

Understanding Free-roaming Horse Conflicts with Wildlife

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Introduction

Horses and burros were introduced to North America in the 1600s with European missionaries and explorers. Over time, abandoned and released horses and burros formed herds and by the time European-American settlers began to explore North America in the 1700s, these free-roaming horses and burros had adapted to their habitat and been incorporated into Native American culture. By the mid-1900s, most Americans considered these horses as wild and symbols of freedom and beauty. In 1971, Congress passed the Wild Free-roaming Horse and Burro Act to protect free-roaming horses and burros in the western United States from round-ups by private citizens or groups. They determined that free-roaming horses would be managed on public lands designated as Horse Management Areas (HMAs) or Horse Management Territories (HMT), at a population maximum of 26,000 horses. Today, there are approximately 72,000 'wild' horses living in horse management areas or territories (US Forest Service, 2003; Bureau of Land Management, 2016). Managing free-roaming horses on public lands has its challenges. This article explains a few potential conflicts free-roaming horses might have with the native wildlife that share the land with them.

Wild, Feral or Free-roaming

Wild, feral or free-roaming are all names that are used to refer to horses that are not cared for by a person or a group. Biologically, 'wild' refers to a species of animal that has never been domesticated, like elk, deer or pronghorn. Because the horses that we know today have been domesticated for thousands of years, as a species, they are not truly wild. However, some people also refer to horses that are descendants from the European explorers as 'wild' because they have lived freely on public lands for generations. The term 'feral' refers to an animal that was once domesticated but has since been returned to the wild. For example, a person may own a horse for several years, but for personal reasons decides to release that animal onto public lands (note: this practice is illegal). Horses are not native to North America. All horses that currently live on public lands are

“Wild”, Feral, or Free-roaming Horses

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“Wild”, feral, or free-roaming horses found throughout the United States look just like domestic horses. These are different names for the same species, *Equus caballus*, whether cared for by a person or free-roaming.



They range in size from 4 - 5ft (12-15 hands; to their back), and can be a variety of colors: white, grey, black, brown, painted, palomino, and various combinations of these colors.

descendants of domesticated animals originating in Europe and Asia; thus, they are technically feral animals.

That animal is now 'feral', neither taken care of nor instinctively wild. Free-roaming means that an animal is not herded or restrained from moving throughout the

landscape. When discussing horses, 'free-roaming' refers to all horses that live and move freely throughout the land, regardless of their origin.

What is an HMA or HMT?

When U. S. Congress determined to protect free-roaming horses, they considered where horse herds existed on public lands at that time. They designated these areas officially as Horse Management Areas (HMAs; Bureau of Land Management) and Horse Management Territories (HMTs, US

Forest Service). Any horses that lived within these boundaries were protected under the federal law. This can be confusing, because there are free-roaming horses that live outside of HMAs and HMTs— these are not managed by federal agencies via the Wild Free-roaming Horse and Burros Act.

Life on the Range



The public lands where free-roaming horses live, including HMAs and HMTs are also commonly referred to as 'rangelands'. Many of these areas are high-desert shrub and forest ecosystems that have hot, dry summers and cold, snowy winters. Most of the rangeland vegetation in the U. S. consists of grasses, sagebrush, other shrubs,

and small trees. Free-roaming horses share this land with native wild ungulates (hooved mammals) including pronghorn (*Antilocapra Americana*), mule deer (*Odocoileus hemionus*), elk (*Cervus canadensis*), as well as many other mammals, reptiles, and birds. Because free-roaming horses occupy the same habitat as many wildlife species, interactions between free-roaming horses and wildlife are inevitable. Horses are larger than many native wildlife species, so they can be strong competitors for limited resources such as food, water, and shelter. This raises concerns about the ability of horses to out-compete wildlife for food or to change the rangelands to the point that they aren't suitable for native wildlife species. The following sections discuss how and why conflicts might happen.

Food

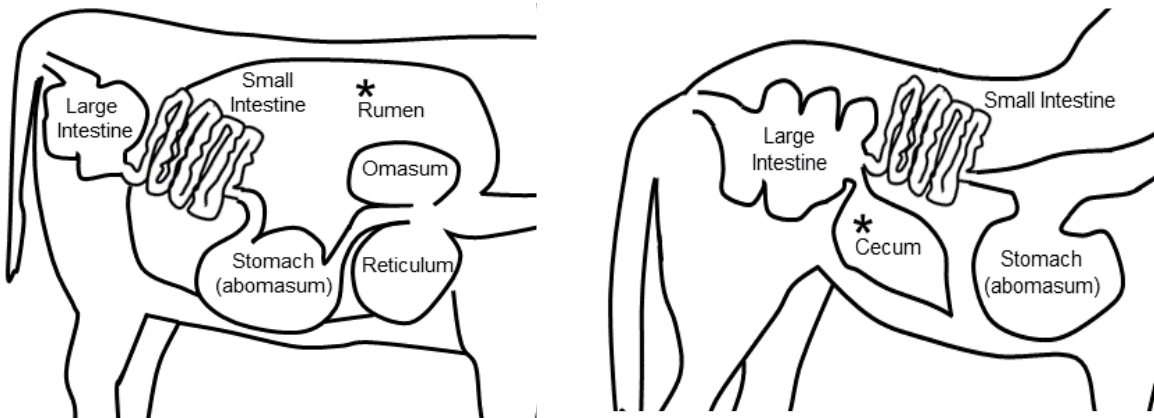


Figure 1: Ruminant or Fore-gut (a) and Hind-gut Fermentation (b). Diagrams excerpted from Scasta (2014). Did you get permission? Yes. Permission pending.

The diet of horses is similar to domestic cattle, elk, and pronghorn (Olsen & Hansen, 1977; McMinnis & Vavra, 1987, Scasta et al. 2016). However, horses process food differently than wild ungulates; the way that they forage on rangelands can sometimes cause conflicts. First, horses are hind-gut fermenters, meaning their food fermentation occurs *after* the intestines. Wild ungulates and cattle are ruminants, meaning their food fermentation occurs *before* the intestines (Figure 1). Hind-gut

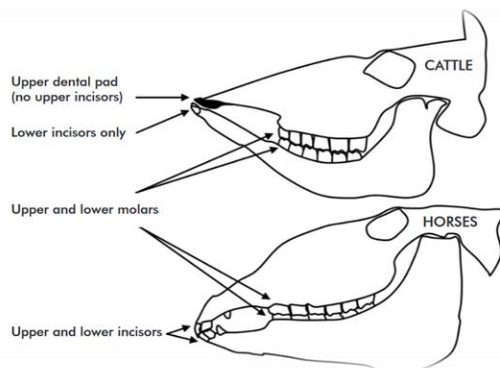


Figure 2: Horses have upper incisors; cattle, elk, and pronghorn do not. This diagram is excerpted from Scasta (2014)

fermenters process their food faster, but less efficiently, meaning they need to eat more per pound of body weight than wild ungulates or cattle.

Second, horses have upper teeth, while cattle, elk, deer, and pronghorn only have an upper mouth pad (Figure 2). This means horses can feed closer to the ground than the other species. Horses, cattle and elk predominantly eat grasses; if a herd of horses graze an area first, the remaining forage is too close to the ground for elk or other wild ungulates to eat it (Scasta et al. 2014). Elk, mule deer, and pronghorn migrate throughout the year to find the grass, forbs and shrubs that they need to eat for various important life cycles. However, wild horses are not as likely to migrate as other ungulates, having 'evolved' to stay on the rangelands. As a result, conflicts can arise when horses graze newly grown grass in the spring, resulting in grass that is too short for elk to eat when they arrive in the summer.

roaming horses have been listed as a threat to Greater sage-grouse populations (USFWS 2013).

Management of Multiple Species, Multiple Use, & Sustained Yield

Horse Management Areas exist only on federal lands and these lands are managed for “multiple-use, sustained-yield”. This means that the Bureau of Land Management and the U. S. Forest Service must strike a balance among recreation, hunting, camping, protecting Native American cultural sites, and energy extraction, while balancing populations of game species, species of concern, endangered species, and free-roaming horses.

Game species and species of concern are managed by state and federal agencies that monitor their population numbers and health. Game species populations are monitored to ensure that their populations are in balance with their ecosystem. Their populations are adjusted by increasing or decreasing the number that can be hunted from an area each year. Just like the free-roaming horses of today, cattle are not native to North America. The access that cattle have to federal land is managed under the Taylor Grazing Act (Keyes & Keyes, 2015). Through this act, Federal Land Management agencies assess the health of the rangelands and adjusts the number of cattle permitted to forage in grazing allotments. Domestic sheep and cattle are fenced out of sensitive areas, and their use of riparian areas and springs is managed by controlling timing, season of use, and grazing intensity.

Like native wildlife, where horses graze, when they graze, and how often is not managed. Therefore, free-roaming horses

have the potential to damage their habitats if managers can't effectively manage horse numbers. Currently, free-roaming horses within HMAs are managed by removing a portion of horses from the range and putting them in holding facilities, until they may be adopted. Currently, wildlife biologists and land managers are working diligently to determine a better method to manage horse population numbers and where they occur on sensitive rangelands.

For an overview of wild horses and burros ecology and management on public lands, please read the following article: [Wild Horses and Burros: An Overview](#) (Frey & Thacker, 2018).

Take Home Message

- Wild horses are not native wildlife.
- Wild horses may compete with native wildlife for food, water and space.
- Densely populated wild horses can harm wildlife habitat by reducing vegetative cover and increasing bare ground
- Wild horses are part of the multiple use provision for federally managed lands and like domestic livestock, should be managed according to federal policies.

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