Conflicts on the Range: The Management of Multiple Uses On Rangelands

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Abstract:
The history of rangeland management is fraught with controversy and conflict. Multiple-use mandates established in the 1900’s allowed other uses, such as recreation, to compete with relatively unchallenged livestock production, leading to increased conflicts on public lands. The current and future challenges for rangeland managers will revolve around urbanization, shifts in recreation use, and changing public opinion.

Introduction:

The history of rangeland management is fraught with controversy and conflict. Livestock production dominated as the main historical use of rangelands, especially in the western United States. Unfortunately, a combination of philosophical factors, a lack of scientific research, climate change, and poor land management led to the degradation of a large portion of rangelands. During the turn of the 20\textsuperscript{th} century, several laws came into existence that fundamentally changed the management of public lands, including the scope and intensity of management on rangelands. In addition to livestock, the land must also provide for many other consumptive and non-consumptive uses, including wildlife, water, and recreation.
While ranching has never been entirely without opposition, the multiple-use mandate allowed other uses to compete with relatively unchallenged livestock production. The past twenty years have seen a large increase in recreation use on rangelands, areas that previously may have not seen the volume of recreation use, if any at all. The increased recreational use of rangelands has led to several conflicts on the landscape, both between user groups and between management agencies and users. Some of the greatest issues of concern revolve around urbanization and public opinion.

In order to better understand the nature of the conflicts, it is necessary to delve into the history of rangeland management, the laws that effect the management of public rangelands, and some of the shifts in ideology that have occurred over the past two hundred years in the United States. Several factors acting in combination have created the current situation and will continue to shape the future of rangeland management. The first goal will be to define the concept of a rangeland and provide an understanding of the many ways that rangelands are used by American society.

**Defining and Understanding Rangelands:**

There are several definitions available for a rangeland, though rangelands are more easily described and characterized than defined. The traditional definition of rangelands that many professionals use is:

“Those areas of the world, which by reason of physical limitations-low and erratic precipitation, rough topography, poor drainage, or cold temperatures-are unsuited to cultivation and which are a source of forage for free-ranging native and domestic animals, as well as a source of wood products, water and wildlife (Stoddart, 1975).”
This definition incorporates several components including a description of the specific type of land and an indication of its uses.

Grasses, forbs and shrubs typically dominate the natural vegetation of rangelands and management is focused on maintaining the land as a natural ecosystem. It is important to note that rangelands are found on nearly every continent in the world, encompassing roughly fifty percent of Earth’s surface (Vallentine, 2001). Some examples of rangelands in North America include the grasslands of the Great Plains, the Alaska and northern Canada tundra, and the deserts of Mexico. It is also important to emphasize that grazing is a natural use of many rangelands, not only an imposed human condition.

Rangelands account for over forty percent of the land area of the United States and a large portion of the grazing area of Western Canada and Mexico (SRM, 2002). They provide important grazing lands for livestock and wildlife. Rangelands, in addition to their uses for grazing, supply a source of high quality water, clean air, and open spaces. They also cater to societal needs as a setting for recreation and provide economic stability to local rural economies (MacLeod, 2006). Societal perceptions and public policy play a pivotal role in determining the management priorities for public rangelands in the United States. While supporting several uses, rangelands in the West have a long-standing history with grazing and livestock production, which in turn influenced and continues to influence tensions and conflicts on public lands.

A History of Grazing on Public Lands in the United States:

While indigenous societies and Spanish settlers following Cortez used rangelands prior to American expansion, the end of the Civil War signaled the beginning of the livestock industry in the West. The period between 1865-1900 saw huge increases in livestock moving west.
Conflicts on rangelands began early on, as less mobile cattle ranchers competed with highly mobile trail-herding sheepmen. The issue revolved around the classic “commons” situation: “that every range user had an incentive to get the grass before someone else did, and the resulting overgrazing severely harmed the productivity of the rangelands (Glicksman, 2001).” A ranching permit system on public lands helped to diminish some of the impacts of the common use ideology, but it also led to the long-ingrained belief held by private ranchers that they gained permanent rights to a particular piece of public land and to their allowed grazing levels.

Between 1900-1930, the government began to intervene into grazing problems, though abuse continued. The Forest Service started a system of grazing permits and forage allotments, and several grazing laws came into effect. However, beef prices were high during World War I, and manpower, and therefore regulation, was slim, leading to additional grazing between 1915 and 1920 (Holechek, 2004). Fortunately, range management also began as a discipline, seeking to address the issues of range abuse and deterioration.

During the period from 1930-1960, the United States finally faced the consequences of a history of range abuse and exploitation. A severe drought and the Dust Bowl forced society to confront the cost of years of unsustainable land management practices. A national conservation ethic formed during this period, demonstrated by the formation of the Soil Conservation Service, which addressed erosion issues, the creation of the Taylor Grazing Act, which, while not effective at preventing degradation, at least set the stage for rangeland allotments, and the establishment of the Society for Range Management, leading to a set of range management ethics and rigorous scientific research.

The period that began in the 1960’s and continues today is characterized by a large philosophical and policy shift, greatly impacting the way in which grazing lands are managed.
With the American frontier officially gone, and movements to “get back to nature” and embrace the rural past emerging in mainstream culture, the importance of preserving natural resources has taken hold as a priority. The connection between American independence and the perception of wilderness plays an integral role in how public lands are managed. In addition, both disposable income and leisure time have increased tremendously, leading to increased recreational use.

New laws such as the Multiple Use Sustained Yield Act for Forests, Federal Land Policy Management Act for the Bureau of Land Management, and the National Environmental Policy Act led to the requirement of management for multiple-uses on rangelands, including water, wildlife, energy, and recreation. Research in range management also broadened in scope, encompassing research not only on grazing, but also on non-consumptive uses. Livestock grazing on federal ranges decreased 25% from 1960-1992, with a larger emphasis being placed on management for fire concerns, water, and recreation (Holechek, 2004). Huge progress has been made in range improvements but land recovery is a slow process. Future challenges for range managers will involve creating new partnerships and remaining flexible to the changing demands of society on the resource.

**Laws Effecting Rangeland Management**

Several laws exist that impact rangeland management and grazing on public lands; the following section summarizes a few key laws and their impacts upon rangelands and grazing. The Homestead Act (1862) and the Enlarged Homestead Act (1909) both granted land to encourage western expansion, provided that a portion of the land was put into agricultural production. Unfortunately, this measure also caused the destruction of rangeland, because the Act called for cultivation of areas unsuitable for farming. The Stockraising Homestead Act (1916) granted 640 acres for the purpose of raising 50 cows. The Act moved in the right
direction, however, policy makers from the Eastern United States with little knowledge of forage production on arid lands in the West did not realize that 640 acres would not support 50 cows in most areas, which led to more rangeland destruction (Holechek, 2004). The Soil Erosion Act (1935) helped to deal with the soil erosion and rangeland degradation problems on private lands by creating the Soil Conservation Service.

The Taylor Grazing Act (1934) authorized the Department of the Interior to allocate grazing privileges on unsold government lands by a preference permit system, based on ranchers’ ability to provide water or food. Ranchers concerned about range deterioration pushed the act, but their motives were not entirely pure. The Act gave preference to adjacent land and water owners in allocating rights to forage and the initial allocations were made on the “basis of livestock use during the 1929-1934, thereby wiping out the nomadic sheepherders and small ranchers with little use” during the Great Depression (Glicksman, 2001). It also served to reinforce the idea among ranchers that they had permanent and vested property rights to their allotted grazing levels, which made it difficult to regulate grazing to sustainable levels once research revealed more information.

Beginning in the mid-1900’s, several key pieces of legislation that profoundly effected rangeland management came into the political arena. One of the first, the Multiple Use Sustained Yield Act (1960) defined and expanded the uses permitted on National Forests: outdoor recreation, range, timber, watershed, wildlife, and fish. In addition, it introduced the concept of balancing competing uses in “relation to their relative values” and formally defined multiple use (Loomis, 2002). The definition stresses that any single resource use is not to dominate, a difficult adjustment for rangelands with a history of livestock production and little else. The component, “sustained yield,” mandated that agencies were not to allowed to harvest
more forage than is produced each year, another adjustment for lands taxed by a history of overgrazing.

The Federal Lands and Policy Management Act (1976) basically did for the Bureau of Land Management what MUSY did for the forest service by setting up multiple use guidelines for BLM lands, as well as making certain that lands covered in the Taylor Grazing Act were kept in public ownership. The Rangeland Improvement Act (1978) amended FLPMA by setting aside grazing fees receipts from federal lands for range improvement on the lands. The Endangered Species Act (1973) required that federal agencies protect listed wildlife species and created an enforcement agency, the US Fish and Wildlife Service.

The National Environmental Policy Act (1969) required government and private agencies to draft environmental impact statements on any proposed actions that might affect federal lands (Loomis, 2002). The law also required public participation and support in the planning process, making public opinion a greater concern, replacing the era of the “expert” forester or range manager who always “knows best.” Public ideas and concerns must be addressed as part of the planning and implementation process, which has led to major changes in activities on rangelands.

The changes in law and policy that have occurred over the past century have served to replace an overwhelming livestock bias and history of rangeland abuse with a mandate for multiple use and sustained yield. The multiple-use emphasis provided opportunities for activities other than livestock grazing, such as recreation. However, recreation has brought its own impacts and forms of controversy to the landscape.
Recreational Uses and Conflict

The shift in attitudes and ideas about natural resources and public lands management heralding in the “Age of Preservation,” also brought with it a desire for Americans to recapture their past and explore their heritage. An increase in population and urbanization in the West in combination with more disposable income and leisure time has created a boom in recreational use over the past twenty years. One consequence is the heavy recreational use of rangelands that may have previously seen very little, if any other use than livestock grazing. In 1997, the four main landowning federal agencies provided roughly 1.2 billion visitor days of recreation (Loomis, 2002). Anytime several people with different goals meet on the same landscape, conflicts can occur. And on rangelands, the conflicts most definitely occur.

Recreational conflict is defined as "goal interference attributed to another's behavior” (Jacob and Schreyer, 1980). Many types of recreation take place on rangelands, resulting in the potential for one individual or group’s pursuit of their goals to interfere with another individual or group’s goals. In addition to conflict, the recreational opportunities available on rangelands create different levels of impact. The activities that are considered to have minimal impact include hiking, fishing, camping, and bird watching while the activities considered to have major impacts include hunting, off-road vehicle use, horseback riding, and home building. Many of the conflicts surrounding the use of rangelands revolve around the impacts of urban development and public perceptions of rangelands (CISEPS, 1997).

Subdivisions and the Urban Interface

One “hot topic” centers on the sale of private rangelands for building homes and the subsequent fragmentation of the landscape (Hot Topics, 2004). The sale of homes has created
the most severe impact on rangelands by leading to behavioral effects on livestock, increased fire risk, huge recreational use in areas not previously seen, and potentially negative effects on wildlife and big game due to subdivision, which did not occur with the land as a ranch. In fact, recent research has shown that ranches provide critical habitat for wildlife species (Holechek, 2004).

Ex-urban development can conflict greatly with other uses on rangelands, especially on the urban-wildland interface, leading to conflicts between home owners and public land managers, including disagreement over how and for what uses the land is managed and the how threats, such as fire are prevented and controlled. The huge recreation increases and urbanization bring additional negative conflicts in the form of feral dog and cat populations, vandalism, and cut fences, leading to animosity on the part of ranchers against perceived “yuppie” invaders. The “invaders” in turn, feel that ranching creates a more negative impact on the land than their homes and recreational uses. The conflict is very current, extremely animated, and will require compromise and the acknowledgement that differing viewpoints exist.

Scenic Beauty and Public Opinion

The public has shown and increased sensitivity to environmental conditions over the last fifty years and has played a much larger role in the decision-making process on public lands. Because of the increased awareness, the impact of range management practices on scenic beauty in the United States has been a major concern in recent years.

Studies have shown in Oregon, Utah, and Colorado have shown that the impact range management practices and livestock have on the perception of scenic beauty vary based on the recreational use (Sanderson et al., 1986). Fishermen, didn’t like livestock overall compared to
other groups, but they like fences more than others, a measure to keep cattle away from riparian areas. Hunters didn’t mind anything except for restricted access and campers felt livestock was acceptable in open space, not in forestlands or near forests. The study in Colorado found that 34% of campers thought that the presence of livestock improved their stay (Mitchell et al., 1996). However, another study indicated that the type of land designation would also play an important role in the perception of livestock grazing. The designation of a national monument is more likely to attract types of visitors “least likely to support traditional range management activities” (Brunson and Gilbert, 2003).

Research indicates that perception depends on recreation users, livestock knowledge, and exposure to ranching, but if livestock are kept away from campsites and riparian areas used for fishing, there is little objection to them. Basically, recreation visitors like environmental scenes where livestock were grazed but range management practices were least visible, which can lead to conflicts because some of the more visible forms of management such as watering points also lead to the best dispersion of livestock across a landscape, and therefore the least impact.

Public opinion plays an important role in range management as well and is increasingly tied to urbanization and population growth in the West. Urban and rural constituencies hold very different attitudes regarding livestock grazing on public lands, which could create a political loss to rangeland production interests in the future (Brunson and Steel, 1996). A survey revealed that U.S residents place little confidence in livestock production and other extractive uses and believe that more protection should be given to wildlife (Brunson and Steel, 1994). The public has very little knowledge regarding range management principle and practices and make judgments based on personal opinion rather than informed knowledge (Sanderson et al., 1986). There seems to be a dichotomy; people tend to believe that either rangeland conditions are declining and need
protection or that rangeland conditions are improving and are uniformly good (Holechek, 2004). In many cases, better educating the public about range management practices could lead to increased confidence and public perception.

*Ranching and Recreation Opportunity*

Regardless of the public’s understanding of range management practices, increased recreation use on rangelands has created a market for tourism and experiencing the “rugged” outdoors and “Wild West.” A basic idea that could prove profitable for ranchers in these areas is that intelligent range management practices can lead to increased economic returns (Jameson, 1974). Urban expansion provides opportunities for ranchers willing to diversify their enterprise and expand beyond livestock production alone.

Several possibilities exist for services that ranches can provide in the realm of recreation, including but not limited to fee hunting, packing trips, horse-back riding, sight-seeing trips, fishing in stock ponds, and cabin rentals. Another popular activity is a stay at a Dude Ranch, where people pay for the “cowboy” experience, and either help clean stalls and ride fences or possibly participate in a cattle drive. The potential for working ranches to fill this void in demand are high, who have both access to public lands and a working knowledge of the area.

Providing recreations services would be beneficial for a number of reasons. The local economy benefits and providing services for which there is a demand and the local community has the opportunity to educate the broader public on management issues important to the area. Many recreation opportunities provide increased impetus to preserve wildlands (Power, 2000). The activities would take advantage of infrastructure that already exists at the ranch, and provide much needed cash flow during the year to notoriously “dirt-rich” and “cash-poor” ranching communities.
Conflict Resolution and the Future

Conflict resolution plays an important role both in preventing conflicts and bringing a more equitable ending to conflicts that occur. A Coordinated Resource Management Planning (CRMP), which brings together public interests to bargain and compromise regarding multiple use and land management conflicts, has been extremely effective (Holechek, 2004). Partnership between scientists, ecologists, economists, sociologists, policy and legal experts, environmental advocates, and public and private rangeland managers is growing increasingly important in order to allow for multiple uses and sustainable ecosystems (Hidinger, 2002). For example, environmentalists are partnering with ranchers in order to oppose development and promote open space, something both groups value.

Conservation easements are becoming popular, a situation in which conservation groups buy a rancher’s allotment for a set amount of money. The conservation group’s interests are met and the rancher can afford to maintain their lifestyle, will not need to sell their private land to developers. The key is to include all of the stakeholders in the decision-making process at the beginning, addressing issues as they appear, rather than waiting for conflicts to occur (Eyre, 1998).

The Orme Ranch of Prescott, Arizona is an excellent example of a community-based, integrated management team that has had substantial effect on improving the range and record of building common ground between ranchers and environmentalists (Daggett, 1995). The Orme Ranch Strategic Team was originally a team of agency experts put together by the US Forest Service to draw up an allotment management plan (AMP) for the ranches 20,000 acre grazing permit on the Prescott National Forest (Daggett, 1995). The plan was completed in 1985. Mary
Ellen Hale, a team member and environmentalist, explained the reason for the success of the Orme team:

“The team model is a cooperative one; the other model (the confrontational one) is based on competition for competition's sake, not for the benefit of the land or the environment. If we work toward a goal that is defined in terms of the land and not in terms of which one of us gets our way, it becomes much less necessary for either of us to lose or even to have to compromise” (Daggett, 1995).

The Orme ranch team is merely one example of several small cooperative groups leading to increased quality on rangelands and decreased conflict.

Rangelands continue to see an increased demand for wildlife and recreation, while still demanding traditional use. Some large challenges in the modern era will include ensuring sustainable traditional livestock production systems in a period of low beef prices and high environmental sensitivity. Future range managers will face huge questions about viability, sustainability, open space, and education. The future of sustainable rangelands will depend on cooperation and the inclusion of all interested parties. A willingness to identify common goals for the land can produce a solid foundation for management practices and improve rangeland resources on a local level. A common ground for all of the stakeholders will only be possible with a firm foundation of mutual respect, a common goal of increased rangeland health and vitality, and a determination to work through differences in opinion to find realistic solutions.
References


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