

My goal in writing this article is to help educate people about prairie dogs, and to provide people with objective information backed by valid scientific research. As many of us in New Mexico live among prairie dogs, I feel it is especially critical that people are well educated about these native animals.

What are prairie dogs?

Prairie dogs are large, colonial, ground-nesting squirrels. They live in large communities (colonies) in grassland habitats. They are highly social animals, and have evolved a complex language system. Prairie dogs eat grasses and weeds, and they will clip grasses to enable them to detect predators. They live in family units called coteries that consist of usually one male and several females. Females often remain in the same burrow system during their lifetime and juvenile males leave the burrow during their first year. Prairie dogs usually live for about 5 years in the wild.

What species do we have in New Mexico?

Both black-tailed prairie dogs and Gunnison's prairie dogs occur within New Mexico. Black-tailed prairie dogs are the most social of all the prairie dog species, and occur in the Great Plains region. They used to be common in the eastern and southwestern part of New Mexico, but have been eliminated from most of their native habitat within the state.

Gunnison's prairie dogs occur throughout the four corners region and are found in Santa Fe, Albuquerque, Socorro, Gallup, and Grants. Gunnison's prairie dogs also have declined significantly, and have been petitioned to be listed under the endangered species list.

Prairie dog reproduction

Prairie dogs are not prolific breeders. They only have one litter per year, consisting of about four young, of which only two usually survive.

The ecological role of prairie dogs

Prairie dogs were once among the most numerous and widespread herbivores in North American grasslands. Human activities such as habitat destruction and poisoning efforts have significantly reduced prairie dog populations. Three of the five species are federally listed as threatened or endangered. The most widespread species, the black-tailed prairie dog, now occupies less than 2% of its historical range. Scientists studying prairie dogs have estimated that at least 163 animal species are associated with prairie dog colonies, indicating that the prairie dog is a "keystone" (i.e., critically important) species in these ecosystems. Prairie dogs create ecological disturbances resulting in a diverse landscape that provides a variety of habitats for many plant and animal species, including black-footed ferrets, rabbits, squirrels, lizards, snakes, burrowing owls, and invertebrates. Prairie dogs also affect grassland plant species composition and vegetation structure and enhance soil and plant nutritional quality, which benefits antelope, bison, and cattle.

Prairie dog eradication has caused significant biological degradation and decline in biological diversity on grasslands in North America. Research has found that prairie dogs inhibit woody plants from invading grasslands, and has indicated that the elimination of these rodents has played

a significant role in desertification of grasslands. In addition, removal of prairie dogs causes secondary extinctions of other species, altering the entire food web associated with prairie dogs. For example, the black-footed ferret, burrowing owl, mountain plover, and ferruginous hawk are among the most endangered prairie dog-dependent species. Despite their importance, people often want to exterminate prairie dogs because of misconceptions about proliferation, children being bitten, destruction of landscaped areas, plague, competition for forage with livestock, and animals breaking their legs in the burrows.

Are they dangerous to humans?

Prairie dogs are not a threat to children. They are timid animals, and when approached by humans, prairie dogs quickly scurry into the safety of their burrows. People should never hand feed prairie dogs or try to grab them. Hand feeding may cause the animals to be accustomed to humans, and result in bites when humans get too close.

Prairie dogs and hantavirus

Prairie dogs are not known to contract or transmit hantaviruses. Worldwide, hantaviruses are associated with deer mice and other rodents in the family Muridae, which are distant relatives of prairie dogs (Squirrels, in the family Sciuridae).

Prairie dogs and plague

Prairie dogs do not carry plague. Plague is a non-native disease, introduced to North America from Europe by humans. Prairie dogs have not evolved immunity to plague, and therefore, it kills 99% of the individuals in an infected colony. Plague has been a major contributor to causing the decline in prairie dog populations.

Fleas carry the plague. These fleas can be found on many wild animals, and are not limited to prairie dogs. Killing prairie dogs just causes fleas to search for another host, and is not recommended by the Center for Disease Control (CDC) as an effective method of plague control. The key to preventing plague is to control fleas, not prairie dogs. Avoiding contact with dead wild animals and dusting pets and rodent burrows with flea powder can successfully prevent plague. Plague is also easily overcome with antibiotics when detected early, so people should educate themselves about the symptoms of plague. A colony of active prairie dogs is indicative of healthy, plague-free prairie dogs, and should not cause concern.

What if they are damaging the landscape in your yard?

If prairie dogs are causing damage to landscaped areas, you can use visual barriers such as vegetation or low walls and additional below ground barriers to contain the animals. Prairie dogs are highly discouraged by tall vegetation, so plant native shrubs and do not mow native grasses. Xeriscaping the area will also help discourage prairie dogs, and conserve water.

How to get rid of prairie dogs

Rat poison should not be used to kill prairie dogs because it causes secondary poisoning of dogs, cats, and other animals, and is dangerous to children. The only legal method for killing prairie dogs involves the use of poisonous gas by licensed professionals (in most states), which is costly. The poisonous gases used are inhumane, causing slow and painful deaths, and can take up to 72 hours to induce death in an animal. During which time the animals suffer from burning of the mucus membranes to paralysis.

The best recommendation is to learn to live with these native animals, and, if for some reason, prairie dogs must be removed, you can contact professional relocators in the state that can be referred by People for Native Ecosystems (PNE) (505) 982-0496 or the City of Santa Fe Permit Development and Review (505) 955-6480. Prairie Dog Pals of Albuquerque also conducts some relocations, though mostly on public lands <http://www.prairiedogpals.homestead.com/>.

Shooting prairie dogs

Shooting is often used as a means of reducing the size of a prairie dog colony. Varmint hunters gather together in many states where prairie dogs occur to shoot them. They do not eat the prairie dogs; rather, they shoot them with rifles for target practice fun. In our national grasslands, bullet shells and literally exploded prairie dogs can be found littering the colonies. It is important to keep in mind that these are highly social animals that are greatly affected by the shooting of their family members. Prairie dogs have become threatened species and are not prolific breeders, so sport shooting should be banned.

Do prairie dogs compete with cattle for forage?

Recent research has found that prairie dogs compete little for forage with cattle (~5%). In fact, by clipping grasses, prairie dogs eliminate old plant tissue and stimulate new plant growth. New plant growth contains more protein, so the nutritional quality of the vegetation on prairie dog colonies is greater than off colonies, despite the lower quantity of vegetation. Cattle have been found to gain similar to more weight when foraging on prairie dog colonies than off. Keep in mind that prairie dogs and bison have coexisted for millions of years, and bison and other ungulates consistently prefer to graze on prairie dog colonies.

What about falling into prairie dog holes?

The myth that cattle fall into prairie dog holes apparently began in the late 1800's. During this time, cattle were over-stocked on rangeland here in the Southwest. Cattle were overgrazing the lands, and combined with a 25 year drought period at the end of the century, many of the grasslands became desertified. There was little forage for cattle to eat and many became sick and lethargic, causing some of the cattle to apparently fall into the burrows. A healthy cow slowly grazes with its head down and does not fall into burrows. Remember, bison evolved along with prairie dogs.

Some people like to ride their horses in the mountains but feel they can't because prairie dog burrows are present. My advice is not to run your horse on a prairie dog colony, and find an

alternative place to ride. These animals no longer occur in large colonies due to their population declines, and therefore, it should not be difficult to find an alternative place to ride. If we live in the mountains or are recreationally enjoying them it is important to remember that wildlife are present in these areas and we need to learn how to live with them, not eliminate them because they are in our way.

Prairie dogs as pets

Prairie dogs express social behavior that humans can relate to, but they do not make good pets. Because they are highly social animals, they should never be kept in isolation. Prairie dogs require considerable attention, and also are highly active with lots of energy and desire to chew and dig. They often will chew furniture when let out of their cage and will dig at rugs, tearing them up. In addition, prairie dogs have a breeding season each year, during which their hormones change and they can become aggressive. During this time even friendly prairie dogs can bite. Moreover, most prairie dogs sold as pets are taken directly from the wild. They have not been bred in captivity for generations, unlike most animals that we have for pets. Keep in mind that dogs have been domesticated for 10,000 years. Because prairie dogs have not been domesticated, they exhibit wild tendencies and may not always be friendly to the people they live with.

Wild prairie dogs sold for pets are often collected from areas where landowners want to reduce or eliminate the prairie dog population on their land. These prairie dogs have been acquired through unregulated harvest to provide profit for the pet trade. Some of the methods used to obtain prairie dogs for pets, such as removing prairie dogs with a "sucker truck," a truck with a vacuum hose, are inhumane. The pet trade contributes to the decline of the species. If prairie dogs must be removed or controlled in an area, the animals should be humanely relocated to appropriate areas where their populations are desired.

Current efforts to protect prairie dogs within the state

Currently there are no efforts established to protect the Gunnison's prairie dogs. However, both the city of Albuquerque and of Santa Fe do not allow the poisoning of this species within the city limits. The US Fish and Wildlife Service (USFWS) has determined that black-tailed prairie dogs have declined significantly throughout their range and that their status as a threatened species is "warranted but precluded." Meaning that there are significant threats affecting the long-term viability of the black-tailed prairie dog, but there are insufficient resources to protect this species. The limited funds available to the USFWS for threatened and endangered species is currently being used for species that are of greater concern.

Game and fish departments from most states in which prairie dogs occur have established black-tailed prairie dog working groups. These working groups are designed to develop a management plan to reduce the decline of prairie dogs so that listing will not be necessary.

Why are they endangered? I see so many of them!

Often people think that because they see "lots" of prairie dogs that they couldn't be declining. Keep in mind that they once occurred in huge numbers (~5 billion) throughout most of the grasslands in the central United States. They have declined greatly relative to their former

abundance. There are many large threats affecting their populations: continued poisoning and shooting, habitat loss through development and desertification, and plague. In addition, many animal species that are dependent on the prairie dog require large colonies in order to support them. Most of the prairie dog colonies have become fragmented and isolated from one another, which lowers the long-term viability of maintaining the population and the other species dependent on them. The plight of the prairie dog is analogous to the passenger pigeon, once one of the most abundant and common species that has now become extinct due to human persecution.

How you can help

People are greatly needed to help in education, legislation, and relocation efforts. Contact a local wildlife organization such as Prairie Dog Pals or People for Native Ecosystems (contact info above) if you have an interest in helping the prairie dogs. You can also find more information about prairie dogs on the web at <http://www.prairiedogs.org/> and <http://www.gprc.org/> .

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