park would henceforth be closed to roads and driving. To those with a direct economic stake in Rocky Mountain National Park and its reputation as a "driving park," wilderness designation represented a dangerous first step in challenging that reputation.

Although Rocky Mountain National Park never received the wilderness designation it sought, the wilderness debate of 1974 spoke directly to shifts in how millions of Americans viewed the natural world and our relationship with it. When faced with crises of overuse and degradation as Beatrice Willard indicated, and fully cognizant of the complicated process of managing in a sustainable fashion, the NPS could no longer pursue the unabashedly expansionist response of previous decades.

But still more visitors came to Rocky Mountain National Park, which begged the question of how they could be best accommodated. Between 1967 and 1978 visitation rose from an estimated 2 million to over 3 million, an increase of more than

[114] Ibid., 39.

one third in barely more than a decade. Reeling from the increase, the RMNP initiated a shuttle system to deliver visitors to Bear Lake in 1978.[115] By 1980, the new shuttle route, which made stops at the Moraine Park and Glacier Basin campgrounds before arriving at Bear Lake, moved more than 154,000 people through the park. An additional 5,015 people rode the shuttle between the Moraine campground and the Fern Lake trailhead.[116]

Although the new shuttle system brought about a marked decrease in the number of automobiles crawling across the park, the system was far from perfect. Perhaps the most vexing problem it brought about was an exaggerated use of Bear Lake itself. Hoping to find a more effective system that reduced the strain on Bear Lake, the NPS hired a Denver firm in 1979 to investigate alternatives.[117] At the first public meeting on the issue, the study team put forth three management possibilities, including no action, dispersed visitor use, and concentrated visitor use.

Under the dispersed visitor use plan, "visitors to the Park would be channeled away from the popular use areas of Bear and Sprague Lakes and encouraged to explore the less-populated areas of Glacier Creek Basin." The plan also called for an expanded shuttle system that "would originate with a primary staging area of the west side of Estes Park and connect with a secondary shuttle staging areas within park boundaries." The new bus system would "stop frequently along Bear Lake road, allowing passengers to disembark and move throughout the Park on a more individual

[115] "Rocky Mountain National Park Transportation Study, Summary Report" (Parsons, Brinckerhoff, Quade and Douglas, Denver, 2000), Figure 1-3.
[116] *Estes Park Trail*, June 19, 1981.
[117] *Estes Park Trail*, December 5, 1979.

basis than is currently practiced." A less popular alternative—the concentrated use proposal—called for the funneling of visitors toward Bear and Sprague Lakes in the hopes of lightening the burden on other locales across the park. [118]

After further study, the NPS decided upon a mixed approach to the problem of congestion along the Bear Lake corridor. Rather than limiting the total number of persons who could visit the locale on a given day, as some had argued for, the NPS instead sought to "design areas to withstand large numbers of visitors" and to encourage visitors to use areas that were less popular.[119] Accordingly, the plan called for a shuttle to make stops at the Park headquarters, Moraine Park Visitor Center, Tuxedo Park, Hallowell Park, the Glacier Basin Shuttle area, and three other stops along the Bear Lake Road before ending at Bear Lake.[120] In all, the new, expanded transportation system was to cost an more than 3.5 million dollars, including $552,000 for the construction of a new staging area at the Beaver Meadows entrance, and shelters and benches along the route.[121]

The NPS also proposed construction of an additional five hundred parking spaces at the primary shuttle area, an expansion from 5 to 30 spaces at the Tuxedo Park area, 45 to 100 spaces at Sprague Lake, and an expansion from 10 to 20 spots at the Bierstadt Trailhead. Meanwhile, the number of parking spots at Bear Lake was reduced from 200 to 150, and the number of turnouts between Moraine Park and Bear

[118] Ibid.
[119] *Estes Park Trail*, February 5, 1982.
[120] Ibid.
[121] Ibid.

Lake reduced from 133 to 100.[122] Although the plan represented a massive 540 net gain in parking, the vast majority of those spaces were to be built at the very margins of the park. Inside the park, and revealing the thrust of the dispersed use plan, the park essentially re-allocated parking away from Bear Lake toward less popular destinations, and reduced the number of turnouts along the corridor by about 25%.[123]

Although not a perfect solution to overcrowding, congested roads, and taxed ecosystems, public transportation has reduced the number of automobiles traveling the Bear Lake corridor. Between 1987 and 2006, for example, a total of 3,661,942 people rode the Bear Lake Loop, while 342,233 rode the Moraine Park loop. If park studies on passengers per car holds true at about four persons per car, the shuttle system had reduced the number of cars on the road over the past twenty years in the neighborhood of one million.

Although the NPS has taken more steps since 1978 to address in a more sustainable way matters of traffic and congestion across the park, scientific study continue to indicate that roads and automobiles have served, and continue to serve, as active and significant mechanisms of environmental change. For example, during the 2003 and 2004 seasons, Barbara Keller and Louis Bender, two researchers from the New Mexico Cooperative Fish and Wildlife Research Unit, studied the impact of traffic upon one of RMNP's most iconic animals—bighorn sheep. Rocky Mountain National Park is home to four bands of bighorn sheep, one of which lives in the area around the mineral lick at the Sheep Lakes. Hoping to "interpret relations among

[122] Ibid.
[123] Ibid.

bighorn sheep crossing behavior and the degree of disturbance at Sheep lakes," the team conducted traffic counts and gathered statistical data on how many times the sheep tried and failed to cross the road in their attempts to access the mineral lick.[124]

The location of the study was important for two reasons. First, the mineral lick at Sheep Lake is segregated from the bighorn's natural habitat by Fall River Road, which "receives heavy recreational traffic use during the summer months, and an interpretive kiosk and parking lot located adjacent to Sheep Lakes may create additional disturbance for bighorn sheep attempting to use Sheep Lakes."[125] Sheep Lake and its mineral lick are also significant in that "Rocky Mountain bighorn sheep, especially pregnant or lactating ewes, seek out mineral licks from early to late summer to help balance the metabolic costs associated with lactation and/or replenish bone mineral reserves."[126] In other words, bighorn sheep have a physiological need for what the Sheep Lake provides, but must cross a busy park road to access it.

Making matters more complicated, ample evidence exists demonstrating that bighorn sheep are "particularly sensitive to disturbance and frequently avoid areas of high disturbance, including road corridors, water sources, and mineral licks."[127] Given the situation, the researchers were concerned that "high levels of disturbance-induced stress can cause physiological reactions in bighorn sheep in addition to

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[124] Barbara J. Keller, Louis Bender, "Influence of Traffic and Road-related Disturbance on Rocky Mountain Bighorn Sheep (*Ovis Canadensis Canadensis*) use of the Sheep Lakes Mineral Site" (USGS, New Mexico Cooperative Fish and Wildlife Research Unit, Las Cruces, New Mexico, March 2004), 2-3.
[125] Ibid.
[126] Ibid.
[127] Ibid., 4.

behavioral reactions; physiological reactions include increase heart rate, depleted energy reserves, adrenal gland enlargement, and increased susceptibility to disease."[128] Upon the conclusion of their study, the team found "that human and road-related disturbance at Sheep Lakes is negatively affecting bighorn sheep use of the mineral site. Because use of Sheep Lakes may be important for bighorn sheep, especially for lamb production and survival, the negative influences of disturbance at the site may comprise health and productivity of the Mummy Range band of bighorn sheep."[129]

Conclusion

As nearly all park histories point out, Mission 66 was a massive rebuilding program engineered to at once meet postwar demand and reassert the importance of parks and the NPS in the hearts and minds of Americans. Although this interpretation is correct, it fails to address the deeper questions of how, if at all, Mission 66 reflects a major transformation in how tourists experienced national parks. Driven in large part by the democratization of tourism in the postwar era, Mission 66 was predicated on the idea that the only way to save the park system was to facilitate greater use. To Director Wirth, who was perennially concerned with budget appropriations, high visitation provided the best means to sustain a high level of public, and thereby political, support. This philosophy greatly impacted the more specific Mission 66 program in Rocky Mountain National Park. To Superintendent James Lloyd, the most

[128] Ibid.
[129] Ibid., 2.

practical way to sustain maximum travel without greatly harming the park's natural beauty was to make it primarily a "day-use" park. Together, these two concepts—maximum visitation and day-use—greatly reshaped the character of RMNP. Whether one looks at the building of roads and picnic spots, the use of interpretive signs and visitor centers, or the elimination of private holdings within the park, it is clear that Mission 66 worked to recast the park experience, making it at once less personal and more expedient.

The growth of annual visitation, something the NPS planned and hoped for, continued to pose problems in the decades following Mission 66. Unlike previous management eras, however the NPS faced a much different political and social geography during and after Mission 66 than it had in previous decades. The need to accommodate evermore visitors has persisted, but the NPS has found it increasingly difficult to simply expand infrastructure to meet those demands. At the heart of this difficulty lay mounting evidence that the previous management approach to moving people through the park was destabilizing and, in some cases, destroying the very resources the NPS sought to protect. Coincidentally, fundamental shifts in how Americans understood the natural world were also well underway that further complicated Wirth's approach to park management. The co-evolution of these two trends meant that the NPS had to seek options beyond infrastructure expansion to accommodate tourists.

According to a transportation study conducted in 2000, the park currently receives more than three million visitors per year, with growth rates of 33% expected

during the summer months by 2020. Even more ominous, as year round recreation in and around the park continues to gain popularity the study predicted a growth in overall park visitation of some 45% by 2020. In raw numbers, that equates to 4.9 million annual visitors by that year.[130] Although RMNP has undertaken several expensive projects to ameliorate the impact of high traffic volume upon the park itself, growing visitation will continue to pose management problems in the future. For generations, the NPS built national parks to attract the driving public in order to bolster visitation and ensure the future survival of their agency and the lands they administered. In RMNP at least, this strategy has worked exactly as hoped. However, the mantra of continued growth has created a catch-22 as much of the plant and animal life protected within the national park was negatively impacted through the complex management mechanisms put in place to protect it.

[130] "Rocky Mountain National Park Transportation Study," 1.

Chapter Four
Fishing for Tourists

Introduction

Wicker creels bursting at the seams, stringers of fish pulled taut between the proud hands of an angler, trout ordered by size and laid thoughtfully upon the summer's green grass: these are all images that were part and parcel of the fishing heritage of early Colorado. Such scenes were memorialized in photos and tucked away in shoe boxes and photo albums, later to provide entertainment and reflection on a winter day too cold to fish.[1]

Beyond the obvious story of a successful day with rod in hand, these images also tell a deeper, and perhaps more significant story. The image above, featuring at

[1] The author wishes to express his sincere thanks to fisheries biologist Chris Kennedy for generously sharing his private research collection and expertise on the fish of Colorado.

least 16 individual trout, tells us something about the relationship between a fisherman and his quarry. The photo, we must remember, was staged. We can assume first that this day was an exceptionally successful one. We also can at least infer that simply catching the fish was not enough. The fisherman was compelled to keep some or perhaps all of the fish he (or she) caught, and memorialize them in this photo.

This photo also speaks to an ecological revolution playing out in the state's waters well before the turn of the century. Due to the fact that the picture is not in color, it is difficult to ascertain with much certainty the type of trout spilling from the creel. Although it is possible that they are rainbow trout (*Salmo mykiss*), a fish introduced first from the waters of California, they may also be greenback cutthroat (*Oncorhynchus clarki stomias*) or Colorado River cutthroat (*Oncorhynchus clarki pleuriticus*). What is fairly certain, however, is that the fish perched atop the wicker basket—the one above all others—is an eastern brook trout (*Salvelinus fontinalis*). The spot pattern on the fish's side and the white tipped fin on his underside tell us as much. And as the name implies, the brook trout is no native of Colorado.

Historians have paid increasing attention to the development and management of aquatic resources. The literature regarding waters that hold (or held) robust populations of palatable species have received by far the most attention from scholars, and for good reason. The human appetite for salmon, sardines, anchovies, crab, oysters, lobster, and other water-dwelling creatures has played an important role in the development of coastal and inland communities, spurred the growth and maturation of industrial fishing techniques, fostered the establishment of laws,

regulations, and governing bodies to manage such resources, and oftentimes led to the decimation of the resource itself.

A good deal of the scholarship pertaining to fisheries views them as a type of "commons." The term, which received a great deal of attention following the 1968 publication of Garrett Hardin's essay entitled "The Tragedy of the Commons," is often used as short-hand to refer to a situation in which a resource is shared by many users, and owned by none. According to Hardin's essay, under such circumstances there is no mechanism to mediate the individual's tendency to maximize the resource because the costs of resource exploitation are not paid by the individual user, but are distributed to the group of users. In situations where a commons exists, Hardin argued, "[r]uin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons."[2]

One of the most useful and insightful applications of Hardin's delineation of the concept came with the 1986 publication of Arthur McEvoy's *The Fisherman's Problem: Ecology and Law in the California Fisheries 1850-1980*.[3] Although McEvoy is quick to distance his work from the simple mechanistic process laid forth in Hardin's essay, the end result of California fisheries management is essentially the same—the once plentiful salmon, anchovy, and other fishes become less and less so. Although the narrative trajectory follows Hardin's tragedy model, the processes

[2] Garrett Hardin, "Tragedy of the Commons," *Science* 162, no. 3859 (December 1968): 1244.
[3] Arthur F. McEvoy, *The Fisherman's Problem: Ecology and Law in the California Fisheries 1850-1980* (Cambridge: Cambridge University Press, 1986).

through which the fishery was degraded differs in significant ways from Hardin's pastoral example.

More than a simple moral tale in which resource users unabashedly pursued their own pecuniary interest (though that theme does run throughout the work), McEvoy demonstrates that the causes for the fishery's decline are much more complex. At the core of the process lay the interactions between regulations and regulatory agencies, technological development, scientific understanding, the biology of the fish themselves, as well as the ecosystems of which they are a part. Although McEvoy demonstrates a range of factors contributing to the decline of the fisheries, the most significant was the development of industrial harvesting techniques and the growth of ever-widening markets for the ocean's bounty. Regulation intended to protect the resource from the ravages of rapid industrial development did come about, but infighting and organizational self-interest hamstrung such efforts until the resource was of almost no value. Only once the resource was significantly depleted and relatively little at stake was this "commons" more intently regulated.[4]

Also interested in the history of aquatic resource management is Joseph Taylor.[5] Whereas McEvoy was primarily interested in the development of regulation on the high seas, Taylor's *Making Salmon: An Environmental History of the*

[4] Another example of viewing fisheries resources as a type of commons can be found in Emily Young, "State Intervention and Abuse of the Commons: Fisheries Development in Baja California Sur, Mexico," *Annals of the Association of American Geographers* 91, no. 2 (June, 2001): 283-306.

[5] Although Taylor is less interested conceptually in the idea of a commons, he agrees that the model is "salient" in the case of Northwest fisheries development, but argues that viewing rivers as commons assumes that all people had access to the resource, which they did not. Joseph Taylor III, *Making Salmon: An Environmental History of the Northwest Fisheries Crisis* (Seattle: University of Washington Press, 1999), 11.

Northwest Fisheries Crisis takes more interest in the management and mismanagement of salmon in the rivers of the Pacific Northwest. The stated aim of Taylor's book is to demonstrate that the "history of the salmon crisis is far more complicated than most stories admit," and to show that "the preferred political and technological strategies have perpetuated, rather than resolved, problems."[6] Taylor also demonstrates that the sometimes precipitous declining salmon runs do not amount to events, but rather are the culmination of long, contested, and complicated processes that entail ecological, institutional, cultural, and economic components.

Setting Taylor's work apart from McEvoy's is his interest in fish culture as a tool employed to allow uninhibited resource harvest while attempting to mediate the environmental costs. According to Taylor, this approach to the fisheries problem in the Pacific Northwest was rooted firmly in the ascendancy of science generally, and fish culture specifically. On this point, Taylor demonstrates the many ways that fish culture—as opposed to more stringent regulation—promised a politically palatable solution to the problem of declining fisheries. In the end, Taylor's work reminds us of the dangers involved in adopting a mechanistic view of nature, and of assuming that expedient political and technological solutions can provide effective management for complex environmental problems.

Reflecting the influences of both Richard White and McEvoy, Taylor urges readers to adopt a bit of the geographer's perspective and understand rivers as spaces

[6] Ibid., 5.

with specific—and often contested—social meaning.[7] Understanding rivers thus, argues Taylor, "helps us to envision complex cultural and material relationships people have developed toward salmon and salmon environments."[8] More specifically, Taylor demonstrates—much as White does through his *Organic Machine* and McEvoy does through *The Fishermen's Problem*—that race, ethnicity, and economic culture are all factors that significantly shape how resource users define themselves in relationship to the resource, and how they come to define what constitutes proper resource use.

Scholars like McEvoy, Taylor, White and many others have done a great deal to deepen our understanding of the historical development of fisheries resources in the United States. Perhaps more than anything else, their work sheds valuable light upon the development of industrial resource extraction, and the political and technological attempts to ameliorate the effects of that development. So what, if anything, can be added to our body of knowledge about fisheries management by investigating the waters in and around Rocky Mountain National Park?

Much of the value to be found in the study of national parks stems from the fact that their creation reflects a process through which a particular place is given unique social meaning. Regardless of the particular reasons a park is founded—and

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[7] Richard White, *The Organic Machine: The Remaking of the Columbia River* (New York: Hill and Wang, 1995). White is especially interested in investigating the ways in which "human work was socially organized and given social meaning," along the banks of the Columbia River. As is the case in Taylor's work, White's depiction of the Columbia River is one often characterized by intense disputes over who should gain access to the river's productions, and how they should be accessed.

[8] Taylor, *Making Salmon*, 11.

they are as many as there are parks—every western national park was created at least in part to exclude the widespread industrial development of the resources that lie therein. The very act of creating a national park delineates in specific detail what sort of activities are welcomed within that space and which are not. The general exclusion of activities such as mining, timber cutting, hunting, and commercial fishing within parks provides historians with an opportunity to investigate those aspects of resource use not tied to commercial resource extraction. In this sense, parks represent a sort of laboratory where the number of historical variables are controlled through the creation of the park itself.

From an ecological point of view, the story of fisheries management in and around what would become RMNP is one of decline and degradation. What sets it apart from those studies previously mentioned, however, is the fact that even before that establishment of the park—and certainly afterward—widespread commercial exploitation of the fisheries resources did not exist. Yet, native fish were driven to the brink of extinction, and the structure and function of aquatic communities were greatly altered. But if the cause of such transformations was not predominantly a function of commercial fishing, dam building, or agriculture as is often the case, to what do we attribute this environmental change? The answer—though complicated—stems primarily from the development of tourism in Colorado and its ability to greatly alter those landscapes where it predominates.

Well before the dawn of the twentieth century, local and regional boosters, railroad companies, and eventually the National Park Service all advertised and

promised great trout fishing along the Front Range and in the Rocky Mountains. In relatively short order the advertising campaign showed signs of success as evermore fishermen plied Colorado waters. As more people traveled to Colorado to fish, concern over diminishing angler success grew, prompting many to look for solutions. Not willing or able to strictly regulate daily catches, but still hoping to continue growing tourism across the state, the state of Colorado, Estes Park residents, and the National Park Service turned almost exclusively toward technical solutions to fisheries decline that contained significant social, political, and economic components.

Their embrace of science was understandable. Fish culture, which had been growing in popularity and prestige in the second half of the nineteenth century, offered an appealing solution. If interested parties could hatch and rear a high volume of fish annually, rivers, streams, and lakes would teem with fish and continue to draw hopeful fishermen. To those involved in the early history of fisheries management in and around RMNP the problem was a simple one of supply and demand. Understanding the situation thus, a range of organizations and agencies planted billions of nonnative species attractive to fishermen including the rainbow trout, brown trout (*Salmo trutta*), and brook trout.

The embrace of science in growing fish for "stocking" or "planting"—terms that reveal much about how managers viewed fish—created as many problems as it did solutions, though contemporaries did not yet have the scientific understanding to realize it at the time. More than planting fish that were easy to rear and ones that

anglers prized, managers unknowingly stocked fish that held a variety of competitive advantages over the native greenback cutthroat trout. Within a few decades, the once plentiful greenback was losing ground in the streams and lakes across the state as brook trout and others became more common.

Oncorhynchus clarki stomias

An estimated 100 million years ago the predecessor of the cutthroat began developing into the family Salmonidae. Some 40 million years ago during the Eocene that family diverged into three subfamilies including "Coregoninai (whitefishes), Thymillinae (graylings), and Salmoninae (trouts, salmon, and chars.)"[9] These three subfamilies continued to evolve through climate and geologic transformations, resulting in part in the modern day cutthroat trout, which is comprised of eleven subspecies.[10] According to prevailing scientific theory, the evolution of cutthroat subspecies was largely a function of isolated populations of cutthroat inhabiting distinct aquatic environments

The present-day state of Colorado encompasses a vast range of cutthroat habitat and was home to at least four different native cutthroat subspecies, including the Colorado River, the now extinct yellowfin (*Salmo clarki macdonaldi*), Rio Grande (*Salmo clarki virginalis*), and the greenback. Each of these fish, having evolved in different environments, vary in color, size, average number of gill rakers,

[9] Patrick C. Trotter, *Cutthroat: Native Trout of the West* (Boulder: Colorado Associated Press, 1987), 21.
[10] Ibid., 17. See also chapter 2, "Cutthroat Evolution and Prehistoric Distribution."

pyloric caeca (fingerlike appendages of the intestine), and scale counts. Of the four cutthroats listed above, the greenback alone lurked in the eddies and ripples of the South Platte and Arkansas River headwaters, including the waters of what is now RMNP.[11]

Although casual observation may not reveal it, trout are a territorial animal. According to fisheries biologists the social unit of trout is a "hierarchy with infrequent subordinate revolt," meaning that the most dominant fish gains access to that portion of a stream that is food rich, while less dominant ones vie for control of less productive sections. On occasion, subordinate fish take part in "agonistic behavior" that is intended to root a high-ranking fish from its position. This behavior generally falls into two categories, and seems to be understood by trout regardless of subspecies. In some cases, the upstart fish will employ a "frontal threat display," which entails approaching an adversary from the front, with "dorsal fin flat, all other fins fully extended, mouth opened, and the bottom of the mouth pushed downward."[12] In other cases, a fish might rely upon a "lateral threat display," in which it exposes its side, "stretches out its body and assumes a rigid pose…with all fins, including the dorsal, fully extended."[13] Of the two tactics, scientists believe that the frontal display is the more aggressive of the two, as it "more often than not ends in an attack the threatening fish moving in to nip or chase its opponent."[14] The reward for successful posturing and chasing is access to the foods greenbacks prefer, including adult

[11] "Greenback Trout Recovery Plan" (Denver: U.S. Fish and Wildlife Service, 1998), 1.
[12] Trotter, 11-12.
[13] Ibid., 12.
[14] Ibid.

Hymenoptera (ants, bees, and wasps) and Diptera (flies), and other terrestrial and aquatic invertebrates like stone and caddis flies.[15]

In most cases, greenbacks spawn in the spring when water temperatures reach 5-8C. Since greenback spawning is tied directly to water temperature, and since so much of their historic range within Colorado Rockies includes both high and mid-elevation waters, spawning times vary widely according to location. In warm lower waters, for example, greenback populations may spawn as early as April, while others do not spawn until mid-July.[16] As the fish begin sensing the coming of the spawn, male fish jockey for breeding position, (well before the actual arrival of females), near those places where females tend to spawn. As the adult breeding male fish fight for access to the spawning location, the female fish turn onto their sides over gravel and sand and flutter in place to prepare the spawning bed (called a redd) with their tails. Once the redd is in order, "through some mechanism of male supremacy and female decision, one dominant male will move in alongside the female over the redd."[17] At this time, the fish partake in a "dramatic dance in unison" as the female releases her eggs and the male his milt (sperm). Following this remarkable display, the female covers the eggs and often remains in place, guarding her redd from other fish for several days.[18]

Following successful fertilization and hatching, the lifecycle of the greenback begins anew, with the smallest fish working day and night to become larger, more

[15] *Trout Recovery Plan*, 11.
[16] Ibid., 10.
[17] Robert Behnke, *Trout and Salmon of North America* (New York: The Free Press, 2002), 4.
[18] Ibid.

dominant ones. Depending on water conditions, within a couple of years greenbacks reach sexual maturity, and the process begins again. Unlike other subspecies of cutthroat, the greenbacks do not attain a large size, with one and two pound fish common.[19] The life cycle of the greenback played out year after year for millennia prior to the arrival of white Americans.

Angling for Anglers

As early as the 1860s, writers in a variety of publications recognized and amplified the great fishing to be found in the present-day state of Colorado. Their words offer an entertaining blend of fact and boosterism so common in frontier writing of the 19th century. Eager to draw settlers in their bid for statehood, newspapers often ran stories that spoke of the unlimited natural bounty the territory offered. In addition to lauding the great agricultural or mineral opportunities of the state-to-be—both of which played upon the hopes and anxieties of an American populace interested in fee-simple titles and throbbing veins of gold—such papers also tapped into the roots of the nascent tourist industry. Take, for example, an article in the *Rocky Mountain News* penned in 1868. According to the author, "[t]routing was never better than at present, it being an easy task to take with a hook, from thirty to fifty pounds a day from almost any stream in this neighborhood. The fish are also especially large and fat, varying from three quarters of a pound to three pounds

[19] Trotter, 165.

each."[20] Just two years prior to the state's founding, another writer claimed to have wandered throughout the Rocky Mountains where he had "never seen such an abundance of fine trout in any of the mountain streams, as in the Grand river and its branches." In some locations, the author boasted, like Troublesome Creek, "one could catch with a hook two hundred to three hundred pounds of fine trout in a single day."[21]

Word of such wonderful catches spread quickly, and soon those with the means and desire to fish in the territory were making the trip. Fall River, located in present-day Rocky Mountain National Park, was an especially popular destination. According to one eye-witness who visited the region in 1874, "Fall River has its full share of tourists," with an estimated two hundred crossing into Middle Park "so far this season." Beyond great fishing and striking scenery, Estes Park also had the power to impart to "young ladies a golden bloom upon their cheeks" from "a bit of captured sunshine that they can't catch in the east."[22]

Perhaps attracted by stories of great fishing—or thoughts of golden-cheeked ladies blooming in the summer sun—C.F. Orvis (founder of one of the longest-lived producers of fly fishing accoutrements) made the trip to Estes Park in 1875. Although Orvis recalled encountering many tourists along Fall River and in Horseshoe Park, the waters were not yet "fished out." In fact, recounted Orvis, the "trout struck and I landed them so fast that the sport began to be monotonous." He had filled his creel by

[20] *Rocky Mountain News,* August 20, 1868.
[21] *Rocky Mountain News,* February 25, 1874.
[22] *Rocky Mountain News Weekly,* July 22, 1874.

Common scene reflecting bountiful catch.
(Courtesy of the Denver Public Library, circa 1910)

noon. Later, Orvis encountered his companion who had filled a sixteen-pound lard can with his catches and carried an additional "dozen upon a stick."[23]

While fishing tourists gathered streamside in search of the plentiful trout for sport, others were catching fish for other reasons. In Middle Park, for instance, fear that the sucker (likely *Catostomus platyrhynchus*) was sucking up trout eggs during the spawn prompted writers of *Forest and Stream* to boast that the "pest is being rapidly stamped out." To eradicate the unwanted species, the article recounted that fishermen were "seining in the late fall and early spring, when [suckers] congregate in deep holes, and can be scooped out, sometimes by the ton." Ridding the streams of

[23] C. F. Orvis and A. N. Cheney, ed., *Fishing With the Fly: Sketches by Lovers of the Art, With Illustrations of Standard Flies*, (Troy: H.B. Nims, 1885), 145-155.

Colorado of a fish that allegedly threatened the state's valuable population of trout also offered participants the opportunity to make a little extra money. Once removed from the region's lakes and streams, the fish were "marketable in the mining camps at from ten to twenty-five cents per pound." Careful to allay fears that such activity would also result in the capture of trout, the author added that "[s]eining, netting, or trapping trout is prohibited by law, but a trout can seldom be caught when seining for suckers."[24]

Streams teeming with trout were valuable to the state's economy for other reasons as well. The "beautiful speckled trout," wrote the *Rocky Mountain News*, "should be recognized as contributing its share to the welfare of the state, not only in drawing the Eastern sportsman hither, but for its love for the country's pest," the grasshopper. Trout, argued the *Rocky Mountain News*, ate a substantial number of grasshoppers each year, and thereby contributed to the health of the state's farming sector. Accordingly, the paper was most alarmed that "hundreds of thousands of trout have been sold in the Denver market alone, during this year, bringing but a few hundred dollars at most to the fishermen, and removing 'hospitable graves' from millions of grasshoppers to come." Turning to Eastern states that enjoyed a longer angling tradition, the paper advised Colorado to look to their experiences of rapid fish depopulation as a warning of things to come in the state.[25]

[24] W. N. B., *Forest and Stream* 10, no. 25, July 1878, 33-34.
[25] *Rocky Mountain News*, December 6, 1876.

Although fishing clubs in northeastern states had already showed signs of moving away from fishing practices firmly rooted in the capture and retention of as many fish as possible, nothing of the kind yet existed in Colorado.[26] Rather, well into the twentieth century a fishermen's success or failure on a given day was often judged entirely by the number and size of fish he caught. Encouraging, reinforcing, and reflecting this tradition, some resorts in and around Estes Park offered prizes to patrons for catching the most fish. During the summer of 1882, for example, Sprague's Ranch held a competition for most fish caught in a single day. One man reportedly caught 160 trout, while the winner of the contest, Rev. George L. Spinning of Cleveland, Ohio, won by catching 197 trout. For his efforts, Reverend Spinning returned to Cleveland with the assurance that he was indeed a great fisherman as well as with a "leather medal, beautifully painted and artistically designed by Miss Crissie of St. Louis."[27]

By one estimate, during the summer season as many as one thousand trout were removed daily from Fall River, the Big Thompson, and other waters around Estes Park. Given that catches of forty or fifty fish a day were commonly reported (and depicted), and given that several accounts exist that mention that there were "many people scattered through the park" and that "camps are to be found on all the trout streams," a loss of a thousand fish per day does not seem an entirely inflated

[26] William Washabaugh and Catherine Washabaugh, *Deep Trout: Angling in American Popular Culture* (New York: Berg, 2000). See especially chapter 5, "Gentlemen Prefer Trout."
[27] *Rocky Mountain News*, August 27, 1882.

number.[28] Such high catch rates led many to fear that the waters in the region would soon be "fished out," and thus compel the traveling angler to seek more pristine waters to practice his art. To prevent the depletion of the state's fish stock and the loss of tourist revenue, the state and several local individuals looked to the artificial propagation of fish as the answer.

Colonizing Colorado's Waters

The development of artificial fish propagation in Colorado was part of a broader national embrace of fish culture during the same period. According to Joseph Taylor, the development of fish culture in the United States came "in response to declining fisheries in the eastern United States," where industrialization and agriculture "had driven many Atlantic salmon and shad runs into sharp decline or extinction during the late eighteenth and early nineteenth centuries."[29] Responding to a declining resource base, those with the means and motivation to get involved turned to the creation of more fish as the answer.[30]

Lacking the scientific knowledge and the capital required to make artificial propagation successful, interested parties pushed for the creation of a government agency to spearhead the movement. In response, Congress established the United States Commission on Fish and Fisheries (USFC) in 1871, and "the federal government assumed a more visible policy-making position" in the realm of fisheries

[28] Frank S. Byers, *Sports Afield* 3, no. 3, August 1889, 282.
[29] Taylor, 69.
[30] Ibid.

management.[31] Although the USFC was originally created to conduct scientific research on fisheries issues, it struggled mightily through its first years. Spencer Baird, its first director, desperate to secure a future for his fledgling organization, embraced technology generally and fish culture specifically in his bid to protect fisheries and promote his organization. As Taylor demonstrates, the tactic worked well in making the USFC the leading force in promoting fish culture.[32]

To establish further the USFC as a valuable tool in the struggle to restore failing fish stocks, Baird hired Livingstone Stone as assistant commissioner to oversee operations on the Pacific Coast.[33] For his part, Stone was an active proponent of fish culture, and a "leading authority on salmon propagation."[34] In addition to Stone, the USFC hired others who also embraced fish culture—as opposed to more stringent regulation—as the key to fisheries restoration and management. James Milner, who was hired to investigate the failing Great Lakes fisheries in 1871 and 1872, was also a proponent of fish culture. In relatively short order, the rank and file of the USFC had come to fully support fish rearing and stocking as the most practical, efficient, and expedient means to "fix" failing fisheries around the country. [35]

In response to fears that Colorado would soon lose its valuable reputation as a fisherman's paradise, the state also embraced the solutions proffered by the USFC

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[31] Margaret Beattie Bogue, "To Save the Fish: Canada, the United States, the Great Lakes, and the Joint Commission of 1892," *Journal of American History* 79, no. 4 (March 1993), 1439.
[32] Taylor, 75.
[33] Ibid., 76.
[34] Ibid., 77.
[35] Ibid. It is worth noting that while the US turned increasingly toward fish culture to address the problem of over fishing, Canada was more willing to embrace more stringent regulation.

and initiated a program of artificial fish propagation (stocking) in 1871. Over the course of more than one hundred years, the state and other entities would stock the waters of Colorado with billions of fish, a large percentage of which were non-native species. While a modern-day environmentalist may cringe at the thought of a government agency dedicated almost wholly to the introduction of non-native species, contemporaries saw things much differently. Lacking anything like the "ecological awareness" we have today, those who stocked the waters of Colorado saw themselves as taking an active part in improving the state's waters through the application of science and expertise. More trout, of whatever variety, meant more excitement with rod and reel, and that translated nicely into more tourists.

Pumping trout into the state's waters required science, money, and expertise—all of which the newly formed state was acquiring by the 1880s. In his Biennial Report to the State, Colorado Fish Commissioner Wilson Sisty assured readers in 1880 that although "there was a time when the successful propagation of fish, by artificial means, for the purpose of re-stocking depopulated waters, or waters that never contained fish, was questionable," that time had passed. Using state-of-the-art techniques, the time was ripe for the "Centennial State…[to] take advantage of and profit by the practical and successful results laid before her by do many fish-farming States.[36] To achieve the desired results, the state required a "hatching house" and a

[36] Wilson Sisty, "Biennial Report of the Fish Commissioner of the State of Colorado for the Two Years 1879-80" (Denver: Tribune Publishing Company, 1880), 34.

supply of eggs, which were to be procured from "the East and West in large quantities" in order to "plant the young fish throughout the waters of the State."[37]

In a few short years, Sisty's vision became a reality with the construction of the state's first hatchery in 1881. By 1886 the ten-year-old state implemented a stocking policy that lasted for decades to come. According to Fish Commissioner John Pierce, the state gave preference to distributing young trout to "streams which were in the vicinity of the leading places of resort." Of special importance in such efforts was Estes Park, which was "situated on the head waters of both the St. Vrain and Big Thompson" and was the "best point from which to stock both these magnificent streams." According to the Commissioner's recommendations, "Fifty thousand young trout ought to go into this park every year." Revealing the economic calculus behind the stocking policy, Piece stated that "even if every fish planted at such points as these is caught each year, it will pay the State to keep on putting them in."[38]

News of great fishing continued to spread through the 1880s and evermore fishermen headed to Colorado to investigate. A *Sports Afield* article entitled "Trout Fishing in Estes Park" contended that no "point within easy reach from Denver offers greater inducements to the fisherman than Estes Park." Here, claimed the author, trout "seemed to be everywhere and of all sizes." More than puffing the region's angling, *Sports Afield* also unknowingly spoke to the ecological revolution taking place in the

[37] Sisty, 34.
[38] John Pierce, "Report of the State Fish Commissioner of Colorado for 1886" (Denver: The Collier and Cleveland Lithographic Company, 1886), 5. Colorado also benefited from the construction of a federal fish hatchery in 1889.

waters around Estes Park. As late as the 1870s a fisherman in Fall River or Horseshoe Park would expect to catch only greenback cutthroat, called "natives" by contemporaries, or the red-horse sucker, a bottom feeding "trash fish" also native to the region. By the 1890s, however, *Sports Afield* reported that fishermen visiting the region could expect to catch "the mountain trout" and "his Eastern cousin," which sported "red spots and pugnacity that go with them." This pugnacious fish with red spots was the brook trout—a nonnative species that government agencies eager to keep catches high and tourism strong introduced into Western waters.[39] In the same *Sports Afield* article, the writer referred to interspecies competition for food raging in waters where both brook and native lived, stating that the brook trout was "present to contest with the native for possession of the fictitious food that trailed behind the treacherous and almost invisible snell."[40] Although the writer is referring to competition for an artificial lure, it would take no great leap of the imagination to conclude that the two species were competing for all food types. And indeed they were.

While no one at the time was aware, the brook trout holds several biological advantages over greenbacks. Whereas greenbacks spawn in the spring and early summer, brook trout spawn in the fall. In turn, this means that "young-of-the-year" (YOY) brook trout have already hatched and begun growing well before most greenbacks even emerge from the ova. For trout, especially those inhabiting streams and rivers, a fish's size is directly tied to its ability to inhabit those portions of the

[39] E.B. Gorton, "Trout Fishing in Estes Park," *Sports Afield* 9, no. 1, June 1892, 33-34.
[40] Ibid.

water column where food is the most plentiful and the caloric expenditure of maintaining that position minimal. Due to the differentiation in spawning times, more YOY brook trout are able to occupy more advantageous stream positions. Underwater observation and analysis conducted in RMNP's Hidden Valley Creek, for example, found that in those instances where greenback inhabited an overlapping section of stream with brook trout (in sympatry), greenbacks held stream positions with higher focal point velocities, meaning that the current at their snouts exerted more force. They also found that in sympatry with brook trout greenback juveniles occupied positions further from cover. In the absence of brook trout (called allopatry), however, greenback juveniles were able to move to stream locations with lower focal point velocities closer to cover.[41] The higher focal point positions assumed by YOY greenback mean that they are forced to exert more energy—i.e. burn more calories—in order to feed themselves. This disadvantage, in turn, results in "decreased growth and lower overwinter survival for YOY cutthroat trout."[42] This process, played out year after year, pushed greenback cutthroats to the very margins of existence.

Unaware and unconcerned with the displacement of native fish by non-natives, Fish Commissioner J.S. Swan confidently claimed in 1898 that as "a result of the restocking of the clear streams of the state, most of such streams are now well supplied with trout, and Colorado in consequence has lost nothing of its reputation as being the country of beautiful streams from which the expert with the rod, line and fly

[41] Timothy R. Cummings, "Brook Trout Competition With Greenback Cutthroat Trout in Hidden Valley Creek Colorado," (Master's Thesis, Colorado State University, 1987), iix.
[42] Ibid, ix.

is always rewarded with a good string of the speckled beauties." There were exceptions, however. The "beautiful White and Bear rivers, in Rio Blanco and Routt counties, and some of the tributaries to the head waters of the Grand River" had once been "the finest fishing streams in the state," but three decades of unregulated fishing had "depleted them to a large extent." Also to blame in diminishing the quality of these fisheries was the distance they lay from railroads and the overall "difficulty in successfully transporting fry to replenish them."[43]

The state was not alone in its efforts to maintain quality fisheries across the state. Several railroad lines that operated in Colorado also participated in the stocking program. Like state officials, the railroads recognized that it was in their business interest to promote and protect the growing reputation of Colorado as a great "trouting" destination. According to Fish Commissioner J.S. Swan, railroads transported young fish throughout the state free of charge.[44] In 1905 alone, *Outdoor Life* estimated that some 3,000,000 more trout had "been planted in streams along the Denver & Rio Grande railroad this year than [were] planted in 1903." According to railroad officials, "The Denver & Rio Grande [was] doing all in its power to keep the streams and lakes along its line well stocked with trout." Their stocking efforts, which grew annually, gave the Denver & Rio Grande spokesmen confidence that there was no cause to worry that the supply of "fish in the state was decreasing."[45]

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[43] J.S. Swan, "Biennial Report of the State Forest, Game and Fish Commissioner of the State of Colorado for the Years 1897 and 1898" (Denver: Smith-Brooks Printing Company, 1898), 25.
[44] Ibid., 33.
[45] *Outdoor Life*, January 1905, 88. Chris Kennedy collection.

Also concerned with the negative consequences of over-fishing on the region's economy, a group of Estes Park citizens drew together under the banner of the Estes Park Protective and Improvement Association (EPPIA) in 1895. It is no accident that among the organization's founders were Estes Park residents whose livelihood was based upon tourist revenue, including local resort owner and newly elected EPPIA president Abner Sprague. In the broadest terms, the organization was dedicated to preventing the "destruction of the fish in the rivers of the Park, the illegal killing of game, and the destruction of the timber by camp fires." Responding to what they perceived as a "mania among parties, to catch the greatest number of trout" in a single day, the EPPIA sought to implore fishermen to leave the smaller fish in the streams so that they might grow large enough to use for food.[46]

As was the case with the USFC and the state of Colorado, Estes Park residents understood the fisheries problem largely as one of limited supply. The key to drawing a steady stream of fishermen toward the budding community lay, at least in part, in ensuring a reliable and robust supply of fish. To accomplish this, the EPPIA contributed to protecting and enhancing the bounty of the waters around Estes Park through the private construction of a private fish hatchery. According to the *Estes Park Trail*, the EPPIA realized that rivers packed with fish "would be one of the greatest advertising features of the Park" and thus began drumming up public support for the idea.[47] Raising money for the endeavor posed a challenge to the small community, but many local businessmen threw their support behind a project that

[46] *Longmont Ledger*, 23 June, 1895.
[47] *Historical Estes Park: Pictorial Edition* (Estes Park: *Estes Park Trail*, 1968), 35.

promised measurable returns. Through a series of dances, bazaars, and vaudeville shows, the EPPIA raised more than nine hundred dollars for the completion of the project, and construction began in 1907.[48]

Estes Park did not rely solely on its own citizens for the completion of the project, however. In a letter penned to the Editor of the *Longmont Ledger*, local hotel man Peter Hondius stated that the original cost of the project had been miscalculated, and more funds were needed. In what reads like a veiled threat to the downstream community of Longmont, Hondius stated that hatching of the first batch of 500,000 trout would begin in July, and in a few short years they would have "the best fishing in Colorado, and the best hatchery also." The streams, claimed Hondius, "will be stocked from our hatchery and many of them will find their way down stream, but the extent of this will depend somewhat of course, on what support and appreciation is manifested from Longmont." It is unclear exactly how Hondius and others planned to keep fish stocked in the Big Thompson from heading downstream to Longmont if they so chose. Perhaps revealing his desperation, Hondius closed his letter by emphatically stating that "A greater Estes Park is also worth much to Longmont. I trust you and Mr. Lester together can get a goodly amount of cash for us. We need it; need lots of it, and need it soon."

Responding to Hondius's pleas, the *Ledger* admonished readers that, although "residents in the Park and Loveland have subscribed as liberally as could be expected…Longmont has yet to subscribe her share." Playing upon the same

[48] *The Mountaineer*, June 11, 1907; *Mountaineer*, August 6, 1907; *Mountaineer*, August 13, 1907; *Mountaineer*, August 27, 1908; *Longmont Ledger*, May 7, 1907.

economic concerns that worked so well in Estes Park, the *Ledger* assured Longmont residents that every "dollar of the fund collected will be wisely and judiciously expended, and all streams in the Park will be open for general fishing." In closing, the paper reminded residents that it was in their best economic interests to "support…a plan so practical and beneficial to this section of the country."[49]

Completed in 1907, the facility was a "model of efficiency" and had the capacity to hatch 500,000 eggs at a time, three times per year. The building and equipment needed for the hatchery cost $3,252, of which $2,640 came in the form of cash donations, while $712 came in the form of time donated. The EPPIA also raised funds and built a "superintendent's cottage" on the site to house the person in charge of maintaining the facility.[50] During its first five years of operation, the Estes Park Hatchery (EPH) stocked rainbow, brook, and cutthroat (likely Colorado River cutthroat and/or Yellowstone cutthroat). Proud of the accomplishments of the local organization, the *Trail* claimed that the EPH was responsible for stocking more than six million fish in the vicinity of Estes Park during its first five years in operation. Although the number paled in comparison to the estimated eight billion the federal government planted nationwide, the addition of millions of fish to the waters promised good fishing for even the novice fisherman.[51]

The *Trail* was also impressed with the fact that the local hatchery had "transported fish from other waters, and even from foreign countries" and introduced

[49] *Longmont Ledger*, May 7, 1907.
[50] *Estes Park Trail*, August 24, 1912.
[51] Ibid.

them to Colorado streams. As was the case with the State of Colorado, the EPH planted a large percentage of non-native trout such as brook, rainbow, and brown. The reasons for doing so were many, and worthy of discussion.[52] On one hand, obtaining "native" eggs or fry was a difficult endeavor. Still lacking hatcheries in Yellowstone and Glacier, both of which would later provide the state of Colorado with Yellowstone cutthroat eggs, the state substituted available trout—like the rainbow, brook, and brown—for greenbacks. It was also more difficult to raise greenbacks in hatcheries than other strains of trout. For instance, the federal fish hatchery in Leadville attempted to hatch and raise greenback cutthroat, but found that they did not "adapt well to captive rearing." Making matters worse, many locals despised the location of the hatchery's spawning traps in the Twin Lakes and used dynamite to remove them.[53] Over time, the availability of other strains of trout combined with the difficulty in rearing greenbacks, resulting in a stocking policy that favored non-native fish over native ones.

But more was at work here than planting available fish. In part, those stocking the waters of Colorado were responding to the wishes of their clientele. A large percentage of those who sojourned in Estes Park came from the northeast, as had been the case with Orvis and his companion. The brook trout that the state introduced to Colorado waters as early as the 1880s (and that the EPH actively stocked) was fish native to northeastern states. The fish was the subject of a body of fly fishing

[52] J.S. Swan, "Biennial Report of the State Forest, Game and Fish Commissioner of the State of Colorado for the Years 1897 and 1898" (Denver: Smith-Brooks Printing Company: 1898), 27.
[53] *Trout Recovery Plan*, 13.

literature that held it in high esteem for its beauty, fighting ability, and willingness to "rise to the fly." The rapid decline of brook trout habitat along the eastern seaboard in the 19th century prompted stocking efforts to replenish the fish across the East.[54] Planting fish Eastern anglers were familiar with and perhaps "missed" into Colorado waters solved two problems at once. Brook trout provided Colorado with a rapidly breeding, easily reared fish, and one that was also familiar and highly prized by the very same anglers the state of Colorado hoped to attract.

Stocking a variety of desirable trout species also enabled those who stood to benefit from the fishing tourist to market their waters as offering a diversity of fishing opportunities. According to the *Trail*,

> the hatchery in Estes Park was built and operated with spring water for the express purpose of pleasing the fishermen who come to the mountains to spend the summer. If they have a preference for a particular variety of the trout they can find it by going to the right location on the stream for it.

If, for instance, a fisherman desired to angle for the much lauded rainbow trout, then "the canon (sic) is where he should spend his time, for there is where the rainbow can be found." The rainbow, which is a native of the West Coast of California and Oregon, was highly prized by fishermen for its tenacity, beauty, and taste. Rainbows, boasted the *Trail*, had been "introduced into our waters through artificial propagation" and were readily available throughout the region. If, however, a person desired to catch a brook trout, which had "been transplanted from the New England

[54] Nick Karas, *Brook Trout: A Thorough Look at North America's Great Native Trout-It's History, Biology, and Angling Possibilities* (Guilford Connecticut: Lyons Press, 1997). See chapters 11-18.

States" to these waters, one would have to head further up the headwaters. Lastly, claimed the *Trail*, if "the fisherman is looking exclusively for the native, he must go still higher up on the streams next to the snow banks for them."[55]

Of course contemporaries knew very little about the population dynamics of the fish they planted, nor did they seem to care. What they sought were waters filled with desirable fish and the reputation that goes with such waters. Phrased differently, they held a different fishing ethos than many do today—one that valued high volume catches of "game fish," regardless of speciation. The state of Colorado and the EPH acted in concert with this ethic. To a populace lacking any real understanding of ecology, fish were fish.

And the stocking policy worked. The first fish planting from the EPH took place in 1907 when 20,000 fish were put into the North Fork of the St. Vrain.[56] The following year the *Trail* once again carried stories of enormous catches. For example, a party consisting of six locals "caught 215 trout during a one day fish." According to the paper, the "fish were photographed in town, so they apparently kept all, or nearly all they caught."[57] Good fishing continued, and by 1912 "good fishermen," claimed the *Trail*, "say that the fishing is better now than before the hatchery was constructed, though there are now ten times as many people in the park."[58] Through the stocking efforts of the EPH, residents could "count on the streams continuing to attract

[55] *Estes Park Trail*, July 6,1912.
[56] *Longmont Ledger*, September 23, 1907.
[57] *The Mountaineer*, June 11, 1908.
[58] *Estes Park Trail*, August 24, 1912.

thousands of tourists as well as give sport to as many of our own people as wish."[59] By 1911 the EPH was hatching and planting more than a half million fish annually, including 488,849 brook trout, 167,811 native trout, and 107,619 rainbow trout that year alone.[60]

Although the Estes Park Protection and Improvement Association had played a leading role in building the EPH and in stocking the area with its fish, the Association decided in April of 1912 to turn control of the facility over to the state. The initial contract was to run for three years, with the expectation that the contract would continue indefinitely. This arrangement allowed members of the EPPIA to devote more effort and attention to the national park movement and strengthen their hatchery's connection to a broader network of state-hatched fish and eggs.[61] Turning control of the hatchery over to the state, however, did not mean that citizens of Estes Park were losing interest in the stocking of the region's waters. The community continued to play an active role in fish propagation, primarily through their efforts to secure "sizing ponds" around Estes Park and through the donation of time and materials to stock the fish raised at the local hatchery.

Fishing for National Parks

Following the excitement of the 1915 creation of RMNP, locals, the NPS, and officials at the state-run hatchery in Estes Park all worked toward improving and

[59] *Longmont Ledger*, September 23, 1907.
[60] James A. Shinn, "Biennial Report of the State Game and Fish Commissioner of the State of Colorado for the Years 1911-12" (Denver: The Smith-Brooks Printing Company, 1912), 26.
[61] Ibid., 18.

expanding the angling opportunities in the newly created park. For two full decades following the park's establishment, the philosophy and aims of fisheries management remained unchanged; tourist interest and revenue remained the primary motivation for stocking, and very few voices of opposition arose to this policy. Through this period, a host of groups and individuals stocked "virgin lakes" and redoubled their efforts to keep the park's waters flush with fish. Although the creation of RMNP did not impact the direction of fisheries management in RMNP, it did add weight, institutional authority, and pressure to expand the current practices. As was the case with the state and the EPPIA, the NPS sought to draw anglers to the park as a means to boost visitation and strengthen the park itself. In this sense, the early policy of RMNP was a complete success.

Rocky Mountain National Park was not alone in its attempts to bolster fish populations to attract fishermen. Yellowstone, which the U.S. Fish Commission had stocked as early as 1889, operated an egg collection station on Yellowstone Lake, which provided eggs and fish for local and regional hatcheries, including the Bozeman hatchery and the Estes Park hatchery.[62] According to historian James Pritchard, Yellowstone's desire to protect and bolster fish populations eventually led to measures to control populations of pelicans in the park, which were thought to have been responsible for consuming large quantities of trout and trout eggs.[63]

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[62] James Pritchard, *Preserving Yellowstone's Natural Conditions: Science and the Perception of Nature* (Lincoln: University of Nebraska Press, 1999), 79; Richard West Sellars, *Preserving Nature in the National Parks: A History* (New Haven: Yale University Press, 1997), 23. Sellars claims that Yellowstone was first stocked in 1881.
[63] Pritchard, *Preserving Yellowstone's Natural Conditions*, 79-83.

Although RMNP never attempted to limit non-human fish predation within its boundaries, they did enthusiastically pursue fish culture and stocking as means to support sport fishing in the park.

Historian Richard West Sellars demonstrates that the tendency to rely upon fish culture within the National Park Service went well beyond Rocky and Yellowstone. According Sellars, the National Park Service "manipulated fish populations" more "extensively than any other wildlife" in its effort to build a reputation for itself.[64] To make his point, Sellars recounts the millions of fish planted in Yellowstone, Glacier, Mount Rainer, and Yosemite and the fact that each of those parks eventually received their own hatcheries.[65] As Sellars aptly demonstrates, however, more was at work here than Park Service attempts to build a stable bureaucratic entity.

In many ways, the stocking program the NPS followed throughout its formative years was a result of the makeup and size of the NPS itself. Between the creation of the NPS in 1916 and 1931—when science and scientific study would develop within the NPS in a more substantive way—the agency was run by men like Horace Albright and Stephen Mather whose primary concern was building a strong and lasting bureaucracy. As a result, a good deal of their efforts were aimed at promotional efforts intended to forge a strong bond between the public and the NPS, and not matters related to science or scientific management. In this sense, early

[64] Sellars, *Preserving Nature in the National Parks*, 80.
[65] Ibid., 80.

directors of the NPS understood stocking as part a larger promotional effort intended grow their fledgling agency.

Additionally, the NPS was especially understaffed during in its early years and thus often turned to other agencies and organizations for help managing its resources. For example, the NPS relied upon the U.S. Biological Survey in its management of fauna within the parks. Not surprisingly, early NPS policies regarding fauna reflected to a remarkable degree the philosophies and practices of those that they partnered with. In the case of the Biological Survey, the NPS accepted both the justifications and methods of predator control that the Biological Survey espoused.

Likewise, the NPS turned toward experts in the realm of fisheries management to provide expertise and fish for parks. According to Sellars, "game and fish commissions in states such as California, Colorado, Washington, and Oregon worked closely with the Park Service in managing fish." Reflecting this tendency to use outside experts to manage NPS fisheries resources, Horace Albright requested in 1929 that experts from the Bureau of Fisheries be retained to supervise fish management within the parks. [66] Allowing experts in the field of "game management" from organizations like the Biological Survey and Bureau of Fisheries to direct the NPS on policy matters had interesting, if unforeseen consequences. In the case of elk and fish management, policy development and implementation often reflected the stated aims and philosophies of more "conservation" oriented organizations, and not those of the NPS.

[66] Ibid., 81.

Following its creation in 1915, RMNP also turned outward for help in managing its fisheries. In time, RMNP relied upon the labor and expertise of the Bureau of Fisheries, the state-run hatchery at Estes, and local conservation organizations. For example, eager to continue pressing the boundaries of fish colonization across the park, the NPS cooperated with the EPPIA in planting more than 170,000 trout in the park's first year of existence.[67] The waters stocked included the headwaters of the Big Thompson River and several lakes that had been stocked previously. In all, the NPS stocked some 45,000 brook trout, 126,000 rainbows, and no cutthroat.[68]

With each passing year the number of fish planted in the park grew. For example, in 1917 the NPS planted some 340,000 brook trout, 30,000 cutthroat (likely Colorado River cutthroat). [69] By 1918, the Superintendent of RMNP estimated that an impressive 1.35 million fish had been stocked since the park's creation just three years previous.[70] As stocking proceeded apace, however, growing concern arose regarding the common practice of stocking streams and lakes with undersized fry. Without proper facilities to rear fish beyond the initial stages of growth, the fry were often eaten by larger fish immediately upon stocking. Not surprisingly, NPS officials understood the problem as one of supply and demand that stood as a potential threat to the park's reputation. According to Superintendent Way, the loss of fry "under the present method [was so] great that it is impossible to raise enough fish to supply the

[67] Superintendent's Annual Report, 1915
[68] Ibid.
[69] Superintendent's Annual Report, 1917.
[70] Superintendent's Annual Report, 1918.

demands of the thousands of travelers who turn to trout fishing for rest and recreation."[71] Also of concern was the threat a diminished fishery posed to local efforts to entertain and feed travelers with outdoor fish fries, which were "very popular" amongst tourists. The fish fries hosted by Howard James of the Elk Horn Lodge were epic in their proportions, and according to Superintendent Way, "famous." Hoping to safeguard Estes Park tourism from a reputation of poor fishing, NPS again benefited greatly from the support and enthusiasm of Estes Park citizens.[72]

As early as 1918 the NPS sought solutions to the above problem, the most feasible of which was the establishment of "sizing ponds" situated along the park's streams and lakes. Once built, these ponds would receive fry too small to safely stock in the park's "wild waters." Here, the fry would be retained and fed until reaching the desired size, at which time they would be released into park waters. Through this process park officials hoped to sustain lower rates of stocking mortality and better catches for fishermen.

The construction and stocking of sizing ponds—as was the case with the construction of local and state run hatcheries—reflects a continuation of the ideology that drove fish stocking policy. The problem, as managers perceived it, was a potential shortage of fish, which if left alone threatened to diminish the region's tourist appeal. Michael Black, who has researched the management of the Sacramento River, calls the *ad hoc* approach to such problems "serial management." In the case of the Sacramento River, Black argues that those involved in its management have

[71] Ibid.
[72] Ibid.

historically failed to appreciate the complexity of managing a dynamic resource, and have instead relied upon a "succession of pure technical solutions" to what they perceived as isolated management problems.[73] Throughout this first phase of fisheries management in RMNP, the same pattern holds true. The most pressing and persistent management problem recognized was the looming specter of a shortage of fish. Perceiving the situation in this manner prompted managers to seek solutions to the single problem of fish scarcity.[74]

National Park Service officials and managers at the Estes Park Hatchery were not alone in understanding the fisheries problem in the region as rooted in supply. In May of 1921, a concerned group of "Estes Park businessmen" organized the Estes Park Fish and Game Association to aid the NPS in building a series of sizing ponds. According to the *Trail*, it was a

> well-known fact among our fishermen that many thousands of the fish taken from the hatchery are devoured by the larger fish when they are planted in the streams and one of the objects of the Fish and Game Association formed in the various parts of the state is to provide nursing ponds where these may mature to a size that will enable them to care for themselves when finally placed in the streams.[75]

Sizing ponds, promised the *Trail*, would result in streams "swarm[ing] with trout" and make Estes park the "paradise of the fishermen of the state."[76] As was the case with original formation of the EPPIA and the construction of the Estes Park Hatchery,

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[73] Michael Black, "Tragic Remedies: A Century of Failed Fishery Policy on California's Sacramento River," *Pacific Historical Review*, 64, no. 1 (Feb. 1995): 42.
[74] Ibid.
[75] *Estes Park Trail*, May 20, 1921.
[76] *Estes Park Trail*, May 27, 1921.

the formation of the Estes Park Fish and Game Association reflects an understanding on the part of locals that "fishing must be kept good if we are to maintain our standing as a summer resort." The National Park Service was also well aware of the importance of good angling opportunities to the Park's reputation, and Superintendent Way gave his "hearty support" to the plan. [77]

By the fall of 1921 construction of two sizing ponds began in Moraine Park.[78] With the aid of the sizing ponds, the EPFGA hoped to plant as many as 100,000 fish, ranging in size from seven to twelve inches in length, into park waters in 1922.[79] More than building sizing ponds and stocking the park with fish, the EPFGA also worked out an arrangement with the NPS to secure protected spawning grounds. Although brook and Yellowstone cutthroat were often readily available to the local hatchery, the most "desirable" fish—the rainbow trout—was often more difficult to procure. In response, the EPFGA planned to use an undisclosed lake in the park as an egg collection station. Accordingly, the organization planted 45,000 rainbows in the lake and arranged for NPS "guards" to patrol the lake to prevent fishing. Through their efforts the EPFGA hoped to make "the Park…the finest fishing grounds in the west." [80]

Although the EPFGA was doing "good work" in planting hundreds of thousands of fish during the first years of RMNP's existence, park Superintendent Roger Toll hoped that the NPS could do more to meet the demands of those visiting

[77] *Estes Park Trail*, September 16, 1921.
[78] *Estes Park Trail*, September 23, 1921.
[79] *Estes Park Trail*, October 14, 1921.
[80] Ibid.

the park. According to Toll, RMNP received some 200,000 visitors annually and covered more than 397 square miles, but could only manage to stock less than one million fish per year. Eager to continue to grow the visitation of the park, Toll argued that the NPS should take steps to ensure that two to three million fish were stocked annually. More than stocking the streams and lakes already containing fish, however, Toll recommended that the NPS continue the practice of stocking the park's fishless lakes. Doing so, contended Toll, would add to the area of good fishing in the park and distribute fishermen throughout, thereby easing the fishing pressure on streams and lakes near Estes Park.[81]

Toll's point did not fall upon deaf ears. National Park Service Director Arno B. Camerer also realized that aside "from the scenic features fishing undoubtedly presents the greatest recreational feature of the national parks to attract visitors, and it is therefore a matter in which the national Government is very greatly interested."[82] To aid Toll in his bid for more fish, Director Camerer contacted the Bureau of Fisheries (BF) and requested additional fish to be shipped to the Estes Park Hatchery. Over the following years, the relationship between the two federal agencies worked well in securing additional eggs for the EPH.

In addition to the EPFGA, NPS, and BF, some individuals in Estes Park also sought to better the fishing in and around Estes Park through the construction of

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[81] Roger Toll to Director of the National Park Service, 29 September1922, NARG 79 Central Files 1907-39, E6, Box 159 Rocky Mountain Employment General to Estes (1913-1915), ff "fish hatchery."

[82] Arno B. Camerer to Henry O'Malley, 3 October, 1922, NARG 79 Central Files 1907-39, E6, Box 159 Rocky Mountain Employment General to Estes (1913-1915), ff "fish hatchery."

private hatcheries. For example, in the fall of 1921 Fred Jelsema built his own hatchery with the capacity to hatch 50,000 fish to stock his private lakes.[83] Carl Sanbourne also owned and operated a hatchery near Mary's Lake.[84] The collective efforts of those connected to the health and vitality of tourism in Estes Park paralleled nicely with the NPS's efforts to enhance fishing in the region and bolster visitation.

As the infrastructure needed to execute large-scale stocking developed, so too did the pace and scope of stocking in the park. In 1925, for example, the NPS estimated that the EPFGA had planted more than one million fish in the park, including some 60,000 "Pacific Coast Salmon" that had been shipped from a hatchery in Oregon and planted in Emerald Lake. It is difficult to discern why the NPS, the State Game and Fish Commission, and the EPFGA desired to plant such an exotic fish. Perhaps they believed that the novelty of catching salmon would provide an additional draw to the park, or perhaps they sought fish that grew larger than brook and cutthroat to provide further stimulus to the fishermen. Whatever their reason, park officials watched the "experiment" with "interest."[85]

By 1926 the EPFGA had constructed five retaining ponds of a "semi-permanent" nature and had secured funds for the installation of an "immense permanent sizing pond at a cost of approximately $1,000.00," the expense of which would "be shared half and half by the local association and the State Fish and Game

[83] *Estes Park Trail*, November 11, 1921.
[84] *Estes Park Trail*, November 16, 1928.
[85] Superintendent's Annual Report, 1925.

Commissioner."[86] As demand on fishing resources in the park continued to grow, pressure came to bear on local and regional officials to expand the operations of the Estes Park hatchery. In December of 1926 Superintendent G.H. Thompson of the Estes Park hatchery received two shipments of twenty-five redwood hatching troughs each, thereby expanding the hatching capacity of the facility to nearly five million fish.[87] Despite these efforts, however, it seemed to many that the waters in and around the park were once again in jeopardy of being over-fished by 1928. The only solution, according to many, was the construction of a new and entirely modern hatchery in Estes Park.

No doubt playing upon the fears of those whose livelihood stemmed from the tourist industry, the *Estes Park Trail* cautioned that

> There was a time when it was the ambition of every man in the state who cared for fishing to come to Estes Park for a vacation and a fishing trip. The streams were literally swarming with fish eager to take anything that might be tossed to them…Fishermen and hunters came each year in increasing numbers and the fame of Estes Park spread rapidly. Soon the game had been all but exterminated and the fish supply in the streams depleted sadly…About twenty-two years ago work was started on the Estes Park fish hatchery that has served its day and purpose well. Now the present hatchery has become obsolete and does not allow development along modern scientific methods of fish culture.

Clearly, the *Trail* was guilty of underselling the extent to which the current hatchery met the needs of the fishing public. In the world of tourism, however, perception reigns supreme. For the host, fear that "those who love real fishing are going elsewhere for their enjoyment of their favorite sport" generated substantial local

[86] *Estes Park Trail*, May 14, 1926.
[87] *Estes Park Trail*, December 10, 1926.

support for the new hatchery. For the tourist, newspaper and magazine articles reporting the stocking of millions of fish annually in the park provided valuable incentive to visit the park. Drawing upon local pride, the *Trail* concluded that "Estes Park is right now in the position of seeing other sections of the state become trout propagating centers after she pioneered trout culture in the state…Estes Park business men are losing large sums from this situation as well as is the state."[88]

Just a few months following the publication of the above article, news came that Estes Park would receive a new state-of-the-art hatchery, and it seemed that the waters of RMNP had once again been spared a future bereft of fish.[89] Built on the same site as the original hatchery, the new one had the capacity to hatch and rear about twice as many fish as the old one.[90] The new facility also boasted eleven new retaining ponds for the "sizing" of fish, each made of concrete.[91] With the new hatchery built, and the streams of the park teeming with newly stocked fish, the *Trail* wrote that "the roads leading to the mountain trout streams will be swarming with automobile loads of fishermen anxious to be the first on the scene when the 1929 fishing season opens at daybreak tomorrow morning." The first day of the season, romanticized the *Trail*, promised a morning filled with the sounds and smells of bacon frying and "sleepless hordes of anxious fishermen…awaiting the first streaking of the Eastern sky."[92]

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[88] *Estes Park Trail*, October 19, 1928.
[89] *Estes Park Trail*, November 23, 1928.
[90] *Estes Park Trail*, December 14, 1928.
[91] *Estes Park Trail*, April 19, 1929.
[92] *Estes Park Trail*, May 24, 1929.

Ranger stocking RMNP lake with bucket.
(Superintendent's Annual Reports, 1936)

Although the 1930s brought difficult times for the nation, the Depression did little to slow stocking efforts in RMNP. As mentioned in Chapter Two, visitation during that difficult decade did not follow the exponential growth of the 1920s, but it did maintain near record levels for most years of the decade. Although it is not possible to ascertain with any degree of certainty the number of visitors who fished in the 1930s, all things being constant it is fair to assume that the park did not experience increasing demands for their aquatic resources during those same years. The completion of the new hatchery, however, did increase the park's ability to meet the demands of their fishing clientele. In 1930, Superintendent Toll reported that "fishing continues to be popular" and that an estimated 677,500 fish were planted in

the park to meet those demands, including 114,500 rainbows, 333,000 brook, and 230,000 cutthroats, all of which came from the new Estes Park Hatchery.[93]

Working in conjunction with a variety of local businesses and individuals, the NPS also continued to further colonize the park's waters previously devoid of fish. For example, 30,000 fish were planted in Sky Pond in August of 1930 in the hopes that it would become "the most popular fishing lake in the vicinity in three years."[94] By 1932 the NPS boasted that "each year two or three more of the unstocked lakes are added to the list" of newly stocked lakes.[95] Stocking fishless lakes, although perhaps an effective tool in drawing more fishermen to the park and in dispersing them throughout, brought with it irreparable ecological change.[96] In this sense, the history of fisheries management in RMNP fits into broader trends across the West. In their zeal to colonize park waters and improve fishing, however, park managers like Roger Toll took an active role in dramatically transforming the resources they were charged with protecting.

The processes of glaciation responsible for carving many of the vistas so admired by tourists were also responsible for creating many mountain lakes, "most of which were separated from downstream fish populations by impassible barriers on rivers and streams." As a result of their isolation from the movement of fish, these

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[93] Superintendent's Annual Report, 1930.
[94] *Estes Park Trail*, August 8, 1930.
[95] Superintendent's Annual Report, 1932.
[96] Of the estimated 16,000 historically fishless mountain lakes in the western United States, upwards of 95% have been stocked with fish. Roland Knapp, Paul Corn, Daniel Schindler, "The Introduction of Nonnative Fish into Wilderness Lakes: Good Intentions, Conflicting Mandates, and Unintended Consequences," *Ecosystems*, 4, no. 4, (June 2001): 275.

mountain lakes were "colonized by a diversity of aquatic species, many of which required fishless habitats for their persistence."[97] Rocky Mountain National Park contained several of these lakes, including the breathtaking Skypond, which was stocked for the first time in 1930.

The introduction of fish into historically fishless water can result in a cascade of ecological change. According to aquatic biologists, "studies have repeatedly demonstrated that fish introductions dramatically alter native vertebrate and invertebrate communities, often resulting in the extirpation of…amphibians, zooplankton, and benthic marcoinvertibrates."[98] The introduction of fish into historically fishless water can be especially detrimental to local and regional populations of amphibians. In their study of lentic (still water) sites in the Frank Church-River of No Return Wilderness, David Pelliod and Charles Peterson found that the presence of trout (*Oncorhynchus clarki, O. mykiss, O. m. aguabonita*) drastically reduced the "abundance of amphibians at all life stages."[99] Apparently, introduced fish limit amphibian breeding success because female "amphibians avoid laying their eggs" in such sites. Furthermore, if egg laying does occur, "fish prey upon the embryonic and larval stages," thereby reducing annual amphibian fecundity. The researchers also found that the detrimental effects of fish upon amphibians are

[97] Ibid.
[98] Ibid., 276.
[99] David Pilliod, Charles Peterson, "Local and Landscape Effects of Introduced Trout on Amphibians in Historically Fishless Watersheds," *Ecosystems* 4, no. 4, (June 2001): 322.

amplified in mountain lakes, which often offer "less habitat structure" and shorter reproductive seasons for amphibians. [100]

The impact of introduced trout upon fishless waters, however, goes well beyond reducing and or eliminating populations of amphibians. Using Bighorn Lake in Banff National Park, researchers found a strong correlation between the stocking of brook trout (*Salvelinus fontinalis*) and the elimination of top-tier plankton predators such as *Heserodiaptomus arcticus* and *Daphnia middendorffiana*. In the absence of such predators, other plankton populations explode. Additionally, researchers working at Banff's Snowflake Lake found that H. arcticus, a predator that often "dominates the plankton communities of fishless lakes, preying on rotifers and nauplius larvae" where quickly extirpated by the introduction of trout. Following the loss of "H. arcticus, rotifers and small-bodied cyclopoid copepods dominate the zooplankton assemblages of alpine lakes."[101] In both Snowflake and Bighorn Lakes, the introduction of trout eliminated one top-tier predator in the world of plankton, but in so doing allowed those smaller organisms it preyed on to rapidly increase in number, thereby greatly changing the lake's plankton population dynamics.

Stocking fishless lakes can have still other ecological impacts. According to the research of Susan Adams, Christopher Frissell, and Bruce Rieman, the "introduction of fish into high-elevation lakes can provide a geographic and demographic boost to their invasion of stream networks, thereby further endangering

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[100] Ibid., 323.
[101] A. S. McNaught, D. W. Schindler, B. R. Parker, *et. al.*, "Restoration of the Food Web of an Alpine Lake Following Fish Stocking" *Limnology and Oceanography* 44, no. 1 (1999): 127–136.

the native stream fauna."[102] Through their research the scientists found that while planting non-native fish at lower elevations can initiate ecological change, the consequences of this practice are often geographically limited by upstream barriers such as water falls, and the fish's apparent unwillingness to move upstream when the streambed slope exceeds 17%. When fish are planted in lakes and streams near the headwaters, however, brook trout in particular are able to move downstream with relative ease, and thereby come to inhabit a greater geographical range.[103]

Beyond facilitating the wider dispersal of fish, stocking headwaters comes with other risks are well. For example, in most instances where stocking occurred in lakes and lake-outlet streams, fish grow at a faster rate than when they live in stream sections distant from the "thermal and trophic influences of lakes."[104] In addition to growing fish faster, which better equips them to compete for the food rich portions of streams should they decide to migrate, the researchers also found that "larger brook trout appear to be the primary dispersers in streams," meaning that they will be "better competitors and predators as well as better invaders" than smaller fish they might encounter downstream.[105]

It is telling that the NPS literally planted millions of highly efficient predators inside the park in the form of trout, all of which wreaked havoc with native fauna, at the very same time they sought to exterminate other predators like coyotes and

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[102] Susan Adams, Christopher Frissell, Bruce Reiman, "Geography of Invasion in Mountain Streams: Consequences of Headwater Lake Fish Introductions," *Ecosystems* 4, no. 4 (June 2001): 296.
[103] Ibid., 302.
[104] Ibid., 303.
[105] Ibid.

Ranger stocking RMNP lake with bucket.
(Superintendent's Annual Reports, 1936)

mountain lions. The difference here lies in what was being preyed upon. Trout fed upon frogs, salamanders, plankton, and insects, which few if any visitors came specifically to the park to see. Over the past one hundred years, at least 81 of RMNP's historically fishless lakes and ponds were stocked with fish.

Largely oblivious to the vast changes unleashed by stocking historically fishless water, the NPS continued pressing the fish frontier through the early 1930s. Working closely with the Bureau of Fisheries (BF) since 1929, the NPS designed and refined a stocking schedule to better meet their needs. Under the agreement, the NPS benefited from the expertise of the BF, and RMNP required all fishermen to obtain a

state fishing license. Following the advice of the BF, the NPS planted an estimated 2.24 million trout in RMNP between 1931 and 1935, nearly all of which came from the Estes Park Hatchery. As early as 1932 the new strategy began to show signs of success as RMNP officials reported that fishing was now "better than it has been at any time during recent years." [106]

Given the scope of the stocking program through the first half of the 1930s, and reports of good fishing in RMNP annual reports, it difficult to explain why local businessmen again called for an expansion of the trout rearing capacity of the hatchery in 1935. At a meeting of the member of the EPFGA and the Chamber of Commerce, a resolution was passed requesting the Secretary of the Interior to earmark funds for the construction of a federal hatchery in RMNP. The reasons for this course of action were apparently many. On one hand, Glacier and Yellowstone national parks both enjoyed "less travel" than RMNP, yet they benefited from federally owned hatcheries and sizing ponds. Moreover, claimed the local delegation, RMNP was again in danger of over-fishing "due to constantly greater numbers of visitors each year" touring the park. [107]

On both counts, however, their argument fell flat. Visitation was not "spiking" during the first half of the 1930s, and the hatchery at Estes Park seldom ran at capacity. It seems much more likely that locals saw an opportunity to attract some much-needed emergency funding to their area and they sought to secure it. Their argument was based on the logic of tourism and attempted to play upon fears of lost

[106] Superintendent's Annual Report, 1931, 1932, 1933, 1934, and 1935.
[107] *Estes Park Trail*, June 1, 1934.

revenue to obtain what they desired. "The great importance of fishing in this park has been overlooked by national park officials in Washington for many years," contended W. A. Gray of the Fish and Game Association, and "a strong effort will be made to bring the seriousness of the situation to the attention of the administration."[108]

As 1934 came to a close, the EPFGA ramped up its public campaign for a new hatchery. According to the *Trail*, "With a third of a million visitors in the National Park and another third of a million just outside of it, the present system and volume of stocking streams and lakes is inadequate." It was "so inadequate that it would be laughable if it were not so dangerous to the reputation of Rocky Mountain National Park," quipped the paper. The state hatchery, only five years old at this point, was "doing the best it can with present equipment, but its entire output is barely enough to take care of the streams near the park."[109] To strengthen their case, locals prepared blueprints and cost estimates for the construction of the new facility in the hopes of persuading elected officials of the importance and feasibility of their proposal.[110]

Perhaps undercut by NPS reports that the stocking policy begun five years earlier was "beginning to bear results," and that "[t]his past year has seen better fishing than any in the previous ten years," Estes Park never received their much desired federal hatchery.[111] Nonetheless, relief funds for fishing did find their way to RMNP. Through the federal government's EWC program, RMNP received funds for

[108] *Estes Park Trail*, October 26, 1934.
[109] *Estes Park Trail*, November 16, 1934.
[110] *Estes Park Trail*, November 30, 1934.
[111] Superintendent's Annual Report, 1934.

the construction of an additional three retaining ponds, and labor for the planting of hatched fish.[112]

Regardless of whether the fishing in RMNP was as good as previous years or in peril of being overrun with rod-toting tourists, it is evident that the ecological revolution that begun with the first planting of non-native species in the 1870s and 1880s was fairly complete by the mid-1930s. In addition to the salmon still swimming the waters of Emerald Lake, and the scores of lakes and streams previously void of fish now teeming with them, park ranger field notes reflect the population imbalance existent in the park's waters.[113] In May of 1936, for example, hundreds of catchable fish in a Moraine Park beaver pond were trapped when the Big Thompson changed course. In response to the situation, rangers seined the pond and replanted the fish into the Big Thompson. Some 701 trout were moved, of which 97% were brook trout, 1% rainbow, and 2% cutthroats.[114]

Conclusion

Every year tens of thousands of fishermen hike to Sky Pond, Mill's Lake, or any number of other bodies of water in Rocky Mountain to angle for trout. Standing knee deep in frigid alpine water and casting an elk-hair caddis amidst towering peaks and grazing elk is a near religious experience for many. And it is an experience that we expect from locales like Rocky Mountain National Park. What most fishermen are

[112] Superintendent's Annual Report, 1936.
[113] *Estes Park Trail*, September 30, 1935.
[114] Melvin Potts, Field Notes, 15 May 1936, Chris Kennedy collection, 18.

not aware of, however, are the complicated cultural and biological processes that spread fish—both native and otherwise—across the park itself.

Even before the twentieth century, the state of Colorado, various railroads, and a host of others touted Colorado as a great fishing destination. Great fishing, they all realized, would do much to further the reputation of Colorado (and later Estes Park) as a tourist destination that offered a range of exciting outdoor diversions. All working toward the same end, though not necessarily in concert, newspapers like the *Rocky Mountain News* and *The Estes Park Trail* did much to draw attention to the water in and around what would become RMNP.

Well aware that advertising great fishing without delivering it could have negative economic consequences, the state, Estes Park residents, and the National Park Service all embraced technology as a means to allow a continuance of growing the tourist industry, while allowing fishermen wide latitude in daily harvests. The embrace of technical solutions in the form of fish culture, however, led to vast environmental change, not the least of which was the near annihilation of the very fish that draw anglers to Colorado in the first place. But lacking any real sense of ecology or the value of diversity within ecosystems, those involved in this early phase of fisheries management prided themselves on doing good work to safeguard RMNP's waters for generations of fishermen.

The lack of opposition in the historical record to stocking of non-native fish all reflect that the practice was both widely accepted and appreciated. To hold contemporaries at fault for failing to manage resources in a way better suited to

modern ecological sensibilities is both unfair and unproductive. Rather, we would do better to understand that this was a time when fishermen, boosters, and fish culturists valued productive waters over diverse ones, and intensive stocking promised the abundance they desired.

Beyond demonstrating the powerful ways that tourism can reshape aquatic resources, the history of fishing in RMNP also tells us something about parks as socially constructed places. Even before the creation of RMNP in 1915—but certainly after that point—the physical space within the park came to bear more and more witness to the dominance of tourism in the region. The presence of fish in historically fishless waters, the proliferation of non-native fish across the park, numerous sizing ponds located inside and adjacent to the park, and the Estes Park hatchery all offer physical manifestations of the deeply cultural and economic processes involved in the development of tourism.

As long as visitors, managers, and scientists agreed that attracting anglers through intensive stocking was both wise and proper, management conflicts were few and far between. As we will see, however, significant challenges lay ahead. In the realm of fisheries management, a deepening appreciation for ecology in the early 1930s would soon challenge the fishing and stocking traditions that had long held sway across RMNP. For the first time in the park's history, a second and increasingly powerful new group of resource users arrived and struggled to define and use the space within Rocky Mountain National Park in ways that they deemed appropriate.

Chapter Five
Going Native

Introduction

They rained down upon the earth and lay scattered about like so many bits of wriggling shiny tin. To anyone standing near the missed aerial drop at Lake Ypsilon in August 1962, the scene must have been surreal. To the National Park Service, the scattering of nearly 3000 hand-hatched, raised, and fed greenback cutthroat trout across terra firma was surely a disappointment.[1] Using a helicopter and bucket on that summer day the NPS was struggling to meet an evolving management imperative centered firmly upon stocking and rearing almost exclusively the nearly extinct greenback cutthroat.

For more than six decades a host of interested parties had undertaken to keep the waters of the park filled with desirable species of catchable trout. This desire, as indicated in the previous chapter, gave shape to the practice of stocking rainbow, brown, cutthroat, and brook trout. Intensive stocking of non-native fish did not pose a problem as long as the fishing public and NPS remained unconcerned and unaware of the ecological consequences of doing so, and the NPS understood its mission as one aimed primarily at visitor satisfaction. Beginning in the early 1930s, however, the Service began reevaluating the aims and methods of its management of wildlife. As their scientific understanding deepened, they came to see the damage their previous stocking policy caused. Faced with increasing evidence that their previous fishery

[1] "Annual Summary of Fish Planting, 1962," NADRG 79, Numerical Subject Files 1952-1965, Box 15 8ns-079-97-437, ff "Fish," 1.

policies conflicted with their broader management directives, the NPS designed and implemented a new fisheries policy with the hopes of restoring the park's rivers, lakes, and streams to something approaching their "natural condition."

In important though often unappreciated ways, the proliferation of non-native fish within the rivers, lakes, and streams of RMNP also offers opportunity to measure and understand something about the relationship between this place and the changing social meaning it has been given over time. Geographers often focus on the built environment in their analysis, but I argue that we might also use wildlife—such as the greenback and brook trout—to the same ends. Although trout are not "built" in the same sense as is a house or a bridge, in most cases their presence within the park was a product of human desire and ingenuity.

In addition to relying on fish to trace and evaluate the environmental consequences of tourism in a particular locale, we can also use riparian areas to the same end. As Nancy Langston demonstrates, riparian areas offer prime examples of socially constructed spaces. Viewing lakes and rivers as such allows historians to trace the historical relationship between changing environmental ideas and the physical world where those ideas play out. In this sense, those spaces within Rocky Mountain National Park where fishermen bait their hooks and eat their lunches offer valuable avenues of inquiry into the shifting meaning humans have given lakes and rivers over time.[2]

[2] For a full treatment of how riparian areas can become contested spaces with overlapping and sometimes conflicting social meaning, see Nancy Langston, *Where Land and Water Meet*: *A Western Landscape Transformed* (Seattle: University of Washington Press, 2003).

Prior to 1936 the prevailing view regarding waters within the park—one shared by railroad companies, local and regional newspapers, local conservation organizations, and the National Park Service—was that they were spaces best used to bolster tourism and provide recreation. Between 1936 and the present, however, the NPS launched a series of scientific studies aimed at understanding the fish within the park's waters in increasingly scientific terms. As their understanding deepened, managers came to see the damage the previous stocking policy caused to the native fish of the park. Faced with evidence that the traditional approach of fisheries management conflicted with their broader management directives—which were simultaneously shifting through the application of scientific inquiry—RMNP moved away from "fishing for tourists" and increasingly sought to balance tourist demands with something approximating their evolving definition of "natural conditions."[3] Doing so, however, brought about a significant redefinition of what constituted proper use of riparian areas.

Challenging decades of fishing and stocking policy, scientific understanding compelled managers to close some waters to fishing (either temporarily or permanently), poison popular fishing waters in an effort to restock them with protected native species, permanently halt all stocking within the park, and institutionalize catch-and-release as a tool to balance limited fish supply with growing

[3] James Pritchard offers a thorough accounting of how increased scientific understanding defined and redefined what the NPS construed as "natural conditions," and how those perceptual shifts brought about changes in how the NPS managed its resources. See James Pritchard, *Preserving Yellowstone's Natural Conditions: Science and the Perception of Nature* (Lincoln: University of Nebraska Press, 1999).

fisheries demands. Reflecting how far science had risen in the realm of fisheries management within the park, the Estes Park hatchery—the institution that stood at the heart of the early phase of fish management in Rocky—stopped supplying fish for the park in 1968 and closed down altogether in the 1983. The arrival of ecology reworked both the means and ends of preservation as it sought to replace a management paradigm dominated by tourism with one driven by science.

Going "Native"

As Donald Worster demonstrates, many of the ideological underpinnings of the modern concept of ecology were around well before the dawn of the twentieth century. That said, ecology as a dynamic and powerful scientific field did not begin to take shape until the waning decades of the nineteenth century.[4] With their deep interest in spatial analysis, a penchant for viewing plants as "social beings," and a growing sense of the importance of climate in shaping plant communities, geographers like Oscar Drude, Andreas Schimper, and Eugenius Warming, "transformed *Oecologie* from just another neologism to a functioning science with its own peculiar hold on reality" in the 1890s.[5] Of the three, Worster holds that Warming was the most significant in the field's development, primarily as a consequence of his book *Plantesamfund*, which was published in 1895 and translated

[4] Donald Worster, *Nature's Economy: A History of Ecological Ideas*, 2nd ed. (Cambridge: Cambridge University Press, 1994), 194.
[5] Ibid., 198.

into English in 1909.[6] At the core of this work was his early recognition of the "communal life of organisms."[7] Also central to Warming's book and to the development of modern field of ecology was the concept of ecological succession, meaning that ecological communities "do not remain always the same, forever maintaining a steady state as ordained by some divine power," but are subject to diverse forces that bring about change.[8] Accordingly, "the ultimate goal of nature…is nothing less than the most diverse, stable, well-balanced, self-perpetuating society that can be devised to meet the requirements of each habitat."[9] Under natural conditions the essential direction of plant and animals communities was always toward "climax equilibrium."[10]

Henry Cowles and Frederic Clements further explored succession and climax equilibrium as they too refined the concepts that defined the nascent field.[11] Although men such as Clements, Cowles, Warming and others had done much to establish the field of ecology, it took a natural disaster in the form of the Dust Bowl to propel it into a prominent position of trust and authority in American society. Reeling from towering dust storms, and grasping desperately to understand the forces that delivered them to the America's heartland, "conservation began to move toward a more inclusive, coordinated, ecological perspective."[12] Drawing from the work of Warming

[6] Ibid.
[7] Ibid., 199.
[8] Ibid., 201.
[9] Ibid., 202.
[10] Ibid.
[11] Ibid., 206.
[12] Ibid., 232.

and Clements, experts in grasslands ecology argued that the great dust storms were the handiwork of man himself and his failure to appreciate the "genius of the climax community of the plains—the unique grass—buffalo biome."[13] As Worster argues, the widespread adoption of Clements's climax theory led to the belief that nature undisturbed would reach a natural climax state, but where modern humans intervened it often would not.[14] Thus, humans were at once separated from ecological processes and came to bear significant responsibility when things within this natural order went awry. Within this broader social and scientific milieu, science within the National Park Service was also developing.

Between the founding of the National Park Service and the dawn of the Great Depression science was virtually non-existent within the Service. The reasons for this are many, but they stem primarily from the very limited budget of the agency, its need and desire to pour resources into promotional efforts to grow itself, and the fact that the field of ecology was relatively fresh and practiced only by a handful of scientists. Reflecting the lack of commitment to scientific inquiry, the NPS by 1930 employed only one research scientist, nine wildlife rangers, and six naturalists to oversee its seventy-four national parks and monuments.[15] Moreover, the NPS's wildlife rangers and naturalists spent the bulk of their time in visitor education and resource protection and relatively little time conducting anything approximating scientific study.

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[13] Ibid., 234.
[14] Ibid.
[15] R. Gerald Wright, *Wildlife Research and Management in the National Parks* (Chicago: University of Illinois Press, 1992), 13.

Science did come to the NPS, but not through institutional initiative. Rather, it arrived through the privately-funded research of the "independently wealthy biologist" George M. Wright.[16] Working in iconic parks like Yosemite, Wright had come to the conclusion that the NPS did not know enough about the natural resources they sought manage, and also realized that the NPS was reluctant to fund such research on its own. Accordingly, he proposed to fund and direct the first in-depth, comprehensive scientific investigation into the parks in 1928. Between 1929 and 1940, scientists like Wright and others "promoted an ecological awareness in the Service and questioned the utilitarian and recreational focus that dominated the bureau."[17] As the NPS came to employ more scientists, the widely accepted aesthetic standards for judging park landscapes that dominated so much of the administrations of Mather and Albright were challenged by new standards derived from the application of ecological principles.

Beginning in the summer of 1930, Wright and fellow biologists Joseph Dixon and Ben Thompson began their investigations. Concluding in the spring of 1931, the research team wrote and soon published *Fauna of the National Parks of the United States: A Preliminary Survey of Faunal Relations in National Parks*, more widely known as *Fauna No. 1*.[18] At the heart of *Fauna No. 1* lay the recognition that "[t]he parks' faunas have been extremely sensitive to the influences of civilization" and that immediate steps needed to be undertaken to better understand and temper the

[16] Richard West Sellars, *Preserving Nature in the National Parks* (New Haven: Yale University Press, 1997), 87.
[17] Ibid., 91.
[18] Ibid., 96.

influences of "civilization" upon park resources.[19] Reflecting the predominance of Clements's climax theory, and its placement of humans outside of the "natural" function of ecosystems, the authors contended that the parks were valuable in part because they represented landscapes that had been rescued "from the immediate dangers of private exploitation" where "climax examples of Nature's scenic achievements" remained.[20]

Although Dixon, Wright, and Thompson were deeply concerned with the introduction of invasive animal species and the marginalization of native ones, they made interesting exceptions regarding fishing and fish culture in national parks. According to the authors,

> Wild flowers are to be enjoyed in place and the timber in the trees is not to be utilized. No animal is hunted, and only the fish is angled from its native waters. Fish culture is practiced to prevent depletion and to extend the pleasures of the sport to waters not naturally stocked.

Defending traditional fisheries management, the authors contended that in the case of this "important exception" the "direct benefit to man overrules the disadvantages which are incidentally incurred" through fish harvest and stocking.[21]

The NPS's willingness to allow anglers to harvest fish, which was a rare exception to their general stance on resource harvest within parks, begs the question of why they did so. Historian Lisa Migheto explored the development of animal rights

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[19] George M. Wright, Joseph S. Dixon, and Ben H. Thompson, *Fauna of the National Parks of the United States: A Preliminary Survey of Faunal Relations in the National Parks, Contributions of Wildlife Survey, Fauna Series No. 1* (Washington, D.C.: Government Printing Office, 1933), http://www.nps.gov/history/history/online_books/fauna1/fauna.htm.
[20] Ibid.
[21] Ibid.

through her *Wild Animals and American Environmental Ethics* and found that rising consensus that animals were sentient beings capable of feeling pain were driving force in the historical evolution of animal activism.[22] Speculating on why Americans have not put fish in the same category as other animals, Migheto muses, "Perhaps because fishing has been viewed traditionally as a contemplative activity, it was difficult to portray its participants as bloodthirsty savages." She also posits that "[f]ishing also failed to inspire strong protest because it involved animals that were not attractive in the traditional sense." In this regard, the lack of empathy for the plight of fish was a function of the "humane movement's emphasis on the kinship between people and animals," which "encouraged the perception that only humanlike creatures deserved moral attention."[23]

On this point, Thomas Dunlap demonstrates that one of the factors at play in developing policies and practices aimed at wildlife conservation was the development of a literary genre that ascribed human characteristics, behaviors, and personality to wild animals. As animals became anthropomorphized, argues Dunlap, it was a relatively short step for many to call for protection of them. Once again, fish did not figure prominently in this literary genre, which may also explain why fish were often treated differently by those involved in conservation.[24] The answer to this question may also lie in the fact that fish—unlike elk and mountain sheep—are not easily

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[22] Lisa Mighetto, *Wild Animals and American Environmental Ethics* (Tucson: University of Arizona Press, 1991).
[23] Ibid., 56.
[24] Thomas R. Dunlap, *Saving America's Wildlife* (Princeton: Princeton University Press, 1988). See chapter 2, "Science and the New American Nature Myth."

beheld, are often difficult to photograph, and could be replenished annually through fish culture. Whatever the reason, the NPS broadly—and Dixon, Wright and Thompson specifically—were ambivalent about fishing in national parks.

This is not to say, however, that the authors of *Fauna No. 1* were wholehearted supporters of stocking and fishing in parks. Although they did not challenge either fishing or stocking, they did argue that at least "one watershed shall be set aside for the preservation of the aquatic biota in its undisturbed primitive state" within each park. But even here, where there would "never be any planting of fish or fish foods," fishing would be permitted, though under tighter regulation. Further reflecting their ambivalence, the authors confided that the "time is rapidly approaching when these would be the only places on the continent where the native trout could be seen and studied in their primitive haunts unmodified by human interference."[25]

Regardless of its equivocation on matters of fisheries management, *Fauna No. 1* represents the very moment that science arrived in a substantive way within the NPS. Following its publication, the NPS adopted *Fauna No. 1's* recommendation that all NPS wildlife management decisions be based upon scientific study.[26] Also reflecting the embrace of science within the NPS was the increased willingness on the part of the Service to fund scientific inquiry. For example, in 1931 the NPS agreed to fund one half of Wright's endeavor, and it assumed full financial responsibility for it in 1933. In large part because of *Fauna No. 1*, the NPS also created its own Wildlife

[25] Wright, Dixon, Thompson, *Fauna No. 1*.
[26] Sellars, *Preserving Nature,* 98.

Division in 1933. Headquartered at the University of California, the Wildlife Division employed biologists in the pursuit of scientific understanding of NPS resources.[27] Lastly, during much of the 1930s, the NPS also used CCC funds and park rangers to support the works park biologists. Although historian Richard West Sellars argues that the embrace of scientifically-driven management was relatively short-lived, it nonetheless had a lasting impact on how individual parks like Rocky were administered.[28]

Reflecting the both the importance of Fauna No. 1 and the ascendancy of science within the Service, Acting Director of the National Park Service A.E. Demaray announced in May of 1936 that the National Park Service would no longer stock non-native fish at the expense of native ones. According to the press release,

> Native fish in our national parks and monuments henceforth will be safeguarded by policies of conservation similar to those long adhered to by the National Park Service in its administration of the fauna and flora of these areas…That is to say, natural conditions will not be interfered with by man.

After fifteen years of allowing individual parks the latitude to introduce and stock non-native sport fishes, the new NPS policy held that "scientific study has tended to prove that" introducing non-native species "disturb[s] the system and order carefully worked out during long periods of time by nature." But, admitted Demaray, "heretofore this policy has not been generally applied in the case of fish."[29] Organizations like the Council of the American Association for the Advancement of Science had been encouraging a native only stocking policy in National Parks since at

[27] Ibid., 99.
[28] Ibid., 100.
[29] "Information Bulletin, Rocky Mountain National Park," 26 May 1936, RMNP Archives.

least 1921. At that time, however, the NPS was still very much interested in colonizing the park's waters with other varieties of trout and did not heed such recommendations.[30]

Interpreting the previous fifteen years of fisheries management across all NPS administered lands, Demaray stated that in the past if "it seemed advisable, for the sake of better angling [*sic*] to import species not native to the lakes and streams, this was frequently done. Experience has shown, however, that nature makes no allowance for good intentions on the part of man," and such a policy had worked to disrupt natural systems. The NPS would now largely "forbid the introduction of exotic species of fish into waters which at present contain only native varieties." Just as striking was the announcement that "[e]ven non-game native varieties, reduction of which might be considered conducive to better angling, will be left to increase and multiply unmolested."[31]

Although an important deviation from previous policy, the new directive also contained language that allowed the partial continuance of traditional stocking programs. Specifically, stated Demaray, "in areas where exotic species have proved to be best suited to the environment, and of higher value for fishing purposes than the native fish, planting of exotics may be continued." In other words, in those waters where the damage had been done and ecological systems already reworked, stocking of non-natives could continue. The stocking of such waters, however, was contingent

[30] Roger Toll to Director of the National Park Service, 10 December 1923, NARG 79, Box 159, E6 PI 166, Central Files 1907-1939 ff "Fish Hatchery."
[31] "Information Bulletin."

upon approval on a case-by-case basis by the park superintendent and the Director of the NPS.[32] The era of *laissez-faire* fish management within national parks was coming to an end.

Amidst the era of institutional self-reflection and policy reformation, Merlin Potts conducted a preliminary survey of the streams and lakes of RMNP in 1936. Overall, Potts found nothing striking in his survey, but his work did confirm that cutthroats were not as numerous within the park as were brook, rainbow, and brown trout. After conducting his survey, Potts recommended that "the planting of Cutthroat Trout be definitely encouraged in all streams and lakes with the exception of Mill Creek, Beaver Brook, Big Thompson River, Hidden Valley Creek, Fall River, Bierstadt Lake and Doughnut Lake." In those waters, brook, rainbow, and brown trout predominated and seemed better suited to the particular waters. Knowing that obtaining a steady annual supply of eggs and or native fry would be difficult, Potts also recommended the construction of a federal hatchery to supply the park with native stock. [33]

Demaray's press release and Potts's survey both raised important questions about exactly which "native" fish should be stocked in the park. Most believed that greenback cutthroat—the only true native trout to the eastern portion of RMNP—was extinct by 1931. Therefor, when Potts recommended the stocking of "native trout" he was not speaking of greenbacks, but rather about Yellowstone cutthroats, which had

[32] Ibid.
[33] Merlin K. Potts, "A Preliminary Survey of Conditions in Streams and Lakes of Rocky Mountain National Park with Recommendations for the Future Propagation of Trout," 26 October 1936, RMNP Archives, 1-2.

been stocked east of the Continental Divide prior to the 1930s. One could make the argument that stocking Yellowstone cutthroat was little different from stocking either rainbow or brook trout, as none of them were truly native to the area. Lacking many other options, however, RMNP turned to the stocking of non-native cutthroats to meet its institutional mandate.

Just as attitudes within the scientific community and the NPS were shifting in favor of "natural conditions" and the restoration and protection of native flora and fauna, the *Estes Park Trail*, which had long trumpeted the stocking of non-native fish in the region and had long been a steadfast support of the expansion of those efforts, also began to change its tone. For example, in 1938 the *Trail* claimed that some 95% of all "important fish producing waters [of the park] have been permanently damaged by promiscuous introduction of non-native and incompatible species of fish." The rainbow and brook trout—both of which had been fashionable species in decades past—were now second in comparison to the cutthroat, which was "larger, in better condition" and a fish that "displays a maximum of gameness in battling the hook and line." Citing Potts's survey, the author continued,

> There are a few small lakes in Rocky Mountain National Park without fish life. In keeping with the policy, these lakes will remain in this condition providing excellent opportunity for research in connection with undisturbed conditions of aquatic biology essential in scientific planning for future fish planting and culture. Efforts will also be made to eliminate exotic species of fish from Park waters as much as possible. The task is large and naturally will take a long period of years, but can be eventually accomplished by the planting of native species in the future.[34]

[34] *Estes Park Trail*, July 22, 1938.

Collectively, the policy shift on the part of the NPS, Merlin Potts's study, and the above *Trail* article all speak to significant changes taking place in the fisheries management in RMNP. It remained to be seen, however, if the new policy of "planting native species in the future" would work in de-colonizing the parks' waters while satisfying the demands of the traveling fisherman.

To aid in restoring the park's waters to something approximating their natural conditions, RMNP instituted a series of lake and stream closures for the 1938 fishing season. Among those waters closed were the very popular Bear Lake, Emerald Lake, the ponds in Hidden Valley, and portions of the Fall River.[35] To further restore the park's waters, the NPS also planted an estimated half million Yellowstone cutthroats, which had been shipped the previous spring from Yellowstone National Park and hatched at Estes Park, Fort Collins, Denver, and Grand Lake. In all, the fish were planted in "35 lakes and 20 streams in scattered sections of the park" by rangers assisted by CCC enrollees. Speaking to the new policy, Chief Ranger Herschler commented, "[As] much as possible, the National Park Service is planting only native species to remedy an unwelcome situation caused by promiscuous introduction of fish foreign to park waters."[36]

The closure of specific park waters continued during the 1939 season. Streams closed included the "Hidden Valley Creek between Trail Ridge Road and the Horseshoe Deer Ridge Road; Cabin Creek in the Longs Peak district, from its source to the Park boundary; Mill Creek from its source to its junction with Glacier Creek."

[35] *Estes Park Trail*, May 13, 1938.
[36] *Estes Park Trail*, September 2, 1938.

Although Bear Lake and Emerald Lake were both reopened for the season, Spruce Lake was closed. RMNP also enforced more stringent regulations than did the state of Colorado, limiting fishermen to a maximum of fifteen fish or ten pounds per day, while 25 fish or fifteen pounds could be taken from state waters. Moreover, within RMNP all fish kept had to be at least seven inches in length, with smaller fish "carefully removed from the hook with wet hands and returned to the stream or lake." The park also instituted a ban on live bait to "avoid introduction of undesirable fish minnows in Park waters." Use of other live bait, such as earthworms, was permitted.[37] In all, RMNP planted 572,000 Yellowstone cutthroats in 1939.[38]

By 1941, with the park's new stocking program nearly five years old, RMNP had planted well over two million Yellowstone cutthroats in the park and was doing all it could in pursuance of the NPS directive for native fish stocking.[39] To measure their progress, the Supervisor of Fish Resources from the Fish and Wildlife Service David Madsen conducted a brief survey of the park's waters in 1940. Despite five years of concerted efforts to reclaim the park on behalf of cutthroats, Madsen found that the park as a whole continued to suffer from the overpopulation of brook trout, especially in beaver ponds located at the headwaters of major streams.[40] Although Madsen was quick to point out that the new policy was "not old enough to give us any definite information as to results," he stated, "From what information I have been

[37] *Estes Park Trail*, May 19, 1939.
[38] Superintendent's Annual Report, 1939.
[39] Superintendent's Annual Report 1940-1941. 900,000 fingerlings were planted in the park in 1940 and 254,160 were planted in 1941.
[40] David H. Madsen, "Report of David H. Madsen," 20 February 1941, RMNP Resource Management Files, RMNP Archives, 1-2.

able to gather, most of the lakes in the Park are likewise overstocked [with non-natives] and the fish are small."[41]

Beyond offering a valuable accounting of the park's waters at mid-century and a condemnation of stocking of non-natives as "a serious mistake," Madsen's report is important for other reasons as well. Between the NPS policy shift of 1936 and 1941, managers at RMNP continued to frame the fisheries problem within the park as directly related to a supply issue. Park managers long witnessed what they thought to be a correlation between their stocking programs that favored non-native fish and the proliferation of those fish across the park. Lacking any real scientific understanding of the processes at work, it was easy for them to conclude that the reason brook trout were so common in park waters was a direct function of their stocking efforts, and not a result of ecological and biological processes. Understanding the situation thus, reversal of the situation and the restoration of native fish required little more than a stocking policy that favored native fish over non-native ones. In this instance, the rise of ecological thinking within the NPS had given its managers the sense that their previous policy was flawed, but did not *de facto* give them the scientific and technical knowledge needed to adequately adjust it.

As managers soon realized, however, the restoration of native fish would require far more than a stocking program that favored cutthroats. Between 1938 and 1941 RMNP planted cutthroats almost exclusively (only two small plantings of rainbow trout took place), yet brook trout continued to reign supreme. Madsen was

[41] Ibid., 4.

the first to understand that something beyond planting more cutthroats was warranted. Specifically, he argued that the current situation would not be corrected until the NPS found "some means of greatly reducing the brook population." [42] Admitting that he did not know what factors were specifically responsible for the cutthroat's inability to compete with brook trout, he urged that "some person with the proper training and background be assigned to a thorough study of the problems which I have here briefly described, with a view of giving the necessary information to improve them."[43]

Although money and manpower were in short supply during World War II, the stocking of cutthroats continued. In 1943, for example, the NPS planted more than 700,000 eggs and 255,000 fry in the park.[44] Despite continuance of the policy, however, progress was slow at best. Again attempting to ascertain the efficacy of the new program, Stillman Wright filed a report on the "fishery problem" in RMNP in 1944. According to Wright, the "plan of planting only the Yellowstone Lake trout has not produced satisfactory results" as some of the park waters had received nothing but cutthroats since 1937, yet brook trout were "excessively abundant" and "cutthroats rare."[45]

Making matters worse, the successful conclusion of World War II brought a period of unparalleled growth in the number of annual visitors to RMNP and greatly threatened the park's ability to meet the expectations of its fishing clientele. During

[42] Ibid., 3-4.
[43] Ibid., 4.
[44] Superintendent's Annual Report, 1943.
[45] Stillman Wright, "A Report on Some Fishery Problems in Rocky Mountain National Park, 1944," RMNP Resource Management Files, RMNP Archives, 1-2.

the postwar era, the NPS faced evermore complaints that fishing across the park was poor and more money was needed to conduct "stream and lake studies upon which to base the park's fish planting program."[46] By the early 1950s, the staff at RMNP was receiving a steady stream of complaints tied directly to poor fishing.[47]

Going Green

With budgets still at wartime levels and visitation exceeding the park's ability to protect itself from adoring nature lovers, the solutions to the management difficulties were scant. RMNP had undertaken more intensive stocking of native species since 1937, but such efforts failed to re-establish substantial numbers of native fish in the park, while cutting deeply into the number of overall fish planted. Making matters all the more complicated was an exciting discovery made in 1955 when Professor Howard Tanner of Colorado State University found what he hoped were isolated populations of greenback cutthroat in the waters of Albion Creek near Nederland, Colorado.[48] Following his discovery, Dr. Tanner collected and shipped specimen to Dr. Robert Miller, Curator of Fishes at the University of Michigan, for identification.[49] Upon close inspection, Dr. Miller concluded that "these fish represented a kind of cutthroat different from any others we know today, and that they may or may not be *Salmo clarki stomias*," otherwise known as the greenback

[46] Superintendent's Annual Report, 1949.
[47] Superintendent's Annual Report, 1950 and 1952.
[48] "Report on 1957 Studies on the Green Back Trout in Rocky Mountain National Park," Files of Chris Kennedy, Biological Technician, Colorado Fish and Wildlife, ff "1959 Rocky Mountain National Park Report," 1.
[49] Ibid.

cutthroat.[50]

In the wake of the discovery, RMNP biologist James E. Cole, RMNP Superintendent James Lloyd, and the NPS principle naturalist Gordon Fredine requested that a preliminary study of the habitat of greenback in 1957.[51] The objectives of the study included securing additional fish so that positive identification could be made, collecting enough to serve as brood stock, and surveying the lakes and streams across the park with a "view toward establishment of sanctuaries in Rocky Mountain National Park."[52] The researchers also conducted extensive surveys across the park searching for additional locations that had not been tainted by the introduction of non-native species.

The researchers concluded that the "Faylene-Fay-Caddis Lake drainage" provided the best location for stocking greenbacks as it provided ample spawning habitat and isolation from downstream non-native fish populations.[53] They also found that the portion of the Big Thompson River running through Forest Canyon would be a prime location for the restoration of greenback since it contained a "series of falls and cascades," which provided an "effective barrier to any upstream movement" of fish, thereby preventing non-natives below Forest Canyon from interfering with the restoration efforts. More significantly, the researchers also found "no record of any fish stocking" in Forest Canyon, and they doubted whether "pack

[50] Oliver Cope, "Report on 1959 Fishery Studies by the Bureau of Sport Fisheries and Wildlife in Rocky Mountain National Park," 15 October 1959, NADRG 79, Numerical Subject Files 1953-65, Box 13, 8NS-079-97-437, ff Wildlife Fish, 1953-62.
[51] "Report on 1957 Studies," 1.
[52] Ibid.
[53] Ibid., 7.

horses could be brought down into the drainage for stocking purposes." Hence, they came to believe that the "cutthroat trout present in the streams appear to be native to the area."[54] They subsequently took twelve specimen from Forest Canyon that appeared to "have the characteristics of green-back trout," believing that they would provide "an excellent source of fish for propagation purposes."[55] Hoping to use the suspected greenbacks found in Forest Canyon as brood stock, the research team made arrangements for the poisoning of the Fay Lakes drainage in 1958 to remove all fish in preparation for stocking of greenbacks in 1959.[56]

The discovery of what many hoped were greenback trout soon found its way into the press. Speaking on the discovery, the *Denver Post* reported that a "rare and almost extinct species native to Colorado's Eastern Slope, the green backs—or what's left of them—are getting a lot of attention these days." Although the fish were few and far between, the paper hoped that "anglers may some day be pulling them from Colorado lakes and streams just as the country's early settlers did." According to the paper, "[n]othing better could happen to a fisherman." Although papers like the *Denver Post* were at the forefront of promoting the stocking of non-native fishes in decades past, they now held, "Not only are the green backs fighting trout and good to eat, but also they are among the most beautiful fish in the Rocky Mountains."[57]

The *Denver Post* was not alone in pining for the return of the "natural conditions" of the state's waters. Regional Director of the NPS Howard Baker

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[54] Ibid., 10.
[55] Ibid., 11.
[56] Ibid.
[57] *Denver Post*, August 25, 1957.

announced in an address to the Izaak Walton League that "[m]ore and more the science of wildlife management is coming to recognize the potency of Nature as opposed to the efforts of man." Whereas earlier the NPS and others had believed completely in the power of humans to remake and improve upon nature, Baker counseled that "[s]cientific studies of fish reproduction, for example, show that much of our past efforts at being mechanical setting hens and brooders in the fisheries have failed miserably as substitutes for the productivity of a sound natural environment." Admitting the management errors of the past, Baker stated, "Most of our management efforts today are moving in the direction of undoing our mistakes and restoring the abundant powers of Nature to the throne."[58] Doing so, concluded Baker, was "the best assurance we have of a continuing heritage of wildlife for aesthetic enjoyment or for the creel or bag."[59]

Following the report's recommendations, and reflecting the sentiments of Baker's address to the Izaak Walton League, the NPS dedicated the man hours and money needed to chemically treat and remove all "resident" fish from the Fay Lakes drainage in the summer of 1958. According to research biologist Robert Cope, the "operation was successful, and by the spring of 1959 the waters were free of fish and had become detoxified."[60] Once the lakes were devoid of all fish life, the NPS and its partners at the Bureau of Sport Fisheries and Wildlife turned their attention to finding

[58] Howard Baker, (address to the Izaak Walton League, Sioux City Iowa, 21 February 1957), NARG 79 Denver, Num Subj. files 1952-1965, Box 23 8ns-079-97-437, ff "Izaak Walton League," 2.
[59] Ibid.
[60] Cope, "Report on 1959 Fishery Studies."

pure strains of greenbacks with which to stock the lakes. Drawing from the conclusions of the 1957 report, they selected the Big Thompson River at Forest Canyon as the most likely site for pure strains of greenbacks. Accordingly, researchers took "by hook and line, by electric shocking, and by treatment with cresol" several samples of suspected greenbacks from Forest Canyon. Once captured, the fish were carried out of Forest Canyon on horseback, and transferred to the Estes Park Hatchery.[61]

By August of 1959 the NPS and the Bureau of Sport Fisheries were poised to make a run at stocking the alleged greenbacks. Using a helicopter and bucket, crews made one drop into Fay Lake in August and another in early September. In all, well over 100 suspected greenback were planted, with no evidence of mortality with either drop. The NPS also moved an additional 83 fish by truck to the US Fishery Station in Leadville, Colorado to serve as a broodstock for future stocking efforts. [62] By 1959 the broodstock had successfully reproduced, and a few thousand eggs were obtained.[63]

Although crews applied considerable time, effort, and resources to recolonizing the park with what they thought were pure strains of greenback cutthroat, the management of RMNP faced increasing pressure from the public to plant more fish, of whatever variety. As early as 1960, the Superintendent of RMNP

[61] Ibid., 4.
[62] Ibid.
[63] "Supplement to Report 10A5 1959 Annual Fish Planting Report, Rocky Mountain National Park," NADRG 79, Numerical Subject Files 1953-65, Box 13, 8NS-079-97-437, ff "Wildlife Fish," 1961-62.

proposed to Regional Director Howard Baker a stocking plan that placed more emphasis on the stocking of non-native fish than had been the practice since 1937. In response to his request, Regional Director Baker informed RMNP, "The entire plan is not consonant with present policy. Therefore, you should stock no fish in the park in 1960 other than those in connection with restoration of the greenback trout."[64]

It is certain that the NPS policy shift announced in 1937 posed a hardship for RMNP. Obtaining, breeding, and planting cutthroats of any variety had been historically difficult. Nevertheless, RMNP had followed the new policy with little complaint. The discovery of the suspected strains of greenback in the park, however, further circumscribed the type of fish available for stocking by greatly complicating exactly what constituted a "native" trout. Given the limited number of suspected greenbacks on hand and the delicate and slow process of building a large breeding population, it might be years before RMNP could again report the stocking of hundreds of thousands of fish as it had in decades prior. Always fearful of attracting public ire, RMNP Superintendent Rogers complained to Regional Director Baker, "It is our opinion that considerable adverse comment by Park fishermen will be the ultimate result, particularly if fishing efforts are less productive than in the past."[65]

Hoping to find a solution to the current fisheries crisis, the NPS turned to the expertise of the Bureau of Sport Fisheries and Wildlife for help. During the 1961-62

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[64] Memorandum Howard Baker to Director of Rocky Mountain National Park, 2 April 1960, NADRG 79, Numerical Subject Files 1953-65, Box 13, 8NS-079-97-437, ff "Wildlife Fish, 1953-62."

[65] Memo Superintendent of Rocky Mountain National Park to Region Two Director, 6 July 1960, NADRG 79, Numerical Subject Files 1953-65, Box 13, 8NS-079-97-437, ff "Wildlife Fish," 1961-62.

season, aquatic biologist Robert Azevedo undertook a comprehensive study of the lakes of Rocky Mountain National Park. In all, Azevedo gathered data on twenty-five lakes in the park and made recommendations based on those findings. According to Azevedo, original "native fish fauna of Rocky Mountain National Park [was] limited in numbers of species and was restricted in distribution. Although lowland waters were originally inhabited by cutthroat trout, suckers, and possibly other species, it is believed that fishes were absent from the upland lakes and streams," due to waterfalls that presented "insurmountable barriers to the upstream movement of fishes." Echoing the findings of previous investigations, Azevedo also stated that "[p]ristine conditions have been vastly altered by active programs of stocking of non-native species and strains of trout in nearly all park waters." The nearly century-long effort to stock the waters of Colorado and RMNP with available and popular trout species, believed Azevedo, meant that any attempt to "determine the original composition and distribution of the native park fishes" would be extremely difficult.[66]

Aside from pointing out the difficulties that lay ahead in repairing and managing the aquatic resources of the park, Azevedo revealed other bad news. According to his report, Dr. Robert Miller, Curator of Fishes at the University of Michigan Museum to whom specimen of suspected greenback trout were sent in 1957 and 1958, concluded that those fish gathered from Forest Canyon were not *salmo*

[66] O.L. Wallis, "An Evaluation of the Fishery Resources of Rocky Mountain National Park and Needs for Interpretation, Research and Management," NADRG 79, Numerical Subject Files 1953-65, Box 13, 8NS-079-97-437, ff "Wildlife Fish," 3.

clarki stomas.[67] In addition to Dr. Miller's conclusions, the NPS had also discovered archival records that showed that 160,000 "cutthroat trout, listed as 'spotted natives,' [likely Yellowstone cutthroats] were planted in the upper end of Forest Canyon in 1922 and that 130,000 were released in 1923." As was common during the early 1920s, the fish stocked in Forest Canyon were planted by "the Estes Park Fish and Game Association in cooperation with the National Park Service and the Rocky Mountain Transportation Company."[68] In other words, the closing of the Fay Lakes, the removal of exotic fish from them, the capture of fish from Forest Canyon, and the eventual aerial dumping of those fish were all for naught. Hence, concluded Azevedo, "efforts to protect and perpetuate them as such are without valid purpose," and the lakes should be reopened to fishing.[69]

In addition to the above bad news, Azevedo also advised a new management policy regarding the highly popular Bear Lake. Here, the biologist found that "Bear Lake receives heavy use from many types of visitors in addition to anglers," which had resulted in badly eroded shorelines. Although he was hopeful that the "recently paved trail around the lake [would] channelize much of the wear and tear and eventually result in an improvement of this eroded condition," he recommended the "discouragement or elimination of the anglers from fishing in the lake." Doing so, he

[67] Robert Azevedo, O.L. Wallis, "Inter-Agency Lake Surveys and Trout Investigations Rocky Mountain National Park, 1961," 15 February 1961, NADRG 79, Numerical Subject Files 1953-65, Box 13, 8NS-079-97-437, ff "Wildlife Fish, 1961-62," 10.
[68] Ibid.
[69] Ibid., 11.

argued, would enhance the natural scenery around the lake and allow "visitors to walk on the path in greater safety without danger from flying hooks."[70]

The lake and stream surveys, capture of suspected greenbacks, closure of popular waters, and the greatly circumscribed stocking program all reflect the specific ways in which greater ecological understanding were working to redefine what constituted proper use of specific places within the park itself. Azevedo's recommendation that Bear Lake be closed to fishing offers a direct example of this process. Even before the creation of RMNP, Bear Lake was one of the most popular destinations for the fishing tourist. As ecological and scientific understanding deepened within the NPS, however, it reshaped how park managers envisioned their institutional mandates and thus brought about changes in what sorts of activities were allowed in certain spaces. Even though the NPS reported that "[r]ecreational fishing within Rocky Mountain National park continues to be one of the more popular attractions to visitors," there was little managers could do to address widespread reports that "harvests and angler-success are quite limited" while pursuing a policy aimed at restoring park waters with greenbacks.[71] To gauge the degree to which science had gained ascendancy in matters of fish policy, one need look no further than the stocking records for the 1961 season. For all of that year, RMNP planted

[70] Robert Azevedo, O.L. Wallis, "Interagency Lake Surveys and Trout Investigations Rocky Mountain National Park, 1960," 18 May 1961, NADRG 79 Denver, Numerical Subject Files 1953-65, Box 13, 8NS-079-97-437, ff "Wildlife Fish, 1961-62," 1.
[71] "Annual Fishery Resource Report, Rocky Mountain National Park, 1962," NADRG 79, Numerical Subject Files 1952-1965, Box 15 8ns-079-97-437, ff "Fish," 1.

only 41,500 fish—all of which were Yellowstone cutthroat fry—in 16 different lakes, a number far below stocking levels common in the 1920s and 1930s.[72]

Parks as a whole were facing similar difficulties across the country, forcing the NPS to look for evermore innovative solutions to their problems. For generations, willow creels bursting with fish spoke directly to a fishermen's acumen and the fecundity of the water itself. As indicated in the previous chapter, catching and keeping large numbers of fish required the annual stocking of hundreds of thousands—sometimes millions—of fish. By the early 1960s, with ecological understanding on the rise, native fish in short supply, and the number of fishermen increasing, a new solution was required. At this most critical time, the NPS turned to a concept referred to initially as "fishing for fun."

In a paper presented in 1963 before the National Convention of Trout Unlimited in Allenberry, Pennsylvania, NPS naturalist Orthello L. Wallis told crowds, "Fishing-For-Fun is a concept that there is more to fishing than filling one's creel. It is a philosophy that numerous authors have expressed and that a multitude of anglers have enjoyed for many years. Now this concept is being translated into trout management plans."[73] At the heart of "fishing for fun" (more commonly called catch-and-release) was the belief that a true sportsman did not desire the wanton destruction of fish for mere amusement, but rather respected his quarry enough to practice angling techniques that ensured the safe return of the fish from whence they came.

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[72] Ibid., 3.
[73] Orthello L. Wallis, "The Challenge of Fishing for Fun," (paper presented at the National Convention of Trout, Unlimited, Allenberry PA, 7 September 1963), NADRG 79, Numerical Subject Files 1952-1965, Box 15 8ns-079-97-437, ff "Fish."

Such practices included the use of barbless hooks, artificial flies and lures that were less likely to be swallowed by fish, and keeping fish submerged while removing hooks.[74] Each of the above, if followed diligently, greatly enhanced the likelihood that a fish would survive the trauma of being caught and hence releasing the fish will allow it to be caught another day.

Although the introduction of a catch-and-release policy may have been a radical step for the NPS, it was not an entirely new concept. According to Wallis, "Writers have long extolled the pleasures of angling amid scenic and placid surroundings and not the thrill of the kill alone."[75] In fact, the concept likely originated in the 1870s when writers began calling for the use of barbless hooks, which greatly increased the chances of a fish's survival after release.[76] As the idea of fishing for fun spread, regulations designed to encourage the behavior became more common, with the Michigan legislature enacting one of the first fly-fishing-only laws to protect the Au Sable River.[77] In 1949, likely responding to the postwar demand for recreational fishing, the Pennsylvania Fish Commission adopted the motto, "Kill Less—Catch More!"[78]

Further reflecting the changing sentiment amongst some fishermen was the 1948 publication in *Sports Afield* entitled, "Want Less Fishing?" According to Dr. Eschmeyer, the article's author, the increased demands fishermen were placing upon

[74] Ibid.
[75] Ibid.
[76] Ibid.
[77] Ibid.
[78] Ibid.

fish meant that the fish could no longer be caught and kept by a single individual, but rather reused or recycled through their return to the water. Emphatically making his point, Dr. Eschmeyer claimed, "We no longer need the meat as the pioneers did…we must learn to fish for fun…one way to provide more fishing is to put back the fish we catch."[79] In 1952 the National Park Service and the US Fish and Wildlife Service "cooperated in the establishment of a pioneer Fishing-For-Fun, no-kill program in Great Smoky Mountains National Park." Under the new program, which built upon regulations already in place that required the use of artificial flies and lures, fishermen were also required by law to release the fish they caught.[80]

The concept of catch-and-release fishing was attractive to the NPS for many reasons. Amidst the difficulties they faced in keeping parks like Rocky stocked with adequate numbers of catchable native trout, catch-and-release had the capacity to stretch the fish the park did have so that more fishermen could enjoy them. Doing so would not only alleviate fishing pressure, but would allow the NPS to keep stocking budgets relatively low, while not violating the NPS's mission to support native species. The NPS was aware, however, that enacting such a fundamental shift in fishing regulations also came with a greater chance of upsetting the fishing public so long accustomed to keeping that which they caught. Speaking directly to this matter, the Assistant Director of Conservation, Interpretation, and Use stated that "We are well aware that progress in this field must be made slowly; too rapid expansion of the

[79] Quoted in Orthello L. Wallis, "The Challenge of Fishing for Fun," (paper presented at the National Convention of Trout, Unlimited, Allenberry PA, 7 September 1963), NADRG 79 Denver, Numerical Subject Files 1952-1965, Box 15 8ns-079-97-437, ff "Fish."
[80] Wallis, "Fishing for Fun."

program, at this time, could exceed the public acceptance of the concept."[81] This statement is significant in that it reflects the difficulties the NPS faced in redefining—in very specific ways—how humans behaved in riparian areas within national parks. In this instance, the arrival of more ecologically-driven management required a fundamental shift in the aims and methods of fishing itself. Moreover, this statement reflects the understanding on the part of the NPS that fostering such a shift involved more that a simple policy mandate ahead of the acceptance of the concept would cause major public relations issues with the public.

With ecological appreciation on the rise, fundamental shifts occurring in recreational fishing, increased excitement about the possibility of bringing the greenbacks back from the brink of extinction, and NPS mandates that heavily favored native species, RMNP abandoned completely stocking as a tool to support sport fishing in 1968. From July of that year to the present, RMNP did not stock a single non-native fish. The era of fishing for tourists had effectively come to an end as science and scientific concern came to dominate the ends and means of how the spaces along rivers, streams, and lakes were used within the park.

Although RMNP abandoned stocking in 1968, they continued searching for "pure" strains of greenback trout in the following years. By 1973 it seemed likely that they had found two pockets of greenbacks still swimming the waters of the Eastern Slope of Colorado—one in Como Creek and one in South Fork, Cache La

[81] Memo Assistant Director, Conservation, Interpretation and Use to Rocky Mountain National Park *et. al.,* 14 October 1963, NADRG 79, Numerical Subject Files 1952-1965, Box 15 8ns-079-97-437, ff "Fish."

Poudre River. These two streams, both part of the South Platte River drainage, held what scientists believed to be an estimated 2,000 pure greenbacks inhabiting an estimated 4.6 kilometers of stream.[82] Following the passage of the Endangered Species Act in 1973, the greenback trout was officially listed as endangered and afforded all the legal protections of the law.[83] In the hopes of restoring the endangered species, fisheries researchers chemically treated Hidden Valley Creek in RMNP to remove the brook trout that dominated the stream in the hopes of restoring it with the greenbacks. The first planting of the greenbacks in Hidden Valley took place in 1973.[84] Further hoping to establish stable and naturally reproducing populations of greenbacks, the NPS and U.S. Fish and Wildlife Service removed all brook trout from Bear Lake and restocked it with greenbacks in 1975.[85]

The 1977 season brought more developments for the restoration of the greenbacks. In addition to completing the first comprehensive greenback trout recovery plan, researchers also located another likely pure population of greenback trout in 2.8 kilometers of Cascade Creek. To give them a wider range of tools to aid in the restoration of the greenbacks, including the introduction of angling for non-greenbacks, the trout recovery team recommended the "down listing" of greenback from endangered to threatened. Their reason for doing so was simple. If listed as endangered, no angling could take place in water that contained greenbacks as part of

[82] Greenback Trout Recovery Team, "Greenback Trout Recovery Plan" (Denver: U.S. Fish and Wildlife Service, 1998, mimeographed), 1.
[83] Ibid., 59.
[84] Ibid.
[85] Ibid.

the legal protection that prevents the "taking" of endangered species. If listed as threatened, however, the legal protections against taking would be somewhat relaxed and limited fishing could take place in waters containing greenbacks. As the NPS had hoped, the greenback was listed as a threatened species in 1978.[86] By 1981 an estimated 630 greenback "sub-adults" and more than 16,000 fry had been produced through the broodstock program and stocked in restoration projects in the South Platte River Drainage.[87]

With several projects under way, the restoration team and its partners in Bozeman had finally bred enough greenbacks to allow for stocking at a rate of 1,000 fry per hectare, a level high enough to open many of the areas to limited fishing. Beginning in 1982, RMNP implemented the very first season of catch-and-release fishing in many of the park's waters that contained the precious greenback. Driven both by the desire to allow angling opportunities in the park and the desire to protect greenbacks from invasive species like the brook trout, the NPS designed its catch-and-release program to achieve both. Specifically, in waters like Hidden Valley Creek, RMNP allowed angling with artificial flies and lures but required that fishermen release all greenback caught, while encouraging them to keep all brook trout. This catch-and-release/catch and kill policy is still in effect for most of the waters in the park today.

Reflecting the changing nature of fisheries management in and around RMNP, the Estes Park Hatchery, which had been badly damaged by the floods that ripped

[86] Ibid.
[87] Ibid.

through Estes Park in July of 1982, was finally slated for closure in January of 1983. The Colorado State Division of Wildlife planned to replace the old Estes Park Hatchery with a larger capacity facility located closer to Denver. Although many in Estes Park were concerned that the closure of the EPH would negatively impact tourism in the town, it was clear to many that the facility was no longer needed.[88]

The closure of the hatchery bears witness to the vastly changed nature of fisheries management in RMNP. When the facility was originally built, it was truly a local endeavor. Although the state soon assumed control of the hatchery, it remained a largely local affair as the citizens of Estes Park contributed their time, money, and energy to stocking the waters in and around RMNP. This high level of community involvement was much welcomed by the newly established NPS. In fact, for the first twenty years of RMNP regional and national NPS officials had relatively little input into the species, numbers, and locations of fish stocked in the park. It was not until 1936 that the NPS regional and national management began taking a more active role in what individual parks were stocking. From that point on, the operations at the EPH grew evermore irrelevant as scientists both within and without the NPS began assuming a more central role in fisheries management.

With the hatchery closed and greenback restoration well underway, RMNP continued to expand its catch-and-release policy across the park. Between 1988 and 1994, for example, thirteen lakes and streams across the park that contained stable

[88] *Estes Park Trail*, December 29, 1989.

populations of greenback and allowed catch-and-release fishing.[89] The marriage of catch-and-release angling for greenbacks and catch-and-kill for brook trout and other species, however, has produced mixed results. Beginning in the 1960s fishing for fun captured the moral high ground in persuading fishermen to release fish so that they may be enjoyed another day. Although this new fisherman's ethic was slow to find its way into RMNP fishing regulations, it had done so by 1982. In ways that the NPS did not anticipate, however, fishermen have not reserved catch-and-release only for greenbacks. In 1982-83, for example, anglers reported having released in the neighborhood of sixty percent of all brook trout caught. A similar survey for 1984-85 reflected that fishermen released anywhere from 45-100% of all brook trout caught. Additionally, it was estimated that as many as seven percent of all greenbacks caught were kept by mistake.[90] If the catch-and-release program did not work exactly as managers had hoped, it nonetheless offered one tool essential to RMNP fisheries management today.

Just as important as finding, breeding, and stocking greenbacks was the sometimes difficult and tedious process of educating the public about the importance of restoration efforts and the value of the native fish. Beginning in the early 1990s, the greenback restoration team began to work more closely with conservation groups such as Colorado Trout Unlimited. Doing so allowed for "increased educational opportunities" through Trout Unlimited publications and meetings. The restoration team also began reaching out to local schools and members of Trout Unlimited to

[89] "Greenback Trout Recovery Plan," 45-50.
[90] Ibid., 17.

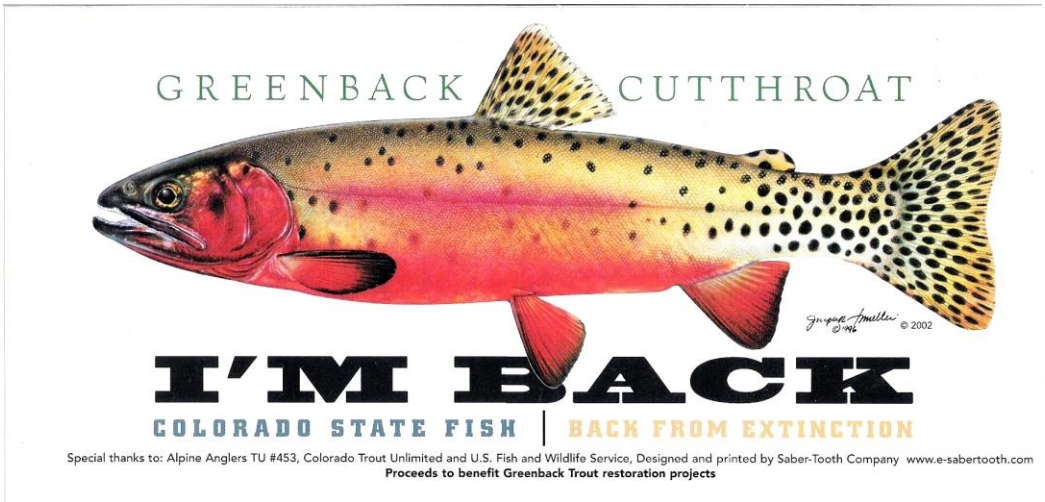
make the greenback the state fish. In 1994 the state's previous "official" fish, the rainbow trout, was ousted by the greenback trout.[91]

Fisheries management within RMNP continues to evolve. Most recently, graduate student Jessica Metcalf has used DNA analysis to determine—once and for all—which fish populations in the park are greenbacks and which are not. Her research found that of the nine populations of cutthroat managed within RMNP as pure strains of greenback, five are actually hybridized populations. Although disappointing news for those involved in restoration efforts, Metcalf's findings fit into a much broader historical pattern within the park in which the development and refinement of scientific knowledge and techniques challenge previous management strategies and complicate both the ends and means of preservation.

Conclusion

The brook trout that now swim the waters of Sky Pond and the greenbacks that populate Bear Lake both offer an opportunity to understand the connections between the cultural dimensions of tourism, and its very real and powerful connections to the material world. Their presence also allows us to witness firsthand how the arrival of science within the NPS changed how they envisioned what constituted proper management, and how that redefinition brought important changes to the park's fauna and how humans interacted with it. The persistence of brook trout

[91] Ibid., 62.



Bumper sticker of greenback trout.
(Reproduced with artist's permission)

across the park—despite more than six decades of attempting to root them out—also speaks to the power of tourism to transform radically the natural world.

More than determining which fish belonged in which waters, the arrival of science fundamentally challenged how riparian spaces in the park were to be used. Even before the twentieth century and continuing at least until the late 1930s, fishermen were given free reign over the park's riparian areas, and these spaces were managed almost wholly for their benefit. Gradually, as science came to play an evermore important role in shaping park policy, the use of riparian spaces became more complicated as scientists asserted their authority over them. The closure of popular waters to fishing, poisoning of lakes and streams to plant protected greenbacks, abandonment of stocking altogether, implementation of catch-and-release regulations, and the closure of the Estes Park hatchery all serve as examples of this process.

Many still cross through the gates of the park to fish. But much differentiates the fisherman in RMNP in 2008 from one in 1936. For instance, fishermen now travel to the park knowing that catches will likely be low, and most of what is caught requires prompt return to the waters from whence it came. Fishermen have also come to terms with the fact not all of the park's waters are open to the sport. But still folks do come to fish. Their desire to do so, at least in part, is tied to the flexible genius behind those that advertise for tourism. The "I'm Back" bumper sticker reminds us of this. Perhaps more than anything, the sticker speaks to the tourists industry's ability to sell whatever is at hand. No longer able to sell waters brimming with fish, those involved in the tourist industry are now in the business of selling scarcity. Come to Rocky Mountain National Park, bring your fly rod, and angle for the nearly extinct marvel of nature that is the greenback trout.

Chapter Six
Growing Elk

Introduction

Elk are as much a part of the iconography of Rocky Mountain National Park as Trail Ridge Road, Bear Lake, or flipping an elk hair caddis under the outstretched branches of a bank-side willow. For decades families have piled into their cars, donned their hiking boots, and pressed binoculars to their faces with the hope of seeing one of the park's most beloved and recognized animals. If you don't believe me, take a drive this summer through Moraine Park or over Trail Ridge Road. Not only are you likely to see elk in diverse habitats, but you are just as likely to see hundreds of ogling tourists pressing toward them, cameras in hand.

In this sense the proliferation of elk across Estes Park and RMNP has been boon for both park and town. Even before the creation of RMNP in 1915, a host of people and organizations worked to create an attractive iconography of the park. As demonstrated in previous chapters, this iconography included the presence of good roads and hungry trout. Just as important to that iconography was the opportunity to see big, beautiful "game animals." In much the same way that local and regional businesses and the NPS sought to impress upon prospective visitors commodious roads and copious trout, they also spent significant time and effort lauding the region's rich and varied animal life, and for many of the same reasons.

For the tourist making the much-advertised train ride from Chicago or the quick jaunt from Denver, rumors of roadside deer, majestic big-horned sheep, and

multitudes of rutting, bugling, sparring elk were indeed great attractions. Realizing the close connection between high visitation and ubiquitous game animals, the NPS dedicated significant effort to maximizing encounters between visitors and the park's ungulates. These efforts included an extensive extermination of predatory animals such as bobcats, lynx, badger, coyote, and mountain lion, as well as other measures.

The history of elk in Rocky Mountain between 1915 and 1930 shares much in common with the construction of roads and the stocking of fish in the same period. In each case, a host of individuals and organizations promoted a specific experience in their hopes to draw tourists to the region. This desire, in turn, provided the NPS with ample motivation to maximize the number of animals visible within the park. Through an active predator reduction program, and a moratorium on hunting within the park, the NPS was able to grow its elk population from just a few dozen in 1913 to several hundred in less than two decade's time. In this respect, the wildlife management policies worked well in growing NPS visitation and strengthening its bureaucratic backbone. By the earliest years of that decade, however, NPS officials began linking growing elk herds with visible and significant range degradation.

Rather than simply demonstrating the many mistakes NPS management made as Karl Hess did in his scathing book *Rocky Times in Rocky Mountain National Park: An Unnatural History*, we would do better to understand specifically why the NPS made such decisions. To do so, we must come to terms with how and why elk have become such an integral part of the Rocky Mountain National Park experience. Such an understanding does not exonerate the NPS from its past decisions, but it does

allow us to understand *why* park managers acted as they did. Perhaps most importantly, telling a story that draws together public expectations, park management, and the ecological community of which elk are a part again reveals the vast power of tourism to transform the natural world.

Cervus Elaphus

The sound rises on crisp September mornings throughout the Rocky Mountains. It ricochets across canyons, screams through gold splashed aspens, and raises gooseflesh on those who hear it. It is an almost otherworldly sound that defies written description. It begins with a low, growling and powerful whistle that rises to higher and higher octaves, and finishes abruptly. This bugle, as it is called, is often followed by a series of guttural harrumphs. To the human ear, the bugle of the elk might be reminiscent of a bagpipe gone bad; to an elk, it is an invitation to make love and war, often simultaneously.

Elk have roamed the Rocky Mountains for millennia, stretching as far back as 40,000 years BP.[1] For much of that time, these animals have been of great interest to humans as a source of food, raw materials, and of late, inspiration and entertainment. The North American elk is a ruminant, meaning that it has a "single large stomach that is divided into four compartments—the rume, reticulam, omasum and

[1] Bart W. O'Gara, Robert G. Dundas, "Distribution: Past and Present," in *North American Elk: Ecology and Management*, Dale E. Toweill, Jack Ward Thomas, eds., (Washington, D.C.: Smithsonian Institution Press, 2002), 68.

abmasum."[2] Through a complicated biological and chemical process, elk are able to transform grass, forbs, and other vegetal matter into blood, bone, meat and fur. Considering the average size of mature elk, often in excess of 1100 pounds for males and 600 pounds for females, it should come at no surprise that they require an impressive quantity of grass, shrubs, and other leafy matter for sustenance.[3]

The feeding habits of elk are flexible, depending on season and available forage. Elk can and do select from a range of edible plant species, but often focus on those which have the highest caloric benefit as compared to the caloric expenditure of eating them.[4] Prevailing season and the particular elk's caloric requirements further complicate which foods it will eat and when it will move to a different location. For example, a cow supporting a calf through the bountiful summer months will consume in the neighborhood of 18 pounds of "good quality forage" per day. Taking into consideration the size and structure of their mouths that same cow elk would have to dedicate some 13-14 hours per day just in cropping, chewing, and digesting. According to dietary studies conducted within RMNP, the majority of park elk's diet consist of grasses, followed by "woody shrub species such as willow (*Salix spp*), with aspen (*Populus tremuloides*) and forbs making up a small portion."[5]

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[2] John G. Crook, "Nutrition and Food," in *North American Elk: Ecology and Management*, Dale E. Toweill, Jack Ward Thomas, eds., (Washington, D.C.: Smithsonian Institution Press, 2002), 260.
[3] Robert J. Hudson, Jerry C Haigh, with the assistance of Anthony B Bubenik, "Physical and Physiological Adaptations," in *North American Elk: Ecology and Management*, Dale E. Toweill, Jack Ward Thomas, eds., (Washington, D.C.: Smithsonian Institution Press, 2002), 200.
[4] Crook, "Nutrition and Food," 277, 281.
[5] "Elk and Vegetation Management Plan, Rocky Mountain National Park, Colorado" (Washington, D.C.: Government Printing Office, 2007), 1.

Two bull elk found dead following combat just outside RMNP.
(Superintendent's Annual Report, 1937)

In addition to meeting their daily caloric needs, male and female elk spend much of their year in the business of reproduction. The cycle begins in August with the rut, which often stretches through October. The purpose of the rut, from a purely biological point of view, is to select the most fit males for breeding the largest number of females. In their effort to build up the largest breeding pool possible, bull elk partake in a range of behaviors to demonstrate their virility, including bugling and or dominance fights. As it is understood, the bugle is essentially an open invitation to other bulls to challenge dominance. In cases where a mature bull is challenged by an immature bull, a head-on rush accompanied by a show of teeth and hissing is often

Bull elk found following a deadly duel with another bull in Beaver Meadows.
(Superintendent's Monthly Report, October 1936)

enough to drive the adversary from the field. In cases where the challenger is also a mature bull, the proceedings look much different.[6]

Rather than run the risk of serious bodily harm or the fruitless burning of precious calories just before the onset of winter, a harem-tending bull will often first resort to a series of postures to drive off a well-matched opponent. Such postures might include the thrashing the ground with antlers, the spraying urine, and or loud bugling. If these actions fail to dissuade the other party, fighting is likely to ensue. Fights vary widely, but they often entail a shoving match with antlers locked. This process, which is often played out several times a day, is serious business. On

[6] Valerius Geist, "Adaptive Behavior Strategies," in *North American Elk: Ecology and Management*, Dale E. Toweill, Jack Ward Thomas, eds., (Washington, D.C.: Smithsonian Institution Press, 2002), 418.

average, a rutting bull sustains between 30 and 50 wounds per season, some of which lead to infection and even death.[7] The prize for the bugling, pissing, charging and fighting is copulation with the females belonging to his harem.

During the longest and coldest days of winter a bred cow begins growing a new elk, a process that takes in the neighborhood of 255 days.[8] Around the first of June, cows typically give birth to their calves.[9] The rigors of predation and impending seasonal change put a premium on all ungulates' ability to grow quickly, and elk are no different. At birth the typical calf weighs in the neighborhood of 110 pounds, but the fat-and calorie-rich milk from their mothers promotes quick growth and by their first spring they typically weigh between 310 and 350 pounds.[10]

Such is the life cycle of *Cervus Elaphus.* Viewed from afar it is a wonderfully choreographed movement of animals across time and space: large herds gathering in the fall and winter, fighting and making babies; the diffusion of herds in the spring accompanied by the birth of calves into the bosom of lush green summer grass; and the drawing together in fall to begin the cycle once again. Although they have specific caloric reasons to stay in one place and thereby maximize the ratio between caloric intake and expenditure, the changing seasons and predation keep herds of elk from settling into a specific location. This has the consequence of reducing the likelihood that their range will be overgrazed by any given group of elk. In a perfect

[7] Ibid., 420.
[8] Hudson, "Physical and Physiological Adaptations," 241.
[9] Ibid., 242.
[10] Ibid., 246.

world, this is how it works. As we know, however, the world is often less than perfect.

Branding a National Park

To those in the business of promoting and selling, "branding" refers to efforts intended to associate a product with a certain sentiment that might compel a person to purchase it. Managers of RMNP have sought to associate their park (i.e., their product) with certain images, hopes, and attitudes, including smooth and commodious roads, powerful and pristine scenery, and great fishing. In this sense, the history of RMNP reflects the broader institutional tendencies within the NPS. From the very earliest days of the national park concept in the 1870s through most of the twentieth century, the NPS managed many of its resources for the edification of tourists.

In seeking to broaden the appeal of the park, NPS officials and others worked diligently to associate the Rocky Mountain National Park experience with the viewing of game animals. In this sense, the history of RMNP is little different than Yellowstone, Yosemite or the Grand Canyon. As originally conceived, national parks were to be vast "living museums" where visitors could witness first hand fish, fowl, and furred animals in their natural habitat. It was a strategy that worked well for the promotion and growth of the national park system. After all, driving across a smooth road casting one's gaze upon splendid peaks is one thing, but being close enough to see, smell and almost touch an elk, deer, or bighorn sheep from that same automobile is an altogether different experience.

Not surprisingly, some of the earliest promoters of big game in the area were the very same groups that promoted the great fishing and driving in and around Estes Park. In the Union Pacific's *Colorado For the Tourist*, for example, the railroad promoted the state's fecund wildlife through both prose and picture. Given that this publication was designed to advertise all of Colorado, and since it was published well before the creation of RMNP in 1915, hunting rather than viewing animals was the focus. According to the pamphlet, the mountains of Colorado abounded in

> deer, bear, elk and grouse. Bear and grouse may be hunted ad libitum, but the elk and deer are protected by statute. Flocks of mountain sheep can be seen, but they are protected for the present. For the hardier hunter there are mountain lions, bob-cats and wolves, and there is no better sport than an extended search for these dangerous beasts.[11]

Advertising the plentiful opportunities to hunt the wilds of Colorado was an effective strategy. As several historians have argued, American men were increasingly interested in tapping into masculine activities in a world where the effete seemed to be on the rise. The ever-perceptive UP tapped into such concerns for the betterment of their bottom line.

In their 1913 publication *Where the Rockies Reign Supreme*, which was dedicated wholly to the promotion of Estes Park, the Union Pacific continued its promotion of wildlife in the region:

> It is but natural that in such a rugged country there should be plenty of game. Bear and deer are found within a day's tramp, and mountain sheep, which are protected by law in Colorado, now are quite plentiful..[12]

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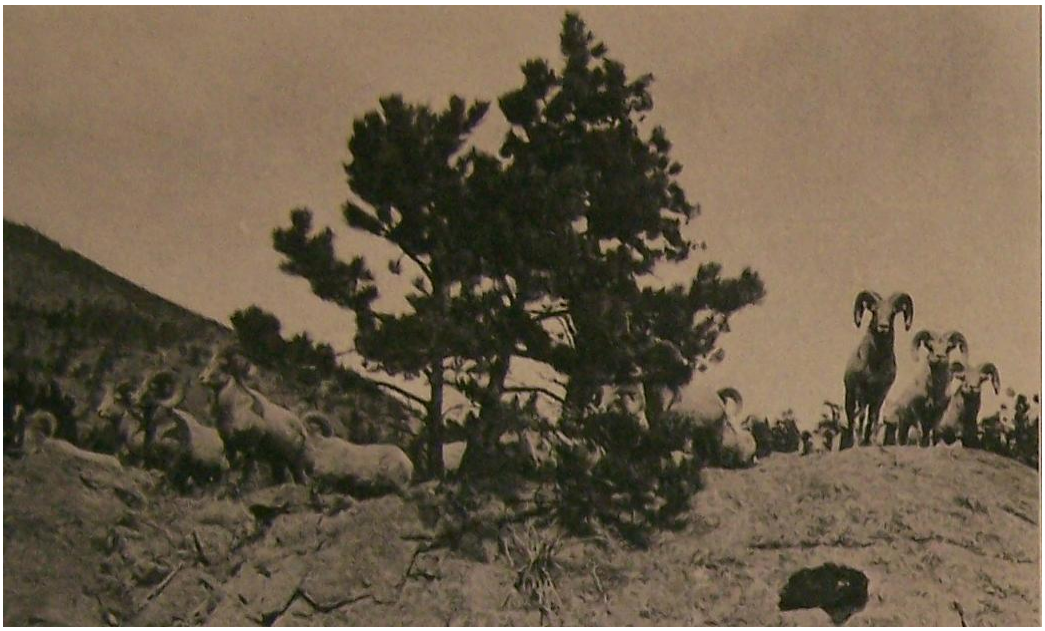
[11] *Colorado for the Tourist* (Union Pacific Railroad: 1911), 32.
[12] *Where the Rockies Reign Supreme* (Union Pacific Railroad: 1913), 7.



Caption read "Rocky Mountain Sheep are often seen by Park visitors."
(From *Rocky Mountain National Park Colorado*, circa 1920)

Again, if one took the word of the UP as gospel, Estes Park promised the same sort of hunting and wildlife viewing opportunities as the rest of the Centennial State.

In their 1924 publication entitled *Colorado's Mountain Playgrounds*, the Union Pacific continued to promote the region's abundant wildlife, but the tone of their promotion had changed. Rather thank celebrating the state as a hunter's paradise, the publication touted it as a "Sanctuary for Bird and Beast." Within this sanctuary, promised the UP,

> forests and streams have many inhabitants now safe from trapper and hunter. The beaver has countless dome-shaped tenements in the streams, where he may be seen by patient watching. The foremost mountain climber on the globe, the bighorn sheep, roams the precipices of the highest peaks. Deer are often encountered, but bears are few and rarely seen; marmots, woodchucks, rabbits and conies are common.[13]

[13] *Colorado Mountain Playgrounds* (Union Pacific Railroad: 1924), 8-10.

The creation of RMNP in 1915, with its emphasis upon seeing rather than shooting wildlife, clearly worked its way into the promotion of the region. Regardless if viewed from the working end of a rifle or from the backside of a Kodak, corporations like the UP were well aware that abundant wildlife along their rails held the promise of more patrons, and thus they dedicated significant time, money, and effort promoting their presence.

Reliance upon wildlife to promote the park is also apparent in the Burlington's publication *Colorado: Rocky Mountain National (Estes) Park*. According to the author, "Rocky Mountain National Park is a natural home for bear, deer, Rocky Mountain Sheep, beaver, and other wild animals, as well as numerous species of birds. Under government regulations the wild animal life in the Park is fully protected." The publication continues:

> [The] Bighorn or Rocky Mountain sheep, with their circling horns, are seen in increasing numbers each year. Frequently they may be approached sufficiently near to photograph. To see them jumping from crag to crag, graceful and agile, or dropping off a precipice, is a sight long to be remembered. They congregate during the summer months on Specimen Mountain, where they often may be seen from the trail.

In addition to amplifying wildlife viewing opportunities, the railroad also revealed that the "wildlife" had lost some or all of its wariness were humans were concerned. To Americans interested in experiencing such animals, the promise of close proximity was indeed a powerful lure. This pamphlet was also one of the first to mention the park's growing elk herd. According to the Burlington, there were "more than 150 elk,

Advertisement for the Elkhorn Lodge

and they are frequently seen." [14] From the mid-1920s onward, the mention of elk in the region's promotional literature would become more and more common.

Railroad companies were not the only businesses interested in promoting the animal life of Estes Park. The Elkhorn Lodge, which entertained guests as early as 1880, made an obvious connection between wildlife simply through the selection of their moniker.[15] Beyond naming themselves the Elkhorn and festooning their hotel—both inside and out—with copious antler sheds and animal heads, their advertisements and brochures also used faunal iconography to draw tourists to Estes Park. In a brochure likely printed in the late 1910s, the Elkhorn promised that Horseshoe Park was a place where "mountain sheep are becoming so tame that they will allow you to approach within fifty feet and take photographs."[16] In addition to such promises, the Elkhorn also claimed that "[i]n

[14] *Colorado for the Tourist*, 21.
[15] James H. Pickering, *This Blue Hollow: Estes Park, The Early Years, 1859-1915* (Boulder: University Press of Colorado, 1999), 94.
[16] "Elkhorn Lodge Estes Park Colorado," (N.p.: [1918]), Estes Park Museum, ff "Hotels and Lodges, Elkhorn Lodge," 13.

an effort to reinstate a condition that existed in former times, the State has lately turned a band of Elk into the Park, which still roam in the neighboring hills and can be frequently seen."[17]

Following the dark days of World War II, Edwin Alberts published *Rocky Mountain National Park, Colorado* as part of the Natural History Handbook Series on behalf of the National Park Service. The series, which was intended to explain "the natural history of scenic and scientific areas in the National Park System," contains valuable information on a wide range of plant and animal life within RMNP. In a manner that modern environmental historians would appreciate, Alberts's work begins with a description of how the forces of gravity, ice and time had chiseled and gouged the park's many canyons and cirques.

Following his primer on glaciation, Alberts included a section on "Hoofed Animals." Here, Alberts led off with a discussion of the wapati—or Rocky Mountain Elk. After offering a brief summation of the animal's breeding and feeding habits, Alberts stated that in "late September, as the mating season begins and the bulls fight for possession of the herds, large groups of elk can be seen in such places as Horseshoe Park and Beaver Meadows."[18] Alberts gives the distinct impression that Regardless of the season, seeing elk is not a difficult task. In fact, he states that in the "summer you may see them along the Trail Ridge Highway, emerging from the forest below Fall River Pass or the Rock Cut area…From mid-September until March or

[17] Ibid., 14.
[18] Edwin C. Alberts, *Rocky Mountain National Park, Colorado,* Natural History Handbook Series No. 3 (Washington D.C.: U.S. Government Printing Office, 1954), 25.

April, herds of elk are normally to be seen in Beaver Meadows, Horseshoe Park, and the Meadows north of Grand Lake."[19] Alberts's entreaty reveals an interesting and telling pattern, and one common to the surveyed promotional literature on elk in RMNP. In the vast majority of the instances where elk are mentioned in the park's promotional literature, they are mentioned either to be in areas where roads exist, or within the proximity of roads themselves.

The concerted effort to promote the area's abundant wildlife makes historical sense. To the growing class of Americans with the time, money, and motivation to escape more urban settings, the chance to view wildlife was a great attraction. The Earl of Dunraven knew this; so too did the members of the Estes Park Improvement Association who originally conceived of RMNP as a game preserve. The Union Pacific Railroad and the National Park Service were also well aware that an abundance of animal life in and around Estes Park—whether for sport or for viewing—promised to please the growing number of people annually attracted to the Estes Park region. Through their brochures, pamphlets, touring guides, and other printed material, these and others linked Rocky Mountain National Park and the opportunity to view wildlife. The desire to see wildlife, especially the park's ungulates, put the NPS in a position to manage those animals in such a way that increased the likelihood that a visitor would encounter them.

[19] Ibid., 27.

Growing Elk

It is impossible to know with certainty when the last elk was shot in the Estes Park region, or whether or not elk were indeed completely exterminated as is commonly thought. What is known, however, is that the rapid growth of Denver and surrounding mining camps in the 1860s and 1870s put tremendous strain on the plant and animal life along the Front Range. According to one of the earliest residents of Estes Park, Abner Sprauge, the elk "lasted about three years. They came down from their high range just before Christmas, 1875, by the thousands and were met by hunters with repeating rifles and four horse teams; hauled to Denver for three or four cents per pound. In 1876 fewer came down; in '77 very few were seen on [the east] side of the divide. In 1878 I killed my last elk, and to get him had to go over Flat Top [Mountain]."[20] By the middle of the 1880s, it appears that there were very few, if any, elk in the Estes Park region.

In park to restock the area with elk, the first of two shipments of elk arrived from Yellowstone National Park in 1913. The following year an additional twenty-five were shipped, bringing the total number of surviving elk in Estes Park to about thirty.[21] According to the *Estes Park Trail*, "One of the interesting sights for tourists in Estes Park, which will be new even to former visitors, is a herd of about twenty-five elk, which can be observed any day grazing in what had been rechristened the

[20] "Elk and Vegetation Management Plan," 14.
[21] *Estes Park Trail*, July 25, 1914; Superintendent's Annual Report, 1915.

Stanley Elk park."[22] The elk, which were "apparently" contented "with their new grazing field," remained within a barbed wire enclosure for visitors to see before being released.[23]

As early as 1917, park officials reported that "[c]onditions for wild animals in the Park have been excellent. The weather has been exceptionally mild, and the abundant feed of the earlier months promises to last well into the fall."[24] Monthly tallies of animals seen supported the optimistic tenor of the report. In November of that year, for example, park staff counted a total of "48 grouse, 19 elk, and 60 mountain sheep."[25] Under such favorable conditions, the park's elk herd grew quickly, much to the pleasure of the NPS. According to their official count, by 1918 there "were 5 herd of elk in the park" with a total population of about sixty, and they were "increasing rapidly."[26] To a park eager to attract visitors as quickly as possible, herds of multiplying game animals meant nothing but good things.

By the close of 1918, just three years following the park's creation, Superintendent L. Claude Way was already keenly aware of the connection between visible game animals and increasing visitation. In his 1918 annual report, he stated:

> good days brought many visitors to the park, to see the wild game, the numbers seen being exceptionally great. One party counted 82 deer, 41 mountain sheep, and 27 elk, on the South slope of Deer Mountain, in one hour's time, while driving along the High Drive Road. No doubt there were as many more deer and sheep that they did not see.[27]

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[22] Ibid.
[23] Ibid.
[24] Superintendent's Monthly Report, October, 1917.
[25] Superintendent's Monthly Report, November, 1917.
[26] Superintendent's Annual Report, 1918.
[27] Superintendent's Monthly Report, April, 1918.

The superintendent's report is intriguing for a couple of reasons. First, it shows that at least some park visitors kept a close tally of the wildlife they encountered, perhaps revealing a heightened level of interest in seeing such animals. That the superintendent included the counts in his report reflects the interest that he and his superiors also had in the presence of ample wildlife. Lastly, the superintendent, the visitors, or both were impressed with the animals being so close to the road.

The elk shipped to and released in Estes Park, combined with the already existent herds of deer and big horned sheep, gave prospective visitors much to ponder in anticipation of a trip to RMNP. From the NPS's perspective, however, there was one significant problem. Although grey wolves and grizzly bears—both top-tier predators of deer, elk, and big horned sheep—had been extirpated prior to the establishment of the park, many predators still lurked in the park's shadows in search of their next meal.[28] Reflecting the prevailing attitude that any animal that threatened the existence of so-called "game animals" was a threat to the mission of the NPS, the first superintendent of RMNP reported, "[T]here are coyotes and mountain lions roaming within the Park and if they increase to any extent, will become a detriment to the preservation of other animals."[29]

To understand fully the role of "game" animals like elk in the early years of the National Park Service it is helpful to look to the broader place of such animals in

[28] "Elk and Vegetation Management Plan," 1.
[29] Superintendent's Annual Report; 1915; See also Richard West Sellars, *Preserving Nature in the National Parks* (New Haven: Yale University Press, 1997), 69-75.

the United States at the turn of the century. According to historian John Reiger, "American sportsmen, those who hunted and fished for pleasure rather than commerce or necessity, were the real spearhead of conservation."[30] Through the publication of magazines and journals like *American Sportsman* and *Forest and Stream*, sportsmen found a common voice and were able to create something akin to a group identity. Giving structure and a powerful voice to sportsmen were organizations such as the Boone and Crockett Club, which Reiger claims was "the first private organization to deal effectively with conservation issues of national scope."[31]

Although Reiger is makes an important point in that sportsmen were an important component in the development of conservation, his argument often stretches well beyond his evidence, as is the case when he asserts that the sportsman's concern with game habitat compelled them toward a more holistic approach to resource management. In his zeal to prove once and for all that hunters have been positive forces of historical change through their contributions to the conservation movement, he fails to consider fully the role of hunters as promoters of predator eradication. Throughout the twentieth century, few groups of public resource users—save perhaps ranchers—have so vociferously called for the destruction of predators. The reason is straightforward enough. Any animal that preyed upon "game animals" threatened a valuable recreational resource and thus should be removed from the

[30] John F. Reiger, *American Sportsmen and the Origins of Conservation*, revised edition (Norman: University of Oklahoma Press, 1986), 22.
[31] Ibid., 23.

equation.[32] This too, we must remember, is a legacy of the sportsman, one inherited by the newly founded National Park Service.

Although the NPS was created with a mission very different from the Forest Service, the Biological Survey, or later the U.S. Fish and Wildlife Service, their initial interpretation of their organic legislation often reflects the philosophies of its sister agencies. This is especially true in the realm of "game management." As historian Thomas Dunlap demonstrates, both sportsmen and so-called nature lovers loathed predatory animals. The sportsman's animus came from his fear that predators removed valuable game from the range, while nature lovers loathed predators because they saw them as base and cruel. In any case, when the NPS was founded wolves, coyotes, and other predators found little sympathy in the United States. As such, it should come as no surprise that the NPS held essentially the same attitude toward coyotes, wolves, and the like.

Making matters worse, at least as far as predators were concerned, was the fact that the NPS was a small and relatively unstable organization upon its founding. As demonstrated in previous chapters, this put the NPS in the position of having to turn to outside organizations (both private and public) for assistance in carrying out their various programs. In the case of wildlife management, RMNP turned often to the help and expertise of the Biological Survey. As originally conceived, the Biological Survey was an agency charged with the regulation of hunting and fishing, as well as putting in place policies that enhanced both. As a result, the Survey was an

[32] Thomas R. Dunlap, *Saving America's Wildlife* (Princeton: Princeton University Press, 1988) 13.

early and ardent proponent of predator "control" as part of their broader effort to enhance the killing of game animals by sportsmen. The NPS's reliance upon organizations like the Biological Survey to carry out its mission is reflected at least in part in the NPS's adoption of similar predator control programs. The major difference between the two, however, lay in the motivations for the policy of extermination itself. The Survey was able for many decades to promote predator reduction as a means to enhance hunting. For the NPS, however, who strictly forbid hunting within its administered lands, predator control was pursued largely to promote the population growth of "game animals" to please the tourist.

To encourage the growth of the tiny band of elk, and to protect further the populations of deer and big horn sheep already abounding in the park, RMNP began an extensive program to exterminate a wide range of "predatory animals" that threatened other members of the park's faunal community. In their first year of predator reduction in 1917, the NPS killed five foxes, at least four coyotes, and seven martens.[33] Far more disconcerting than the presence of marten and fox in the park was the skulking, lengthy, and furtive mountain lion. More than any predator that remained in the park the mountain lion was directly implicated in a wide range of elk, deer, and big horn sheep killings. Although such occurrences are now fairly common in a wide range of modern national parks, and ones often welcomed as signs of properly functioning ecosystems, such was not the case in the earliest years of the NPS. Instead, newspaper articles and NPS monthly and annual reports early treated

[33] Superintendent's Annual Report, 1917; Superintendent's Monthly Report, February, 1917.

incidents of predation as homicides wherein the suspect was to be hunted down and executed for his crime.[34]

In 1919 the superintendent of RMNP reported that although the "[d]eer, elk and sheep are coming down from the higher altitudes, and are in very good condition," there were "[m]ore mountain lion …reported this year than ever before," compelling him to acquire "lion dogs" and to initiate "an intensive campaign against predatory animals."[35] Initial attempts to track and kill a mountain lion responsible for killing a deer in December of that year failed due to unfavorable weather conditions, but the winter of 1919-1920 brought the death of six mountain lions in and adjacent to the park, five of which were females.[36] December of 1920 brought the destruction of two more cats, one hunted with dogs, the other caught in a trap.[37]

Not surprisingly, as populations of big cats and other predators declined, the number of ungulates and other animals increased. In the summer of 1920, for example, the RMNP superintendent Way reported,

> It has not been uncommon to count 300 head of deer in one day; and the increase in the number of these animals has been surprising. Sheep have also been seen in large numbers, especially in the neighborhood of Mary's Lake, fifty head having been counted at one time…Elk herds have also been frequently seen, one band of 42 head having been noted, containing many young calves.[38]

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[34] Superintendent's Monthly Report, April, 1917.
[35] Superintendent's Monthly Report, September, 1919.
[36] Superintendent's Monthly Report, December 1919; Superintendent's Monthly Reports, April, 1920.
[37] Superintendent's Monthly Report, December, 1920.
[38] Superintendent's Monthly Report, May 1920

Year after year, the monthly counts of game animals increased, giving managers clear evidence that their predator eradication program was having its desired effect. In the same monthly report issued in 1921, park personnel reported that "[a]ll animal life seems to be on the increase, especially elk, which have been seen this fall in larger numbers than ever before. 49 elk were seen in one herd, at one time, in Horseshoe Park." In nearly the same breath, the report states that "[e]ight bob cats and one lion were killed during the month in territory immediately adjacent to the National Park. One lion was shot in the National Park but got away."[39]

Anxious to build upon their previous season's success, RMNP issued permits to five men to trap predators within the park in 1922.[40] Park staff also hosted Predatory Animal Inspector Stanly P. Young and hunter John Crook, both of the U.S. Biological Survey, at Rocky Mountain. As superintendent Roger Toll of RMNP accompanied the two men through Rocky Mountain, the Estes Park Fish and Game Association held a meeting regarding the killing of predators in and around the park. According to Toll's report, "Local cooperation was expressed on all sides, and the advisability recognized of reducing the predatory animals, which kill a larger number of game animals each year." Moreover, claimed the superintendent, "Mr. Harris, Editor of the *Trail*, gave publicity to the campaign and helped to distribute the warning to keep dogs away from the poison" that was to be set for the lions.[41] After setting seventeen poison stations around the park, the NPS killed two coyotes and a

[39] Superintendent's Monthly Report, December, 1921.
[40] Superintendent's Monthly Report, January, 1922.
[41] Superintendent's Monthly Report, February, 1922.

bobcat. More importantly, they tracked and killed a mountain lion that they claimed was responsible for killing a five-point buck. As reported, the lion was over six feet in length and was the mother to three kittens.[42]

Knowing what we know now about the crucial relationship between predators and prey, the monthly and annual reports read a bit like a bad horror movie. Beginning in 1922, after receiving numerous complaints from land owners about dammed streams and damaged property, the NPS retained a trapper to capture beaver in and around the park. In all, he trapped some forty-six beaver, with the hides apparently taken as payment for his services.[43] Not yet making any apparent connections between extensive predator control and booming populations of beaver, the NPS forged ahead. In the winter of 1921-1922 they killed a total of six mountain lion, twenty bobcats, and various other animals deemed predators. In all, they exterminated forty-seven predators from the park in that single year.[44] Later that season, alarmed park personnel reported that the "Wyoming ground squirrel is getting to be a great pest in the Park." Although "it was not known in this region until a few years ago" it was "increasing so rapidly that much destruction [had] been done to crops, meadow lands, and gardens." To deal with this development, the biological survey (the same organization that was so helpful in "controlling" the park's

[42] Ibid.
[43] Ibid.
[44] Superintendent's Monthly Report, April, 1922.

predators) developed a new poisoned grain that they though would control the ground squirrel.[45]

Although park personnel witnessed the proliferation of unwanted pests like the Wyoming ground squirrel, their predator program continued to pay dividends as far as big game was concerned. By the fall of 1922, with the elk in the midst of the rut, sightings were "numerous" with some herds as large as sixty animals. Of arguably more importance was the fact that the elk were now "very tame, and approach to within a short distance of the public road."[46]

Believing that the current management practice was working as intended, the NPS continued the extermination campaign. In addition to issuing permits to "several hunters last winter to trap predatory animals," the NPS set out poison stations. In all, they took four foxes, six bobcats and seven coyotes in 1923.[47] With numbers of predators continuing to diminish, all signs pointed toward higher levels of visitor enjoyment as deer, elk, and sheep "were seen in quite large numbers in portions of the park frequented by the automobile visitors."[48]

Further reflecting the success of their predator reduction program, superintendent Roger Toll excitedly reported in the fall of 1925 that "[o]ne herd of 100 elk has been reported counted in Beaver Park. This is the largest reported count

[45] Superintendent's Monthly Report, June, 1922.
[46] Superintendent's Monthly Report, October, 1922.
[47] Superintendent's Annual Report, 1923.
[48] Superintendent's Monthly Report, August, 1924.

ever received at this office."[49] And as the size of the Rocky Mountain elk herd grew, evermore people came specifically to see them. "The elk," reported the superintendent, "seem to be the greatest attraction, both on account of their magnificent appearance and the usual difficulty in finding them."[50]

As more people came into contact with the park's elk, an important change began taking place: the elk began losing their fear of humans. One band of elk in particular that traditionally fed in the vicinity around Deer Mountain and Horseshoe Park in December, for example, had long been visible to visitors. However, by 1926, park personnel reported that although it "has always been possible to see these elk from a distance," the "present season marks the first year when they could be termed all tame." In late November of 1926, a "group of about 100 of these elk were visited by large numbers of Estes Park People, who had no difficulty at all in taking whatever photographs they desired from the very short distances of 100 to 200 feet. The elk showed not the slightest degree of fear of the visitors."[51]

More animals within the park—especially ones lounging roadside—held great promise for pleasing and growing throngs of visitors. By 1927, with the park's elk herd estimated at 200 head, park personnel continued to report the correlation between visitation and wildlife viewing. [52] In March of that year, superintendent Toll reported: "Never before have such large numbers of deer and elk been seen at points

[49] Superintendent's Monthly Report, November, 1925; Superintendent's Monthly Report, March, 1925.
[50] Superintendent's Monthly Report, January, 1926.
[51] Superintendent's Monthly Report, December, 1926.
[52] Superintendent's Annual Report, 1926.

close to the public highways throughout the park. This attraction brings more and more visitors from the valley towns for trips along park roads during the winter season."[53]

Reflective both of a successful marketing campaign and the growing number of elk in the park, superintendent Edmund B. Rogers stated:

> The popularity of the park elk herd is increasing rapidly. Formerly, people were unaware of the presence of elk in the park, but now many people come here particularly to see them. Early in the month, the elk began to make evening appearances in the lower mountain meadows, and could be seen from the Highdrive and Moraine Park cut-off roads. It was a common occurrence to see the bulls fighting, and to hear them bugling.[54]

The novelty of watching 1100-pound animals stomping, bugling, and thrashing their way through the rut was powerful enough to draw visitors to the park on moonlight nights, with carloads of visitors seen "every night" in Horseshoe, Moraine, and Beaver Parks watching the elk graze and delighting at their nocturnal bugling.[55]

With the herd and its popularity growing with every passing season, 1931 brought controversy and concern over the future of the RMNP elk. At issue was the decision on the part of the State of Colorado to open land adjacent to eastern side of the park to a late-season elk hunt. The season, which was to run from November 5-10, posed a potential threat to the RMNP elk herd if they migrated out of the park in their search for winter forage, something they often did through the coldest winter months. "If a heavy snow should come about that time," cautioned superintendent Rogers, "the whole herd could be exterminated." In their scramble to protect the elk, the Estes

[53] Superintendent's Monthly Report, March, 1927.
[54] Superintendent's Monthly Report, October, 1930.
[55] Ibid.

Park Game and Fish Association called a meeting voted to petition the State Game Commissioner and the County Commissioners to prohibit hunting in the territory that had previously been set aside as a game refuge.[56] In the end, the State Attorney General ruled that the new open season did not apply to the game refuge, and the now-tame elk of Rocky Mountain were spared a potentially disastrous winter.[57] To nearly everyone it seemed that the future of elk in RMNP was secure.

Conclusion

From the beginning, those who promoted preservation of the vistas, flora and fauna in and around RMNP often had a vested economic or institutional reason for doing so. Indeed, the Union Pacific, Elkhorn Lodge, Estes Park Improvement Association, and the NPS promoted and protected these animals at least in part—though I argue significant part—because of pecuniary interest. That is not to say that such organizations and their members did not have more altruistic motives, as I am certain that they did. In the end, however, the desire to facilitate tourism through the promotion and propagation of wildlife unleashed a cascade of unintended consequences.

Well before the creation of the national park, a host of organizations sought to amplify the region's abundant wildlife to attract visitors. They produced copious pamphlets, brochures, photographs and prose in their effort. Following the creation of the park, the NPS, who had its own motivations for lauding wildlife in the park,

[56] Superintendent's Monthly Report, October, 1931.
[57] Superintendent's Monthly Report, November, 1931.

added its voice to the movement. As they touted and as they puffed, however, they were unwittingly creating very specific expectations about what a trip to Rocky Mountain National Park offered in the way of animal viewing. Not to disappoint their patrons, locals and the NPS did all they could to protect ungulates within and near the park. These efforts included an extensive predator control program and blocking attempts to allow hunting near the park, both of which received widespread local support. Prior to the dawn of the "dirty thirties," all evidence indicated that visitor satisfaction and visitation were increasing right alongside the growing herds of elk.

During the 1930s, however, elk management in the park became evermore complex as managers came to witness the consequences of their success in marred, scared, and dying aspen groves and stands of willow. Once they realized the damage that was occurring, the NPS would take several steps to address the matter, but the problem had grown too large and more drastic measures needed. The question remained: would the NPS have the institutional strength to pursue management policies that threatened to offend those they sought to attract? How the NPS answered, and continues to answer, this question shapes the park even to this day.

Chapter Seven
Binding a Bountiful Nature

Introduction

In 1944, shots rang out in Rocky Mountain National Park. During that year alone, more than three hundred elk and one hundred deer were killed within the confines of this "living museum." Unlike the occasional poachers of the 1920s or the 1930s, however, those taking steady aim at some of the park's most beloved animals were not scofflaws, but rather employees of the National Park Service following direct orders of the park superintendent himself.

For nearly two decades, burgeoning elk herds lounging roadside provided countless hours of entertainment and inspiration for visitors. Park rangers and superintendents often reported the connection between copious "game animals" and pleased patrons. Moratoriums on hunting within the park and predator reduction programs were both part of RMNP's efforts to grow ungulate populations and park visitation. Although such policies seem shortsighted today, we must remember that they were made in a time when rigorous scientific study had yet to capture the hearts and minds of Americans. As shown in previous chapters, however, science would come to the NPS.

Beginning in other land management agencies in the 1910s, the rising field of game management enabled range managers to understand obvious physical signs of range degradation in a new light. Likewise, within parks like Yellowstone, biologists were busy at work studying ungulate populations and their relationships with

predators. These developments, though not initiated in Rocky Mountain, would quickly have a significant impact upon how the park itself was administered.

As early 1931, biologists warned RMNP that there were too many elk in the park. Shrinking stands of stream-side willow, marred, scarred and dying aspen, and overgrazed meadows told them as much. If left unchecked, scientists cautioned, the elk herd would continue to grow and bring about further degradation of the park's other resources. Addressing the biological side elk management equation was relatively simple. Lethal controls (i.e. shooting elk) provided a cost-effective and efficient means to remove them from the range. It was the cultural side of the management equation, however, that made controlling the park's elk herd so very difficult. At the heart of the problem lay the fact that the NPS and others had done such a fantastic job in linking the RMNP experience to seeing elk. Any effort on the part of the NPS to reduce the number of elk in the park ran the risk of raising public ire over diminished opportunity to see wildlife. In this ironic way, RMNP had become a victim of its own success.

Between 1931 and 1944, RMNP cast about for solutions that would adequately address both the biological and cultural side of this management conundrum. They purchased additional land within the park, expanded their staff to study elk population dynamics and range carrying capacity, and even came to support hunting adjacent to the park in the hopes of stifling the population growth. In the end, they were unable to contain the elk population and thus turned to lethal controls in 1944.

Between 1944 and 1962, the NPS heeded scientific advice and sought to reduce the elk population through ranger-directed elk killing. Lethal controls showed early signs of success, but each time park service rangers pulled their rifles from their scabbards and held the crosshairs steadily upon an unsuspecting elk, they did so with the utmost awareness of the risks of the operation. The furtive nature of the killing speaks to the potential volatility of the program.

Even though early reports indicated the ecological success of the culling program, public opposition was high. In 1961, RMNP released a long-range management plan that called for the redoubling of culling efforts. The plan, combined with a much more ambitious one unveiled in Yellowstone, set off a public relations firestorm. Facing incredible public pressure, RMNP embraced a new tactic in 1963 to which they referred as natural regulation. At the heart of the policy lay the hope that hunting adjacent to the park combined with forage scarcity within the park would suffice in stifling herd growth.

Between 1963 and the present, RMNP has vainly employed natural regulation to solve its elk population problems. In one respect, the program has more than adequately addressed the cultural side of the equation. Perhaps more today than at any time in its history, park visitors expect to some of the park's estimated 3000 elk. Such a robust population, however, also speaks to the policy's inability to address the ecological side of the equation.

Beyond drawing connections between public expectations and park management, any complete understanding of the history of elk in RMNP must also

account for the vast environmental changes that have come as a result of wildlife management there. Doing so demonstrates yet again the ability of tourism—and the unique set of circumstances it brings with it—to transform the natural world.

Signs of Trouble

Well before RMNP recognized that its elk population was exceeding the carrying capacity of the range, other land management agencies had already experienced first-hand the consequences of unchecked ungulate population growth. The starkest cautionary tale came from Arizona's Kaibab National Forest. According to Susan Flader, when the Grand Canyon National Game Preserve was created in 1906 it had a deer population of about 4,000. By 1924, the number of mule deer in the Kaibab had grown to an alarming 100,000.[1] This overabundance of deer, in turn, brought about wide-spread and appreciable range degradation and resulted in massive winter die-offs by mid decade.[2]

There are many parallels between what unfolded in the Kaibab and what was brewing in RMNP. As was the case in RMNP, the deer crisis in the Kaibab was in large part a function of predator controls designed specifically to grow game animals. In the Kaibab, "[f]orest officers reported as early as 1918 that the increasing herd was beginning to influence the supply of forage, but six successively more urgent warnings up to 1924 failed to provide a program for significant reduction." As would

[1] Susan L. Flader, *Thinking Like a Mountain: Aldo Leopold and the Evolution of an Ecological Attitude Toward Deer, Wolves, and Forests* (Columbia: University of Missouri Press, 1974) 84.
[2] Ibid., 84-85.

be the case in RMNP, biologists and others grew increasingly alarmed that the elk population was careening out of control. Yet, as was the case in the Kaibab, RMNP was slow to adopt the most effective and immediate solution to the program—lethal herd reductions, and for many of the same reasons.

At the heart of the Forest Service's reluctance to take immediate steps to remedy the situation lay the fact that the deer of the Kaibab "were already recognized as a national asset, and the Forest Service was fearful the public would react violently toward any attempt to reduce the population."[3] The public sentiment against the destruction of game animals was, in turn, rooted in the belief that they were forest products that should be used wisely. This was essentially the position championed by Aldo Leopold in the 1910s and 1920s. According to Leopold, game animals should be protected from predation in much the same way that forest products should be protected from fire. Wanton destruction of either ran counter to conservation impulse based on the "wise use" principle prevalent during this period.[4] Those opposed to lethal herd reductions in RMNP would employ the same argument. To sportsmen and others, the killing of hundreds of elk within RMNP was a waste of a valuable forest resource. As was the case in the Kaibab, widespread public opposition would also force RMNP to postpone lethal herd reduction while pursuing other, more publicly acceptable solutions.

In addition to what was unfolding in the Kaibab in the 1920s, the NPS had problems of its own brewing in Yellowstone. For decades the NPS had been working

[3] Ibid., 84.
[4] Ibid., 67.

to reduce the number of elk there, a fact reflected at least in part in their willingness to ship elk to Estes Park in 1913. As was the case in fisheries management, the arrival of an ecologically-oriented way of understanding parks began the process of redefining the ends and means of wildlife management within them. Specifically, between 1929 and 1933 biologists George Wright, Joseph Dixon and Ben Thompson conducted "elk investigations" in Yellowstone and other parks and found range conditions "deplorable."[5] Like the situation that was developing in RMNP, the elk crisis in Yellowstone was a function of the NPS's tradition of wildlife "protection" as opposed to wildlife "management."[6] The arrival of ecological understanding, however, pushed the NPS from the former to the latter, and in so doing reframed how the managed specific species like elk.

Even before the publication of *Fauna No. 1,* RMNP staff were beginning to understand the park in increasingly ecological terms. When the park was created in 1915, boundary considerations were driven by the position of private property, and perhaps the desire not to include valuable mineral and timber resources. In 1931, however, park superintendent Rogers reported that as it was originally created, the park failed to include enough winter range to support the growing elk herds.[7] Placed in its historical context, this conclusion speaks to the ways in which ecological principles were reframing how managers understood the park. Simply protecting elk within the park was not enough. As Rogers and others were beginning to understand,

[5] James A. Pritchard, *Preserving Yellowstone's Natural Conditions: Science and the Perception of Nature* (Lincoln: University of Nebraska Press, 1999), 135.
[6] Ibid., 75.
[7] Superintendent's Annual Report, 1930.

elk were members of broader communities and needed the freedom to move among them to survive.

Additionally, park managers also began to understand that as more elk competed for fewer resources, they turned to secondary and tertiary food preferences, eating the bark off of aspen and increasing their use of the park's willow for food. This, in turn, posed significant problems for animals that rely upon those plants for survival through the long cold days of winter, such as the park's beaver. In this case, the winter of 1931 was an especially difficult one for beaver in Rocky Mountain, with several found dead in the spring. Whether their deaths were due to lack of water and freezing streams, as park staff surmised, or caused by increased competition with hungry elk, is uncertain. What is certain, however, is that RMNP staff faced a difficult situation in regards to elk management as early as 1931.[8]

Recognizing this growing problem, the NPS concluded that the "only solution lies in complete control of the Beaver Valley, Horseshoe and Moraine Parks," portions of which were still in private ownership. If the above action did not remedy the situation, the NPS admitted that it must regulate the "increase of the herds, based on the carrying" capacity of the range. Both of these solutions reflect the understanding that elk were members of a biotic community and that their presence required adequate habitat that was finite—an insight that was not present when the

[8] Superintendent's Annual Report, 1931.

NPS was founded. By the end of that year, there were an estimated 430 elk in RMNP.[9]

In response to the above dilemma, the RMNP purchased nearly 4500 acres of private land within the Thompson River drainage as well as nearly 8000 additional acres in Mill Creek, Beaver Meadows and Horseshoe Park. Privately owned stock had grazed much of this land since before the creation of the park, thereby reducing the range's ability to support elk populations, especially through cold winter months. Once under NPS control, grazing came to an end and available elk forage increased. According to Rogers, the nearly half-million-dollar expenditure was warranted because topographically the land "belongs in the park, and its addition will greatly facilitate and protect road construction and will afford winter range for deer and elk."[10]

Although the NPS sought to add acreage to the park through the purchase of private land, it did not yet have either the will or the backing to pursue the second of superintendent Rogers's proposals—the application of lethal means to contain elk within the carrying capacity of the range. Managers' reticence to do so is understandable given the growing popularity of elk in the park.[11] But popularity came with as many challenges as it did opportunities. In addition to winter range degradation, the NPS also began reporting that visitors were becoming aggressive and

[9] Superintendent's Annual Report, 1931.
[10] Superintendent's Annual Report, 1932; Neal Guse, Ben Rice, Lee Carr Richard Denney, "Rocky Mountain Cooperative Elk Studies: Preliminary Report 1962-1963," 1 April 1964, NADRG 79, Numerical Subject files 1952-1965, 14 8ns-079-97-437, ff "Wildlife Jan. 63-Dec. 64 Elk," 14.
[11] Superintendent's Monthly Report, November, 1932.

careless in their zeal to get closer to the elk. For example, superintendent Edmund Rogers reported that the elk were so popular and so tame that it became "necessary during the early part of the month to barricade many old roads and obliterate the beginning of new ones where visitors in their cars had been running over the parks and meadows in an effort to see, or get closer to, the elk…In reality," admitted the superintendent, "a considerable problem is arising in this connection. It is, of course, every visitor's desire to get a good picture of, and or get as close as possible to, the animals…[but] the small herds were constantly being disturbed by well-meaning persons."[12]

Although 1933 brought more concerns regarding the "barking" of aspen as well as mention of the likelihood of the implementation of control measures to reduce the elk, no action was taken in this regard.[13] But to say that the NPS did nothing, as suggested by Karl Hess, is neither fair nor accurate. In addition to purchasing land in 1932, the NPS had also begun studying the range problem in increasingly scientific terms. Realizing that winter range carrying capacity was the key to elk population management, the NPS created twelve fenced enclosures and used comparative photographic analysis to study how various plants rebounded once released from the rigors of ungulate grazing.[14]

By 1935, with nearly all available private land now in the hands of the NPS, the park took further steps to address the growing elk crisis. Admitting the limited

[12] Ibid.
[13] Superintendent's Monthly Report, February, 1933.
[14] Superintendent's Annual Report, 1933; Guse, Rice, Denney, "Rocky Mountain Cooperative Elk Studies," 15.

options, Rogers stated, "Since further extension of the winter range appears to be extremely remote, we are faced with the problem of keeping the number of elk and deer within the natural carrying capacity of the range." The superintendent assigned a park ranger and a wildlife technician to the project of determining this capacity. In what must have been a difficult admission, the superintendent stated that it appeared that "the most satisfactory way out of the present unstable situation would be to artificially reduce the number of elk and deer to the carrying capacity for the available range." By 1935, the total elk population within RMNP was estimated at 425.[15]

Between 1935 and the winter of 1943 the NPS made no move to implement lethal herd reductions. Not surprisingly, the number of estimated elk in the park grew with each passing year. In 1937, for example, there were some 555 elk in the park in the winter, and nearly 650 in the summer.[16] The next year's figures showed yet another rapid population growth with nearly 800 in residence during the summer and 675 in the winter.[17] Although an increasing number of experts agreed that culling the herd was a necessary and proper course of action, the NPS still chose not to implement this strategy.[18]

Instead, they supported hunting on protected lands outside the park in 1939 "after numerous ranchers were beginning to complain of elk damage to crops."[19] By 1943, the additional purchase of lands within the park, further range study and

[15] Superintendent's Annual Report, 1935.
[16] Superintendent's Annual Report, 1937.
[17] Superintendent's Annual Report, 1938.
[18] Guse, Rice, Carr, Denney, "Rocky Mountain Cooperative Elk Studies," 33.
[19] Ibid., 15.

observation, expanded hunting adjacent to the park, and the cessation of predator control operations all failed to stifle the growth of elk within the park. Running short on alternatives, the NPS grudgingly turned to lethal herd reductions to address the problem.

Binding the Bounty of Nature

By 1942, concern over the ecological health of the park was mounting. Reflective of this concern was a series of studies conducted by biologist Fred Mallery Packard. The first of his studies, entitled "Wildlife and Aspen in Rocky Mountain National Park, Colorado," sought to explain the factors impacting the health of aspen in the park.[20] The study concluded that the most significant threat to the park's aspen population were fungal diseases, "chief among which is dieback, caused by *Cytospora chrysosperma*," which is introduced into healthy trees by wounds in the bark.[21] Although bark wounds could result from a range of factors, elk were the leading culprits. In scraping their antlers on the trees, eating the shoots and leaves, and most significantly eating the bark and cambium off the trees, elk exposed aspen to the deadly fungus and thereby became significant agents of aspen mortality.[22] Although aspen across the park were suffering due to elk overpopulation, the problem was most apparent in Beaver Meadows. In one stand of trees, reported Packard, the "trunk of every aspen [was] heavily scarred as high as the elk [could] reach, and no

[20] Fred Mallery Packard, "Wildlife and Aspen in Rocky Mountain National Park, Colorado," *Ecology*, Vol. 23, no. 4, (October 1942), pp 478-482.
[21] Ibid., 481.
[22] Ibid., 478.

branches survive[d] below that height." Just as disconcerting was the discovery that "the trees bordering the meadow [were] dead or dying by the hundreds." Under such conditions, Packard predicted that it was "almost certain that in comparatively few years all of these aspen will have died, and there is little chance that they will be restored."[23]

In response to mounting scientific evidence like Packard's, RMNP staff wrote an elk management plan in 1943.[24] Of most importance within the plan was the decision to use lethal force to directly reduce the number of elk wintering in the park. After receiving approval from the director of the NPS in 1944, the staff at RMNP began an intensive culling campaign. In the span of just two months, the Park Service killed a total of 301 elk and 113 deer in RMNP.[25] Although the culling efforts held the promise of solving the population problem, the Assistant Director of the NPS, Hillary A. Tolson, "wrote to the park in 1946, stating that the Director's office had a 'strong dislike' for reduction programs either inside or adjacent to NPS units. Accordingly, further reductions were halted until 1949."[26]

Despite the extensive herd reduction of the 1944 season, scientists continued reporting extensive range degradation. For example, Fred Packard conducted research on the park's deer and elk herd and published his findings in the *Journal of*

[23] Ibid., 480.
[24] "Elk and Vegetation Management Plan, Rocky Mountain National Park, Colorado" (Washington, D.C.: Government Printing Office, 2007), 15.
[25] RMNP Annual Report, 1945
[26] "Elk and Vegetation Management Plan," 15.

Mammalogy in 1947.[27] According to Packard, elk within the park were reproducing at a rate of 29 percent to 50 percent per annum, which was responsible for the continued range degradation.[28] With the number of elk expanding so rapidly, it is no wonder that Packard's report echoed the findings of previous investigations. "In spite of a number of natural and artificial checks," stated Packard, "the elk herd is increasing rapidly, and already exceeds the optimum carrying capacity of the winter range."[29] Despite the efforts of the NPS throughout the 1930s and the culling campaign of 1944, Packard found "serious deterioration" of forage plants on the winter range. [30]

In response to such reports, the NPS initiated another intensive culling campaign in 1949-1950 that resulted in the "removal" of an additional 340 elk and 100 deer from the park.[31] Following the heavy reductions of that season, the NPS committed itself to an annual herd reduction with the hope of stabilizing herd growth.[32] Between 1950 and 1959, 507 elk and 309 deer were culled from the RMNP winter range.[33]

Although herd control measures continued throughout the 1950s, the number of elk killed each year became less and less as some indications pointed toward minor

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[27] Fred Mallery Packard, "Study of the Deer and Elk Herds of Rocky Mountain National Park, Colorado," *Journal of Mammalogy*, Vol. 28, no. 1 (Feb. 1947), 4-12.
[28] Ibid., 11.
[29] Ibid.
[30] Ibid., 12.
[31] Neal Guse Jr., "Effective Management Program Requirements for Eastern Rocky Mountain Deer and Elk Herds," *n.d.*, NARG 79 Denver, Numerical Subject Files 1952-1965, Box 14 8NS 079-97-437, ff "Wildlife Elk, 1 of 2," 3.
[32] Ibid.
[33] Ibid.

improvements in range conditions.[34] This was not, however, the only reason that annual herd reductions diminished between 1950 and 1959. In his annual report for 1950, RMNP superintendent David Canfield confided that "[c]onsiderable public relations work was necessary to acquaint the people at large, and especially the various sportsmen's organizations, with the need and purpose of the reduction." Close cooperation with the Forest Service and the Colorado Game and Fish Department, reported the superintendent, "aided in carrying the reduction to a successful conclusion with little opposition."[35] Although the superintendent reported "little opposition" to the program, the record tells a different story. In 1951, for example, fewer animals were killed—85 elk and 105 deer—than in previous years and the culling efforts were "carried out over a prolonged period in order to cause less stir among the public."[36] The following year, furthermore, the NPS opted to trap deer rather than shoot them to limit "public outrage." Regardless of the possibility of causing "public outrage," the NPS did kill 89 elk that winter season.[37]

Careful to keep hidden the messy process of removing hundreds of thousands of pounds of elk from the park, the NPS took several precautions to reduce the likelihood of public outcry during the culling process. And for good reason. With opposition to culling efforts already high, the NPS could not afford to let little Suzy or Jimmy see the park's most beloved animal crumple following the crack of a well-placed shot, especially considering that about one in five elk shot were calves. The

[34] Ibid.
[35] Superintendent's Annual Report, 1950.
[36] Superintendent's Annual Report, 1951.
[37] Superintendent's Annual Report, 1952.

trauma and bad publicity such an incident could produce had the potential to seriously tarnish the NPS's image. To keep the killing and the visiting as far apart as possible, the NPS closed off areas when culling was taking place. Once the deed had been completed, the heaps of animal carcasses were tucked beneath tarp-covered truck beds and spirited from the park. According to the park ranger Stanley Brownman, every precaution was used to ensure that "[n]o evidence of the program was exposed to park visitors."[38]

Despite such efforts, the elk reduction programs greatly dismayed many visitors. Mrs. R.J. Thornburg was especially upset with the reductions and her opposition captures vividly the feelings of many park visitors. Her letter also expresses some of the deepest fears of the NPS. According to Thornburg, since "Mr. Public foots the bill" for national parks "maybe he should be considered" when decisions are made regarding the killing of fauna within them. In a not-so-veiled threat to the park, she continued: "If in hiking around a national park the size of Rocky Mt. you can't see anything bigger than a squirrel or a cony [the taxpayer] might get the idea it wasn't worth while to spend so much money for upkeep of the area." Not relenting, she contended that "[m]any felt this, for we heard lots of griping about the paucity of wildlife last summer." Moreover, "[a] national park devoid of the larger species of wildlife isn't very inspirational and you can't help feeling something is wrong." Reaching her boiling point, she blasted, if "all those thousands of acres in Rocky Mt. park won't support enough deer so you can see more

[38] Memo Stanley Browman to superintendent RMNP, 14 December 1954, NADRG 79, Numerical Subject Files 1952-1965, 14 8ns-079-97-437, ff "Wildlife Elk 2 of 2."

than six or eight in six weeks of travel on trails and roads, turn it back to the Indians, they did a lot better job of managing than that."[39]

Although Thornburg's letter bordered on caustic, she spoke directly to the public relations dynamic at work. She was a long-time visitor to the park, coming repeatedly since 1940. During the intervening years she came to expect to see ample wildlife (primarily deer and elk) throughout the park. To her, at least, the protection and proliferation of animal life was how she imagined her tax dollars at work here. Her letter also alludes to the fact that many other visitors felt the same: hence her claim that "we heard lots of griping about the paucity of wildlife last summer." As was the case with roads and fishing, the NPS and others had taken part in essentially training visitors to expect certain things from a park visit, and when those expectations were not met, opposition to management practices arose. If such opposition was broad and deep enough, political pressure might come to bear on the NPS in the form of reduced public support and diminished congressional appropriations. The problem from the perspective of elk management, however, was that the NPS was increasingly sensitive to other of the park's "natural features" and working to manage for the health and benefit of a wider range of plants and animals than they had in the past—many of which Mrs. Thornburg was apparently not interested in seeing.

[39] Mrs. RJ Thornburg to Fred Packard, 13 March 1952, NADRG 79, Numerical Subject Files 1952-1965, 14 8ns-079-97-437, ff "Wildlife Elk 2 of 2."

Even though herd reductions raised public hackles, as early as 1954 park personnel began reporting that range restoration was "evident."[40] By December of 1954, the superintendent confidently reported, "All indications point to the fact that the once critical winter range of the east slope of RMNP is recovering." More specifically, he claimed that "marked restoration of ground cover has retarded, and in places, halted erosion," and that many of the aspen and willow groves which "seemed doomed" just a few years prior and that were "major attractions" in drawing visitors to the area, were beginning to rebound.[41]

As the NPS pressed ahead with its reduction efforts, park rangers began to notice an interesting trend. The annual shooting of scores of elk throughout the park had apparently re-instilled in some of the elk the desire to migrate to safer winter range outside of the park. For example, an elk census conducted on National Forest Service land adjacent to the elk's winter range revealed an influx of winter elk migration coincidental with culling efforts.[42] This realization prompted some within the NPS to begin pondering this as a potential management tool. According to park ranger Stanley Brownman, "Perhaps a feasible plan for the future might consist entirely of discriminatory action; that is, to take only a few animals and these to be from each herd, for the single purpose of dispersing them" out of the park and off of the stressed winter range. Doing so, mused Brownman, "would not only continue the present action of preventing accumulation of large herds, but would also serve to

[40] Memo Stanley Browman to superintendent RMNP.
[41] Ibid.
[42] Ibid.

accelerate their migration outside the park boundaries" where they would not be protected from predation—both human and otherwise.[43]

To further hasten range recovery, the NPS began drafting the "Long Range Management Plan for the Eastern Rocky Mountain Elk and Deer" in 1960.[44] According to the plan, which was released in the fall of 1961, the NPS's chief objective was to reduce the population of elk and deer on the park's winter range to levels conducive to the re-growth of forests, shrubs, and grasslands. The plan also recognized the detrimental impact that elk were having on beaver and big horned sheep within the park, and stated that restoring their populations was also a primary goal.[45] To accomplish the above, the NPS intended to reduce the elk population on the winter range to a total of 400 animals[46] "as soon as possible," and to initiate a more concerted monitoring program to determine future reduction needs.[47]

The Management Plan was reflective of a broader shift taking place within the rank and file of the NPS. For example, prior to the completion of the Management Plan, park biologist James Cole wrote to the superintendent of RMNP stating that although the "National Park Service should give Park visitors opportunities to observe wildlife," the "emphasis should be upon wildlife in a normal habitat." Rather than promoting an appreciation of abundant wildlife, the NPS should promote

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[43] Ibid.
[44] Guse, "Effective Management Program Requirements for Eastern Rocky Mountain Deer and Elk Herds," 3.
[45] "Long Range Management Plan for the Eastern Rocky Mountain Elk and Deer," 2 October 1961, NADRG 79, Numerical Subject Files 1952-1965, 14 8ns-079-97-437, ff "Wildlife Elk 2 of 2."
[46] Ibid.
[47] Ibid.

"[f]ewer good examples of sleek elk and deer, even though the visitor must expend some energy to find them." Only once this was accomplished could the NPS maintain "healthy and vigorous plants upon which the condition and existence of all wildlife ultimately depends." To Cole, managing for ecological balance, not the proliferation of a few key animal species, was their fundamental charge as "custodians of Park wildlife."[48] The 1961 Management Plan represented a significant—if not easy—step in that direction.

Anticipating public opposition, the Management Plan also called for an active public relations campaign to inform the public of the need for the reductions.[49] To accomplish this, the NPS issued a press release in 1961 designed to educate the average visitor in the hopes that understanding would lead to support. According to the release, the problem of elk overpopulation

> has been the subject of technical studies by National Park wildlife biologists for a number of years. The studies have shown that an unhealthy imbalance exists between the wildlife and its habitat due principally to the lack of natural predators, and the fact that old herd migration routes to winter range areas outside the Park have been blocked more completely each year by human habitation.[50]

In an attempt to get visitors to understand the connections between the park's plant and animal communities, the NPS stated that it was "not only the animals that suffer, but plant species on which the deer and elk feed are badly over-browsed and

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[48] Memo James Cole to superintendent of RMNP, *n.d.*, NADRG 79, Numerical Subject Files 1952-1965, Box 15 8ns-079-97-437, ff "Wildlife Mgt. 57-62."
[49] "Long Range Management Plan."
[50] Press Release, 19 October 1961, NADRG 79, Numerical Subject Files 1952-1965, 14 8ns-079-97-437, ff "Wildlife Elk 2 of 2."

overgrazed…In addition, the loss of this important protective ground cover leads to damaging soil erosion."[51]

If thoughts of soil erosion and overgrazed grass were not enough to win public support, the NPS intimated that there was

> no natural remedy for this vicious cycle of imbalance except the cruel one of a true famine, which will be avoided at all costs. Should these present conditions continue, the plant and animal life of the park will continue to suffer irreparable harm. For these reasons, Rocky Mountain National Park is continuing the wildlife management program this winter that was originally initiated in the mid-1940s.

To protect the park's soil, plants, and the elk themselves, the NPS announced it would "remove" an estimated 200 elk from "selected critical food areas." Doubtless hoping to assuage visitor angst that the culling efforts would diminish the Rocky Mountain National Park experience, the NPS promised that "[e]very effort will be made to prevent interference with visitor opportunities to observe wildlife in a natural and appealing setting, and yet encourage migration outside the Park where animals would be available to hunters."[52]

Regardless of their public relations campaign, backlash to the 1961 Management Plan was fast and fierce, coming from a range of organizations, individuals, and government agencies. The most outspoken of the government agencies was the Colorado Game and Fish Commission. In the eyes of the Game and Fish, the elk of Colorado belonged not to the NPS, but rather to the state of Colorado. For their part, the NPS believed that as long as the elk were within the bounds of the

[51] Ibid.
[52] Ibid.

park itself, they fell under their jurisdiction. Although the two agencies had cooperated between 1939 and 1961 in allowing hunting in the game refuge adjacent to the park, the Game and Fish was increasingly outraged with Park Service actions that brought the destruction of so many elk and deer. To them, the culling of elk and deer herds within RMNP by park staff amounted to "wasteful slaughter." To be clear, this agency was not opposed to the idea of culling the herds, but believed that reduction should be accomplished through "limited, controlled public hunting in the parks or by trapping and transplanting excess animals," presumably into areas where they could then be hunted. The interagency friction is not surprising given that the Colorado Game and Fish Commission was the agency primarily in control of regulating hunting and fishing within Colorado, and received significant revenue from the sale of licenses.[53]

The Game and Fish Department was not alone in voicing opposition to the current plan and in proposing public hunting within the park as a solution. Representing a large contingent of outraged hunters, former Forest Service employee and wilderness advocate Arthur Carhart wrote an impassioned letter to NPS director Conrad Wirth arguing that past efforts to control the elk population had failed. Predators, he claimed, had not "kept the balance" in terms of elk population, and neither had the NPS's hired guns. Asking a rhetorical question, Carhart continued, "[W]ho can supply the mandatory removal of the over-load on game ranges? Every part of the country has tried the alternatives and come smack, crash into the

[53] Dewey Brown to Stewart Udall, 12 January 1962, NADRG 79 Numerical Subject Files 1952-1965, Box 14 8NS-079-97-437, ff "Wildlife Elk 1 of 2."

inescapable fact that the one chance of controlling game herds except 'nature's way' of starvation and epidemic, is by hunters."[54]

Although Carhart was outspoken in favor of hunting within the park as a way out of the morass, he was not blind to the public relations dynamic at work. In closing his letter, he warned the director of the NPS that he would "catch hell" from those who refused to open their eyes and minds, but recommended that the proposed public hunting could be done "after season, when parks are generally closed to tourists, and to the benefit of every factor and facet in the whole complex business of maintaining the 'park idea.'"[55]

Carhart was right about one thing—the NPS did "catch hell" following release of their plan. According to the *Denver Post*, "Seldom has the National Park Service taken a worse public beating than it's now suffering over the planned program of killing elk. Belted with charges of ineptness, stupidity, even of inhumanity, the NPS has been pictured as a ghoulish, kill-crazed monster with blood dripping from its bureaucratic jowls."[56] Extensive elk reductions had always been a touchy area for the NPS, as evidenced by public complaints from citizens like Mrs. Thornburg. But the reductions proposed in the 1961 Management Plan were met with more resistance than past programs. Although it is impossible to ascertain exactly why, the resistance was likely due to the fact that the elk reductions in Rocky Mountain were to be

[54] Arthur Carhart to Conrad Wirth, 3 March 1961, NADRG 79, Numerical Subject Files 1952-1965, Box 14 8NS 079-97-437, ff "Wildlife Elk, 2 of 2," 3.
[55] Ibid., 4.
[56] *The Denver Post*, January 21, 1962, NADRG 79, Numerical Subject Files 1952-1965, Box 14 8NS 079-97-437, ff "Wildlife Elk, 1 of 2."

coincidental with a much more intensive culling campaign in Yellowstone. Just as in RMNP, elk populations in Yellowstone had careened out of control in the absence of predators, both human and otherwise. But there, the problem was far more grave and the solutions far less palatable. While the Management Plan for Rocky Mountain prescribed the eventual taking of 400 elk, Yellowstone National Park was gearing up to reduce their herd by some 5000.[57]

As pressure to halt the reductions in RMNP mounted, NPS officials urged the managers of RMNP to stay the course. For example, the Regional Director wrote to Superintendent Hanks amidst the firestorm. Although he commended the work the NPS was doing in trapping elk, they urgently cautioned that park staff make "all efforts necessary to effect your intended reduction of 200 elk this winter." Alluding to the ecological and public relations disaster brewing in Yellowstone, the Regional Director continued, "We know you are aware of the consequences in reaching an excessive overpopulation of your resident elk herd and wish to avoid at all costs a duplication of the intensive operation which has become necessary in Yellowstone."[58]

By the winter of 1961-1962, RMNP was at a crossroads. On one hand they had irrefutable scientific evidence that elk winter range was in dire condition and that more than a decade of lethal control was working to ameliorate the situation. On the other hand, they faced stiff opposition to future reductions, from both private and government corners. Under tremendous pressure, RMNP management attempted to

[57] Ibid.
[58] Memo Regional Director to superintendent of RMNP, 17 January 1962, NADRG 79, Numerical Subject Files 1952-1965, Box 14 8NS 079-97-437, ff "Wildlife Elk, 1 of 2."

find a solution that would please all parties while still allowing for managing for the NPS's evolving understanding of ecological health.

To the relief of many, in early February of 1962 the *Rocky Mountain News* reported that the "control program for thinning the elk herds of Rocky Mountain National Park by execution" had been halted" after only 58 elk were killed.[59] In comments to the press, superintendent Allan Hanks revealed the direction that the NPS had chosen. Rather than commenting on further herd reductions, Hanks was quoted as stating that "hopes were high that a transplanting program could be carried on next year and gave assurances there always will be a surplus of elk in the park."[60] In other words, lethal herd reductions were to come to a halt and be replaced by non-lethal (and far more publicly acceptable) capture, removal, and release of elk. Hanks's assurance that "there will always be a surplus of elk in the park" spoke to visitor concerns that NPS elk reduction program—through whatever means—would not diminish the opportunity to behold the majestic wapiti.

Accordingly, RMNP managers called for "an accelerated program of live trapping and marking animals to facilitate the study of migration habits and distribution patterns within the Park and between and on the adjoining Roosevelt National Park."[61] Furthermore, RMNP established a full-time position for a park biologist to participate in the studies.[62] Lastly—and perhaps most importantly—the

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[59] *Rocky Mountain News*, February 3, 1962.
[60] Ibid.
[61] Guse, "Effective Management Program Requirements for Eastern Rocky Mountain Deer and Elk Herds," 6.
[62] Ibid.

NPS signed a Memorandum of Understanding with the National Forest Service and the Colorado Game and Fish Commission to undertake cooperative research "to provide factual information to the Colorado Game and Fish Commission so that they may be in a better position to set and regulate reasonable seasons and harvest." Doing so, they reasoned, was "in the interests of sound wildlife management and increased hunter satisfaction." The NPS's willingness to partner with an agency with which they had been less than friendly was based largely upon the hope that the partnership might eliminate the "need for ranger-directed reduction programs in the future." The question remained, however, exactly how their partnership might precipitate a final cessation of lethal herd reduction.[63]

The answer to that question began emerging through the summer and fall of 1962. According to biologist Neal Guse, the NPS and Fish and Game Commission had long known that a substantial number of RMNP elk migrate out of the park near the end of December. Although the NPS and Fish and Game Commission had allowed hunting in the game preserve on the park's eastern and northern borders since 1939, the hunts took place during the traditional hunting season in October, and hence well before most RMNP elk migrated out of the park. This was the prime reason, surmised Guse, that hunting outside the park had failed year after year to control elk populations.[64] What was needed instead were interagency studies designed to "gather information on elk migration and distribution habits to effect additional harvests outside the Park, thus eliminating the annual reduction programs on the winter

[63] Ibid., 8.
[64] Ibid; Neal Guse, Rice, Carr, Denney, "Rocky Mountain Cooperative Elk Studies," 41.

range."[65] In other words, if the NPS could obtain accurate and reliable data on the annual migration of elk, they might well be able to use licensed hunters outside the park to cull the herds for them. To an agency in the throes of a major public relations debacle, Guse's suggestions were eagerly received.

Together, the NPS, Forest Service, and the Game and Fish designed and executed a research program through 1962 and 1963. To aid them in determining the migration patterns of the region's elk, they orchestrated a trapping program both inside and outside of park boundaries. After the animals were captured, they were fitted with ear tags and neckbands, both of which would aid the researchers in collecting data. In all the agencies trapped and tagged a total of 94 elk within the park, and two beyond its boundaries.[66] With tagged animals roaming across the region, researchers eagerly collected data.

Overall, the research program provided valuable information on the seasonal movements of elk and confirmed Guse's suspicion that many elk wintered beyond the park's boundaries. According to Guse,

> The Park serves as a refuge and provides the bulk of the winter feed. However, increasing numbers of elk are migrating to the Forest and particularly so when feed is short or when precipitated by persistent inclement weather conditions. It is during these latter periods when large numbers leave the Park that over utilization is apparent on the Forest.[67]

[65] Guse, "Effective Management Program Requirements for Eastern Rocky Mountain Deer and Elk Herds," 18.
[66] Guse, Rice, Carr, Denney, "Rocky Mountain Cooperative Elk Studies: Preliminary Report 1962-1963," 28.
[67] Ibid., 19.

By their calculation, somewhere between one-half and two-thirds of the summer elk population (seventy-five to one hundred elk) left the park following the first significant winter storm.[68] The majority of the elk that wintered east of the Divide, where elk overpopulation was the worst, however, did not typically leave the Park until January. With this realization, the NPS and State Game and Fish Commission orchestrated an additional public hunting season on the land adjacent to the park in January and February of 1963. The NPS then collected data on how many elk were killed as a result of the season. In their estimation, hunters had killed as many as five hundred of the elk that left the park.[69] Deeming the season "highly successful," Guse reported, "For the first time in approximately 20 years desirable winter elk herd numbers were achieved."[70]

And there it was—a true panacea. If their data was reliable and the experiment reproducible, hunting outside the park was an understandably attractive option. Not only did the NPS have preliminary evidence that the season could keep park elk populations under control, it also meant that the NPS would be able to disassociate itself from the unseemly killing of a park icon. This solution also promised to placate hunters who bemoaned the "wasteful killing" of game animals by government officials, while still providing license revenue for the Colorado Game and Fish Commission. Obviously overcome by all of the above, the NPS moved toward the

[68] Ibid., 28.
[69] Ibid., 41.
[70] Ibid., 16.

embrace of hunting adjacent to the park as the primary means of elk population control.

Between 1963 and 1992 the NPS has based its elk management upon the above model. Despite park manager's hopes, the elk population within and around RMNP increased dramatically.[71] The causes of the increase were many, but the primary reason lies with the ineffectiveness of hunting outside the park to reach the numbers optimistically reported by Guse and his research team. Research conducted between 1968 and 1992 found that a decline in the tolerance for sport hunting, combined with increasingly limited access to private land for hunting, were the primary reasons for the policy's failure. As a result, elk harvests adjacent to the park never came close to the harvest of 500-600 elk per year required to stabilize elk population growth. Between 1968 and 1987, the average elk harvest amounted to 442 [+/-] 78 per year. Since that time, the average annual harvest has dipped to 302 [+/-] 36.[72] Despite the NPS's efforts (or perhaps as a direct result of them), the overall population of elk within the park has witnessed a three-fold increase since 1968.[73] The high water mark came between 1997 and 2001, with an estimated 2800-3500 elk in the park—several *thousand* beyond the estimated carrying capacity of their winter range.[74]

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[71] Linda C. Zeignefuss, Francis J. Singer, David Bowden, "Vegetation Responses Following the Release of Elk From Artificial Controls Within Rocky Mountain National Park, 1968-92," 21 March 1997, RMNP Library, 2.
[72] Ibid.
[73] Ibid.
[74] "Elk and Vegetation Management Plan," 8.

Failures of Natural Regulation

To understand fully the implications of elk management in RMNP, to grasp the connections between managing for the satisfaction of tourists and the natural world, we would do well to see the park from the perspective of a willow or a beaver. As the modern field of ecology tells us, elk are part of a complex and dynamic matrix of plant and animal life. Their lives—the rutting, eating, defecating, calving, migrating—are all tied to the health of other plant and animal systems where they roam. Even before the dawn of the 20th century, humans had drastically altered the relationship between elk and the ecosystems to which they contribute. The reintroduction of elk into the Estes Park region, combined with the establishment of RMNP, created a unique set of circumstances that tied together human desire and the natural world in new ways.

According to prevailing research, at the root of the elk "problem" in RMNP lies two interrelated facts: there are too many elk for the winter range to support, and the elk that are in the park are less migratory than they have been in the past, which further compounds the problem of overpopulation.[75] Both of these situations are tied directly to human decisions regarding the management of ungulates—specifically elk—in and around the park.

Studies conducted in the 1990s found that there were approximately 1000 elk that spent their winter days inside the park pawing through the snow to meet their substantial caloric needs. An additional 2000 elk also wintered on land immediately

[75] Ibid., 2.

adjacent to the park, wandering the streets, lawns, golf courses and gardens of Estes Park searching for edible plants.[76] The overabundance of elk during the winter season, in turn, has a compounding dynamic of its own. Under the best of circumstances, the snow-blown days of winter traditionally present forage problems for elk, as their preferred food choice—grass—is in shorter supply. When population dynamics are out of balance, however, the problem of winter forage is heightened and those plants that lie at the outer edges of elk preference are more intensively browsed. Over time, the implications for many of the park's aspen and willow—not to mention those other plants and animals that rely upon them—have been dire.[77]

But more is at work here than simply having too many elk in the park. The second significant problem—and one that complicates the first—is that the elk in the park are less migratory than they would be under more natural conditions. Under ideal circumstances the elk within RMNP would migrate between primary summer range, including the Kawuneeche Valley and subalpine and alpine areas, and their winter range, which lies primarily on the eastern side of the park and in Estes Park.[78] The seasonal movement of elk, in turn, would ensure that no single part of their range is overgrazed.

With the vast majority of the park's predators long since "removed," the human population adjacent to the park increasing with each passing season, and the institution of late elk hunting seasons adjacent to the park, the elk have become less

[76] Ibid.
[77] Ibid.
[78] Ibid., 1.

willing to migrate out of the park. According to the NPS, between 10% and 15% of all the elk within the park remain on the primary winter range during the summer. As more elk spend more time on the winter range within the park, its ability to rebound from elk grazing is curtailed, the range of elk food choices decreases, and the elk turn increasingly to secondary and tertiary food choices during all seasons.[79]

One of the plants most directly and negatively impacted by the elk population imbalance is the aspen (*Populus tremuloides*). Beginning in the early 1930s, managers of RMNP began reporting significant "barking" of aspen, and interpreted it as growing evidence that the population of elk within the park was not healthy. The intensive overgrazing of aspen by elk was evident by the 1960s, as park staff commented that the exclosures in Horseshoe Park built in the 1930s stand "out like an oasis surrounded by herbs and grasses. After twenty-five years of protection, thirty-one aspen stems were growing" in the exclosure, and there were none outside of it.[80]

As the elk population in the park continued to grow, park biologist David Stevens initiated a study in 1968 with the intention of understanding precisely the impact of elk herbivory upon the park's floral community under the program of natural regulation.[81] His study offers reliable and valuable evidence of the impact of elk upon aspen in RMNP. Using analysis of specific transects over a twenty-five year period, Stevens found ample evidence that connected elk overpopulation with

[79] Ibid., 7, 9.
[80] "Elk Management Plan RMNP 1960-1961," 6.
[81] Zeignefuss, Singer, Bowden, "Vegetation Responses Following the Release of Elk From Artificial Controls Within Rocky Mountain National Park, 1968-92."

decreased plant biodiversity in the park and indicated significant negative impact upon the park's aspen.

Like many trees, aspen reproduction is largely vegetative, meaning that aspen regeneration comes primarily through suckers and not seed. As the number of elk on the winter range have increased, and the intensity of elk browsing aspen suckers likewise increased, the number of new aspen growing to maturity within the park drastically decreased.[82] According to Stevens's research, no "significant changes were found in basal area, density, or average height of aspen trees" in the study areas between 1968 and 1988. [83] This fact was not surprising given that he also found marked increases in elk usage within the study areas over the same time period.[84]

Whereas Stevens relied on transects in his research, William L. Baker, Jennifer A. Munroe and Amy E. Hessl relied upon the park's exclosures to gather information on elk herbivory, and their work produced similarly stark conclusions. Not only were aspen populations outside the exclosures declining, as demonstrated by "high mortality among established trees, including entire stands that are dead," evidence also mounted that reflected a "low density of live suckers" not sufficient to regenerate the trees. Perhaps most importantly, the researchers concluded that due to overgrazing by elk, "almost no cohort regeneration" had taken place since the adoption of natural regulation following 1963.[85] In other words, those mature aspen

[82] "Elk and Vegetation Management Plan," 17.
[83] Zeignefuss, Singer, Bowden, "Vegetation Responses Following the Release of Elk From Artificial Controls Within Rocky Mountain National Park, 1968-92," 15.
[84] Ibid., 14.
[85] William L. Baker, Jennifer A. Munroe and Amy E. Hessl, "The Effects of Elk on Aspen in

within the park were aging, but successive generations of aspen were not in place to replace older, dying trees.

Echoing Stevens's work, the researchers pointed to an overabundance of elk, contending that over "the last century, aspen cohorts regenerated only when there were fewer than ca 600 elk on the park's elk winter range, far fewer than the present estimated 1600 head."[86] According to the most recent assessment by the NPS, the "continuation of the high elk densities in Rocky Mountain National Park [will] result in the complete loss of aspen trees or, at best, existence in a shrub-like state on core winter ranges."[87]

Aspen, and the many plants and animals that rely upon them, are not the only flora put at risk by too many elk in the park. Willow (*Salix spp.*) have also suffered significantly as a result of the booming elk population. Although willow are not a primary food choice for elk within the park, absent other preferred grasses, elk will turn to them for food. Park biologist Stevens again found a direct correlation between burgeoning elk herds and diminished stands of willow in the park. In the years between 1971 and 1992, for example, elk use on meadow transects where willow were most common, doubled.[88] As a result, elk have significantly inhibited riparian willow reproduction, as seedling survival has become "almost non-existent."[89] Further, the pressure from elk is so great that few willows "attain a height greater than

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the Winter Range in Rocky Mountain National Park," *Ecography* 20, 1997, 155.
[86] Ibid.
[87] "Elk and Vegetation Management Plan," 10.
[88] Zeignefuss, Singer Bowden, "Vegetation Responses Following the release of Elk From Artificial Controls Within Rocky Mountain National Park, 1968-92," 14.
[89] "Elk and Vegetation Management Plan," 10.

the herbaceous layer, which is the layer of non-woody plants such as grasses, forbs, and herbs."[90]

Observations of the exclosures built in and monitored since the 1930s yielded similar results. For example, by the early 1960s, less than three full decades following their "release" from ungulate grazing, willow covered some 70% of the three exclosures in Beaver Meadows and Horseshoe Park. Where they were not protected by such exclosures, park biologists concluded that the willow were rapidly diminishing.[91] As a prelude to the damage that was yet to come, park staff concluded that although the loss of streamside willow would not "alter the landscape picture so much," it would have a significant and detrimental impact on both elk and beaver.[92] The above process, well underway by the 1930s, greatly accelerated as elk populations soared following 1963 and the cessation of lethal herd reductions.

It is important to bear in mind that the processes at work are not linear, but dynamic. The increase in browsing pressure from elk upon willow, and the subsequent decline in streamside willow within the park, has in turn significantly impacted beaver within the elk range. Beaver, which rely upon willow for both building material and food, have declined in number significantly over the past fifty years. In part this decline was the direct result of trapping, like that which took place in the 1922 season through which forty-six beaver were trapped in and near the park. However, competition with elk over a finite and overlapping resource base is a more

[90] Ibid.
[91] "Elk Management Plan RMNP 1960-1961," 7.
[92] Ibid.

significant factor in beaver decline in RMNP. Although there were "an estimated 300 beavers living in Moraine Park alone in 1939, that number had plummeted by more than 90% by the dawn of the 21st century."[93]

Too many elk eating too many willows have had more complicated impacts than simply reducing the number of beaver in RMNP—a connection that park staff have been cognizant of since at least 1960. For example, the Elk Management Plan for 1960-1961 stated, "Old residents have reported that the extensive grass areas of Horsehoe Park were once occupied by willows." The plan also mentions that "[h]igher water tables, probably due to beaver dams, were apparently favorable for vigorous willow growth." Further scientific research has borne this out. Specifically, the reduction in the number of beaver in the park has had the resultant effect of reducing the overall surface water in places like Moraine Park by upwards of 70%.[94] The reduction in surface water, specifically the large pools created by beaver dams, has further reduced the amount of suitable willow habitat, which has fed directly into declining willow fecundity, and thereby accelerated beaver depopulation.[95]

Elk and beaver, if left to their own devices, are able to establish something approaching a working relationship. According to the most recent data released by the NPS, under natural conditions (i.e., with intact predator base and far fewer elk), beaver would be more abundant, and water levels on the elk winter range would be

[93] "Elk and Vegetation Management Plan," 11.
[94] Ibid.
[95] Ibid.

higher, which would further encourage the "establishment and growth of willows."[96] Rather than engaging in a life and death struggle for a limited resource base as they now are, elk and beaver can "establish a competitive balance in which each species' willow herbivory does not ultimately exclude each other or annual regeneration of montane riparian willow."[97] Such has not been the case in RMNP, however, for many decades.

Too many elk on the winter range for too long has had other ecological ramifications as well. As elk crop, chew and digest some species—like aspen and willow—at higher rates than they would under healthier ecological conditions, other plant species have increased. For example, areas where elk herbivory increased substantially also reflect significant increases in invasive plant species like Timothy (*Phleum pretense*). This plant, which was likely introduced into the park as a food stock for cattle, showed an increase of 54% between 1978-88 alone.[98] Intensive elk grazing can also result in upturns in bare ground, soil compaction, increased sediment yields in water adjacent to grazed areas, and "warmer, or drier soil microclimate," which can have a direct bearing on plant growth in a given area.[99] In all of these ways, and countless others, the impact of tourism in Rocky Mountain National Park, and the management decisions regarding that activity, are reflected on the park's environment.

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[96] Ibid., 7.
[97] Ibid., 18.
[98] Zeignefuss, Singer, Bowden, "Vegetation Responses Following the release of Elk From Artificial Controls Within Rocky Mountain National Park, 1968-92," 14.
[99] Ibid., 4.

Conclusion

Hundreds of thousands of people travel to Rocky Mountain National Park every year to see elk. They push their cars through wandering herds of elk and stride to within just feet of them in the hopes of capturing a lasting and evocative image that commemorates the moment they stood so close to a wild animal. They admire the rutting bulls strutting through stands of aspen and calves feeding along the banks of the Big Thompson.

But from another vantage point, the elk that live in RMNP and give untold pleasure, amusement, and inspiration to millions every year are perhaps the least "natural" elk in the state of Colorado. They have become remarkably tolerant of humans and their coughing, roaring, honking automobiles; they enjoy lives largely free from predation; and they have drastically altered the ecosystems of which they are a part. In this sense, the elk of RMNP might be admired less as a product of the natural world and more as a manifestation of human desire and artifice.

The point here is not to chide the NPS for making the decisions it has regarding elk management, but rather to understand the reasons such decisions were made, as well as the consequences of those decisions. Moving toward the drastic reduction of elk in and around the park is no easier today than it was forty years ago. The NPS is well aware that "[e]lk contribute to the economy of the Estes Valley by attracting visitors to the park and the Town of Estes Park. Visitors enjoy viewing and

photographic elk, especially during the autumn elk rutting season."[100] In other words, folks still expect to see elk in RMNP. In a deeply ironic way, the past forty years of elk population increase has only worked to heighten this expectation. Only time will tell if the NPS now has the courage, institutional strength, and political will to buck public opinion and rein in this monster it played such a central role in creating.

[100] "Elk and Vegetation Management Plan," 19.

Conclusion

Many people concerned with the demand for resources in "third world" countries argue that tourism offers a means to foster economic development in such a way that does not decimate local environments. According to Tensie Whelan, "Ecotourism, done well, can be a sustainable and relatively simple alternative" to industrial resource extraction in places like Costa Rica.[1] Many towns, counties, and states in the American West have turned to tourism to augment their economic base with the very same hopes.

As Pomeroy, Rothman, Hyde, and others have demonstrated, tourism is a deeply cultural process that shapes national and regional identity and reshapes local and regional economies. Given that tourism is an activity that involves the movement of hundreds of millions of people across the world, and given that it involves nearly a trillion dollars in economic activity each year in international travel alone, it would stand to reason that it would also be a major force in shaping and reshaping local and regional environments. Such has been the case in RMNP. Viewing tourism through the lens of environmental history offers new and important insights into the material consequences of this very cultural process.

National parks offer a prime opportunity to study the environmental aspects of tourism. Parks represent sanctuaries where bird and beast are afforded a level of

[1] Tensie Whelan, ed., *Nature Tourism: Managing For the Environment* (Washington, D.C.: Island Press, 1991), 4.

environmental protection not found in other places. Almost without exception, national parks restrict mining, the cutting of trees and other intensive extractive industries common on land managed by the U.S. Forest Service or the Bureau of Land Management. As a result, parks offer islands where the central economic activity is neither extractive nor industrial in the traditional sense. Instead, for more than one hundred years people have traveled to great western national parks to cast their gaze upon breathtaking vistas, to stand amidst pristine babbling brooks and angle for trout, to hear the bugle of a bull elk in rut, or to ascend toward the heavens in their automobiles.

On the surface, each of these activities offers, as Whelan put it, a "sustainable and relatively simple" alternative to more invasive economic activities. As demonstrated through the preceding chapters, however, managing for each of the above has brought vast—in some cases irreversible—environmental change to a place designed ostensibly to prevent such changes. As it turns out, managing for tourism in places like RMNP is never simple, and in many cases has not proven to be sustainable.

As advertised, Colorado offered respite for over-worked urban brains, a health sanctuary for the unwell, unmatched opportunities to experience wildlife, and plenty of good fishing too. Well before the creation of RMNP, a host of local, regional, and national business interests had dedicated significant time and money to promoting these and other aspects of Colorado. In this sense, the creation of RMNP is best understood as part of the broader effort amongst Coloradoans to promote their state.

Certainly, many who supported the idea of a national park near Estes did so out of a genuine desire to protect the natural world for the enjoyment of future generations of Americans. As Hyde and others have demonstrated, during the early years of the twentieth century, national parks were symbols of national pride and founts of national identity. But in the halls of Congress where Rocky Mountain was actually created, it was the economic argument that carried the day. Most admitted that the proposed park lacked the sort of geological wonders characteristic of national parks. What it offered, however, was a prime location that if properly promoted would generate substantial revenue for the state.

At its core, tourism involves the packaging, presenting, and selling of an experience. Compelling Americans and others to leave the comfortable confines of their homes, divest themselves of their hard earned savings, and amble "out West" requires sophisticated and sustained advertising. As Pomeroy, Rothman, Hyde and others have demonstrated, how places like RMNP are presented to the world creates certain expectations about what specifically a western experience entails. Whereas Rothman and Pomeroy discovered that this process puts westerners in the position of "playing West," I find that advertising created very specific and important expectations about what the natural West should be. Furthermore, advertisements also informed the prospective tourist of what they could and should be doing once they arrived. These expectations, in turn, put communities like Estes Park, businesses like the Union Pacific Railroad, and government agencies like the National Park Service

in a position either to transform the natural world to meet those expectations, or to reject them and run the risk of losing patrons.

In the case of driving, fishing, and wildlife viewing—three tourist activities that have been central to the Rocky Mountain National Park experience—the National Park Service and others dedicated significant resources to meeting the expectations fostered in part through advertising. To both attract and please the traveler, the NPS and others built roads deep into the heart of the Rockies. But roads offered more than a mechanism to move people through the park. In the capable hands of a landscape architect, roads became powerful tools to shape how tourists experienced and understood the park. Not only were roads laid out along routes that broke frequently upon striking vistas, the roadside itself was managed to evoke a specific range of responses. Perhaps hoping to accentuate the pristine nature of the park, the NPS dedicated significant resources to roadside cleanup and the removal of historic structures within the park.

The NPS had real and logical reasons for building wide, smooth, and breathtaking roads. Upon its creation, the NPS was not a large or especially powerful agency. Furthermore, the Service was created in the wake of the Hetch Hetchy controversy that demonstrated to park supporters the need for a strong and unified government agency dedicated completely to the protection of parks from development. Stephen T. Mather and Horace Albright both understood that for parks to survive the pressure of development in the future, they needed to build strong

connections to as many Americans as possible. The construction, promotion and maintenance of roads in parks like Rocky were part of this effort.

Tapping into the decades-long tradition of recreational fishing in Colorado, RMNP redoubled efforts to keep park waters filled with catchable and desirable species of trout. Working closely with local conservation organizations and other government agencies, the NPS initiated decades of extensive stocking in almost every body of water in the park. Once again, the NPS understood that if properly managed, the fishery resources of the park would provide yet another powerful tool in building public support—and thereby political longevity—for their agency.

In a similar fashion, RMNP also sought to use its abundant wildlife, which had long been a hallmark of the region, to attract and please tourists. Operating in an era that prized "good" game animals over "bad" predators, RMNP initiated an active and ultimately effective predator reduction campaign. In less than a decade, game animals like deer and elk were on the rise, and all indications pointed to increased visitor satisfaction.

Although the promotion of tourism served as the central policy-making determinant through the first fifteen years of RMNP, the arrival of science within the NPS in the early 1930s challenged the ends and means of preservation there. Scientists transformed the agency from one concerned primarily with how parks looked to an organization increasingly concerned with how they functioned. As a result of this transformation, the NPS took steps to reverse many of the environmental changes they actively sought in previous years, and to balance tourist demands with

something approaching their evolving definition of ecological sustainability. In the case of RMNP, such efforts included elk reduction campaigns, cessation of fish stocking, and eventually the embrace of voluntary mass transit.

It is tempting to conclude that the history of RMNP can be divided into essentially two eras. In the first, which includes the years leading up to 1931, the NPS managed almost exclusively for the pleasure of tourists with very little real concern for environmental quality. In a sense, this is a correct interpretation of the management of RMNP. But to move from this conclusion to a condemnation of the NPS for the environmental change their policies brought about is not historically fair or accurate. As Richard West Sellars, James Pritchard, Donald Worster and others have shown, the NPS—like the rest of the country—did not have the conceptual tools required to understand the sorts of ecological changes they brought about. Rather, prior to the ascendancy of ecology in the United States, the NPS understood its mission as one centered upon protecting evocative scenery and providing entertainment and relaxation for visitors. The NPS was not alone in this belief. The vast majority of Americans that traveled to parks like Rocky felt the same way.

Condemning the NPS for its management decisions the first fifteen years of RMNP is flawed for another reason as well: the National Park Service, and parks like Rocky Mountain, still exist. In a world in which population growth and consumerism put tremendous strain on natural resources, the NPS has managed to stay afloat and protect—to a fairly remarkable degree—those lands it administers. One could make a very good case that although Mather, Albright and others had no real sense of what

the intensive use of parks would mean for the natural resources within them, their wager that public support was needed to protect parks from future development has proven true. It is impossible to know whether we would have the park system today if NPS directors had chosen to limit growth, limit access, and limit recreation.

It is likewise tempting to read the history of RMNP since 1931 as one in which scientists have attempted to "rescue" the park from its rapidly increasing popularity. Although it is true that scientific research drastically changed and challenged how this park was managed, it is not accurate to assume that science has had all of the answers, either. Rather, science-centered management did not eclipse the need and the desire on the part of the NPS to attract tourists to parks; rather it gave them new tools and methodologies to seek some balance between managing for tourists and managing for their evolving understanding of ecological health. In this sense, national parks have become great classrooms of environmental education and understanding. Although not a role originally envisioned by park founders, this contribution of national parks to scientific understanding is one of their greatest legacies.

Since the 1930s tourism and science have been in dynamic tension in RMNP. In some cases, scientific understanding has brought about policy changes that have circumscribed what tourists could do inside the park. Such has been the case with fishing in RMNP. Where once all streams and lakes within the park were the playgrounds of fishermen and home to untold numbers of non-native fish, many waters are now closed to fishing and harbor only greenback trout.

A different pattern has developed in terms of elk management within the park. Science did shed new light on the damage elk were doing to the park's other plant and animals members, but balancing between tourist expectations and ecological health has been more difficult here than in the realm of fisheries management. In large part, the inability of scientific concerns to override recreational ones related to viewing wildlife was largely a function of how deeply imbedded elk watching was in the park experience, and the fact that the most effective means of removing excess elk from the range—lethal reduction—was wildly unpopular. Very few voiced concerns over the poisoning of streams and lakes to remove non-native fish, but a chorus of discontent erupted each time the park contemplated lethal elk reductions. In time, public sentiment against the killing of elk by park rangers forced the NPS to look for other solutions. Their embrace of "natural regulation" was largely a function of public pressure, and not the implementation of scientific understanding in park policy.

Scientific understanding has also complicated the construction and maintenance of roads in RMNP. Until the 1950s, no superintendent of RMNP ever questioned the logic behind building roads to accommodate more visitors, which would require more roads. Following the war, however, park visitation skyrocketed and parks like Rocky lapsed quickly into disrepair. In an effort to modernize parks and make way for future growth, Conrad Wirth initiated Mission 66 to save the parks from the people. The unabashedly expansionist bent of Mission 66, however, combined with the results of Beatrice Willard's research and the wilderness movement succeeded in challenging the place of roads in RMNP. By the 1970s the

NPS was embracing—if only timidly—alternatives to widespread automobile travel through RMNP.

In all of these ways, tourism has been an active and important agent of environmental change. The millions of non-native fish swimming the streams and lakes of Rocky Mountain National Park, the stands of dead and dying aspen, prodigious numbers of elk lounging roadside, and countless acres of denuded alpine tundra all speak to this fact. Tourism may offer a means for communities, states, and nations to step away from traditional resource extraction. But in a strictly environmental sense, the embrace of tourism offers as many problems as it does solutions. Until we understand more fully tourism's power to rework the natural world, we would do well to embrace it more cautiously.

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