

Invited Paper:

Public Rangelands Without Cows?

Thad Box

"The Western Range Revisited—Removing Livestock From Public Lands to Conserve Biodiversity" by Debra L. Donahue is a disturbingly good book.

It should be required reading for every member of the Society for Range Management. Although many, maybe even most, may not agree with its premise or its subtitle, it raises important questions. Answers to those questions are based on SRM objectives, printed in every one of our journals:

- to properly take care of the basic rangeland resources of soil, plants, and water;
- to develop an understanding of range ecosystems and of the principles applicable to the management of range resources;
- to assist all who work with range resources to keep abreast of new findings and techniques in the science and art of range management;
- to improve the effectiveness of range management to obtain from range resources the products and values necessary for man's welfare;
- to create a public appreciation of the economic and social benefits to be obtained from the range environment;
- to promote professional development of its members

Livestock grazing, or any other use, is not mentioned in the objectives. Yet many members circle the wagons when anyone suggests removing livestock from public range.

The book's importance to us lies in making us look at ourselves. It rises above other writings of the "remove cows" ilk. Its author is a legal scholar who is Professor of Law at the University of Wyoming. She has degrees in wildlife from Utah State University and Texas A and M. She has worked alongside many SRM members in government Agencies.

The book is an easy read, unfolding like a brief prepared by an excellent lawyer. Professor Donahue makes her case for biodiversity reserves using literature from a wide range of historical, scientific, and legal sources. Her use of range management literature separates it from most anti-grazing books.

Her extensive citations are subverted in the text in a way that is often difficult to follow, even by one who is familiar with most papers cited. I found myself flipping pages trying to decide if she was quoting primary or secondary sources. Another frustration is style shifts. Sometimes she presents material like a scientist and lets conclusions flow from data. Other times, her legal training dominates, resulting in an advocacy argument based only on papers that supported her position, complete with impeachment of witnesses. These shortcomings irritated me, but the book is a major contribution.

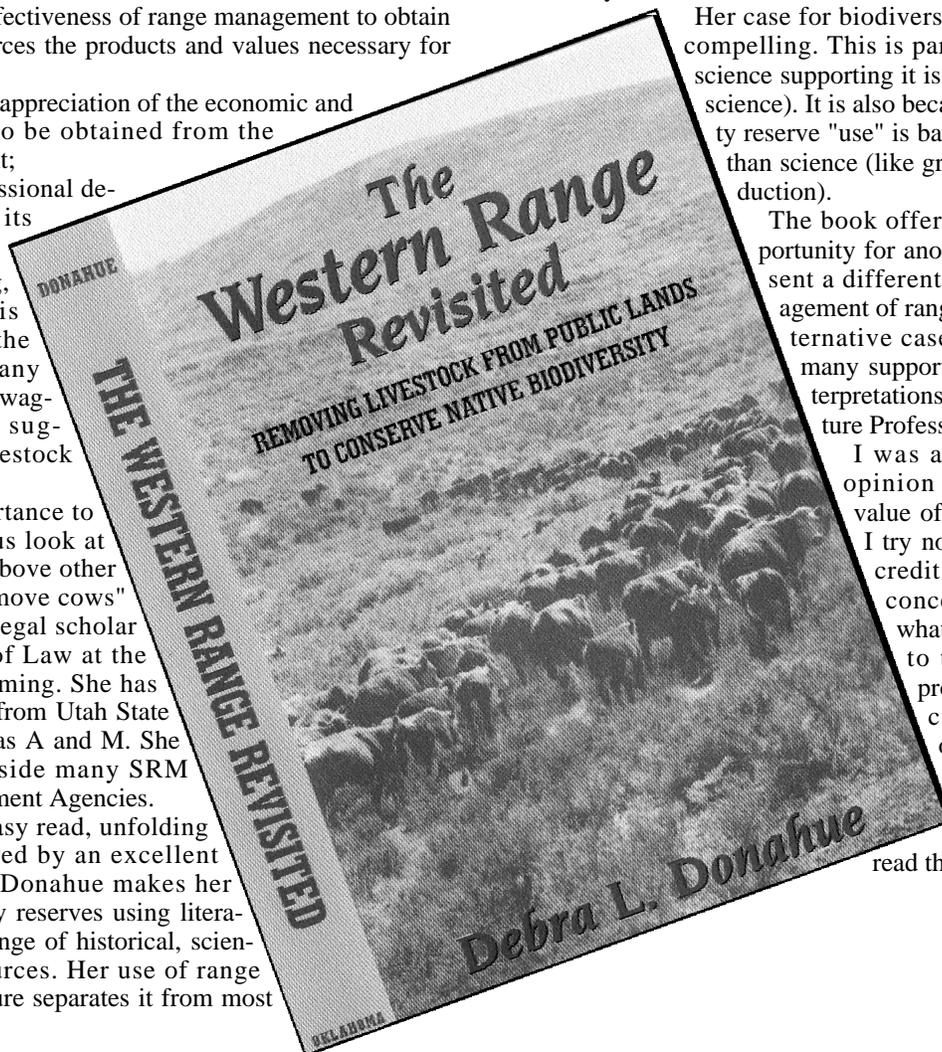
She makes her arguments clearly.

- (1) Current law and secretarial authority now exist for removing livestock from the public range, and
- (2) many ranges are now grazed that do not contribute materially to national and local economies.

Her case for biodiversity reserves is less compelling. This is partially because the science supporting it is inexact (like range science). It is also because the biodiversity reserve "use" is based more on values than science (like grazing for food production).

The book offers an excellent opportunity for another scholar to present a different brief on the management of rangelands. Several alternative cases could be made, many supported by different interpretations of the same literature Professor Donahue used.

I was asked to write an opinion piece about the value of the book to SRM. I try not to defend or discredit her positions, but concentrate instead on what I think they mean to the future of our profession. I will discuss book content only enough for my opinion to make sense to one who has not read the book.



Chapter 1. The Historical and Cultural Landscape; Chapter 2. The Early Legal Landscape.

The first two chapters deal with historical, cultural, and early legal landscapes of the West. Professor Donahue uses standard, respected sources. It is not greatly different from something your own public lands hero in SRM might have written. It set the stage well.

There are two things here for SRM to consider. First, any range problem should be put in historical perspective with a scholarly, accurate discussion of the important issues that produced the problem. Second, historical information should be understandable to the audience.

I have often heard SRM members complain that "they" do not understand range problems. Do we do an adequate job presenting problems in context and language "they" can understand?

Chapter 3. The Physical Landscape.

In this chapter Professor Donahue gives her opinion on the condition of public ranges. She relies heavily on Senate Document No. 199, *The Western Range*, for pre-Taylor Grazing Act conditions. For more current conditions she uses various papers and government documents. Her statement on page 61 speaks volumes about our profession:

The message is readers beware. Attempting to use the literature to generalize about current range conditions, or about the individual contribution of livestock, is problematic not only because vegetation, soils, and climate vary widely and because historical and current land uses and thus disturbance factors differ. Investigators' methods, objectives, and predispositions can also dramatically influence results. Results may be portrayed carelessly or even misrepresented, intentionally or otherwise, by the investigators or others.

This hurts because it is true. Anyone who has tried to sift through old range surveys knows the frustration Professor Donahue, or anyone else, feels trying to get a handle on the condition of rangelands. Each survey is based on different techniques and most were made for a particular purpose. Those who wrote *The Western Range*, knew their work was more important for its political statements—improve legislation to protect rangeland and put the public range in the Department of Agriculture—than it was for determining the condition of rangeland.

In the 1970s, I was asked, first by the Council on Environmental Quality, and later by the Congressional Budget Office to look at range surveys to see if there were ways to accurately compare them and document change through time. I concluded that condition through time could be estimated only by understanding the techniques used and getting inside the heads of the people who did the survey. Even then, it was a matter of professional judgement, not science. This conclusion was not new or unique. Most who worked with range surveys had their own horror stories. The paucity of data, inconsistency of the methods, and political objectives were well known.

What should we have done thirty years ago to improve the situation? More importantly, what should we do now?

Chapter 4. The Political and Cultural Landscape.

Professor Donahue begins this chapter with the cattleman's clout, describing both how and why livestock people wielded

a heavy hand in the development of the West. She uses current examples, such as the Domenici grazing bill, to show continuing influence of cattlemen. She describes how powerful organizations such as the U. S. Congress, state legislatures, county commissions, corporations, the LDS Church and land grant universities have helped solidify the power of ranchers.

In the second half of the chapter she demythologizes the ranching mystique. She describes the mythical image portrayed by the likes of Teddy Roosevelt and John Wayne. Then she contrasts it with the reality of ranchers barely making a living and depending heavily on government subsidy. She concludes:

"That [rancher] power, whatever its source or ontology, remains a significant obstacle to achieving substantive 'range reform' or improving range conditions."

This chapter raises again two big questions about our profession. Are we really captive of cattlemen? Are we letting the myth of the cowboy limit our effectiveness?

Many of us, perhaps a majority of SRM members, have our roots in the ranching culture. The fact we wear a hat and boots does not necessarily make us captive of the livestock industry. In fact, we may know more about why some lands should not be grazed than those getting their information from conservation biology texts. For instance, Professor Donahue's opinion that livestock should be removed from some arid lands is neither new nor earth shattering. Most of us were taught in our first range class that some lands were not suited to grazing. Whether we use economics, ecology, or energetics we have long known some land should not be grazed.

So why do we get excited when a lawyer or professor of biodiversity says what we knew all along? Is it because we have been intimidated by livestock folks? Or is it guilt that we should have made the fuss ourselves? Or is it because our core values (religion) are different from those of preservationists?

Whatever the answer, the fact remains, a range professional's image is often that of being apologist for livestock operators. Is this because we have defended a use that is dear to our hearts rather than land we have pledged to preserve?

Chapter 5. The Ecological Landscape.

This chapter discusses grazing and related activities on rangelands, the relation of coevolution and aridity to changes in rangeland biodiversity, aridity and grazing optimization, and rangeland vegetation dynamics. The section on vegetation dynamics includes a discussion of theories of succession and how it has been used by the profession in range condition analysis. It takes up about half the chapter.

In the introduction to the chapter Professor Donahue suggests, quite correctly, that the emphasis in range management has been on products, production, and on technology. She also says, that we have emphasized improvement over nature, or what she calls "optimizing."

I am somewhat at a loss as to how she came to that latter position. She used as its defense a definition Art Smith and I wrote, "range management is the science and art of optimizing the returns from rangelands in those combinations most desired by and suitable to society through the manipulation of range resources." Our intent was to balance such things as aesthetic and biodiversity values against commodities.

Apparently by using "manipulation," we missed her. The sections on grazing impacts and coevolution use standard references that are not very different than those that would be used by most SRM members. Her "spin" is toward the abuses caused by livestock and the value of ecosystems existing prior to the introduction of domestic livestock. The "spin" of grazing advocates using the same literature could be substantially different and equally valid.

These differing opinions of the same facts are similar to the differences found in agricultural texts and biodiversity books. A major cause of differing tolerances to domestic livestock appears to be on whether one sees technological humans as part of the natural system or a disturbance factor outside nature.

The question arises again, should SRM defend any use, including grazing? Is our defense of grazing based on our science, or our values (religion), or both?

In the section on rangeland dynamics Professor Donahue discusses the Clementsian influence on range condition concepts and the development of state and transition models. Again, this section could have been written by and for range professionals. However, several times she refers to Bill Laycock's statement that range management has not kept pace with ecology. It is not a case of range people ignoring ecology literature, but ignoring their own ecological research that caused the problem.

Lincoln Ellison, who is credited with an early recognition that the Clementsian model didn't work well, was a range researcher for the Forest Service. Ray Perry and his colleagues in the old Christensen-Perry land survey were among the first to apply landscape ecology to rangelands. Margaret Friedel, Barney Foran, and other range folks at Alice Springs were developing range surveys based on state and transition concepts before Mark Westoby, Brian Walker, and Immanuel Noy-Meir brought together American, South African, and Israeli range concepts, using Australian examples, in their *Journal of Range Management* article. *Why did range professionals not use their own ecological research?* Could it be a case of Clementsian dogma?

Professor Donahue suggests range managers were uninformed because range textbooks do not use current ecological concepts. When Art Smith and I were revising Stoddart and Smith in the early 1970s, we were well aware of the work of arid land range ecologists in Australia and Africa, but their work was still unpublished. We opted to stick with published concepts rather than write a text based on evolving concepts. We chose to leave those changes to the next edition—an edition we never produced. I cannot speak for authors of newer texts.

Chapter 6. Preserving Biological Diversity on Arid Western Landscapes.

Professor Donahue presents her strategy for preserving the native biodiversity on arid western rangelands. She discusses biodiversity as it relates to edge effect, reserve size and configuration, habitat type and quality, landscape level needs, and man-

aging arid rangelands. She uses literature to justify her proposed strategy of removing livestock grazing from large contiguous blocks of BLM lands with under 12 inches of annual precipitation. She outlines her plan and shares her motive:

Biological diversity also has moral value, just as the individual components of biodiversity do. That value may be deemed intrinsic or derivative from one's religious or theological views. The 'fundamental value assumption that biodiversity is good and ought to be preserved' is an essential underpinning of conservation biology—and of this book.

I am automatically skeptical when someone says they are doing something for moral values. And I have found it does little good to argue religion. But this chapter raises important questions for range professionals.

Is there an SRM religion that reflects our core values? If so, what are these values? What is it meant to glorify: God of Cows and Grass, Goddess of Open Spaces, Goddess of Western Way of Life.? Do our gods get in the way of our science?

In previous chapters, Professor Donahue alleges range managers are goal oriented and pragmatic. They accept manipulation of nature to reach their goals. Those goals are usually for perceived betterment of human welfare.

On the other hand, she sees conservation biologists as preserving nature, a goal that has value in and of itself. Assuming I have not done too much damage to her concepts, the differences boil down to the old "man in nature" vs. "man against nature" arguments.

I use "man" deliberately because she points out that most rangeland abusers from early cowboys to modern corporate ranchers were male.

If we are motivated by human need, does our "religion" permit sacrifice of natural communities to alleviate human pain in the short run? Where do we draw the line?

Also implied in this chapter is a belief that pre-settlement range conditions represent an ideal on which future conditions can be based.

It is further implied that removal of livestock from grazed areas and prevention of livestock from reaching now ungrazed areas will give a basis for understanding, and perhaps reaching, those pre-settlement conditions.

Is it possible to know what pre-settlement conditions were? Are there sizable areas in the West that have never been grazed by livestock? If the majority of the West is in some alternate stable (or unstable) stage caused by livestock grazing, can pre-settlement conditions ever be approximated by removing livestock? What is SRM's role in answering those questions?

Chapter 7. The Current Legal Landscape.

Professor Donahue reviews major laws, court cases, and administrative authority dealing with public rangelands. She makes a compelling case that current laws and administrative authority of the Secretary of Interior support the removal of livestock grazing for biodiversity conservation.



If she is correct, is that a matter of concern for SRM? Why? Why not?

Chapter 8. the Socioeconomic Landscape.

Professor Donahue discusses the value of public rangelands, the early post-Taylor Grazing Act years, and modern evidence of the value of rangelands. The second part is devoted to the economic value of public lands ranching today, the people who use public land for grazing, and the asserted merits and benefits of public land grazing. She concludes:

Eliminating grazing in arid regions of the West would offer tremendous benefits while imposing few costs. The economic impacts would be minor, even at the local level; and cultural concerns—whose authenticity as a matter of both history and federal land policy is suspect, anyway—are overblown.

This statement will infuriate many in SRM. But do we have either data or a mandate to disprove it? Is our indignation because of our science or our religion? Should SRM only defend the land, or does its purpose include defending user industries?

Professor Donahue's final chapter, titled Conclusion, is like a closing statement at a trial. She argues that the lands in question are public lands. She asserts that there is no private property rights in grazing permits. There are adequate laws to remove livestock. Livestock grazing is bad for public lands. The majority of the public wants livestock removed. Continued livestock will have further significant adverse environmental consequences on arid western rangelands. She concludes:

"It is time to make hard decisions about traditional, time-honored uses of land. I invite readers to judge livestock grazing on arid public lands by Leopold's straightforward standard: 'Examine each question in terms of what is ethically right as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends to do otherwise'."

I embrace Aldo Leopold's beautiful statement. But I would argue that the beauty of the biotic community includes *Homo sapiens*; morals and ethics of land use cannot be determined by excluding wants, needs, and values of modern humans.

I just tipped my hand on how I feel about people and nature. I have tried not to give my opinion on removing livestock. My opinion, strong as it may be, would only muddle our examination of the significance of this book to SRM. I want us to think about what this book proposes for our profession.

We have a number of committees that address rangeland issues. We publish our benchmark series. We hold symposia and distribute proceedings. We contribute panel members to CAST and NAS/NRC studies.

There has been no lack of professional opinions, yet they are often ignored, or even worse, called unprofessional.

We have had our greatest successes when we stick to scientific issues. It was range people that first questioned the adequacy of the Clementsian model. It was range people who developed the alternative state and transition model. It was range people who developed new knowledge about carbohydrate storage in plants, and range people are on the cutting edge of grazing behavior. It would certainly be safer to stick to sci-

ence, but would we be doing what SRM should do?

We have lost credibility because we have been too close to the livestock industry. Can we give responsible, credible opinions from the standpoint of land health regardless of use? What would happen to range management if all livestock were removed from our public ranges? Would we be less effective, or less a champion of public rangelands if they were managed for another use?

We have argued that range is a kind of land, not a use. But did we really believe it? Why did we tolerate public land agencies lumping range in with timber, water, wildlife, and other commodities?

SRM objectives, and the strategy outlined in Professor Donahue's book, both imply a goal of sustainable uses. Should sustainability be the primary criteria for our endorsement of any use? How can we be sure we are keeping options open for uses not yet imagined?

SRM maintains a contact in Washington and we often comment on pending legislation. Should we be involved in politics? Few decisions of SRM Directors have been as divisive as the endorsement of the Domenici grazing bill. Should we give opinions on legislation and regulations?

If so, should our opinion be limited only to the effect of the decision on the land?

The public rangelands by any measure contribute but a small amount of meat and fiber to our national economy. And even less to the world. If livestock were removed from public lands with less than 12 inches of rainfall, would it force us to concentrate on higher rainfall, private lands for food? Would managing Florida ranges for beef and arid public rangelands for biodiversity make SRM invalid? Would there be more, or fewer, hungry children if we concentrated our efforts on private land?

How would removal of livestock from American public lands affect range manager's ability to restore arid lands of other nations?

Professor Donahue's book can provide a turning point in our profession. Although many of us may disagree with some of what she wrote, she has challenged us to look at ourselves critically. This may not have been her primary goal, but it may be her major contribution.

Range management, as a profession, is at a crossroads. Enrollment in range curricula in public land states is declining. SRM membership is declining. The credibility of range managers is questioned. We are accused of being captive of a single use—livestock grazing.

If we can determine why we think keeping livestock grazing on marginal lands is, or is not, important to SRM, we can have a rebirth that will allow us to reach our objectives.

Author a Past President and is a long-time SRM member from Logan, Utah.

Editors Comments:

A review of the book *The Western Range Revisited: Removing Livestock from Public Lands to Conserve Native Biodiversity*, by Debra L. Donahue, was published in *Journal of Range Management* in January. Because of the high degree of interest generated by the book, then President Kendall Johnson invited additional reviews and comments from other SRM members. This paper by Dr. Box is one of those reviews.