



Keeping Landscapes Working

A Newsletter for Managers of Bay Area Rangelands

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A newsletter provided by UC Cooperative Extension Natural Resources Program in the San Francisco Bay Area. This newsletter provides information to managers of both public and private rangelands. RANGELAND, which is land characterized by natural vegetation i.e., grass, forbs and shrubs and managed as a natural ecosystem, is the predominate source of OPEN SPACE in the San Francisco Bay Area.

*Sheila Barry, UCCE Bay Area Natural Resources/Livestock Advisor
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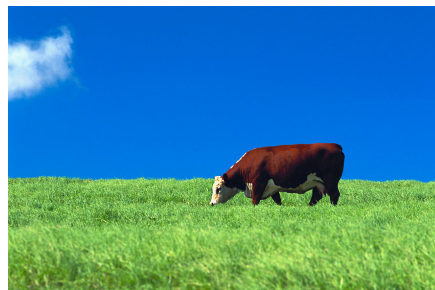
In Search of the “Green Cow”

In the San Francisco Bay Area there are over 30 public entities that “keep landscapes working,” using livestock grazing to manage open space lands for conservation objectives. For the past decade, I have been working with these entities to ensure that their grazing programs are working towards their resource management objectives while remaining sustainable. There is growing evidence that grazing operations significantly contribute to sustainable open space. However, their future sustainability is in question since they face economic, social, and ecological challenges. This year I have the privilege of taking a sabbatical leave September 1, 2009 through August 31, 2010. During my leave I plan to pursue three projects addressing the future sustainability of grazing operations on the urban edge and their contribution to sustainable open space. The first two projects will be conducted in California and third project will be conducted in New Zealand. The following is a brief description of the projects I will be pursuing.

1. Ecological and Economic Sustainability - Carbon Footprint of California Beef.

With growing concern over climate change attention to our carbon footprint is imperative. Information is being developed about carbon footprint and diet choices. Current information fails to recognize the complexity of the “life cycle” relative to beef production and makes assumptions about the type of lands and resources used to produce beef. I will work to identify the range of the carbon footprint involved in producing beef in California.

To carry out this project, I will collect data on inputs and outputs from beef production from grazing, feeding, and meat packing enterprises. This project will not only identify opportunities and challenges for California beef production in reducing our carbon footprint, but also provide a more complete picture for Bay Area public land managers regarding ecological costs and benefits of grazing.



**You can follow my pursuits to
search for a “green cow” on my
blog:
green-cows.blogspot.com.**

2. Social Sustainability- Public Perception of Cattle

Bay areas parks with livestock grazing host over 2 million visitors a year. A research project I recently conducted documented that negative interactions between livestock and people occur but in are relatively infrequent (less than 7 interactions/annually). However, negative interactions are often well publicized in major media sources and many people express their fear of encountering a large animal on a trail. This research is reported in “Cows, Bikes, Kites and Hikes” in this newsletter, page 3.

I also have been developing a data set of photos and comments posted by people who encounter livestock as they recreate in the San Francisco Bay Area. This data set contains over 1000 photos. To complete this project, I will analyze the comment data regarding people’s perception of cattle. This information will be useful to public agencies in developing outreach and interpretation programs for the public regarding their resource management programs that use grazing livestock.

3. Ecological Sustainability – Livestock in Watersheds

In addition to grazing recreational lands, grazing is used extensively on watershed lands in the San Francisco Bay Area. San Francisco Water Department, East Bay Municipal Utility District, Santa Clara Valley Water District, Alameda County Water District, and Contra Costa Water District each manage grazed watershed lands. Future land use and its impact on water quality is a growing concern on these watershed lands and globally. I have been invited by AgResearch New Zealand to look into how newly adapted regulatory policies are impacting livestock operations and water quality in the Lake Taupo watershed. Under these policies livestock agriculture has become a “consented activity.”

There are questions about how effective this policy will be in both controlling livestock water quality impairments and maintaining land use. Other watersheds in New Zealand are watching closely: this may be the way of their future.

During my visit I plan to meet with researchers to learn how they are calculating nutrient budgets and setting standards for “consented activities”. I will also meet with local farmers to learn how these policies are impacting their operation and its future sustainability. I will have the opportunity to share with them my work with San Francisco Water Department in developing grazing management plans to minimize water quality risk from pathogens. From my experience in New Zealand, I will develop a fact sheet that I can share with Bay Area Water Agencies. This information will help them in developing and implementing land use strategies to protect their watershed lands.

For Range, Livestock, and/or Watershed Management Assistance from September 1, 2009 to August 31, 2010, please contact one of my colleagues:

1. Theresa Becchetti, Natural Resources/ Livestock Advisor, tbecchetti@ucdavis.edu (209) 525-6800
2. Larry Forero, Livestock Advisor, lforero@ucdavis.edu (530) 224-4900
3. Royce Larson, Area Natural Resource Watershed Advisor, relarsen@ucdavis.edu (805) 434-4106

Cows, bikes, hikes and kites: Minimizing conflict between public recreation and grazing livestock.

Sheila J. Barry and David Amme



Photo on Mission Peak Taken by Ivy Mike

Introduction

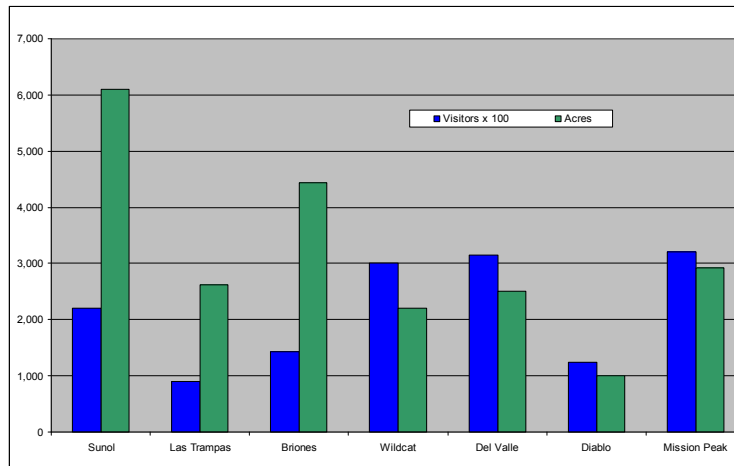
Public land managers and livestock operators often question whether or not public access and recreation can be compatible with livestock grazing. For example, a recent grazing plan written for an open space preserve in San Diego County required that “the operator shall keep cattle out of ... and around authorized recreational trails.” California State Parks includes the following statement in their grazing policy, 0317.2.4: Grazing also impacts recreational opportunities. Past studies have shown that perceptions of livestock use are associated with type of recreational pursuit, land classification, environmental beliefs, and demographics. Sanderson et al. 1986 found that the more experience recreationalist had on grazed lands the less likely they had negative perceptions of grazing. Brunson and Gilbert 2003 documented that hikers were more likely to feel negatively toward livestock use in a Grand Staircase Escalante National Monument than hunters. Although there is no doubt that there are negative perceptions of livestock grazing in recreational areas, there is little reported evidence of actual conflict between the public and “aggressive” cattle.

Recreation and grazing in the San Francisco Bay Area

The San Francisco Bay Area is unique for not only for the density of open space with public access and livestock grazing (Table 1) but also the intensive recreational use with livestock grazing (Graph 1):

Table 1. Public land entities with grazing and public access in the greater San Francisco Bay Area

Public Land Manager Entity	# of properties with Public Access and Grazing	Approx. Total Acres with Public Access and Grazing
East Bay Regional Park District	20	55,516
East Bay Municipal Utility District (by permit only)	3	13,000
Walnut Creek Open Space District	3	2,477
Santa Clara County Open Space Authority	2	1,600
Santa Clara County Parks	3	15,687
California State Parks	4	7,850
Contra Costa Water District	1	5,388
CA Department of Water Resources	1	650
Town of Moraga	1	250
City of Pleasanton	1	102
City of Fairfield	2	968
National Park Service	1	29,000
Solano County	1	1,039



Graph 1. Sample of parks (acreage and visitor days per year) with livestock grazing and public access in owned and managed by the East Bay Regional Park District.

Recreational pursuits occurring on these grazed lands included dog walking, biking, trail running, bird watching, hang gliding, kite flying, boating, camping, hiking, horseback riding, and fishing.

Conflict

There was no formal reporting system for recreational conflict with livestock until an incident between a hiker and cow occurring in the East Bay was reported in the LA Times. The reporting of this incidence brought concerns of public safety and livestock grazing to the forefront.

Los Angeles Times Print Edition
Front Page

Hikers in East Bay Parks Have a Beef With Cows

By Rone Tempest
Time Staff Writer

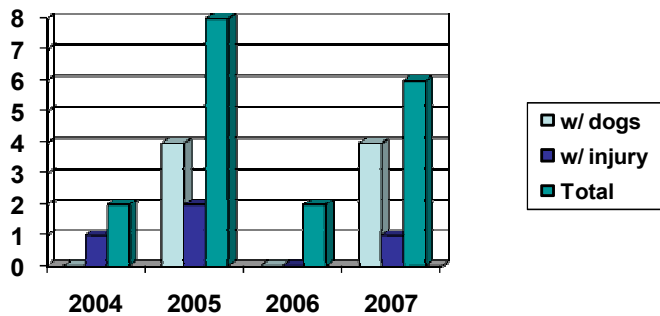
September 6, 2004

SUNOL, Calif. — Jennie Barber was hiking on a narrow trail in the Sunol Regional Wilderness recently when she came upon a mother cow and her newly dropped calf.

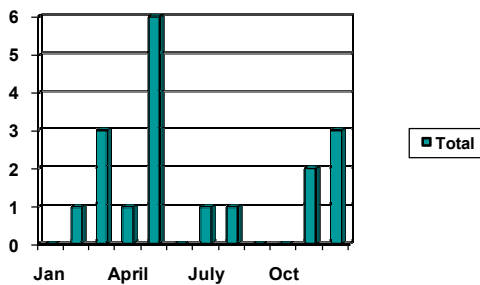
The protective cow charged. The next thing Barber knew, she was flying through the air, crash-landing into a barbed-wire fence. The cow then lowered its head, preparing for another attack.

"I seriously thought I was going to die, and what a weird story this was going to be," said Barber who survived the Aug. 22 incident with hand and body cuts and a sore tailbone.

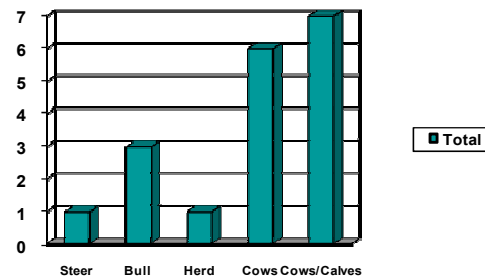
After this incidence, East Bay Parks created a reporting system for visitors to report incidents with aggressive livestock. The reporting system not only helped park managers determine the extent of the problem but also helped them to craft strategies to minimize problems. The following data resulted from the reporting system. Since the number of incidents are very low (n= 18 over 4 years), no significant trends can be determined from the data. On the other hand, the incidents do not appear to primarily involve dogs or occur when young calves are present with their mother cows in the late fall



Graph 2: Reported incidents of aggressive livestock resulting in injury, with dogs and total by year



Graph 3: Reported incidence of aggressive livestock by month.



Graph 4: Reported incidence by class of livestock.

While this reporting system indicates that incidence of conflict are relatively rare especially those resulting in any injury, park users often express their fear of livestock and their insight in overcoming this fear. The following two blogs provide examples:

A half-mile later, I came across a signpost for the Townsprings Trail, a path not shown on the map, which meant I *had* to explore it. All was going well until I encountered a group of cows grazing near the trail on both sides. I'm not sure why, but the sight of them paralyzed me.

"They're just cows. They're harmless," said my left foot. "I know," I replied, annoyed. "But there's a dozen of them and only one of me and they're chewing rather menacingly."

"If you walk confidently, they won't bother you," said my right foot.

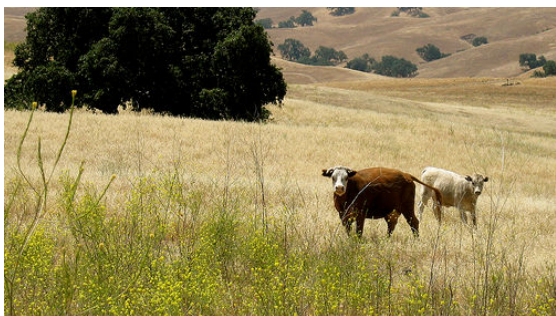
"And you know this how?" I said sarcastically.

"Wikipedia."

"Oh. Well then. Let's go."

With boldness I didn't feel, I marched towards the small herd, maintaining a steady rhythm by humming "If This Is It" by Huey Lewis and the News. Visions of the next day's newspaper headlines ran through my head, "Hiker Trampled To Death By Rare Breed of 80s-Rock-Hating Cattle".

I was within twenty feet of them when they retreated to a nearby oak tree where another dozen cattle were resting. One cow, a large brown one with a white head and horns, watched me warily as I went my way, but he did nothing more than stare at me (and shoot imaginary lasers with his gaze).



By David hiking in Santa Clara County Park, Harvey-Bear Ranch (randomcuriosity.com)



These are a few of my favorite friends on Mission peak. I don't know why people are so afraid of the cows. They seem to love me. The first few years we had tough times, but now they know better than to chase me.

By Catra Corbitt, Dirt Diva trail running in Alameda County on Mission Peak (trailgirl.blogspot.com)

Strategies to minimize conflict

Both the public land managers and the livestock managers have implemented strategies to minimize public-livestock conflict. Public land managers have developed brochures, posted information on websites and signs at trailheads, held special events, and conducted interpretive programs. At some parks visitors can pick up a brochure on the benefits of grazing at the entrance kiosk.

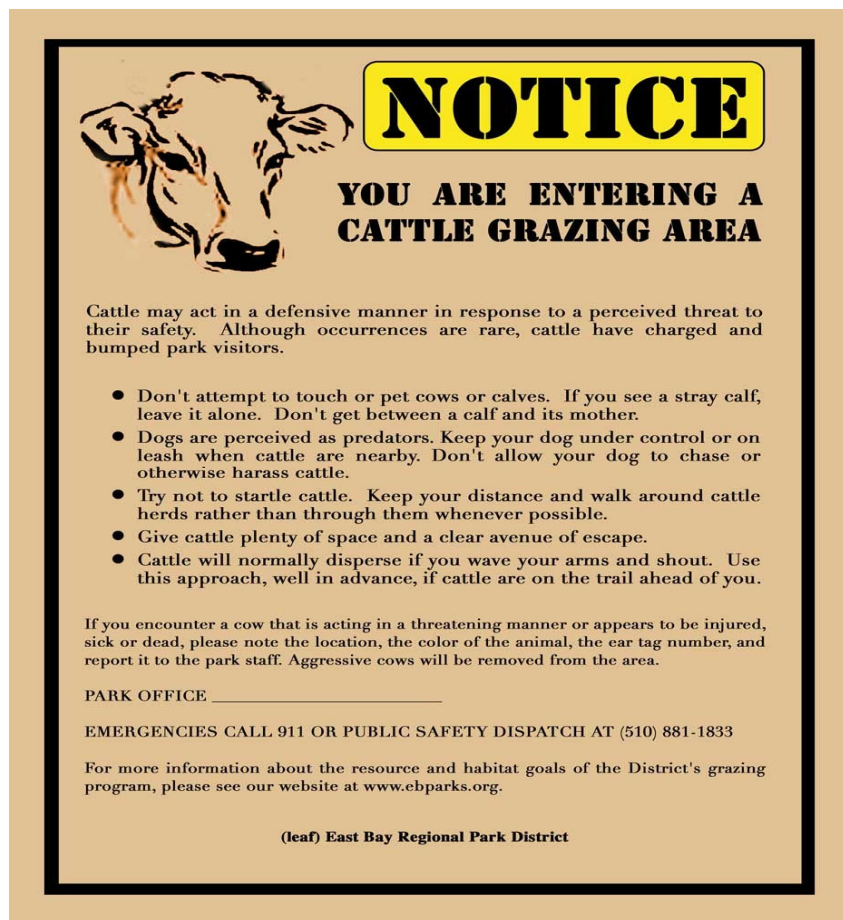
http://ebparks.org/files/stew_grazing_brochure.pdf

Signage is often put at trail heads informing visitors of the presence of grazing cattle. At some parks signs simply remind visitors to close gates because grazing cattle are present. Other parks have posted signs with extensive information about cattle behavior and how to safely share the park lands with grazing cattle. Participants in a visioning process conducted for Walnut Creek Open Space expressed their interest in being more informed about the city's grazing program on park lands. In this process which included workshops and survey, cattle grazing was raised as the #1 specific issue. Providing information on maps and signs about where cattle currently graze, and where they do not, was identified as a interim solution so visitors could avoid those areas (Open Space Vision Project Report, June 30, 2008). Currently, with the exception of East Bay Regional Park District, other public land managers have very limited information available to the public about their grazing programs including locations and objectives.

Livestock managers have worked to avoid visitor conflict and enhance aesthetic values of grazed public lands by adjusting grazing season and intensity, using rotational grazing, developing of off-site water, herding, culling "problem" livestock, and controlling calving seasons. For example, livestock managers will target grazing on areas known for wildflower displays in the early growing season and moving cattle to other sites during flower bloom. Livestock managers have also moved cattle away from recreational trails by herding and/or attracting animals to new loafing areas. In order for the public to accurately report problems managers have individually ear tagged cattle with

numbered tags. Livestock managers also try to avoid cattle work during peak periods of park use, like weekends and holidays. Livestock managers and public agencies have worked together to develop specialized infrastructure that improve public compliance with keeping gates closed and fences intact.

Based on the number of visitor- livestock conflicts reported compared to visitor numbers and reports of other visitor injuries, livestock grazing appears to be compatible with intensive public use and a diversity of recreational pursuits.





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