

Section 3. Rangeland

Chapter 3.1. Perceptions and History of Rangeland

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Historical Perceptions of Rangeland

When asked today to define range or rangeland, most people respond with something such as “open lands used for grazing by livestock.” That perception, however common, is incorrect. Range or rangeland is a type of land, not a type of use. While livestock grazing is, indeed, a common use of rangeland, it is by no means the only one. The definition of rangeland is variable and has changed over the years. The 1872 poem and the later classic western folk song by Brewster Higley, *Home on The Range*, predated the massive expansion of livestock in the Western United States and makes no mention of livestock; it refers only to buffalo, deer, and antelope. A century later, even after the explosion of the livestock population, the published definition of rangelands was “...those areas of the world, which by reason of physical limitations—low and erratic precipitation, rough topography, poor drainage, or cold temperatures—are unsuited to cultivation and which are a source of forage for free-ranging native and domestic animals, as well as a source of wood products, water and wildlife” (Stoddart et al. 1975). This definition makes it clear that the presence of domestic livestock, however common, is not necessary for land to be classified as rangeland. Twenty years later, the definition, published again without inclusion of domestic livestock, was “a type of land that supports different vegetation types including shrublands such as deserts and chaparral, grasslands, steppes, woodlands, temporary treeless areas in forests, and wherever dry, sandy, rocky, saline or wet soils, and steep topography preclude the growing of commercial farm and timber crops” (Heady and Child 1994). A decade later, the definition was “all areas of the world that are not barren deserts, farmed, or covered by bare soil, rock, ice,

or concrete” (Holechek et al. 2004). The presence of, and use by, domestic livestock for grazing is not, and never has been, a requisite part of the definition of rangeland. However, because grazing by domestic livestock has been a common and easily recognized use of many rangelands for more than a century, people unfamiliar with the history of rangelands typically equate the two. Thus, a good working definition of “range” may be “[a]ll lands, except for urban, agricultural or densely forested lands, that support predominantly native or naturalized vegetation capable of sustaining native or domestic grazing and/or browsing ungulates, whether or not those animals are present.”

History of Grazing in the Western United States

Grazing domestic livestock in the Western United States has occurred for nearly 500 years, since the days of the Spanish explorer Coronado (Holechek et al. 2004; Reyes Castañeda et al. 1904). Cattle arrived in San Diego in 1769, but it was the discovery of gold in California in 1849 that brought more than 300,000 people (Larson-Praplan 2014), and with them, a demand for red meat that was largely met by sheep (Beck and Haase 1989) and later by beef (Jelenik 1999). Demand for beef changed the grazing paradigm in California from small herds to nearly a million head by 1860 (Larson-Praplan 2014). Cattle numbers remained limited in much of the Western United States until the end of the Civil War in 1865, which triggered rapid expansion of people and the associated livestock industry across the West, facilitated by railroads and favorable Federal policies toward homesteading (e.g., the Homestead Act of 1862) and grazing. The number of range cattle and sheep boomed between 1880 and 1890 (Stewart 1936) with most grazing unregulated and on public land. Land not claimed under the Homestead Act of 1862 was considered part of the public domain and was available for use by almost anyone for almost any legal activity; this became the “open range” (Larson-Praplan 2014). Ranchers were content to use the “public domain” because it was free and not susceptible to taxation. Because nobody owned the land, nobody was responsible to maintain it, and public domain lands were severely abused and overgrazed. A consequence of the public domain policy is often referred to as an example of the “Tragedy of the Commons” (Hardin 1968).

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In 1891, the Forest Reserve Act withdrew most unsettled tracts of forested land from the public domain and put it under the administration of what would become the U.S. Department of Agriculture, Forest Service for timber production, while some adjacent and intermixed parcels of rangeland were allocated for grazing. This continues to create no small degree of confusion, as the U.S. Grazing Service (now the U.S. Department of the Interior, Bureau of Land Management) became responsible for managing most rangeland and some lands that contain forest. To encourage continued settlement of marginal lands, Congress passed the Enlarged Homestead Act of 1909 granting 320 acres to homesteaders for farming (fig. 3.1.1). In 1916, Congress passed the Stockraising Homestead Act granting 640 acres to ranchers if they raised at least 50 cows, although the General Accounting Office reported that on much of the remaining public domain land, due to climate and/or the degraded condition of the land, it would require 160 acres to support a single cow for one month.

To reverse a trend of declining range condition, the Department of the Interior began granting grazing permits in 1898 to try to limit the number of livestock on federal land under its jurisdiction, and the Forest Service, established in 1905, initiated a system of grazing allotments for rangeland under its jurisdiction. Between 1910 and 1920, a series of laws were established on Forest Service lands to further regulate grazing. As the laws were established and enforced, the condition of grazed rangelands gradually improved. In the 1920s, the discipline of range management evolved and several universities established departments of range management to train landowners and managers in ecological principles related to the management of rangelands subjected to grazing.

In 1934, Congress passed the Taylor Grazing Act that withdrew all remaining land from the public domain and placed it under the jurisdiction of what would become the Bureau of Land Management (Hurlburt 1935) in



Figure 3.1.1—Vestiges of early homesteading and ranching can still be seen on the Lassen and Modoc National Forests (photo by KC Pasero, Forest Service).

order to “...stop injury to the public lands by preventing overgrazing and soil deterioration.” Under the Taylor Grazing Act, ranchers could obtain long-term leases on public land for the purpose of livestock grazing. Stocking rates were established locally by the Bureau of Land Management. *The Western Range*, by Secretary of Agriculture, H.A. Wallace, and Chief of the Forest Service, F.A. Silcox, was published in 1936. Wallace and Silcox (1936), and a chapter authored by Clapp (1936), indicated that rangelands occupied approximately 728 million acres (295 million ha), or 40 percent of the total land area of the coterminous United States. In 1948, the American Society of Range Management (now known as The Society for Range Management) was established as a professional organization dedicated to fostering proper management of rangelands (Howery 2015). Many changes have been implemented, including severe reductions in stocking rates on many permits. While some lands continue to be severely overgrazed, the slow but generalized trend is toward improved rangeland condition (Mitchell 2000).

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