Public Land Grazing: Going, Going, Gone?

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GOING, GOING, GONE?

by

E. Bruce Godfrey
America's publicly owned rangelands have been and will continue to be a major focal point of interest of members of the society. Recently, these lands have also become of interest to user groups which differ from the major traditional use of these lands--domestic livestock. The NRDC suit which spawned the environmental impact statements being written by BLM personnel, the Resources Planning Act, and the Organic Act have focused attention on these lands to a greater degree that has not existed for some time. Much of the interest in these lands has questioned the role and impact of livestock grazing on site productivity and other uses. Many ranchers have also come to question their status as users of America's federally administered rangelands. Let us review for a moment some of the historic adjustments that have occurred which are probably familiar to most of you.

As you are all aware, most of America's federal rangelands are found within the borders of the eleven western states (USDA, 1972). Most grazing on these lands was uncontrolled until the early 1900's on Forest Service lands, and the early 1940's on lands currently administered by the Bureau of Land Management (BLM). While other agencies also administer rangelands in the west, these two agencies controlled the use of nearly 98 percent of the land allocated for grazing in 1966. Furthermore, lands administered by

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these two agencies provided more than ninety percent of the total AUMs of use by domestic livestock permitted on public lands (PLLRC, 1969) during 1966.

The use of these lands by domestic livestock over time has not been uniform, however. For example, authorized use of BLM administered lands reached a peak in 1944 of nearly 15 and three-quarter million AUMs (Figure 1). Similarly, use of Forest Service lands reached a maximum in 1918 when more than 20 million AUMs of use were permitted. Declines since that time were particularly marked during the 1930 to 1950 period on national forest lands in the eleven western states (Figure 2).

While the use of America's public rangelands by domestic livestock has declined over time, other uses have increased. For example, the number of days of recreation taken for hunting and fishing has increased on both Forest Service (Figure 3) and BLM (Figure 4) lands over the period for which records are available. Estimates of the number of wildlife using public rangelands show a mixed pattern over time, however. For example, deer numbers on BLM and Forest Service lands apparently peaked during the 1960's while other species, particularly elk, have shown modest increases (Figures 5 and 6).

Reasons For Decreased Use By Livestock

Many of the historic reasons for reductions in the use of public lands by domestic livestock are well known. First, some areas were historically stocked at levels in excess of the ability of the land. Adjudication procedures have commonly made most of the necessary adjustments, but political pressure by some users has resulted in stocking rates that remain in excess of prescribed "carrying capacity". Second, as sheep operations have converted to cattle, changes in stocking rates have been allowed, at less than a
Figure 1. Use of BLM lands by domestic livestock, 1935-75.
Figure 2. Use of forest service land: authorized (•), actual (○), actual cattle (△).
Figure 3. Recreational use of Forest Service lands, 1946-75
Figure 4. Recreational use of BLM lands, 1967-76

Millions of visitor days
Figure 5. Numbers of big game animals using BLM lands, 1959-75
Figure 6. Numbers of big game animals using Forest Service lands, 1946-75
5 to 1 ratio (see Figures 2 and 3). These reasons and others are common knowledge to most people familiar with rangeland use in the west.

A look at the data during the 1958-75 period (Figures 2 and 3), however, indicates that recent declines have occurred which may not be due to the above causes. The following may therefore be viewed as hypotheses that, with refinement, would be subject to testing.

Historically, "range conservationists" have been easily identified. However, as most people who teach in the university system recognize, this stereotype no longer exists to the degree that it once did. Furthermore, many (most?) range majors no longer come from rural communities with a strong agrarian background. As a result, they often view the use of public rangelands by livestock differently than did the "old guard" (Voit, 1976). This possible change in attitudes held by agency personnel must, however, be viewed in context with legislative guidance.

Until the early 60's, the BLM was charged with managing public domain lands until disposed. The Multiple Use and Classification Act of 1964, however, probably had a larger impact on BLM action than many of us thought it would. The BLM, with the passage of this act and the report of the Public Land Law Review Commission, took "multiple use" management to heart. As a result, grazing by domestic livestock probably took a "seat farther back in the bus" because lands historically grazed would no longer be available for disposition to private ownership--livestock users were historically the major user group which wanted these lands. Similarly, the Forest Service tended to view commercial users with less favor to the degree that Chief McGuire (1977) has recently stated that "Range is a full partner", a statement that was not needed in the past when grazing boards assured ranchers of a voice in Forest Service decisions.
Figure 7. AUM's of Use on BLM lands by domestic livestock, active.
Figure 8. Authorized (•), Actual (○), AUM's of use by domestic livestock on Forest Service lands, 1958-75.
At about this same time, many members of the society made a serious effort to divest themselves of the historic connotation that "range" was synonymous with "grazing by domestic livestock." The late Francis Colbert probably articulated this attitude best when he said, "... the word 'range' is often misconstrued and misused ... I want to emphasize the strongest possible way that range—or rangeland or range ecosystems—is a kind of land it is not a land use." (Colbert, 1977) This emphasis probably had a larger effect on the profession than many of us suspect.

First, the curricula in many "range schools" no longer emphasize the animal sciences to the degree they once did--one class in either beef or sheep science, one of the basic historical disciplines of the profession, is often viewed as "sufficient for our needs" as we don't want to become "cowboys". Further, evidence of this move is reflected by the desire by many range people who are part of an animal science department to either "go it on their own" or join some other group that is plant-oriented.

The impact of this change, however, was probably not large until the agencies implemented the team approach to management planning. Under this system, a "range man" was expected to plan for range which did not necessarily mean use by domestic livestock. Under this system the livestock industry may no longer have an advocate for their use of public rangelands. In fact, many ranchers contend that no one fights for their use on planning teams, a situation which varies significantly from wildlife or recreation team members who not only have user group ties, but also commonly have strong personal interests in the use they are asked to plan for. The old charge of foresters being "timber beasts" is just as true today for "recreation and wildlife beasts". Rangemen, however, under the philosophy expressed by Colbert, could be termed "forage beasts" and not "livestock beasts" to
follow this analogy. This attitude is expressed by the following statement by a rancher found in the December issue of the Rangeman's Journal, "This plan is based on modern, sound, range management because we need red meat production on our public lands, but we can't sacrifice range management for it." (Artz, 1977)

Another factor which has not helped rancher interests has been the low civil service standards for range conservationists. Many wildlifers, foresters, soil scientists, etc. can qualify as "range cons" with minimal emphasis on range management. Many of these employers view range differently than would the typical "range" major.

Perhaps the largest impact, as I view it, however, has been the application of what I have come to term "the theology of ecology". Under this "theology" planners often assume that what is "good for grass or trees or deer is good for man." They forget that the biological impact is only one part of an integrated system of land use planning.

Good land use depends in part on three factors. First, the ecological potential of the land must be evaluated and the kinds of goods and services that it can safely produce be estimated. Second, then the people's demands on the land must be assessed. Third, the wants and needs of people must be balanced against land potential in the economic and political realities of the system. (Box, 1977)

Determining the ecological potential is only one, but an essential, part of land use planning. This theology is perhaps epitomized by the use of methods developed to measure range condition.

By comparing the expected percentage of the climax composition contributed by each species to the actual composition, it is possible to derive a numerical value which indicates the degree of departure of a range from climax and thus its condition rating. (Stoddard, Smith and Box, 1975, page 190)

The climax is therefore placed as a norm of what "ought to be" a status which cannot be logically defended without determining what for and by
whom (see Castle, 1963). This is similar to the arguments used by some economists which indicate that if a perfectly competitive system were implemented no one could be made better off without someone being made worse off (Pareto optimality). However, most economists recognize that this requires that not only a set of restrictive assumptions must hold, but one must also accept the initial distribution of wealth as being "proper". Similarly, a climax requires that the conditions for a climax must be known, which includes some distribution of utilization--i.e. a climax in the absence of use by wildlife will not be the same as one with wildlife. Just because cattle are introduced into a system does not make the pre-cattle climax good, best, or optimum. The "goodness" of the actions taken, however, can only be judged by its effect on people's satisfaction--by whom, how much, and when--unless one is willing to replace the judgement of man by some other entity (grass knows best?). Yes, the ecological potential and impact of uses on lands must be evaluated, but this use must then be traced to their effect on human needs and desires, a fact often overlooked by naive ecological assessments.

While the use of public lands by livestock has declined, little is known of its effect on the use of private lands. The data in Figures 7, 8, and 9 suggests, however, that decreases in the use of public lands have been more than overcome by increases on private lands--use of public lands has decreased, while animal numbers have increased. This suggests that either private lands are being depleted, a fact not supported by land values, or that the productivity of private lands has increased significantly. This also suggests that the use of public lands in total (it may be at the margin, particularly locally, or during some periods) may not be as critical as some of us have commonly suggested. Use of public lands by livestock may be
Figure 9. Animal Units of domestic livestock, eleven western states, 1935-76
"demanded" more from habit and as a method of retaining a felt "right" to graze than could be economically justified under the grazing systems currently being advocated by agency personnel--increases in non-fee costs may have made grazing on public lands uneconomic in many areas if it were carefully evaluated. The apparent increase in private land productivity also suggests that resources devoted to the private sector have probably resulted in greater gains than those spent in the public sector. If this is true, recommendations to increase range staffs within the BLM and Forest Service (e.g. Box, Dwyer and Wager, 1977) could yield lower social gains than allocating resources to agencies which work closely with the private sector (S.C.S., extension service, etc.).

These trends of decreased use of public rangelands with increasing cattle numbers in the west, where combined with increased recreation use, also suggest that under present pricing systems, allocations from cattle to other uses might be justified. However, historical trends in this case are probably poor indicators of future adjustments which could occur.

Future Use of Public Rangelands

While time will not permit a thorough analysis of all the factors that may affect the use of rangelands by livestock in the future, two factors may become the most important.

If the "energy crisis" becomes as critical as some have suggested, the use of rangelands may be altered significantly. First, activities which use high amounts of energy will be curtailed either through increased prices and/or administrative fiat. This will have a large impact on certain types of recreation. For example, Sunday afternoon or weekend sight-seeing trips which have shown the largest increase in use (Figure10) on
Figure 10. Recreational use of BLM lands, by type
BLM lands may not decline in total, but they will probably not be taken by users driving large, "gas-guzzling" vehicles, like Winnebagos and four-wheel drives. Furthermore, recreation in remote areas should decrease, while use of areas closer to metropolitan centers increases dramatically.

The anticipated "energy crunch" could also reverse the recent trends in the migration of people from urban to rural communities, and thus change patterns of recreational use. It also has the potential to increase the demand for "grass fat" cattle if the cost of supplying "feed" beef increases--this could easily occur in areas which have historically depended on groundwater pumping and cheap electricity (e.g. Colorado, North Texas and Arizona). If energy becomes critical, increased use of public rangelands by livestock may be justified.

One other factor that could have a large impact on the use of America's public rangelands could be the application of the policy found in the Organic Act to charge all users of public lands the "fair market value" for benefits received. If recreation users were charged a portion of the benefits they received, some forms of recreation will show significant decreases in use. Furthermore, grazing, as well as some uses in some areas or during some periods may not be justified.

Thus, the future use of publicly owned rangelands in the west shows considerable uncertainty. They may be able to biologically support greater

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1/ Most of this change will probably occur as a result of decreases in disposable income, rather than price-related reductions which stem from the relatively high income elasticity of most types of outdoor recreation.

2/ It is my understanding that the decision has been made to exclude "dispersed recreation" from this pricing policy.

3/ It has always seemed dichotomous to me that the ranchers feel that livestock grazing should have high priority, but that the fees for use are too high to justify use. They may be too high from an equity point of view, however.
use by livestock and/or other uses (U.S.D.A., 1972), but it is unlikely that the demand for use in all areas will grow at the same rate as they have in the past.

Much remains unknown of the effective demand for use of rangelands, both at the present time and in the future. Furthermore, historic and advocated staffing within the agencies do not indicate that the demand portion of the planning effort will receive the same degree of attention that the biological/physical aspects receive. If these trends continue, managers will be increasingly charged with the "mismanagement" of America's public rangelands. Surely, the time is ripe for a careful assessment of demand for use of America's public rangelands which must be coupled with the supply-oriented work currently being conducted by agency personnel--one half of the picture is not enough! If historical trends continue and cheap energy sources are developed, ranching interests will be hard-pressed to maintain past levels of use. This could lead to serious consequences in local communities in the west, which are currently dependent on the livestock industry, and which will probably not be benefited by allocations to other uses. The tradeoffs between benefits gained by Americans in general at the expense of local communities in the west may represent the major problem area associated with the use of public rangelands in the future.


