



## Black-footed Ferret (*Mustela nigripes*)

The black-footed ferret is the only ferret native to North America. These long, slender mammals were once found throughout the Great Plains, ranging from southwestern Canada to northern Mexico. Due to their secretive behavior, this ferret was always difficult to find, so population estimates were hard to obtain. Although the black-footed ferret was likely never abundant, it is currently considered one of the rarest wild mammals in North America.



Black-footed ferrets are members of the Mustelid family along with weasels, skunks, otters, minks, badgers, and wolverines. They are 18 inches long, including their long, black-tipped tail. Overall they are a beige color, which is interrupted by black face-masks, white foreheads and throats, and black feet. Well-adapted to their prairie environment, their strong front feet and claws are made for digging, while their coloration helps them blend in with their surroundings. Although they occasionally eat rabbits, mice, and other small mammals, black-footed ferrets feed almost exclusively on prairie dogs—in fact, prairie dogs make up over 90 percent of the ferret's diet. In order to understand conservation needs of the black-footed ferret, one must also understand prairie dogs and human activities affecting prairie dogs.

Prairie dogs are burrowing rodents that live in large groups often referred to as “towns.” At one time there may have been as many as 5 billion prairie

dogs sharing the prairie grassland with ferrets and other wildlife. It is no coincidence that the ranges of these two animal species overlap. Not only do black-footed ferrets rely on prairie dogs as their main food, they also live and raise their young in the burrows of prairie dogs.

Prairie dog towns provide food and shelter for many other animals as well. Prairie dogs are prey for red-tailed hawks, coyotes, and other predators. Burrowing owls use the rodents' holes for nest sites, and many species of snakes, lizards, and amphibians use them for shelter and hibernation also. Due to their important role in the prairie ecosystem, prairie dogs are considered a keystone species.

Prairie dog towns provide recreational opportunities for wildlife watchers, photographers, and hunters. Although valued or tolerated by many people, there are others who consider prairie dogs as nuisances. Besides eating agricultural crops, they eat the prairie grasses that are also eaten by livestock. Their holes pose hazards to livestock and farming machinery. In addition, prairie dogs can contract sylvatic plague, which when transmitted to humans is called bubonic plague.

Since the late 1880s, many methods have been used to control and eradicate prairie dog communities. At the same time, the majority of their habitat (over 98 percent) has been lost to development. Poisoning, trapping, other control measures, habitat loss, and disease have led to a drastic decline in prairie dog populations. This decline of the prairie dog and loss of habitats, in conjunction with disease, caused black-footed ferret populations to plummet as well.

In 1967, the black-footed ferret was placed on the federal endangered species list. In 1980, black-footed ferrets were considered extinct. Then, in 1981, black-footed ferrets were discovered in a prairie dog colony in Meteetse, Wyoming. Biologists rushed to study these animals to determine what could be done to protect this colony. By 1985, the colony had



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expanded to 129 animals. Unfortunately, an outbreak of diseases, most likely canine distemper and sylvatic plague, almost completely wiped out the colony. Between 1985 and 1987, 24 black-footed ferrets were taken into captivity in a last-ditch effort to save the species. Of those, only 18 survived to become part of the recovery plan. No other known black-footed ferrets existed in the wild.

In 1988, the U.S. Fish and Wildlife Service adopted the Black-footed Ferret Recovery Plan. State and federal wildlife agencies in cooperation with several zoos began a captive-breeding program to try to increase the number of black-footed ferrets. The goal of the program was to reintroduce these ferrets back into the wild. This was an ambitious project because little was known about the habits of black-footed ferrets. Biologists were not sure how to raise them in captivity and transition them into the wild. Since 1991, small numbers of ferrets were successfully reintroduced into the wild, first in Wyoming, then into Montana, South Dakota, Arizona, Colorado, Utah, New Mexico, Kansas, Canada, and Mexico. On-site breeding programs were added in Utah, Arizona, and Colorado to help with the reintroduction efforts.

The success of the recovery project hinged on several factors, including the successful transition of reintroduced ferrets into the wild and the availability of prairie habitat with prairie dog towns. Biologists estimate that one black-footed ferret may need over 100 acres of prairie dog town to survive. To locate suitable habitat for the reintroduction program, wildlife agencies have had to rely on public lands, as well as lands that are privately owned. Many

private landowners are concerned about having an endangered species on their property, so they are reluctant to give permission for their land to be used. To help address this and other issues associated with the recovery program, reintroduced black-footed ferret populations have been designated as “experimental nonessential populations” under the Endangered Species Act. Experimental populations and their associated habitats are subject to fewer regulations and protections. Management of these populations is more flexible and can include a variety of options not permitted in populations designated as endangered.

The black-footed ferret recovery project continues into the 21st century. Since its inception, the project has overcome many challenges, but additional challenges remain. The world’s entire population of black-footed ferrets is descended from the small population captured to start the captive-breeding program. The limited genetic diversity of the current population may affect the survival of the black-footed ferret in the future. Land-use conflicts among farmers, ranchers, and prairie dogs continue to exist, as well as habitat loss due to development.

The recovery project has been successful to date, but more reintroductions sites are needed for the species to fully recover. Black-footed ferrets are once again found in the wild, with over 1,000 black-footed ferrets across North America. As land-use practices change and more prairie dog communities are eradicated, the final challenge may be to maintain enough suitable habitat and prairie dog communities for black-footed ferret populations to thrive in the wild.

