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(Mike Hudak's notes:

1. The Rio Grande Chapter encompasses New Mexico and western Texas.

2. The article is presented here with modifications conducive to Internet display and promotion of good scholarship. The substance of the original article has not been altered.)

Livestock Grazing Propaganda Disseminated by the Sierra Club

by Mike Hudak, author of
Western Turf Wars: The Politics of Public Lands Ranching

That propaganda supportive of the livestock industry is uncritically published in western newspapers and periodicals is not unexpected. That it is now appearing in Sierra Club publications is quite disturbing. An article by Courtney White, who has held leadership positions within the Sierra Club and is currently Executive Director of the Quivira Coalition, a proponent of "environmentally sensitive ranching," appeared in the Sept./Oct. 1999 newsletter of the Rio Grande Chapter of the Sierra Club. I present it below with my responses printed in green to Mr. White.—Mike Hudak

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Spread the News: Conservation Ranching Works
by Courtney White

Lost among the sound and fury surrounding the grazing debate in the American West is the news that a small group of conservation-minded ranchers are quietly taking charge of their destiny.

These ranchers, whose numbers probably total less than 5% across the region, practice a new brand of ecologically sensitive ranch management that allows them to profit economically and environmentally at the same time.

Amid the lawsuits, finger pointing, and stock reductions, these ranchers are restoring rangelands to health, protecting endangered species, bringing riparian areas back to life, and shielding open space from destructive development. And they are making a profit while doing so.

One example is Jim Winder, who ranches in southern New Mexico. In the twelve years since he switched to ecologically-sensitive management, he has doubled the size of his herd, increased his forage in riparian areas ten-fold, stopped shooting predators, and discovered new markets for his beef. Here are some techniques ranchers like Jim are employing:

- Dormant season grazing: Most of the conflict between ranchers and environmentalists is focused on riparian (streamside) zones—areas critical to the survival of wildlife. Traditionally, these areas are grazed by cattle year round, with destructive consequences. Progressive ranchers, however, avoid this conflict by grazing riparian areas in winter, when plants are dormant. The result is a healthy riparian area that protects biodiversity while increasing forage for all grazing animals.

Mr. White does not provide an independent, scientifically reputable source for his claim that the riparian area on Mr. Winder's ranch or any other using "environmentally sensitive ranching" is indeed "healthy."

Although Mr. White presents dormant season grazing as a superior alternative to year-round grazing, recent research suggests this is not always the case. Galt et al. (1999: 20–21) found that "one year of heavy use on shortgrass rangeland in New Mexico during dormancy (winter and spring) can reduce forage production the following growing season as much as 50% compared to conservative or moderate use."

One might also consider the findings reported in an article by Platts (1989: 107): "Heavy [winter] grazing can eliminate the streambank vegetational mat needed to prevent soil erosion due to winter-spring floods or ice events and to transfer grazing from grasses to shrubby species, unless controlled."

In Table 2 "Evaluation and rating of grazing strategies based on the author's personal observations, as related to stream-riparian habitats" Platts ranks on a scale of 1 (poorly compatible) to 10 (highly compatible with fishery needs) various livestock grazing strategies. Continuous season-long cattle grazing rates "1" with a "poor" in every category used for evaluation (control of animal distribution; streambank stability; brushy species condition; seasonal plant regrowth; stream-riparian rehabilitative potential), while total exclosure to livestock ranks "10" with "excellent" in each of the above categories. Moderate-to-heavy winter grazing rates "5" with a "fair" in three categories and "good" in two of them. But we're dealing with public lands; why should we settle for anything less than the "excellent" condition afforded by total exclusion of livestock?

Although from a different western ecosystem than the one about which Mr. White is writing, bluebunch wheatgrass in the Great Basin has been found to

react negatively to grazing while dormant. Sauer (1978: 121) writes: "Removing standing dead material decreased the weight of the new generation of leaves and culms by 28%, decreased the loss of standing dead by 21%, decreased leaf length by 25%. … Standing dead appears to be beneficial to bluebunch wheatgrass."

And bluebunch wheatgrass is not the only grass to react in this way. Willms et al. (1986: 538) report that "Removing standing dead plant litter and mulch over a 3-year period resulted in … lower yields in the Mixed Prairie." Specifically, "Under more arid conditions in the Mixed Prairie at Manyberries, herbage yields were depressed to about 43% of the control plots over a 3-year period where litter was removed. Both grass and forb yields declined (P>0.05)."

- Grass Banks: Overgrazing occurs when a plant is not given sufficient time to recover after being bitten by a grazing animal, including elk and deer. Conversely, too much rest can cause a plant to decay and lose vigor.

The claim that "too much rest can cause a plant to decay and lose vigor" is contradicted by experimental findings. Bock and Bock (1993: 371) report on the condition of a southeastern Arizona grassland ungrazed by livestock for twenty-two years compared to areas currently grazed. They state: "Total grass canopy cover was greatest on the ungrazed portion of each of the eight sites. Two short stoloniferous species (*Hilaria belangeri* and *Bouteloua eriopoda*) were the only taxa substantially more abundant on grazed quadrats overall. Among these and eight taller bunchgrasses, there was a strong positive correlation between potential height and response to release from grazing, with the three tallest species showing the greatest increases on ungrazed treatments (*Bouteloua curtipendula*, *Bothriochloa barbinodis*, and *Eragrostis intermedia*). *Bouteloua gracilis*, the most abundant grass in the region, showed an intermediate response to livestock exclusion. Grama grasslands at the Arizona site have changed more and in different ways following livestock exclusion than those on the Central Plains of Colorado. Contributing factors may include: (1) greater annual precipitation at the Arizona site, (2) the much larger size of the Arizona livestock exclosure, and (3) the absence of extensive grazing by native ungulates in the Southwest since the Pleistocene. Livestock grazing appears to be an exotic ecological force in these southwestern grasslands, and one destructive of certain components of the native flora and fauna."

Commenting on the type of "ecologically sensitive ranching" promoted by Mr. White and the Quivira Coalition, i.e. grazing based on the theories and practices described in Savory (1988), Bock and Bock (1993: 376) conclude: "Assertions about overall negative consequences of livestock exclusion (such as Savory 1988) are unwarranted for western grasslands as a whole, and for the Appleton-Whittell sanctuary in particular."

A grass bank helps end overgrazing (and overrest)

As pointed out above "overrest" of these western grasslands is a concept without merit.

by making an empty allotment available to cattle for multiple years

Recovery from grazing can be lengthy: bluebunch wheatgrass, for example, may require up to 6 years of rest after one-time removal of 50% of the shoot system during the active growing period even in a region with greater than 17 inches annual precipitation. (Mueggler 1975: 199, 202).

while the home allotment is restored to health by prescribed burning, temporary rest, and progressive management. The typical response of land management agencies to degraded rangelands has been to cut the number of cattle. Grass banks, however, restore land without hurting the rancher financially.

- Herding: The key to progressive ranch management is to gain control of the cattle and manage the timing, intensity and frequency of their impact on the land. Herding is a good example. By congregating cattle together and moving them every day under the watchful eye of a professional herder

For most ranchers this is not an option due to the extra cost of personnel. Also, herding results in cattle gaining less weight than non-herded cattle, resulting in less profit per animal.

overgrazing is easily avoided. For ranchers, herding also relieves the pressure from building fences, low weaning weights, hungry predators, declining forage, conflicts over riparian areas, and seasons being shortened because of lack of spring grazing. Herding has other economic benefits as well. One award winning grazing association in Colorado has been so successful at ecologically-sensitive herding in a federally designated wilderness area that the forest service actually allowed them to increase the size of their herd this year.

- Holistic management: It is important to remember that grazing is a natural process. Some ecosystems in the West evolved in a symbiotic relationship with grazing animals over hundreds of thousands of years.

For the most part, areas west of the Rocky Mountain front range have been ungrazed by large herds of large ungulates (even bison) in Holocene times (the past 10,000 years or so) (Fleischner 1994: 637). Consequently, for the regions about which Mr. White is speaking, his claim is untrue.

As a result, some soil types are quite resilient to periodic disturbance; they retain health and vigor, and respond positively to the effects of fire or the hoof action of grazers.

Numerous studies of holistic grazing have tested the claim that the hoof action of cattle is beneficial to the soil (and, in fact, is desirable to hasten the advance of plant succession). However, as reported by Pieper and Heitschmidt (1988: 135): "a considerable number of scientific studies have been completed that specifically address the effects of short-duration grazing [a major component of the holistic method] on above-ground forage dynamics, hydrologic integrity, and livestock performance. … In general, these studies do not support the claims that prompted the research."

[Note: since the publication of my article in *Rio Grande Sierran*, Holechek et al. (2000) have contributed an additional response to Mr. White's (and Alan Savory's earlier) claim regarding hoof action on soils: "In our search of the literature we could find no studies that substantiate Savory's claims on the benefits of hoof action on range soils." (Holechek et al. 2000: 19)]

Holistic management effectively manipulates grazing as an ecological process by employing cattle (which are much easier to control than elk or deer) as tools of range restoration.

Again quoting from Fleischner (1994: 636): "In summarizing a symposium on the topic [of using livestock as an ecosystem management tool], Severson (1990) clarified that such applications may be very limited, and that what benefits one species may prove detrimental to another. Because two species in the same community may vary in their response to grazing (Hobbs and Huenneke 1992), determination of its success or failure as a management practice depends on which species is used as a criterion."

Mr. White does not explain what he means by "profitably"—he may mean it in some spiritual sense, for example. But of the few published examples of ranchers who use holistic management, for example, those profiled in Dagget (1995), Fleischner (1997: 583) had this to say in his book review: "What do we make of the fact that most of the profiled ranch operations are underwritten by inherited wealth, or external funding?"

Jim Winder, the rancher about whom Mr. White writes at the beginning of this article, is reported to also not entirely depend on ranching for his income. Michael Sauber, in a letter to the *Silver City Daily Press* (NM) (Jan. 1998), commenting on a presentation given by the Quivira Coalition (of which Mr. White is Executive Director) stated: "Quite interestingly, Jim Winder, the rancher involved in forming this group, and put up on a pedestal as the new "model rancher," is a subdivider/developer himself. I'm confused by the logic. Why would a group who

joined forces to oppose subdividing ranches into developments use a ranch subdivider as the model?"

- Ecology and monitoring: Progressive ranch managers understand that range ecosystems are complex and ever-changing; as a result, they have become environmental experts. By studying the interplay between sunlight, photosynthesis, water and mineral recycling, and energy flow, they have greatly enlarged their capacity for effective range management.

  They also constantly monitor the results of their work. Additionally, a healthy range means ranchers can make money from bird-watchers, campers, hunters, and, perhaps, even the protection of endangered species!

- Partnerships: Scientists, environmentalists, ranchers, public lands managers, and others each hold a different piece of the grazing puzzle.

  By building bridges between these groups, information and energy begin to flow. Many successfully managed ranches employ a team approach; one public lands ranch in Arizona convenes over 30 team members twice a year to review its success at economic and environmental sustainability.

  The positive results of conservation ranching are irrefutable.

Based on the evidence I've provided above, I'll let the reader be the judge.

By gaining control of their cattle and employing one or more of the techniques described above, these ranchers have seen environmental health rebound in their riparian areas and uplands.

The scientific studies I've quoted above indicate otherwise.

Most have seen their bottom line rebound too. And these ranchers are succeeding in every type of ecosystem across the Southwest, from desert grassland to mountain meadow.

Where are the independent studies that support this claim?

[Note: Since publication of my article in the Rio Grande Sierran, Holechek et al. (2000) have documented the existence of ranchers whose use of holistic grazing management led to unfortunate consequences. Specifically: "Ranchers across the southwestern USA and Mexico have suffered severe financial losses since 1994 (Holechek 1996, Molinar et al. 1998, Torell et al. 1998). Part of their problem centers around using high risk management strategies involving heavy stocking rates (Molinar et al. 1998, Ward 1998, Ward 1999)." (Holechek et al. 2000: 21)]

Although not put forth as a science-based refutation of Mr. White's claims of environmental benefit and economic gain, I nevertheless ask the reader to consider the comments of Shane Jimerfield, Assistant Director of the Center for Biological Diversity in Tucson, AZ. Writing on RangeNet (20 August 1999), a listserve devoted to grazing issues, Mr. Jimerfield stated: "Jim Winder and another rancher, Will Holder, here in Arizona have been gaining some momentum in drawing support from enviros around the southwest. Holder markets his product as organic and wolf friendly. They both claim to be doing 'conservation ranching.' Yes, their allotments look better than their neighbors, but in reality they are just doing less damage. What is also happening is that several enviro groups have taken these two ranchers and placed them up on a pedestal. Using them as examples of how grazing can be done. I have two basic problems with this:

1) the reason that they promote these ranchers is largely due to their stance on the wolf and other charismatic mega-fauna. They do not consider impacts to other non-charismatic micro-fauna such as the Loach minnow, spikedace, [Southwest willow] flycatcher, etc.

2) as well, the schemes that Holder and Winder use are very complicated, and expensive. This is not a real alternative for the majority of ranchers. Also, Winder does not depend on his cattle operation for his livelihood, thus is able to do alternative things."

As more and more ranchers are looking to these ideas as a way to stay in business and heal the land, all of us in the "radical center"— environmentalists, ranchers, land management agencies, and especially the public—should start shaking hands and working together to protect what we all love: the west's wide open spaces.

Author and historian Wallace Stegner once labeled the American West as "the native home of hope."

Let's prove him right.

Numerous scientific studies (many more than I've quoted here) have shown the ecological benefits of total livestock removal from western ecosystems. Given that

- **US taxpayers subsidize the western livestock industry to the extent of $500 million annually (Hess and Wald 1995),**

- **western federal public lands contribute only 2% of the US beef supply (Committee on Government Operations 1986),**

- **federal public lands ranching contributes only 0.06% of the jobs and 0.04% of the income in the eleven western states (Power 1996: 184–85),**

why should we tolerate ANY degradation to our federal public lands by the livestock industry?

[Editor's note: Mr. White is Executive Director of Quivira Coalition. He has also been involved in leadership roles within the Sierra Club. This piece was previously published in the *Santa Fe New Mexican* and *The Albuquerque Journal*, and is published here with the author's permission.]

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