



American Icons in Metropolitan Grasslands: People, Place and Bison Recovery along Colorado's Front Range

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In November 2015, ten bison with Yellowstone genetics galloped out onto the sun-swept shortgrass prairie of northern Colorado. The return of these bison was heralded as hopeful for the Colorado community and important for science. The Laramie Foothills Conservation Herd would facilitate important breakthroughs in animal health science and advances in grassland ecology by bringing back a disease-free keystone species to the shortgrass prairie ecosystem after a prolonged absence of megafauna. However, the Laramie Foothills bison reintroduction was also a key socio-cultural event at a protected area already rich with human history and meaning. The bison were brought back to Soapstone Prairie Natural Area, a vibrant 18,000-acre recreational, cultural, and working landscape, frequented by hikers and mountain bikers from Colorado's rapidly urbanizing Front Range, and a place integral to the livelihoods of local cattle ranchers as summer pasture for their cow-calf operations.

This talk draws on social science research conducted with Soapstone Prairie visitors as part of the Laramie Foothills Bison Project in northern Colorado. It argues that in order to successfully establish new and resilient conservation bison herds on North American landscapes—and fulfill the Vermejo Vision of large-scale, long-term and inclusive bison recovery (Sanderson et al. 2008)—scientists and conservationists need to understand and manage bison recovery as a place-based social and ecological process (Figure 1).

The concept of “place” is a useful heuristic, or conceptual framework, for developing an integrative understanding of bison recovery. As Cheng, Kruger and Daniels (2003) explain, place is the meaning-filled social, spatial, and temporal context for natural resource management that emerges at the intersection of socio-political processes, sociocultural meanings, and biophysical processes. Place describes the ways that meanings and values emerge for people and human communities

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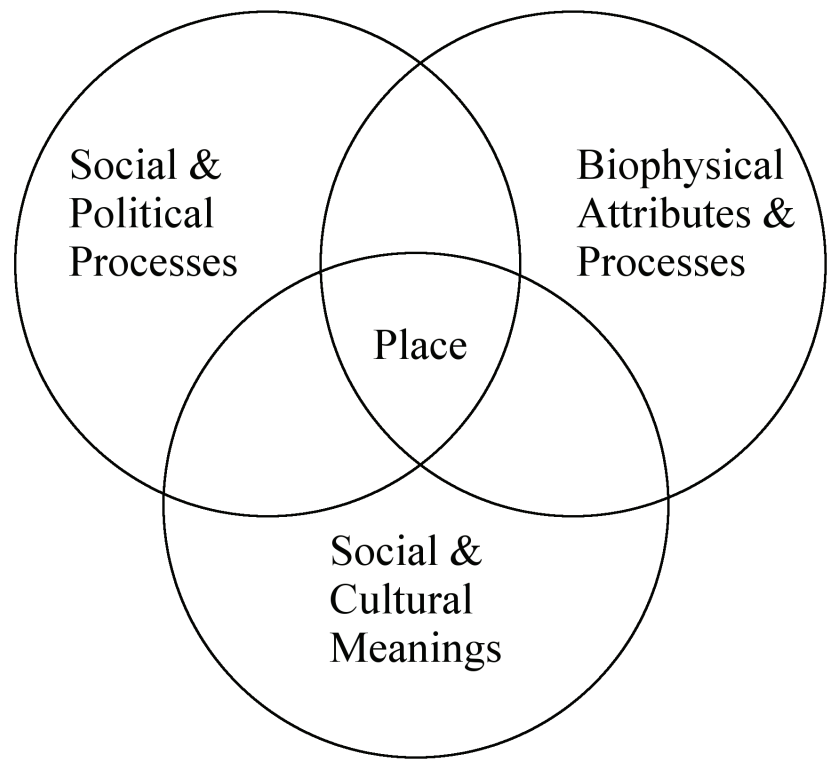


Figure 1. The concept of “place” is a conceptual framework in understanding bison recovery (credits: Cheng, Kruger and Daniels 2003).

from landscapes they come to know and frequent, while also attending to the broader political context in which those landscapes are defined and managed. As Williams and Patterson (1996) have noted, “recognizing and understanding this [meaning-filled] context is the principal contribution of social science to ecosystem management.” Moreover, sense of place is a social variable often affected by key natural resource management events such as bison reintroduction.

The Denver Zoo Department of Conservation and Research collaborated with the Laramie Foothills Bison Project’s science and management team to conduct over 700 visitor-intercept interviews before and after the bison reintroduction to Soapstone Prairie Natural Area. The purpose of these interviews was to capture how the Laramie Foothills bison reintroduction was reshaping visitor place attachment and sense of place (how visitors were experiencing Soapstone) in a peri-urban grassland located in one of the fastest growing regions in the country, the Colorado Front Range. The Front Range, the corridor between Colorado Springs, Colorado, and Cheyenne, Wyoming, is rapidly developing. As such, it is a landscape caught between the push and pull of traditional ranching lifestyles and an influx of new economy amenity migrants seeking outdoor adventures.

Visitor interviews were strategically conducted at the Soapstone Prairie Natural Area entrance gate, the only access point to the protected area, and typically lasted five to ten minutes. Researchers used a 44-item questionnaire containing open and close-ended questions, and conducted interviews using iPads and the cloud-based data collection software, iSurvey. The researchers pre-tested the interview guide and refined it accordingly. Interview data were collected from July through September 2015 (pre-bison reintroduction) and from July through September 2016 (post-bison reintroduction). The study employed multi-stage random sampling across weekend

days and times to ensure that those visitors interviewed were as representative of the visitor population as possible.

More than six in 10 visitors agreed to be interviewed about their experiences at Soapstone Prairie Natural Area by the research team. Soapstone recreationists tended to be white, well-educated and originate from the Fort Collins, Colorado, region and metropolitan Denver. The interview data revealed three key findings. First, bison were a primary motivation for park visitation. In fact, one in four visitors explained that bison were a main reason for their 2016 visit to Soapstone Prairie Natural Area. Soapstone visitors also overwhelmingly agreed that bison were an important part of their experience and enhanced their sense of connection to Soapstone in 2016. Finally, as measured by a four-item place attachment scale based on Folmer, Haartsen, and Huigen (2013), researchers found that levels of visitor place attachment in 2016 were significantly higher than the levels of visitor place attachment in 2015 ($p=0.01$). These findings demonstrate that the return of bison—a highly visible charismatic species—to the northern Colorado prairie was a socially meaningful event that had an immediate positive effect on visitor place attachment and sense of place at Soapstone Prairie Natural Area. Research into how the presence of the Laramie Foothills bison has qualitatively shaped visitor sense of place is ongoing with an analysis of the narrative data collected through the Soapstone visitor interviews underway (Wilkins et al. 2017).

Sense of place shapes the ways in which communities and people experience, and understand bison recovery landscapes. These landscapes are already meaningful to people with different North American worldviews, cultures, histories and livelihoods. As this talk has shown, creating inclusive and resilient bison recovery projects requires recognizing sense of place as a key emergent social variable in bison recovery. Project managers and scientists would benefit from more thoughtfully considering and managing for sense of place across different communities as part of bison recovery, and attending to how it broadens and deepens the definition of an effective long-term and large-scale bison recovery project.

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