



## Issue Statement

### Feral Horses and Burros in North America

Feral horses and burros are invasive species in North America. Exotic, non-native species are among the most widespread and serious threats to the integrity of native wildlife populations because they invade and degrade native ecosystems. When invasive species are perceived as a natural component of the environment, the general public may regard them as “natural,” not understanding the damages they inflict on native systems. These misperceptions create special challenges for wildlife managers. As a result, some groups advocate conservation and management of exotic species that promote their continued presence in landscapes where they are not native. Because these species are exotic, few policies and laws deal directly with their control. Feral horses (*Equus caballus*) and burros (*E. asinus*) that roam freely across western North America and along the Atlantic coast are examples of such species: they are iconic and beloved by some, but damage wildlife habitat and require improved and sustainable management practices. The numbers and impact of feral horses and burros can be difficult to control, amplifying their effects on native habitat and wildlife. In some cases, management of feral horses and burros and their effects divert resources (human and financial) from management of native species and habitat.

Feral horses and burros in North America are descendants of domestic horses and burros that either escaped from or were intentionally released by early European explorers and later settlers. Although many horse lineages evolved in North America, they went extinct in North America approximately 11,400 years ago during the Pleistocene, along with many other mammals. All horses and burros now present in North America are descendants of those domesticated in Eurasia and Africa (respectively) and were subjected to many generations of selective breeding (artificial selection) before they were introduced to North America by settlers. Since native North American horses went extinct, the western United States has become more arid and many of the horses' natural predators, such as the American lion and saber-toothed cat, have also gone extinct, notably changing the ecosystem and ecological roles horses and burros play.

Herds of feral horses and burros can damage the habitat they occupy. Estimates suggest that these herds range across more than 45 million acres in 10 American states and 2 Canadian provinces in western North America. Feral horses are also found in eastern North America on barrier islands off the coasts of Maryland, Virginia, Georgia, North Carolina, and Nova Scotia. Large herbivores (both native and non-native) disturb landscapes by trampling soils and vegetation, selectively grazing palatable plants, and altering the distribution of nutrients in the ecosystem. Research in the Great Basin has reported that areas inhabited by feral horses have fewer plant species and less grass, shrub, and overall plant cover than areas without horses, and more invasive plant species and weeds such as cheatgrass, an invasive species that degrades wildlife habitat. Riparian and wetland areas may also be impacted by feral horses and burros through soil compaction and increased erosion. The overall impact feral horses and burros have on any type of ecosystem depends on intensity and duration of use, timing, and the health and

resilience of the area. Where feral horse and burro density is high, lands are degraded, water resources are limited, and native species are already stressed, impacts can be substantial.

When feral horses and burros are introduced to an ecosystem, much of the native habitat is used by these non-native grazers. Free-ranging horses typically use higher elevations and steeper slopes than cattle, often moving to higher elevations for grazing, defense, and temperature control. Because of horses' flexible lips and long incisors, they are able to crop vegetation close to the soil surface, which can delay re-growth of grazed plants. The digestive systems of burros and horses dictate that they must ingest more forage per unit of body mass than any other large-bodied grazer in western North America. Feral horses are also dominant among native Great Basin ungulates in social interactions, notably at watering areas. There may not be aggressive behavior among horses, deer, and bighorn sheep (*Ovis canadensis*), but the presence of horses can affect the distribution of native species and their use of the habitat.

The diet of feral burros overlaps a great deal with that of bighorn sheep and uncontrolled burro populations have been predicted to lead to greater competition for forage and a decline in the populations of bighorn sheep and other native animals. Burros have one of the most-inclusive diets of large mammals. Given the climates that their ancestors inhabited, extant burros typically live in the hotter, drier ecosystems of North America. In those systems, rainfall is so scant that annual productivity is very low, and recovery from disturbance has been reported to require decades to centuries, depending on the type, intensity, and duration of the disturbance.

The small reptiles and mammals in the western North American ecoregion that depend on burrows and brush cover to survive and breed are lower in species diversity and less abundant in horse- and burro-occupied sites. These reptiles and mammals are an important component of the ecology of desert systems because they are a link in the food web, and perform numerous critical ecosystem functions (e.g. prey base, nutrient cycling, seed dispersal, insect control).

A variety of management practices have been in use since Congress passed the Wild Free-Roaming Horses and Burros Act in 1971, which guides management of feral horses and burros on Bureau of Land Management (BLM) and U.S. Forest Service lands in the western U.S. Existing management practices include: periodic population counts and rapid assessments of ecosystem status to determine where overpopulation exists; roundups to capture and transport animals; use of contraception to reduce productivity; adoption of animals to private owners; and the humane euthanasia of old, ailing, or unadoptable animals. However, management involving euthanasia, and sometimes roundups, is severely restricted by public opinion. While the public and interest groups express concern for the affected horses and burros, they often fail to consider the conservation of native plants and animals in the ecosystem, and the likelihood that horses and burros will die from starvation, thirst, and exposure when their numbers exceed the carrying capacity of the region.

Due to public opinion, animals passed over for adoption are not euthanized; instead, they are placed into short- or long-term holding facilities. The number of animals adopted annually has declined in recent years, necessitating additional holding facilities. In turn, program costs are rising to unsustainable levels and diverting funding that could be used to manage and sustain habitats for native wildlife. Sound, scientifically-based feral horse and burro management practices should be employed to conserve the highly sensitive arid and semiarid ecosystems of the West and keep taxpayer costs to an acceptable level.

The policy of The Wildlife Society regarding feral horses and burros is to:

1. Encourage the BLM and U.S. Forest Service to place primary emphasis upon the habitat needs of native wildlife and plants when developing, revising, and implementing herd management plans and to include wildlife biologists with differing areas of expertise on planning teams.
2. Encourage the U.S. Fish and Wildlife Service and National Park Service to remove feral horses and burros from all refuges and parks to protect wildlife and their habitat, historic and archaeological resources, and other trust values.
3. Encourage the BLM to eliminate feral horse and burro populations in Herd Areas that have been determined to have insufficient habitat resources necessary to sustain healthy horse populations.
4. Recommend that BLM and other responsible agencies direct adequate attention and resources toward accurately and precisely identifying the impacts of feral horses and burros on wildlife populations, habitats, and other natural resources managed for public benefit by 1) developing and implementing appropriate survey and removal methodology 2) conducting surveys and removals in a timely manner to minimize impacts on natural resources that can result from the overpopulation of feral horses and burros and 3) identifying and mitigating impacts on perennial and ephemeral riparian and wetland habitats, upland habitats, and threatened, endangered, and special status species of wildlife. Inventories should be performed using scientifically-based abundance estimation techniques that quantify population size and associated estimate error.
5. Support the use of roundups to remove feral horses and burros from rangeland while simultaneously seeking opportunities to improve the knowledge and use of the best and most humane capturing and handling methods.
6. Recognize that adoption programs are a socially acceptable method for removal and relocation of feral horses and burros, but that the pool of possible adopters is declining and adoption is not a viable long-term solution to overpopulation.
7. Support euthanasia as a humane method for removal of old, ailing, or unadoptable feral horses and burros and as a possible method to control population size.
8. Recognize that no feral horse or burro management plan should depend solely on fertility control given the uncertainty, logistical difficulty, and great expense that still exist regarding these methods.
9. Support increased funding for scientifically-defensible assessments of ecosystem conditions and interactions between feral horses and burros and native wildlife used to make decisions related to feral horses or burro management. Such assessments should consider the welfare of the feral horses and burros, and the ability of the system to conserve native plant and animal populations and provide ecosystem services such as clean air, clean water, and carbon sequestration.

10. Support the management of feral horses and burros at or below Acceptable Management Levels using a statistically valid sampling methodology. Underestimated populations can hinder management plans and lead to increased levels of resource damage.
11. Discourage the conversion of currently viable, ungrazed native or converted grasslands to pasture lands to house unadoptable horses and burros, privately or publically owned.
12. Cooperate with the conservation and animal-welfare communities to educate the public and key decision makers about the evolutionary history and ecological role of feral horses and burros and the negative impact they have on native vegetation and wildlife, including mammals, birds, reptiles, amphibians, and endangered species.

*The Wildlife Society's **Position Statement on Invasive and Feral Species** states that "land and resource management agencies should place primary emphasis upon management needs of indigenous wildlife and plants and resist efforts to sustain invasive and feral species on public or private lands" (TWS 2016).*