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Public Lands Ranching: Environmental Disaster/Economic Boondoggle

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Western Turf Wars: The Politics of Public Lands Ranching

Livestock grazing is the most widespread land management activity in the western United States. In the eleven western states approximately 260 million acres of federal public lands managed by the US Forest Service and Bureau of Land Management are grazed—an area more than seven times the size of Iowa. Grazing also occurs on many wildlife refuges, and units of the National Park Service. These federal lands encompass a wide diversity of ecosystem types including creosote bush deserts, blackbrush deserts, slickrock mesas, sagebrush flats, pinyon-juniper woodlands, chaparral, ponderosa pine forests and alpine meadows above timberline. Unlike Midwest prairies, these are areas which, during the past 10,000 years or so, have not evolved with herds of large grazing animals such as bison. Consequently, the introduction of large numbers of cattle into these ecosystems beginning in the 1850s has been a catastrophe for many native plants and wildlife.

In their August 1998 article in *BioScience* (48(8): 607–15), Wilcove et al. examined the number of plant and animal species listed as endangered, threatened or proposed for listing that are impacted by various activities. Among 1,207 species, 11% are impacted by mining, 12% by logging and 22% by livestock grazing. As most species experience multiple threats, this study doesn't disclose the relative impacts on species from livestock, but it gives an indication of just how widespread is livestock's influence. A few examples from the scientific literature (summarized in Fleischner (1994), *Conservation Biology*, 8(3): 629–44) illustrate the kinds of detrimental impacts that livestock produce:

- In a sagebrush desert of Idaho, a grazed site had one-third of the plant species richness of an ungrazed site (Reynolds and Trost (1980), *Journal of Range Management*, 33:122–25.)
- In a riparian area of Oregon, plant species richness increased from seventeen to forty-five species nine years after removal of livestock (Winegar (1977), *Rangeman's Journal*, 4:10–12)

- Among songbirds, raptors and small mammals there was a 350% increase in use and diversity after eight years rest from grazing in Rich County, Utah (Duff (1979), pages 91–92 in O. B. Cope, editor. *Proceedings of the Forum—Grazing and Riparian/Stream Ecosystems*. Trout Unlimited, Denver)
- In southeastern Oregon, abundance of the Yellow Warbler (*Dentroica petechia*) increased by eight times when grazing intensity was reduced by 75% (Taylor and Littlefield (1986), *American Birds*, 40:1169–73)

Livestock, of course, typically impact wildlife by altering their habitats. Here is one of several examples of those alterations, as summarized in the above-mentioned article by Fleischer (1994): In central Washington, grazing was responsible for changing the physical structure of ponderosa pine forest for an open, park-like tree overstory with dense grass cover to a community characterized by dense pine reproduction and lack of grasses (Rummell (1951), *Ecology*, 32:594–607)

Can Better Livestock Management Correct These Problems?

Some proponents of the livestock industry (e.g., Knize (July 1999), *The Atlantic Monthly*, pp. 54–62) have claimed that these western environmental problems resulted from long-abandoned grazing practices that have been replaced by “ecologically sensitive” methods that actually benefit native plants and wildlife (Savory (1988), *Holistic Resource Management*; Dagget (1995), *Beyond the Rangeland Conflict*). Sadly, despite anecdotal reports of great improvements with these methods they have not stood up well to scientific scrutiny.

For example, Pieper and Heitschmidt (March/April 1988), writing in the *Journal of Soil and Water Conservation* (43(2): 133–37) confront the fundamental claims made by Allan Savory for short-duration grazing. They being “... that dramatic improvements in range condition would occur following proper implementation of a short-duration grazing system ... and ... that both rate of improvement and individual animal performance would be enhanced as stocking rate increased.” Since the time of Savory’s claims “... a considerable number of scientific studies have been completed that specifically address the effects of short-duration grazing on above-ground forage dynamics, hydrologic integrity, and livestock performance. ... In general, these studies do not support the claims that prompted the research.”

Economic Benefits from Grazing Livestock on Federal Lands?

In the eleven western states, ranching on federal public lands collectively provides about 18,000 jobs (0.06% of total jobs), and 0.04% of the income (Power (1996), *Lost Landscapes and Failed Economies*). Only about 22% of ranchers in these states even hold federal grazing permits (USDI-BLM and USDA-Forest Service (1994), *Range Reform '94 Draft Environmental Impact Statement*). And from these public lands comes approximately 2% by weight or value of this country’s livestock (Committee on Government Operations (1986), *Federal Grazing Program: All Is Not Well on the Range*. US Government Printing Office).

Why Should Non-Westerners Care What is Done on Western Public Lands?

Aside from the considerable damage done by livestock to western ecosystems—the loss of clean water, the increased erosion, and the extirpation of native plants and wildlife—our federal taxes subsidize the very presence of livestock on these lands. Hess and Wald (Oct. 2, 1999) writing in *High Country News* (27(18)) put the annual taxpayer subsidy at \$500 million. Regarding just the western lands managed by the Bureau of Land Management, Nelson (*Fordham Environmental Law Journal*, (1997) 8(3): 645–90) found that annual administrative costs of the grazing program were \$200 million, while ranchers paid only \$20 million through their grazing permits. He also reported that the annual value of the forage coming off these lands was approximately \$65.3 million—a good deal for the ranchers, but an economic disaster for taxpayers, who are paying almost three times more than the product is worth.

An End to Public Lands Ranching?

Many people believe that it is time to begin looking at legislative solutions that will phase out livestock grazing on federal public lands. The environmental impacts and taxpayer subsidies are simply not justified by the meager economic benefits, nor by the value to the nation of the beef coming from these lands.

Where to Learn More

In the past few years several survey articles have been written about the environmental impacts of livestock grazing on western ecosystems. These summaries are excellent resources for anyone wanting to better understand these issues without making the effort to read hundreds of much more basic research papers. Here are three of my favorites:

1. Belsky, A. Joy and Dana M. Blumenthal. 1997 (April). Effects of Livestock Grazing on Stand Dynamics and Soils in Upland Forests of the Interior West. *Conservation Biology*, 11(2): 315–27.
2. Belsky, A. J., A. Matzke, and S. Uselman. 1999 (first quarter). Survey of Livestock Influences on Stream and Riparian Ecosystems in the Western United States. *Journal of Soil and Water Conservation*, 54(1): 419–31.
3. Fleischner, Thomas L. 1994 (September). Ecological Costs of Livestock Grazing in Western North America. *Conservation Biology*, 8(3): 629–44.

Readers with access to the Internet can find a wealth of information about public lands ranching on the RangeBiome website. In addition to essays and archived news articles, the website provides links to dozens of livestock-related websites throughout the US.