

Fact Sheet: The Ecological Importance of Prairie Dogs

The black-tailed prairie dog wields 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 and is one of the rarest mammals on the face of the earth. Black-footed ferrets need prairie dogs, as 90 percent of their diet and 100 percent 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 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.

