

Fact Sheet #1: Debunking Common Prairie Dog Myths

Few animals engender as much controversy as black-tailed prairie dogs. Unfortunately, negative reactions and even downright hatred of these rodents are fueled by misconceptions. Years of careful scientific study, taken together with experiential data, offer a more comprehensive picture of these creatures. We have learned that their presence is crucial to the survival of other prairie species. We have also learned that they have little impact on cattle grazing operations, a major industry of the Plains. Furthermore, black-tailed prairie dogs are very intelligent and have one of the most complex language systems ever studied. Refuting the myths about prairie dogs is a start to protecting the entire prairie ecosystem.

PRAIRIE DOGS ARE NOT OVERPOPULATING.

Black-tailed prairie dogs may be facing extinction. They have been poisoned, shot, and bulldozed to less than 1% of their historic population size. Plague is also a major killer. No healthy prairie dog complexes currently exist in the Southern Plains within the United States.

PRAIRIE DOGS DO NOT BREED LIKE CRAZY.

Prairie dogs actually breed at a very low rate compared to other small mammals. They reproduce only once per year, and the average litter size is 3-4 pups. Confronted with barriers to expansion or years of poor vegetative growth, prairie dogs practice population control.

PRAIRIE DOGS DO NOT CARRY PLAGUE.

In fact, prairie dogs do not pose a major risk for spreading plague to humans because when they are exposed to the disease they normally die too quickly to pass it on to us. The Colorado Department of Health has documented only 42 plague cases since 1957. Of those, just six are linked to prairie dogs. Other mammals, such as cats and dogs who have some immunity, can carry the plague by hosting fleas with the plague bacterium. Humans should take steps to avoid contracting the plague, but it is easily treatable with standard antibiotics.

PRAIRIE DOGS AND CATTLE CAN COEXIST.

It is understandable why people believe that prairie dogs compete with cattle for forage. Looking onto a prairie dog colony, one often sees less grass and bare ground. However, the grasses on colonies are higher in nutritional quality than uncolonized areas despite less overall quantity.

COLORADO CITIZENS WANT TO PROTECT PRAIRIE DOGS AND OTHER WILDLIFE.

We have witnessed an outpouring of support for prairie dogs over the last few years in Colorado. Concerned citizens are rising up to protect individual colonies slated for poisoning, developing or shooting contests and pushing their local governments to adopt policies meant to protect prairie dogs and their habitat. These actions are a part of a growing desire of Colorado citizens to protect state wildlife, critical wildlife habitat and open space in general. Furthermore, 69% of Colorado voters recently polled favored federal and state agencies establishing strict protections for prairie dogs on public land.



Fact Sheet # 2: The Ecological Importance of Prairie Dogs

The black-tailed prairie dog yields unparalleled ecological importance in the Great Plains. This industrious rodent enriches habitat through its burrowing activities in ways that benefit a multitude of prairie species. Some wildlife use their burrows as homes or as refuge from predators, and some prey on prairie dogs and other species inhabiting prairie dog towns. The way prairie dogs graze and dig improves soil and vegetation quality, increases water concentration, and contributes to the overall plant and animal diversity in and around colonies.

THE PRAIRIE DOG IS INCREDIBLY IMPORTANT.

The black-tailed prairie dog is a "keystone" species in the short- and mixed-grass prairie ecosystems, which has been documented extensively by biologists. A South Dakota study found 134 vertebrate species associated with prairie dog towns, while a Montana study found 163 prairie dog "associates," or species likely to be dependent on prairie dogs.

SPECIES DEPENDENT ON THE PRAIRIE DOG ARE BECOMING ENDANGERED.

Given the decline of black-tailed prairie dogs, combined with their ecological importance, it is no surprise that many wildlife species dependent on prairie dogs are now in danger of extinction.

The black-footed ferret (*Mustela nigripes*) is listed as "endangered" under the Endangered Species Act (ESA) and is one of the rarest mammals on the face of the earth. Black-footed ferrets need prairie dogs, as 90% of their diet and 100% of their shelter needs, are met by prairie dogs. The decline of the ferret has been traced to prairie dog eradication efforts and introduced diseases combined with a radically decimated prey base and secondary poisoning.

The mountain plover (*Charadrius montanus*) is a bird highly dependent on prairie dogs for survival in many areas, a fact acknowledged by U.S. Fish and Wildlife Service (USFWS) biologists. Mountain plovers have been recognized as rare and in need of federal protection since 1990.

The ferruginous hawk (*Buteo regalis*) is another important prairie dog predator that is in serious decline. It was listed as "threatened" by Canada in 1980. In the U.S., the ferruginous hawk is a "species of special concern" in several states and was petitioned for listing under the ESA in 1991. The USFWS dismissed the petition, despite the fact that several of the agency's regions believed that the petition warranted review.

The swift fox (*Vulpes velox*) is closely associated with the prairie dog ecosystem, as prairie dogs provide it with shelter and a stable prey base. Due to impacts from trapping, hunting, automobiles, the conversion of habitat to agricultural lands, and prey reduction from rodent control programs, the swift fox is now considered very rare in its northern range and limited to localized populations in its southern range. The species is currently protected in several states, but receives no federal protection.

The burrowing owl (*Athene cunicularia*) relies heavily upon prairie dog burrows to nest. Prairie dog colonies provide the burrowing owl with both shelter and increased prey abundance. Consequently, the decline in prairie dog habitat causes declines in burrowing owl numbers.



Fact Sheet #3 Decline of the Shortgrass Prairie

There is growing global concern over the loss of biodiversity caused by human activities. Scientists have concluded that grasslands are the most imperiled major ecological regions worldwide. The shortgrass prairie may be moving closer to the brink of ecological collapse, given the dramatic alteration of the plains by human agriculture and development.

THE SHORTGRASS PRAIRIE IS IN SEVERE DECLINE.

The dramatic alteration of prairies by humans is unparalleled among North American ecosystems. No expanses of healthy, shortgrass prairie remain in the Southern Plains. In the United States, we are left with only small and isolated remnants.

BIODIVERSITY OF SHORTGRASS PRAIRIE DEPENDS ON THE PRAIRIE DOG.

The overall degradation of natural processes in the Great Plains and the biological imperilment of the prairie dog are closely linked. A host of scientific research links the reduction of prairie dogs, the destruction of habitat, and the loss of biodiversity. This biological imperilment has dramatically manifested itself: there are 55 grassland species listed as endangered or threatened and 728 grassland candidates waiting to be listed.

BLACK-TAILED PRAIRIE DOGS ARE DISAPPEARING.

Prairie dogs now occupy less than 1% of their historic range. Even those interested in controlling prairie dogs on rangeland acknowledge a 98% decline. Less than 800,000 acres of black-tailed prairie dogs remain, down from estimates of 100-700 million acres around 1900. The black-tailed prairie dog may soon receive protection under the Endangered Species Act.

Threats to prairie dogs are multiple: poisoning, bulldozing, shooting, and plague. All contribute to the reduction of prairie dog acres and to the condition of small, isolated and fragmented prairie dog populations, which may seriously threaten prairie dog viability.

Poisoning has greatly reduced prairie dog populations, and it continues to be unrestricted on private lands. In the 1920's alone, 13 million hectares (approx. 32 million acres) of prairie dogs were poisoned in the U.S. In Colorado, 91% of prairie dogs had been eliminated through poisoning as early as 1912. Today, poisoning continues. Federal agencies distribute poison to land owners and poison prairie dogs on federal land.

Other threats to prairie dogs include development and shooting. In Colorado, development alone may account for a 25% overall reduction in prairie dog acres. Shooting also causes dramatic population reductions and social disruption which may result in genetic inbreeding.

THERE IS LITTLE PROTECTION FOR PRAIRIE DOGS, EVEN ON PUBLIC LAND.

Despite the drastic decline of the shortgrass prairie and the prairie dog ecosystem, the majority of our public lands remain inhospitable to prairie dogs, due to prejudices of federal, state, and local public land managers. Refuge on private land may be this ecosystem's last hope.



Fact Sheet #4: Prairie Dogs and Cattle

Despite a belief that black-tailed prairie dogs compete with cattle for forage, over two decades of scientific research finds the claims that prairie dogs are destructive to ranching are grossly overstated. Many ranchers do not exterminate the prairie dogs on their land and suffer no economic loss. The myth that prairie dogs and livestock are incompatible was started in 1902 by an unsubstantiated proclamation made by researcher C.H. Merriam who declared that prairie dogs rob cattle of 50-75% of their forage.

This spurious information, coupled with demands by Western ranchers for control measures, set government prairie dog eradication programs in motion. These programs continue despite the proliferation of new knowledge finding that Merriam and others were wrong. Laying this damaging myth to rest is long overdue. The bottom line is that cattle ranchers should not fear prairie dogs living on or near grazing areas.

PRAIRIE DOGS DO NOT DEplete FORAGE.

Scientific research shows over and over again that cattle who graze on pastures with prairie dog colonies do not weigh significantly less than cattle who graze on uncolonized areas.

CATTLE OFTEN PREFER THE GRASSES ON PRAIRIE DOG COLONIES.

Bison, who are ungulates like cattle, coexisted for thousands of years among 700 million acres of prairie dogs. Bison, elk, antelope, and cattle prefer to graze in prairie dog colonies. The grasses on prairie dog colonies are more succulent, nutritious and digestible which compensates for grass that prairie dogs eat. Cows and bison also need to graze on uncolonized areas to consume an adequate volume of bulk. Prairie dogs naturally create a mosaic of colonized and uncolonized areas, leaving most available area uncolonized when they are not controlled.

PRAIRIE DOGS CONTROL WEEDS.

Prairie dogs control sagebrush, mesquite, prickly pear, and other weeds noxious to native ungulates and livestock. For example, studies show that prairie dogs consume mesquite, an invader which degrades the economic value of rangeland and makes round-ups difficult. Prairie dogs also eat grasshoppers which benefits agriculture.

PRAIRIE DOG BURROWS ARE NOT A DANGER TO GRAZING LIVESTOCK.

Now that cattle are no longer run in herds, it is extremely rare for livestock to break their legs in prairie dog burrows. As long as cattle are permitted to see where they are going, they easily avoid burrows. Many ranchers scoff at this rural fable.

POISONING PRAIRIE DOGS IS NOT COST-EFFECTIVE.

Even with government subsidized extirpation programs, it costs ranchers more money to control prairie dogs than is gained in increased forage. Often, it costs more per acre to poison than the land is worth. Ranchers who exterminate prairie dogs may be wasting time and money.



Fact Sheet References

PRAIRIE DOGS ARE NOT OVERPOPULATING.

Marsh, R.E. 1984. "Ground Squirrels, Prairie Dogs, Marmots as Pests on Rangeland." Proceedings of the Conference for Organization and Practice of Vertebrate Pest Control. ICI Plant Protection Division, Fernherst, UK.

Miller, Brian, Gerardo Ceballos, and Richard P. Reading. 1994. "The Prairie Dog and Biotic Diversity." Conservation Biology 8(3):677-81.

PRAIRIE DOGS DO NOT BREED LIKE CRAZY.

The Nature Conservancy. 1995 "Element Stewardship Abstract for *Cynomys Ludovicianus* (black-tailed prairie dog)."

Hoogland, John. 1995. The Black-tailed Prairie Dog: Social Life of a Burrowing Mammal. Chicago: The University of Chicago Press.

Hoogland, John. 1985. "Infanticide in Prairie Dogs: Lactating Females Kill Offspring of Close Kin." Science 230: 1037-40.

PRAIRIE DOGS DO NOT CARRY PLAGUE.

Data obtained from the U.S. Centers of Disease Control and Prevention and Colorado Department of Health.

COLORADO CITIZENS WANT TO PROTECT PRAIRIE DOGS AND OTHER WILDLIFE.

The Cities of Boulder and Fort Collins, Colorado have both adopted progressive prairie dog management plans thanks to participation by citizen prairie dog advocates.

A moratorium on prairie dog poisoning has been issued by the city of Superior.

New land use regulations proposed by Boulder County will help minimize disturbance to prairie dog habitat

Recently the Mayor of Louisville, Tom Davidson, intervened to stop a real estate developer from poisoning a colony of prairie dogs

Mobilized citizens fought a plan by the City of Lakewood Open Space to poison prairie dogs on open space; they successfully gained a legal injunction against prairie dog poisoning on and encouraged the City Council to convene a roundtable to develop a non-lethal prairie dog management plan.

Citizen groups are trying to stop the City of Arvada from removing prairie dogs off of open space property.

In 1992, Colorado residents voted favorably on a citizens initiative to stop Spring bear hunting.

In 1996, the state citizens joined together again to prohibit the use of leg hold traps state-wide.

In 1997, a coalition of citizen groups successfully pushed the Colorado Division of Wildlife to restrict wildlife contest killing.

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