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Montana State University

The Institutional System of Wildlife Management: Making It More Effective

Tim W. Clark and Murray B. Rutherford

A young male grizzly bear wanders south out of Yellowstone National Park in search of food or habitat and ends up in the upper Green River country northwest of Pinedale, Wyoming.¹ Along his path he encounters different landscapes and—unknown to him, of course—different human institutions, or established patterns of practices or behavior. Decisions made in the context of these institutions have led to the existence of roads, subdivisions, clear-cut forests, livestock allotments, backwoods cabins, recreational uses, motorized access, hunting, predator control, and other human activities that greatly increase the bear's chances of being killed or removed. Added to this diverse array of land uses is the staggering mix of decision makers that have some say in what happens to the land and its resources, including local, state, and federal agencies, a variety of private entities, and a growing number of nongovernmental organizations. This situation—in which the bear, going about his life, comes into contact (and often conflict) with people who are going about their lives—challenges the complex institutional system of wildlife management to act to protect the bear and the public at the same time.

As the preceding chapters show, the existing institutional arrangements for managing wildlife have failed in some ways to develop sustainable coexistence with mountain lions, grizzly bears, and wolves in

the region covered by this volume (western Wyoming south of Yellowstone National Park—see figure 1.1 in chapter 1).² Such institutional failure in wildlife management is not unique to this region. Fred Samson and Fritz Knopf, well-known wildlife biologists, recently examined the performance of the federal agencies that dominate wildlife management on public lands in the United States (often in close partnership with state agencies and governments) and concluded that they are performing suboptimally.³ In their view, our “archaic agencies” and “muddled missions” are simply not capable of meeting the demands of wildlife and land conservation in the 21st century. They call for better political and agency leadership, a sharper focus on mission or goals, agency structures that are less bureaucratic, and rewards for successful outcomes.

In this chapter we evaluate the present institutional system of wildlife management and propose alternatives for improving its performance. At stake in this issue is our collective ability to maintain viable wildlife populations and to prevent loss of wildlife and habitats through destructive human practices. Also at stake is public trust in government agencies and, in some cases, the democratic process itself. Finally, we are concerned about the kind of environment our children will live in—imagine a world without grizzly bears, mountain lions, or wolves. The importance of these matters calls for an honest, pragmatic appraisal of the institutional system of wildlife management, to determine what we can do to make it work better for us all. We need to ask whether the current system is the best strategy available to conserve wildlife sustainably in the public interest. If the answer is no, then we need to determine what reforms should be made. Toward this end, this chapter describes how the present wildlife management system is structured, it explains why this system operates in the ways that it does, looking at key narratives and other features in play, and it suggests how we can upgrade institutions for more effective wildlife conservation. We hope this chapter will stimulate wide discussion among professionals and the public at large.

The Capacity of the Institutional System

Sustainable coexistence between people and wildlife is the win-win, integrated outcome that most people want. Whether we can actually achieve this, however, will depend directly on the capacity of our in-

stitutions to find and implement common interest solutions for wildlife management.

Defining Institutions

Although *institution* sometimes refers to an organization, establishment, or building, we use the term more broadly to mean a “well-established and structured pattern of behavior or of relationships that is accepted as a fundamental part of a culture.”⁴ Policy researcher Elinor Ostrom said that institutions are “the shared concepts used by humans in repetitive situations organized by rules, norms, and strategies.”⁵ She emphasized how institutions provide structure and incentives for action. She called them “the rules of the game in a society or, more formally . . . the humanly derived constraints that shape human interaction.”⁶ Hanna Cortner and her colleagues defined institutions as “the expressions of the terms of collective human experience. Institutions reflect the ways people interact with one another and the ways they interact with their environment. Further, they are the means people use to solve social problems.” Noting that the term has been used in different ways, these authors included in the definition “both formal institutions, such as administrative structures, and also informal institutions, such as customs and practices.”⁷

Among the components of the wildlife management system in Wyoming are formal organizations such as the Wyoming Game and Fish Department (WGFD) and the Sierra Club, but also many other formal and informal groups and rules that guide people’s behavior as well as the repeated practices that people carry out. Together, all of these patterns of behavior and actions by various groups and people, established ways of doing things, and relations among people form a complex and interconnected network that we call the “institutional system of wildlife management.” This institutional system structures how wildlife is managed, how people interact, and who gets to make decisions about what (who is privileged and who is marginalized).

Social institutions grow out of the perspectives of people—their beliefs, identities, expectations, and demands. Thus, institutions arise from and are shaped by people’s perspectives, practices, and cultures, but institutions in turn shape and structure how people think and act. For example, the U.S. Endangered Species Act (a congressionally authorized, formal part of the institutional arrangement) evolved out of concerns

about the status of native plant and animal populations and their ecosystems. Since its enactment, this legislation has shaped and structured property relations, scientific research, and a wide range of management decisions, and it has fostered a particular view of the responsibilities of humans toward other species.

Institutions are usually related to specific social values, or desired states of affairs. For example, political institutions, including political parties and advocacy groups, have to do with how the value of power is distributed and used. Health care institutions pertain to the value of well-being and how it is produced and shared among society's members. The institutional system of wildlife management also focuses largely on well-being, in that our stewardship of the land—plants, animals, soils, air, water, minerals, and other resources—directly and profoundly affects human health, security, and welfare. As well, the wildlife management system is a direct representation of how power is distributed and used, and this, in turn, has consequences for all of the other values that people hold dear.

Democratic societies, through their institutions, promote the wide sharing among their citizens of all values—power, wealth, well-being, affection, enlightenment, skill, respect, and rectitude.⁸ More tyrannical or oppressive societies, however, develop institutions that deprive their citizens of these values in various ways. For example, some societies have formal laws (or merely norms or traditions) that limit women's educational opportunities, use the military to enforce loyalty to the regime in power, or enable the widespread and destructive exploitation of natural resources. In our case, understanding how the institutional system favors or limits certain people and values is key to understanding its usefulness.

Given that institutions set and control so much of society's thinking and action, their operations should come under close scrutiny. Yet, typically, we do not know much about specific institutions and how they work; this is certainly the case for wildlife management. However, there are effective, proven methods to analyze and appraise institutions, which we can use to investigate why the institutional arrangements for wildlife management have not fully succeeded in meeting the challenge of sustainable coexistence.⁹ Case studies are one powerful approach to institutional analysis, as previous chapters illustrate. From direct observation over time, we can discern patterns of decision making that show how an institution is structured and how it

functions. Analytical techniques that focus on language use or discourse are also particularly useful. As policy analysts Todd Bridgman and David Barry pointed out, language “does not simply mirror the world, but instead shapes our view of it in the first place.”¹⁰ They argue that when “the importance of language in constructing policy issues is acknowledged, policy debate becomes more than just interplay between logics, or arguments—it becomes a competitive contest between discursive frameworks.” The case studies in this volume clearly show that the debate over large carnivore management is just such a contest between competing discursive frameworks. Accordingly, in this chapter we focus on discourse-oriented techniques in our appraisal of the institutional system of wildlife management. Discourse analysis allows researchers or interested citizens to learn about (1) the politics associated with the discourse, (2) the effect on the politics and policies of government, (3) the effect on the institutions involved, (4) the arguments used by the critics of established institutions, and (5) the flaws in the evidence and arguments of each side. Much of this kind of information is not currently used or sought out by people in the large carnivore management process.

Institutional Structure

The *structure* of an institution or institutional system refers to the framework established for decision making, which dictates how decisions are made, by whom, and for what purposes.¹¹ *Function* refers to the dynamics of the individual and collective decisions that are actually made and, for wildlife management, includes whether these decisions foster coexistence with large carnivores and other common interest goals such as equity, efficiency, and inclusiveness in decision making. If the system functions suboptimally, it is possible that its structure could be modified to improve performance. The fundamental question—the basic criterion for governance in a democracy—is whether the structure and functioning of the institutional system serve the common interest.

Several structures of governance have been directly involved in bringing the mountain lion, grizzly bear, and wolf programs to their present form. In the national context, the dominant structural features are the National Environmental Policy Act and the Endangered Species Act, which have been especially important in establishing the

framework under which federal agencies have made decisions about grizzly bear and wolf management. In addition, there are a host of important but more specialized structures such as recovery and management plans for species, the various committees that have produced them, and related implementation and evaluation structures. Many meetings, decisions, and actions at both federal and state levels have also structured the institutional system.

At the state level in Wyoming there are no equivalents to the Endangered Species Act and the National Environmental Policy Act. The State of Wyoming, the Wyoming Game and Fish Commission, and the WGFD are the dominant players in the institutional structure at this level. As with any institutional arrangement, this structure embodies, privileges, and advances particular beliefs, narratives, and values, which we will explore later in this chapter. The State of Wyoming has resisted the federal wildlife management structure at almost every turn for decades, preferring its own institutional approach and the value benefits that flow from it.

One window on the nature of the state's institutional structure for managing wildlife was provided by Dubois resident Robert Hoskins, who wrote an open letter to the WGFD in December 2002 questioning the adequacy of the state's draft wolf management plan.¹² He noted that the state's current approach seems to continue that described decades earlier by Ira Gabrielson, president of the Wildlife Management Institution (a consortium of professional wildlife organizations that conducted audits, among other things). In 1952 the Wildlife Management Institution audited the Wyoming Game and Fish Commission, along with the statutes under which it operated. In the report from that audit, Gabrielson wrote that "in previous studies of fish and game laws of many states, no instance has been found in which the laws give so much special consideration to livestock operators at the expense of the fish and game resources as is found in Wyoming. . . . These laws give consideration to a minority group far beyond that found necessary or desirable in any other state studies. . . . It is obvious that in some cases the earmarking of Fish and Game funds for these purposes by legislative action has so many undesirable features that it is difficult to believe that any legislature having any knowledge or interest in the valuable fish and game resources of the state will continue it." It seems that the state institutions at that time served not public interests, but special interests. This historical appraisal gives us a picture, a baseline that we can compare with the present system.

Institutional Function for Managing Wildlife

We use three discourse-oriented techniques to examine how well the present institutional system is functioning. Political scientist John Dryzek defined discourse as “a shared way of apprehending the world. Embedded in language, it enables those who subscribe to it to interpret bits of information and put them together into coherent stories or accounts. Each discourse rests on assumptions, judgments, and contentions that provide the basic terms for analysis, debates, agreements, and disagreements, in the environmental area no less than elsewhere.”¹³ We begin by broadly mapping the competing discourses at play in large carnivore management and evaluating their quality. We then examine claims and counterclaims about carnivore management and their relationship to common and special interests. Finally, we use key-incident analysis to explore further the nature and quality of the discourses about carnivore management. Each technique gives us a partial test of how well the institutional system of wildlife management is working in the public interest.

Mapping the Discourse

Our first partial test evaluates the nature and quality of the discourse that is taking place. As described in previous chapters, this discourse is highly contentious. Existing arrangements determine in large part how this discourse is carried out—whether, for example, it is comprehensive and inclusive, and what outcomes and effects are produced.

Wildlife management is not a simple, linear process. It does not come with well-defined, mechanistic parts that all fit together in smooth decision making and rote practices. The difficulties often arise from differences in people’s perspectives. For example, people who share a ranching background in Lincoln County, Wyoming, have more in common with each other than they have in common with wealthy second-home owners in Teton County. Each group of like-minded people shares the same physical setting, “lifestyle,” economies, material goods, a relatively unique way of understanding the world, and a language for easy communication within the group. When two different groups try to interact, however, the differences in their accepted myths and narratives may be large enough that they “talk right past one another.” The 90 miles between Afton and Jackson is no reflection of the vast distance between the subcultures and discourses of these two towns. In many ways Afton typifies the “Old West” and Jackson the

“New West.” These differences must be appreciated if we are ever to find common ground in carnivore management. Individuals may not comprehend someone else’s ideas very well because they are locked inside their own way of thinking, listening and evaluating with the assumptions of that perspective. Each group may talk about facts and symbols in very different ways, making it extremely difficult to communicate with other groups. Symbols become very important in this kind of environment.

Simon Swaffield of Lincoln University in New Zealand provided a good example of discourse analysis and the differences that exist across groups.¹⁴ He looked at what people in New Zealand mean when they use the word “landscape.” He found that the word had multiple meanings and that different interest groups used the same word in at least seven different ways. Among the management implications, he found that people use language symbolically and strategically to advocate their interests, and he concluded that the strategic use of language by different interest groups is one of their most powerful weapons against government, which largely structures and controls the management policy process. Multiple meanings make the job of government more difficult. Swaffield found that the public often uses meanings that are more inclusive, while government planners use meanings that are narrow and that exclude valid interests. This is, in part, what seems to be happening in the carnivore management process.

Table 7.1 summarizes the two main discourses about carnivore management in Wyoming and identifies the parties involved with each. In both the table and the remainder of this chapter, we use the terms defined in chapter 2 to describe the primary groups involved in large carnivore management: localists, environmentalists, and agency personnel. Recall from that chapter that although agency personnel are distinguished by their commitment to a bureaucratic and technical approach to decision making and management, in other respects they tend to align with the views of either localists or environmentalists. We discuss the bureaucratic and technical views of agency personnel later in this chapter, but table 7.1 focuses on views about maintaining or changing the current management system. The two discourses outlined in the table include dramatically different assessments of current approaches to carnivore management. Each is underlain by different assumptions, judgments, and contentions, each

Table 7.1.

A classification of large carnivore management discourses in Wyoming.

Discourse type	Kind of change needed (assumptions, judgments, contentions built in)	Nature of discourse (using language, "facts," and symbolism)
Status quo	"Ordinary change" is called for,	Maintain the present
Held by many "localists" and state "agency personnel" (Wyoming governor's office, WGFD, Wyoming Game and Fish Commission)	i.e., maintain the status quo or entertain very small changes. The present is taken as given and generally acceptable. Change should consist of small, incremental adjustments, if any. The aim is to go slow and easy.	management system and remove or eliminate large carnivores if they threaten people and their established practices.
Reform		
Held by many "environmentalists" and some federal "agency personnel"	Significant change is called for. The present is taken as unacceptable. Departures from current practices are needed, including the possibility of dramatic reform.	Reform the current management system, upgrade, modernize, and find a new formula for sustainable coexistence of people and carnivores.

takes a different view about change, and each uses language, "facts," and symbols differently. The potential for misunderstanding and conflict is high in such circumstances.

Most people are locked inside one discourse looking out at other people who are using a different one. When taken to the extreme it is easy for each person to conclude that he or she is "right" and everyone else is "wrong." As Christine MacDonald noted, "Discourse is an ideological practice in the sense that it contributes to a construction of certain values and goals as more worthy than others, identifies particular institutions as primary actors in a policy issue and attributes authority to certain bodies of knowledge over others."¹⁵ Some people, however, make the effort to understand other people's beliefs, actions, and words, and a few develop an overview of all the discourses in play and work to harmonize them and bring differing camps into an integrated and inclusive dialogue. Unfortunately, as the case studies in this volume show, large carnivore management is severely hampered by

gulfs between the two dominant, competing discourses, and the current institutional system does little to address this fact or to facilitate integration and inclusiveness. Furthermore, there simply are not enough people seeking win-win outcomes in the common interest. This first test, then, indicates that the wildlife management system is not focused on the common interest per se, but is instead a complex mix of competing special interests without an effective means to integrate and include them all.

Claims and Counterclaims

Our second partial test of the institutional system of wildlife management examines the claims and counterclaims that are being made about large carnivores.¹⁶ Discourse consists, in part, of the claims and counterclaims that people make, the values at stake, and what these claims symbolize to the claimants. Patterns in claim making over time reveal patterns in values, outlooks, and policy preferences. At present the agencies and other groups involved in carnivore management are operating without a clear picture of these patterns, which could expose sources of conflict and reveal ways to move toward common ground.

Analysis of claim making shows that there are many disconnects among people involved in carnivore management. Claimants on all sides invoke “data” of varying quality to support their views, but these data are not all equally valid. Consider, for example, the claims and counterclaims that have been made about the relationship between wolves and game animals.¹⁷ Several groups have asserted in the press that “wolves are responsible for the mass slaughter of elk on the feed grounds, and that the wolves will eventually destroy the elk herds”¹⁸ (the “feed grounds” are areas where large numbers of elk are fed by WGFD during the winter). One such group, Elk for Tomorrow, a sportsmen’s association based in Riverton, Wyoming, and its president, Mike Rinehart, claimed in a long newspaper advertisement that the reintroduction of wolves had dangerously reduced elk calf-to-cow ratios. Based on apparently anecdotal observations, they said that information from Idaho showed that “wolves kill, not only for consumption . . . so much for the environmental claim that wolves keep the herd strong by killing off the old or defective” [*sic*].¹⁹ This group publicly attacked Wyoming Wildlife Federation’s regional representative, Lloyd Dorsey, who challenged their claims. Elk for Tomorrow said

that they opposed “any plans Dorsey and the WWF have for [places] where wolves are already decimating elk herds.” They claimed that “without immediate action by every caring Wyoming citizen, elk will become the endangered species, or perhaps a bittersweet memory,” and they hoped the wolves would “turn their carnivorous desires towards the wolf-watching outfitters and ‘eco-tourists,’ the rightful target indeed.” Labels of “Green Mafia” and “Eco-Taliban” were used to discredit those who supported wolves and questioned Elk for Tomorrow’s claims. Another of the group’s ads later that year devoted a full page to personal attacks against conservationist Meredith Taylor on the issue of elk feed grounds.²⁰ As a result, the debate became personalized and highly politicized.

Elk for Tomorrow has not been alone in making such claims. Friends of the Northern Yellowstone Elk Herd, Inc., of Pray, Montana, a nonprofit group that claims 2,900 members, made similar claims in a letter of February 21, 2001, to President George W. Bush. This group said that “we are not replacing the aging [Northern Yellowstone Elk herd] because of a wolf instinct called “Surplus Killing” where newborn elk calves are reflexively and wantonly destroyed by wolves shortly after birth. The other prey species are in as much, if not more peril.”²¹ They claimed that Mike Phillips, formerly a Yellowstone National Park wolf biologist who is now with the Turner Endangered Species Fund, had said that “the goal of wolf introduction was to drive ranchers from public lands.” The group went on to say that “this is not only a violation of the Endangered Species Act, but also a violation of the 5th Amendment of the Constitution, and its ‘takings clause.’” Finally, they claimed that they were “centrists and moderate in our request.” Phillips denies having said what was attributed to him.²² This discourse, like others, is based on claims of valid data, but standards of validity obviously vary. Also, observations and other data are marshaled selectively in support of claims.

Similarly, Wyoming Senator Mike Enzi claimed in a letter to Secretary of the Interior Gail Norton that wolves caused severe losses among Wyoming’s elk herds, especially calves. Enzi’s chief of staff Flip McConnaughey said that the senator based his letter on claims of his constituents and their reports from the Big Horn Basin and the western part of Wyoming. McConnaughey said, “People are the first ones to see it. They’re the ones on the ground every day, they’re the ones who watch it.” These claims are frequent and widespread. They reflect

the perspectives of some localists and even some WGFD personnel. The WGFD has indicated that it is also concerned about the depredations by wolves on its winter elk feed grounds.²³

Counterclaims in the wolf/elk controversy typically come from environmentalists or federal government employees and occasionally from state employees. For example, in 2002 the U.S. Fish and Wildlife Service's (USFWS) wolf recovery coordinator, Ed Bangs, said that no scientific evidence supported the claim that elk calf populations were down dramatically in 2002, or that wolves were responsible. Some WGFD officials backed Bangs in this instance. Jay Lawson, wildlife division chief of the WGFD, said that the calving season was just over and there was no way of knowing what effect, if any, wolves had had on elk populations. He said he had received no reports that year (2002) about wolves killing elk calves. Mark Gocke of the WGFD Jackson Region said that, as of 2002, there were three packs of wolves active on the Jackson elk herd (which uses three of the feed grounds that concentrate elk in the winter) and that, even with wolf predation, the elk herd was larger than the optimum population of 11,000 animals that the state tries to maintain. In fact, the herd had reached a high of 16,236 animals in 1996, declined to 12,132 in 2001, and rose again to about 13,500 in 2002. The real effects of wolves on the elk herd are still being investigated, said Gocke. A USFWS study in Yellowstone National Park conducted since 1995–1996 shows that one wolf kills about 1.8 elk per month. Two USFWS employees monitored the number of elk killed by wolves in the Gros Ventre drainage in Wyoming for the years 2000–2002. Their estimate is that 264 elk were killed in the 12 months of 2001 out of a herd of 13,500 animals. The calf-to-cow ratio in the 13,500-animal herd was 22.8 calves to 100 cows, slightly down from the 10-year average of 25 calves per 100 cows. In addition, Mark Gocke said that research up to 2002 suggested that black bears have more impact on elk calves than wolves have. Elk are probably being affected by drought as well, he added. Overall, as Ed Bangs observed, with wolves, opinion is quickly offered up as fact. He went on to say that wolves stir more emotion than anything else.²⁴

The wolf/elk controversy is but one, admittedly extreme, example of the claim-making dynamic. Most of the public either stays away from this kind of claim making or quietly sides with one side or the other. Many other claims and counterclaims are made, though, about all aspects of large carnivore management, such as whether bear bait-

ing during legal hunting seasons near livestock increases rancher losses and endangers human safety, whether mountain lion hunting causes needless deaths of cubs, and whether the U.S. Forest Service's proposed "food storage order," designed to manage food availability in campgrounds and in backcountry areas, is really needed. The management process is immersed in a seemingly endless series of these claims and counterclaims. Some claims could be factually clarified and resolved through adequate scientific research, but many, especially those that are ideological rather than scientific in content, cannot be resolved easily.

This pattern of highly contentious claim making has harmful and long lasting consequences. It creates hard feelings among participants, increasingly rigid individual value positions, and a highly politicized policy environment. How each claim is advanced, countered, or resolved (if ever) is a reflection of the functioning of the institutional system of wildlife management. The high volume of conflicting claims that presently exists indicates that the institutional system is unable to resolve them in the common interest. It is possible that the state government and perhaps the federal government even benefit from the conflict in that managers feel free to make whatever decisions they want because it is not possible to please everyone. Agency officials in this arena have actually said publicly that they are sure they are making the right decisions because all sides are upset with them.

This second partial test of the institutional system of wildlife management indicates that the adjudication process about claims and counterclaims is not being conducted in the common interest. Instead, participants pursue their special interests. The government's and especially the state's involvement in the institutional system has not led to effective resolution of differences and may, in fact, have magnified these differences.

Incidents

Our third partial test of the adequacy of the institutional system of wildlife management examines incidents, how the system seems to spawn them endlessly and how it deals with them once they arise. *Incidents* are key events that may initially appear to be minor but actually have significant consequences.²⁵ They precipitate crises, focus issues, articulate people's expectations (and whether they have been violated), and clarify differences in symbolic import. Because of the political saliency of incidents (most are covered in the media), people use them

to form their opinions and to provide evidence (as “facts”) in their claim making. Incidents clarify how a community is divided and what it is that separates it into factions. Incidents tell us about “shared notions of what is right [which in turn] influence perception, reason, and capacity for mobilization. These inferences about what other actors think is acceptable behavior . . . are almost entirely derived from the response of key actors to the critical event.”²⁶ Incident analysis is another window on how the institutional system of wildlife management operates. Practically, this system should help stabilize and reconcile people’s expectations about how large carnivores will be managed and how decisions will be made.

The appearance of a mother mountain lion and three large cubs on Miller Butte on the National Elk Refuge just outside Jackson in winter 1999 was an incident that highlighted latent public interest in carnivores (see chapter 3). A few months later, in the midst of great public sympathy for the lions, another incident occurred: WGFD increased the hunting quota for mountain lions in the Jackson area and across the state. This decision upset many people and motivated a determined minority to watchdog the agency and criticize the new hunting regulations. These people publicly questioned WGFD’s rationale for quotas, the scientific basis for its management program, and the ethical behavior of lion hunters. They also accused the agency of a lack of concern about the loss of cubs when mothers are shot, and they challenged the processes used at public meetings and in decision making. Some citizens formed The Cougar Fund, a new not-for-profit organization dedicated to seeking better mountain lion management in the West. The founders felt that they had exhausted all possibilities for redress through existing state-led institutions. The establishment of this nongovernmental organization in these circumstances is further evidence that the institutional system is not working well, at least for some citizens.

Incidents concerning grizzly bears also occur regularly. For example, grizzly bear predation in the early 1990s on Paul Walton’s grazing allotment in Bridger-Teton National Forest remains a hot issue even today (see chapter 4). Another persistent incident featured prominently in the news is bears killing livestock in the Du Noir area near Dubois. Dan Engles’ livestock losses, his compensation claims to the WGFD, and his criticism of grizzly bear researchers baiting and trapping bears near his cattle and cowboys without telling him is also an incident of

import. Since the 1990s incidents of livestock losses from grizzly bear depredation in the Upper Green River area near Pinedale have dominated the news.

Wolves are also commonly involved in incidents. One of the most prominent was the first appearance of wolves in Jackson Hole on the National Elk Refuge in 1999 (see chapter 5). This pack was observed by thousands of people, photographed, and talked about extensively. It was featured on the front pages of newspapers locally and statewide. In addition to being interested in the wolves themselves, people were concerned about personal safety, danger to pets and livestock, and potential losses of elk. Other incidents that have flared up in the media include wolf impacts on elk on the National Elk Refuge and on state-run feed grounds. Still other incidents include single wolves killing domestic sheep and packs killing livestock and dogs near ranch houses, barns, and right in front of ranchers (e.g., in *Du Noir*). Wolf incidents are always contentious. In the end, many of them fade away out of public consciousness, but a few have great longevity.

One very high profile incident that occurred in Grand Teton National Park in 1996 provides particular insight into how such events play out under the existing institutional structure. Christina Cromley examined this incident, and it is worth reviewing her findings in some detail here.²⁷ Bear 209, a 9-year-old, 550-pound male, was captured on August 4, 1996, by WGFD in Grand Teton National Park on Elk Ranch East. A lethal injection ended his life. His capture and destruction took place in response to ranchers' claims that a bear or bears had killed 11 calves over a 3-week period in July of that year. Bear 209 had been marked previously and had a history of cattle depredation. Previous unsuccessful attempts to translocate him influenced the state in its ultimate decision to kill this animal, even though it was a federally listed threatened species and was trapped in a national park. The National Park Service supported WGFD's decision to kill the bear, and the park responded to the public outcry with a management summary of its justification for killing the bear.

As Cromley explained, the killing of grizzly bear 209 became an incident because it symbolized many problems in the larger management policy process. It permitted battle lines to be clearly drawn. Widespread public reaction followed the killing of this bear. Newspapers printed articles, editorials, and letters. Correspondence and personal communications took place between the superintendent of Grand Teton National

Park, conservation groups, and unaffiliated citizens. Letters were written to the Secretary of the Interior and the head of the National Park Service. A citizens' group organized a petition protesting the killing and collected 831 signatures from residents and tourists in just a few days. Environmental groups mentioned bear 209 in their newsletters. An epitaph for the bear appeared on the World Wide Web. The incident polarized, alienated, and mobilized a great many people, resulting overall in bad press for the agencies and a drawdown of public trust.

The incident assumed larger-than-life proportions and accumulated more and more symbolic significance. The death of bear 209 was invoked by environmentalists to question whether livestock grazing should continue in Grand Teton National Park on leases that had expired under the original authorizing legislation but were extended by the park superintendent and a congressional bill. Others used the incident to question the professionalism, leadership, and decision-making arrangements of the WGFD, the National Park Service, and the USFWS. They questioned whether killing bear 209 was in the common interest or was done for special interest reasons. They claimed that agency actions favored a very prominent rancher in the valley at the expense of grizzly bear conservation.

Cromley went on in her analysis to explore the context of this event. Examining the participants and perspectives revealed through the incident, she found that people's expectations differed dramatically about (1) when it is appropriate to move bears, (2) the management zoning system, (3) allowing grazing in a national park and the relationship of grazing to wildlife, and (4) interagency decision making and participation in decision making. She explained these differences as a clash of myths that left many people feeling deprived in certain ways—disrespected, powerless, betrayed. This is why there was such a dramatic public response and vehement debate. She noted that countless decision processes intersected in the final choice to kill bear 209, and her identification of these multiple processes affirms how complex the institutional system of wildlife management actually is. Her recommendations were to clarify expectations and demands about actual bear management procedures and about interagency coordination efforts and participation in decision making.

This last partial test of the institutional system's operations indicates that incidents feature prominently in management and have negatively affected the public's view of the legitimacy of agency operations. The

large carnivore management process continues to lurch from incident to incident, with inter-incident periods filled with disconnected discourse and opposing claims and counterclaims, against a backdrop of traditional management routines.

Taken together, the structure and functioning of the institutional system of wildlife management, as evidenced through laws, regulations, meetings, and agency decisions, as well as through discourse, claims and counterclaims, and incidents, show a conflict-laden and highly politicized process with few prospects for improvement. These three partial tests of the adequacy of the institutional system illustrate that it operates suboptimally. This kind of situation, according to policy scientist Ron Brunner of the University of Colorado, constitutes a crisis. "Crisis is not the result of conflict, but of the failure of means for resolving conflict." In short, the suboptimal performance of the present institutional system of wildlife management "is not the result of special interests dividing the community, but rather of particular maladjustments which prevent compromise between these interests," in the words of social scientist Carl Friedrich, who wrote on this kind of problem decades ago.²⁸ Understanding why this is so is essential if we are to find ways to upgrade performance.

Explaining the Institutional System of Wildlife Management

The institutional system of wildlife management can be explained by understanding the perspectives and practices of the people and organizations involved. These are "abstracted," so to speak, in the narratives (stories, beliefs) at play that comprise the basic formula for action, in the bureaucratic, managerial orthodoxy of the agencies, and in the assumptions of professionals and the roles they play. With this view of how and why the institutional system behaves as it does in large carnivore management, we can begin to develop and implement strategies to improve performance.

Beliefs and Narratives

At the heart of all cultures and human behavior are narratives about people's basic beliefs. Everyone communicates through stories of one kind or another. These narratives or stories tell people about who they

are, what is important, and why they do what they do.²⁹ Narratives abstract and mirror the doctrine (basic beliefs), the formula (rules or code for behavior), and the symbols of identification in a person's or culture's perspective (see chapter 2). Institutions directly manifest these narratives and basic beliefs. To understand the institutional system of wildlife management, we must ask ourselves what the core story is, who has the most to say about it, and whose interests or values are most served by the story. We must also ask what competing narratives, if any, might exist and how these might affect the institutional and policy dynamic of wildlife management.

Core Beliefs

Core beliefs can be determined by examining the record of an individual or organization over long periods and looking for recurring themes and central tendencies in actions and words. Because of its dominant position in large carnivore management in the state, WGFD deserves close scrutiny. The core belief within the department that stands out, based on our observations over three decades and the work of other analysts (see chapter 2), is that power and the competition for power are of paramount importance. This belief provides a formula for how the department hoards or shares authority and control and with whom. It dictates that WGFD should have authority and control over all wildlife within the state, a classic states' rights assertion. This core belief figures into the department's identity, its expectations about the world, and the demands it makes. Large carnivore issues reveal this core belief in the department's interactions with other people and organizations and in its internal operations.

One event that gives a clear window into WGFD's dominant narrative and core beliefs is the suspension of department biologist Dave Moody in April 2003 for comments he made about a new Wyoming state law dealing with wolf management.³⁰ Moody observed at a professional meeting (the 15th annual North American Interagency Wolf Conference) that the new law is "extremely problematic" in that it "does not provide long-term, adequate protection [for wolves]." According to newspaper reports, Moody was suspended from his duties because of these comments, which directly challenged the state's beliefs, narrative, and actions. In many respects Moody showed the state's position for what it was—an attempt to assert power and make a claim for increased authority and control over wolf management.

Harry Harju, recently retired assistant chief of WGFD's wildlife division, said in a perspective piece in the *Casper Star-Tribune*, the state's most widely read newspaper, that "one way to shut agency employees up is to make the director a political appointee. . . . This discourages knowledgeable professionals."³¹ Directors will censor "actions and words of department employees for fear something an employee does or says will cause removal of the director." Commenting on the Wyoming Game and Fish Commission, Harju said that some political appointees have "little interest in wildlife, and were mainly representing special interests that promoted them as commissioners." Furthermore, these commissioners "were mostly interested in complaining, nitpicking, threatening and harassing employees . . . and voting against things that were important to wildlife but disliked by agriculture or industry." Such a style of leadership and climate for wildlife management could account for incidents such as Moody's suspension.

Although WGFD subsequently said that Moody had only been "placed on paid administrative leave for a short time" and "was never suspended," this is not the first time that WGFD officials have attempted to control their staff professionals in support of the state's beliefs (for example, see the parallel story about Joe Bohne, WGFD biologist, in chapter 3). Such incidents show a pattern of state officials enforcing compliance and adherence to their states' rights ideology. The value at the center of these incidents is power—power over employees and control over their knowledge and its dissemination.

More broadly, the dominant sector of Wyoming's culture has put the state at a crossroads, according to Paul Krza in a *High Country News* article (see chapter 2).³² Wyoming has traditionally been very conservative, adhering to an inflexible states' rights ideology. It has catered to local agricultural, mineral, and other special interests in its decision making. Wyoming has consistently sought to maintain the status quo and to maintain or increase its power dominance in the wildlife management system. Progressive wildlife management, open discussion, inclusiveness, and integration have often been casualties of this agenda. According to Krza's article, for example, former governor Jim Geringer (1995–2003) "squashed any dissent from within the state agencies" against his antienvironmental stance.³³ Agencies such as WGFD were not allowed to operate independently, even if they did have environmental concerns. The former state auditor, Dave Ferrari, said Geringer ran his

administration like “an arrogant know-it-all kind of guy who was argumentative and didn’t want to hear anybody else’s point of view.”³⁴ Present governor Dave Freudenthal has said that he wants to change things, especially agency behavior, but has proceeded very slowly and has appointed agency leaders who have a history of resistance to change.³⁵

The Importance of Narrative

According to psychologist Jerome Bruner, the narrative way of knowing (that is, attending to the story line) is one of two basic ways in which people comprehend the world; the other way is “logico-scientific.”³⁶ Most of the ongoing discourse about large carnivore management uses the narrative way of knowing; only a very small part of it is about the logico-scientific basis of wildlife conservation. Dave Moody’s comments about the state’s wolf management plan were based on logico-scientific knowledge, for instance, but they came into direct conflict with the state’s narrative way of knowing, which emphasized power and control.

To identify the dominant narrative and counter narrative in policy debates about carnivore management, we looked for recurring subjects or themes in these debates and observed how this was reflected in language used and in actions. The identification of key themes was based on their repetitious appearance in the data. Our characterization of narratives and themes is admittedly an oversimplification of a very complex dynamic, but it provides a plausible explanation of why the institutional system of wildlife management currently operates in the ways that it does.

We identified two main stories competing for dominance over policy making, one told by localists and state agency personnel, especially WGFD, and the other told by environmentalists and federal agency personnel (table 7.2). Historically, localists (ranchers, hunters, and others who share the beliefs of the Old West) and state agency personnel (especially WGFD and agricultural interests) have been allied and have controlled wildlife management in the state. Not surprisingly, their values and their story dominate, and they are the ones most served by the institutional system today. In the last few decades, however, a counter narrative promoted by environmentalists of the New West and some federal agency personnel has gained some prominence, especially at the national level, and is being implemented on some federal lands.

Table 7.2.

Key themes in the narratives about large carnivore management in Wyoming.

Dominant narrative: Localists and many state agency personnel	Counter narrative: Environmentalists and many federal agency personnel
Large carnivores are not wanted by locals or the State of Wyoming.	Large carnivores are wanted by the broader American public, and restoring nature is the “right” thing to do. Conservation science dictates that carnivores must be protected and provided with more habitat.
The highly individualistic, locally controlled, competitive environment is the “Wild West” and that is what we want.	All Americans are part of a larger family and must work for the overall best interests of the nation.
Large carnivores create unacceptable problems for ranchers, hunters, and human safety.	Any problems can be managed. Overall, large carnivores pose no great risk to people, livestock, or wildlife.
Local ranchers and rural residents are the ones who have to live with large carnivores and suffer harmful impacts. We should have the final word on the matter.	The impacts suffered by locals are not severe, and the costs can be minimized. Localists are provincial, poorly educated, narrow-minded, and self-interested. “Objective science” should have the final word on the matter.
Carnivores are just another example in a seemingly endless series of events in which outside people force change on locals against our will.	Carnivore conservation is the will of the American public, and locals can be fairly represented and compensated if they want to work with us. Localists need guidance and modernization, with the aid of science and enlightened management.
We are the “David” in a “David and Goliath battle” (the federal government and its environmentalist allies are the “Goliath”).	“Goliath” in this case is the good guy and represents the American people. It may be possible to balance local interests with national interests, but if not, national interests should prevail.
Outside people have declared “war” on us and we will fight to the end.	In the end, national interests and conservation science <i>will</i> prevail. Localists and state officials do not want to cooperate and work out problems together rationally and realistically.

This counter narrative calls for a different institutional formula, and it promulgates less dominionistic, utilitarian beliefs about our relationship to nature and a different view of the relationship between policy and science. It also distrusts localism and states' rights as the best formula for public management of natural resources.

Dominant Narrative

The dominant narrative says that power and influence must be exerted to maintain control of institutions and decision making so that local and state interests will be served. It also says that federal intervention is not only undesirable, but it is unacceptable and must be resisted in all cases. This view envisions environmentalists and federal agencies as all-powerful outsiders who are set on subduing and ultimately destroying local and state interests.

Adherents to this narrative tend to believe that outsiders, especially the federal government but also its environmentalist allies, have an evil master plan to overwhelm localists and the state government. The "feds" and environmentalists are out of control, spreading like weeds (or wolves in this case), creeping and destroying their way throughout the West's culture and resources. Many ranchers, hunters, state game and fish personnel, county commissioners, and local business owners seem to believe this story, as do many policy advisors and decision makers at the state and local levels. Even some members of the media, who may perceive of themselves as objective and neutral, believe it, as do some federal employees who work to further states' rights. The notion that the federal government and environmentalists are evil has become an unquestioned, albeit tacit, assumption that influences most decision making and discussion of alternative ways of managing resources. Localists even liken federal government initiatives to communism, implying a move from freedom, economic or otherwise, to oppression. The solution that this group would like to see is for the federal government simply to go away, giving all management authority and control to the state and the localists.

The effect of this rhetoric about "local control" is to mask the self interest of these participants. Built around a metaphor of local rights and the need for a fair playing field, this imagery is used to persuade policy makers and public opinion that the current situation is unfair and needs to be fixed according to the localist formula. This story says that the playing field is tilted in favor of outside interests from the east

and west coasts (both perceived as environmentalist strongholds), thus preventing local interests from competing fairly. Localists say they are caught up in a game that they have no chance of winning, through no fault of their own. Since public sympathies often lie with the underdog, they portray themselves as David in a fight with Goliath (the feds and environmentalists).

According to this narrative, federal government intervention is always bad. Reintroduction and protection of large carnivores is a game with unfair rules, which are not always clear. The feds and environmentalists are ramming something down local throats that people do not want. These opponents are all-powerful, in effect acting as police, judges, and jury all in one, with no chance of appeal. This group feels that it can be victorious only by fighting tooth and nail to the end.

Counter Narrative

Whereas the dominant story draws on the metaphors of individualism, freedom, business, and local control, the counter narrative has the key theme of rational policy making driven by sound science. The story line here is that large carnivores are desirable and that the federal government should intervene to ensure that they thrive. Adherents have attempted to convince policy makers of this by characterizing policy making as scientific, rather than ideological. They say that the true test of any carnivore policy proposal is its factual biological basis. By focusing on the biological facts, promoters imagine that they are presenting objective truths rather than engaging in subjective, political debate. The appeal to objectivity reduces policy making from a complex, value-laden process to a simple matter of applying an objective formula (in this case, the positivist science of expert biologists). To provide support for their claims of objectivity, those promoting this story attempt to connect their preferred policy outcomes to the national public interest. For example, they may conceal their own self-interest behind arguments that implementation of the Endangered Species Act is logical and serves the broader public interest.

Adherents of this counter narrative believe that once carnivores are well established there will be a reasonable chance of achieving larger goals such as ecosystem management and restoring nature itself. This story is full of the symbolism of modern science, including proportionality terms such as “restoration ecology,” “ecosystem management,” “endangered species conservation,” and “ecological connectivity.” The

story is also heavily laden with morality-based rhetoric, such as the “land ethic,” using Aldo Leopold and other respected figures to justify a policy preference for restoring nature, which is considered to be inherently good—the right thing to do (a redemption narrative). As in the dominant narrative, particular symbolism and vocabulary are used to tell a certain story that proponents want policy makers to accept as the basis for decision making. In this story, environmentalists and federal management agencies consider themselves rational, considered, deliberate, logical, and public interest-minded. They see the localists and state agencies—who view themselves as heroes taking on the risks of life on the frontier in the wild West—as provincial, poorly educated, narrow, and self-interested people who are in need of guidance and modernization, with the aid of science and enlightened management.

According to this counter narrative, federal government intervention is not only desirable, it is imperative. Carnivore restoration is a good thing, but it must be implemented in a way that ensures that the national interest is achieved, even if this means overriding local interests. The guiding principle of scientific objectivity will lead the nation to the optimal resolution, and it should be left to science to determine the correct solution. To do otherwise would be to sacrifice the national interest to the local, narrow self-interests of ranchers, hunters, and the state. Issues of morality and justice raised by localists should not be used as the basis for decision making.

Conflicting Narratives

When the dominant and counter narratives in carnivore management are examined together, it is apparent that the central motif of both is the issue of power (authority and control). The foundation of the conflict is the appropriate balance of local and national interests, a long-standing clash that goes back to the founding of the republic.³⁷ At issue is who should have power, how it should be used, and importantly, whose interests or values it should serve. Thus, the conflict about large carnivores is yet another manifestation of an ancient contest over whose values and narratives will guide decision making. This conflict, intense and basic, has profound implications for each side, for how the institutional system will operate, and for how we will govern ourselves generally about environmental matters in the future.

At present, the institutional system of wildlife management functions under the dominant narrative in favor of certain core beliefs. It

privileges WGFD, its states' rights ideology, its past practices, and the beliefs and interests of localists. Although the symbolism contained within the competing story is vivid and the plot compelling, it has generally failed to alter how policy makers (at local and state levels) have constructed their own stories and act on them.

Bureaucratic, Managerial Orthodoxy

Carnivore management is largely defined and shaped within bureaucratic government agencies, which set tight boundaries on how people are allowed to interact in the management arena.³⁸ For example, in some public meetings held by agencies ostensibly to gather public input, speakers have been limited to 2 minutes to make a statement. At one meeting on mountain lions sponsored by WGFD in June 2001, public comments to the assembled group as a whole were forbidden—the only permitted forms of “input” were comments written on flip charts or private conversations with state officials (see chapter 3). These formats restrict public discourse and leave many participants feeling insulted and powerless in what they believe should be an open, deliberative, democratic process.

Bureaucratic organizations are built on certain assumptions about appropriate power relationships among government and citizens, professionals and laypeople, and the official and unofficial parts of policy making. The organizational literature shows that bureaucracies usually operate in self-serving, undemocratic ways, to maintain power in the hands of the few rather than the many.³⁹ Organizational researcher Charles Perrow argued that the biggest danger in such an organization is “how it inevitably concentrates those forces [social resources] in the hands of a few who are prone to use them for ends we do not approve of, for ends we are generally not aware of, and more frightening still, for ends we are led to accept because we are not in a position to conceive alternative ones.”⁴⁰ Bureaucracies, when left to themselves, typically deem only a limited set of alternatives feasible to consider in addressing problems, and these typically support and maintain existing bureaucratic structures and modes of operation. These limitations affect how participants interrelate, how decisions are made, how resources are allocated, and how work is performed. They trap people, including bureaucrats themselves, in complex management structures that cause, magnify, and recycle destructive conflict.

Bureaucratic wildlife management agencies often exclude people and fail to integrate information to find common ground. The reasons for this are well documented. First, bureaucracies have built-in, “default” tendencies, and during times of stress they tend to revert to these to guide their behavior. When confronted by public demands to be more open or to consider other data, wildlife agencies may do just the opposite, retreating to their core defenses and standard operating procedures.⁴¹ Bureaucrats calculate what they should do or how they should behave in any given situation based on their past experiences and these built-in tendencies. They make the best guess about what will appease powerful interests who are aligned with them or who control their fates, and then by persuasion or other means they try to enlist sufficient support to have their decisions “legitimized.”

Second, bureaucratic agencies work very hard to maintain their “turf,” their independence, and their decision-making authority. Power relations among resource management agencies have always been very important, as have the relations between these agencies and other powerful groups—congressional delegations, county and municipal governments, environmental groups, and industry. The preoccupation of agencies such as WGFD with authority and control is evident in their press releases and behavior with other actors (as documented in previous chapters).

Third, the complexity of the institutional system for wildlife management has increased dramatically, which impedes effective management by bureaucracies. The institutions, organizations, policies, and practices of numerous other arenas intersect and influence wildlife management, among them economic, agricultural, and recreational policy. Overlapping and fragmented jurisdictions and limited resources contribute to the complexity; missions, controls, and boundaries are confused. Bureaucratic agencies are not adaptive enough, and their staffs do not have the requisite skills and knowledge to function effectively under these circumstances.

Fourth, the context in which the agencies must operate has also become far more complex. The public is growing and diversifying, and its demands are intensifying. Structures of governance are also growing and diversifying. The effect is to multiply divisions in our communities and heighten competition among special interests, stemming, ultimately, from profound ideological differences that will not go away. These differences play themselves out through issues such as large carnivore management. Symbols become especially important in such

situations. Carnivores have become symbols of “big bad government,” “untamed wilderness,” and much more, depending on who uses them and for what purposes. Again, the bureaucratic mode of organization is ill suited to deal with such complexity.

Because of these and other bureaucratic behaviors and limitations, it is difficult to build an integrated and inclusive regional institutional system to address wildlife problems. The wildlife bureaucracy divides rather than unites the community. Bureaucratic practices lead to conflict, but it is not conflict itself, but the failure to resolve conflict, that is the problem. This problem is talked about as “gridlock,” “log jams,” or “train wrecks.” People’s frustration stems from the inability of agency bureaucracies to integrate and include the public effectively in ways that actively facilitate the finding of common ground. The institutional system—that is, the people, organizational arrangements, and formal and informal rules at play—in too many cases does not permit thorough, timely input, adequate public involvement, or the upgrading of knowledge from relevant disciplines to be included in deliberations, planning, and management decisions.

What is the solution? Expanding confused bureaucracies is not the answer, although this is what we often do. Government alone cannot mediate the differences among interests, in part because of its own weak leadership, adherence to rigid policy preferences, and the tendency to over-control agendas. A consequence of all this is that special interests (which sometimes include the agencies themselves) are able to limit each other’s actions through bureaucratic “red tape,” litigation, media attacks, land use planning forums, business practices, influence peddling, or other means. In such a climate it becomes difficult to find agency and elected officials who are willing to stand up and be responsible and accountable for their decisions. This again leads to a loss of trust and faith in government. To improve wildlife conservation, especially large carnivore management, bureaucracies must be reformed.

Professional Roles

Professionals staff the agencies that dominate wildlife management at both state and federal levels. They tend to operate under certain shared assumptions, which strongly influence their behavior as they develop and implement carnivore management policy.⁴² The assumptions and resulting behavior are often problematic for efforts to find common ground.

The “professional” approach to wildlife management today is strongly grounded in two notions. The first is that biological data are sufficient to supply the information needed to manage wildlife—or, in the words of Dan Decker, president of The Wildlife Society, and his colleagues at Cornell University, the insights from the biological sciences are the “nearly exclusive keys to best management decisions.” This assumption dictates that biologists should be given a special place, a privileged central role, in decision making. It also means that public demands as well as other sciences, particularly social sciences, are largely irrelevant to the work of these experts and to wildlife management generally. The second, related assumption is that government biologists and managers, because of their training, experience, and positions, are the only people with the qualifications and the authority to make appropriate wildlife management decisions. In the extreme version of this notion, these professionals do not need the “help” of the public or scientists from other disciplines.

Both of these notions, which are seldom acknowledged even at professional meetings or by professional societies, have significant consequences for how wildlife is managed and who gets a say in management. Both assumptions lie deeply buried in the basic philosophy that underlies the wildlife profession, game and fish management organizations, and the overall institutional system of wildlife management. They are often “invisible” to the professionals themselves and to others who work with them.

The tension between professional experts and democratic governance is an important political dimension of our time and clearly at play in large carnivore management. Democracy and its emphasis on equality of citizenship, public input, and freedom of choice sometimes clashes with officials who may “over control” decision processes. On the one hand, agency biologists understandably want to use their high professional standards to make decisions about public resources, drawing on their expert knowledge and judgment. But social scientists have found that technical experts in bureaucratic positions actually tend to circumvent the democratic process, while justifying their actions to themselves in self-serving ways. They and their agencies may claim that they are apolitical, that their calculations are accurate and objective, but the record shows that agency experts often fail to include democratic considerations as well as other important features of the context. This has led to increasing public antipathy toward bureaucracies. Cit-

izens are entitled to have a say in decisions about public resource use. On the other hand, it is also clear that citizens do not always have the knowledge and skills to participate meaningfully in complex decision making about public land and resource management. They may not be knowledgeable about the technical matters involved or the broader implications of their choices, and sometimes the reason citizens want to gain influence is to secure decisions favorable to their special interests. This can lead to shortsighted, parochial decision making. Public participation is not a “silver bullet” that will solve all carnivore management problems. Nevertheless, ordinary citizens are capable of a great deal more participation than is generally recognized or acknowledged by agency officials and professionals.

In summary, what we have today is an institutional system that is not working very well in the public interest. It is less than successful in managing mountain lions, grizzly bears, and wolves. States’ rights and local beliefs, evident in narratives and deeds, bureaucratic arrangements, and privileged professional expert roles, dominate the wildlife management system. Community relationships are emotional and full of misunderstandings, management decisions take place without relevant data and assessment, using procedures that are unfair and that lead to mistrust, and special interests vie for influence based on fundamental beliefs about what is right and wrong or how the world should be. All this leads to highly adversarial interactions and winner-take-all tactics. Information is used as power, there is little direct contact among interest groups, and beliefs are firmly set as matters of principle. This in turn leads to personal antagonism and defensiveness, inflation of issues (e.g., carnivore management becomes an issue of property rights and individual freedom), breakdowns in communication, spiraling mistrust, and polarization into opposing camps. The current structure and functioning of the institutional system favor continued state and local dominance. There is little incentive for those in control of the system to change, but the costs of this arrangement to wildlife and to the common interest are high.

To improve wildlife management, the traditional relationship between the professional expert and the public must be adjusted.⁴³ The key for wildlife management in the 21st century, according to many people, is an adaptive management approach that builds on the strengths of conventional management, yet moves well beyond the assumptions and present tension between wildlife professionals and the

public. What is needed are new precepts, a “civic-minded” kind of professionalism that seeks integration and inclusion and has the knowledge and skills to facilitate this end.

Fortunately, a few professionals are beginning to give up their traditional assumptions in favor of this more pragmatic, effective professional style. A new paradigm for professionalism is developing rapidly in some regions. It is much more integrative, participatory, practical, and grounded in both experience and theory.⁴⁴ Its principles focus on effective integration of information from multiple disciplines (e.g., wildlife management, economics, politics, sociology, and integrative sciences) and the inclusion of diverse stakeholders in more deliberative decision making. It seeks cooperation, understanding, trust, shared information, a conciliatory approach, frequent contact among all interested people, and development of mutual respect. This new paradigm, discussed and tested in a few situations in the West and elsewhere, offers ways to deal with many of the problems so clearly evident in the present institutional system of wildlife management.

Recommendations

We recommend three strategies that we feel are both promising and pragmatic ways to achieve the overriding goal of coexisting sustainably with large carnivores. The first is to make “practice-based improvements,” or smaller scale interventions in the field, working cooperatively with ranchers and others to solve specific problems, such as carnivore predation on livestock. Opportunities abound for this strategy. This approach can help to minimize real problems and encourage everyone to see carnivores (and each other) in a new light. Second is to upgrade leadership, at all levels and in all forms, to move institutions actively toward more effective performance. Developing “transformational leadership” styles will require leaders to learn explicitly and systematically about institutional systems and more, but this strategy can help reform institutions to be more integrative and inclusive. Third is to initiate changes in the dominant policy narrative, the basic beliefs and story of the existing institutional system and regional cultures. A new “meta-narrative” could include more people, a broader range of beliefs, and more widely shared interests; its core message should be health—in the broadest sense, for individuals,

communities, and landscapes—and responsibility, both collective and personal.

Practice-Based Improvements

Large carnivore management policy consists of a complex system of interconnected, smaller decisions. It would be extremely difficult, if not impossible, to understand how all the relevant decisions actually function to affect large carnivores. Accordingly, the key to improving wildlife management is to focus our limited attention and resources on select components of the management system.⁴⁵ The “practice-based” approach uses actual experience rather than theoretical principles as the basis for making improvements. Much of the current debate over carnivore policy assumes that government can improve policy from the “top down.” This is partly true; after all, it seems obvious that large carnivore management is a large-scale problem. Although a top-down approach such as a national or statewide management policy would be helpful, the improvements must ultimately occur at the “bottom” or operational level. Indeed, many more opportunities for change (and for learning from change) exist at lower levels, testing them involves lower risks and lower costs, and implementing them is quicker and less complicated than making systemwide changes. The participatory projects described in detail in chapter 6 provide some examples of a practice-based approach.

There are three components to a practice-based strategy to reform the institutional system that manages large carnivores: (1) find and describe successful management practices and programs, (2) adapt and diffuse them widely, and (3) open up new opportunities to build additional program successes. Once individual and local programs that appear to be successful have been identified and described, they need to be reviewed to see how they have aided large carnivore conservation. This critical appraisal will explain the formal and effective reasons for a program’s success. This strategy shifts attention to a constructive, positive focus that can motivate and inform actions for large carnivore conservation on an ongoing basis. For example, a developer might take large carnivores into account when planning a new subdivision, or a county government might devise an open space policy for ranch lands that also supports large carnivore habitat and minimizes predation on livestock. Successful field-tested models can be used to set best practice

standards and can be adapted and replicated in other locales. One good example is the educational work of Patricia Sowka, a Montana wildlife biologist, and Jamie Jonkel, of Montana Fish, Wildlife and Parks, who have developed “Living with Predators Resource Guides.”⁴⁶ These guides are designed to equip people who live, work, and play in grizzly-occupied areas with the information and tools they need to coexist successfully with bears. The outreach opportunities related to this project are huge. Outfitters’ associations, outdoor groups, real estate businesses, homeowner associations, and others could use these educational materials.

Our three-part strategy could be implemented immediately. Several successful management cases merit study, including the work of Mike Jimenez (USFWS) on wolves, Mark Bruscino (WGFD), Barb Franklin (U.S. Forest Service), and Steve Primm (Northern Rockies Conservation Cooperative) on grizzly bears, and Timm Kaminski (Mountain Livestock Cooperative) on wolves and bears where private lands meet public resources.⁴⁷

A 2001 guest article in the *Jackson Hole News* by Steve Primm and Louise Lasley said that the practice-based approach “turns conventional planning on its head. Instead of starting with a colossus of words that pretends to dictate what happens with grizzlies, people and land, it starts with small-scale action to solve specific problems. What we learn from these actions can then go into a written plan. The results: A plan based on reliable knowledge, and a plan that people trust because they know the stuff that’s in it really works.”⁴⁸ In another article, Primm said that with this “intelligent process, there is no need to attempt to design a comprehensive ‘blueprint’ for how and where to manage grizzlies. Instead, plans can be developed sequentially through a series of adaptive experiments in grizzly conservation.”⁴⁹ Primm and a growing number of other people see that this approach is the key to long-term coexistence with large carnivores (see chapter 6). This is also the approach being used by Seth Wilson of the Northern Rockies Conservation Cooperative in central Montana as he works closely with ranchers and others to develop sound ranch management practices in grizzly country.⁵⁰

Each of these field efforts, educational projects, or other innovations can be considered to be a “prototype.” Although prototypes are generally set up to generate knowledge on which to base future improvements, many of these cases were not established specifically for that purpose. Nevertheless, by thoroughly appraising such cases, we can

learn an enormous amount about what works and what doesn't work. Drawing on these lessons, participants in other locations can invent, evaluate, select, and implement alternatives for better conservation and management.

The second part of the practice-based strategy is to disseminate the lessons from successful prototypes as widely as possible. Case studies or stories can be one source of information made available to people in other areas, who can then modify the lessons to suit local needs. Best practices that are cooperative, locally based, inclusive, and participatory offer the greatest promise of success. State and federal governments can provide leadership by endorsing and supporting prototyping. In large carnivore management, a field that has few ongoing, systemwide mechanisms for appraisal, prototyping and dissemination of best practices can be especially helpful. Workshops, demonstrations, site visits, educational programs, and other means can all be used to disseminate best practice standards.

The third part of the practice-based strategy is to facilitate new opportunities for better carnivore management politically, geographically, and institutionally. These could include not only informal groups that come together to tackle specific local issues, but also innovative ways to engage new people and capture creativity, energy, and the desire to get things done. This requires effective leadership. Resources could come from stopping some present activities that have only limited or short-term benefits to large carnivores and people associated with them. Instead of pouring money into additional detailed habitat studies in some local situation or new geographic information system maps that may or may not help decision makers, put resources into creating new opportunities to solve problems on the ground in cooperative ways. Additionally, the idea of combining economic strategies for private and business interests with large carnivore conservation must be considered seriously and used beyond compensation and damage payments. For example, a workshop in Bozeman, Montana, in December 2003 queried ranchers, environmentalists, and government about opportunities to address the problems of large carnivore management, including economic incentives for changes in ranch operations.⁵¹ The workshop identified four areas of potential agreement: (1) the use of small-scale conservation projects to try out new methods involving locals to demonstrate success; (2) the creation of incentives to modify ranch operations to accommodate carnivores; (3) the need to get more

managers into the field with locals to prevent or ameliorate conflicts with carnivores quickly; and (4) the need for peer review of science and its management interpretations by critical independent bioscientists.

To implement a practice-based strategy, two things must happen. First, to increase the likelihood of success, a process for appraising carnivore management programs and practices should be organized. A useful appraisal process will depend on establishing creative means to harvest lessons from past experience. There are numerous successful, progressive, problem-solving exercises underway in the West today that can suggest valid criteria (in terms of concepts and practices) for appraising programs. As well there are many knowledgeable practitioners and researchers in both the social and biological sciences, as well as the integrative, holistic sciences, whose combined expertise could be channeled into appraisal. For example, traditional public and private funding patterns that favor biological research and short-term management solutions can be redirected toward practice-based approaches, such as prototyping.

The second thing that must happen is better communication among state and local efforts and all other parties. We clearly need an effective means to diffuse the vast amount of professional and organizational experience and to overcome policy, science, and management hurdles. For example, reducing the intergovernment (i.e., state and federal levels) power contest over management authority and control of policy and programs would help immensely. Diplomatic, educational, and financial strategies to do just that are available, but are not currently being used.

Enhanced Leadership

Effective leaders are urgently needed in wildlife management, not only at the top of government agencies, but at all levels, in local associations and environmental groups, in the field and in the office. Leaders can change institutions for the better if they are motivated, skilled, and committed.⁵² The challenge for modern leaders is to find paths of common interest—or what might be called cooperative, problem-solving processes—that are environmentally and socially sound. Leaders must be capable, knowledgeable of environmental and development issues, and sensitive to both the public and private sectors.

Specifically, leaders should have the ability to carry out more com-

prehensive, contextual, and rational wildlife management programs than currently exist. They must understand how to design and implement practice-based strategies. They must be skilled in integration and inclusion. The activities and problem-solving approaches of good leaders are well known, well tested, and widely described, but still are little used in carnivore management. Too often we recycle the same old unworkable methods or approaches—conventional thinking, bureaucratic arrangements, and ordinary problem-solving approaches—while real problems continue to grow and press on us. We must overcome these ineffective ways of addressing problems.⁵³ There are, of course, many social factors in addition to leadership that play a critical role in the success or failure of wildlife conservation. Nevertheless, having leaders who are critical thinkers, holistic observers, skilled managers of people, and users of a host of technical tools, all designed to aid in finding common ground, is essential.

A New “Meta-Narrative”

We need a new, more integrative and inclusive meta-narrative to achieve a higher level of institutional effectiveness. A meta-narrative is a narrative about narratives, a story that encompasses and explains other, smaller, localized stories. It is a story that people can use to recast policy problems. It offers a new conception to which embattled players might subscribe and opens up new possibilities to solve formerly intractable problems. The practice-based strategies and enhanced leadership skills discussed above can help to bring about such a meta-narrative. The power of a meta-narrative is perhaps most apparent in times of crisis, such as when threats to national security are clear to virtually everyone. The “national security” meta-narrative then overrides all other local, special interest narratives, even formerly competitive ones, and helps unify people’s thinking. Diverse people who ordinarily might hold different narratives are willing to subordinate their special interests to the overall common interest. The new meta-narrative for large carnivore management, we hope, will focus our attention and efforts on healthy human and carnivore populations, community integrity and sustainability, and individual and collective responsibility.

As we have seen, narrative analysis of large carnivore management shows how particular stories or policy narratives dominate the conflict-laden management process we see today. All of the current

narratives are valid, given the origins of the communities that spawn and perpetuate them, but none goes far enough to encourage an integrated, win-win outcome for the larger community. A new meta-narrative could be directly helpful in adapting the institutional system and its complex policy dynamics toward common interests. One way to accomplish this is for all parties—localists, state and federal agency personnel, and environmentalists—jointly to develop an integrative meta-narrative through extensive practice-based engagement. That is, by working together on a series of smaller, on-the-ground projects to solve specific problems, participants with different perspectives will, over time, begin to forge a new, shared understanding (a meta-narrative). Like recruits going through boot camp, they will eventually come to see themselves as an effective team working toward a common purpose. They will build a new path that they will travel together. Policy meta-narratives have a strong prefigurative effect, conditioning the thinking of all involved. It is only through such an approach that the basic underlying policy narrative can be adapted.

Policy analysts who have investigated the power of meta-narratives have concluded that the way to change institutions for the better is not to develop a critique of existing policy. The logico-scientific approach is no match for a powerful policy narrative. The best way to bring about change is to undermine a policy narrative by creating an overriding counter narrative. According to professor Emery Roe, the meta-narrative serves to distance its listeners from their original stories. It acts as a departure device, and in some ways it is the antidote to conflicting, poorly performing narratives and institutions.⁵⁴ Thus far, no meta-narrative has emerged or been advanced in large carnivore management that is sufficiently compelling—in explaining the conflict and at the same time suggesting integrated, win-win solutions that can move us forward—to engage most if not all parties. We feel that the best way to begin the process of finding a new, integrative meta-narrative is through practice-based engagement. This approach can demonstrate a narrative of cooperation, mutual respect, shared goals, and coexistence through actual progress on the ground. Such a meta-narrative might encompass recognition that further conflict is counterproductive and undesirable. Its success will depend in large part on having in place a large stakeholder group that is willing to embrace it without much resistance. The key is to find a story that almost everyone can believe and support.

Conclusion

The institutional system of wildlife management used to restore and conserve large carnivores is weak. Its performance is suboptimal, and its functioning seems to be deteriorating as the context becomes more complex. Data from discourse analysis, patterns of claims and counterclaims, and incident analysis amply demonstrate this fact, as do the management reviews in preceding chapters. The institutional system's present structure and mode of operation trap many people in patterns of destructive conflict. It is clearly focused on power and most often serves the state, WGFD, and local special interests at the expense of broadly shared or common interests. There are many reasons for the persistence of this weak institutional system, including cultural beliefs (narratives), bureaucracy, and rigid expert professionalism.

It is also clear from the abundant case material covered in this volume that many people on all sides of large carnivore management are not happy with the way the institutional system currently operates. The need for an integrative and inclusive approach to large carnivore management is becoming increasingly obvious. Because existing institutional arrangements are so deeply woven into the fabric of society, the system as a whole is very conservative and not prone to change or adapt on its own. Its tendency to maintain the status quo ignores or hinders alternative ways of managing carnivores. Little in the world of carnivore management will change in the near future under present institutional arrangements.

Overcoming the institutional problem is possible in part by using a practice-based strategy, improving leadership, and creating a new meta-narrative that is integrative and inclusive. These improvements mean working in the office and the field closely with ranchers, hunters, and environmentalists to address their concerns. The institutional system's new structure must view government agencies as partners, facilitators in clarifying and securing the common interest. The agencies and their professionals must behave in ways that make this possible. The foundation for a more effective institutional system has to be understanding and opening up dialogues through cooperative ventures that can be honestly appraised and refined. Many ongoing field projects could provide opportunities to develop participatory, common interest approaches, thus serving as a testing ground to distinguish what works, why, when, and where. The lessons can help us create more open and

inclusive institutions so people will better listen to and address each other's expectations and demands. A reformed institutional system will stand a much greater chance of harmonizing different views into a broad-based consensus about managing large carnivores in the common interest. There is every reason to believe that we can achieve such a new arrangement.

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