

Black-footed Ferret

(*Mustela nigripes*)—Endangered

Description

The Black-footed ferret is a member of the weasel family. It has a long, slinky body with short legs. The total adult length is about 21 to 25 inches. Adult males may weigh up to 25 pounds with females being slightly smaller. This handsomely colored animal has a yellow to buff colored body that gradually lightens on the underside and on the face. In contrast, the fur becomes darker along the mid-back and forehead. These elusive animals have a black looking mask, have black-tipped tails and feet. Black-footed ferrets have relatively large rounded ears. The ferret is sometimes confused with the mink and the southwest variety of the long-tailed weasel. The mink is smaller but close to the same size. Mink are a solid dark, chocolate brown in color. The Southwestern long-tailed weasel found in parts of Arizona also has a mask but does not have black feet.

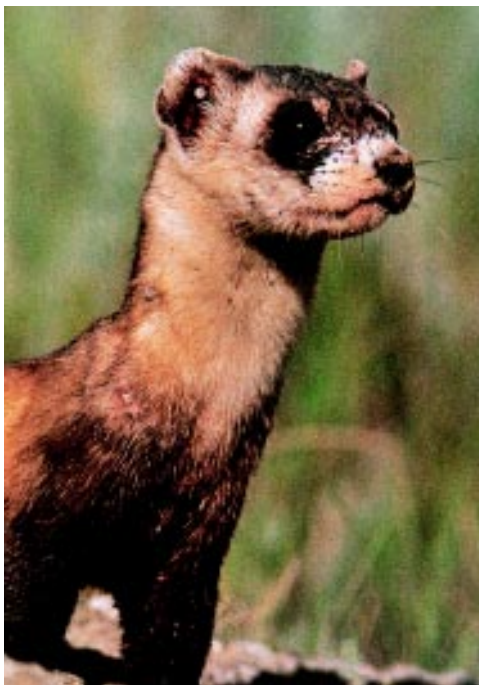


Photo courtesy of US Fish and Wildlife

Habitat

Black-footed ferrets are specialists, and are almost exclusively found in prairie dog towns. If they are seen elsewhere it is usually because it is the season for dispersal. Prairie dog towns found in basins, semiarid grasslands, and prairies provide the main food for the ferrets. A study by the South Dakota Cooperative Wildlife Research Unit found that 32% of the animal material in scat consisted of mice hair and bones while the remaining 68% was of course, prairie dog. In another study the percentages were 18% and 82% respectively. Even though prairie dog towns are valuable habitat for over one hundred other animals, the ferrets obviously prefer the prairie dogs.

Prairie dog towns provide a food source and offer shelter for Black-footed ferrets. Prairie dog burrows become a ferret's burrow after a meal or an abandonment. The burrows they inhabit offer protection from predators and also help to moderate extreme hot and cold temperatures. A burrow is also the place where a female will deliver and raise her young.

For the ferret, the spatial arrangement and size of prairie dog colonies is important to maintain a healthy, reproducing ferret population. Prairie dog colonies need to be close enough to one another to facilitate movement within the Black-footed ferret population. The Meeteetse prairie dog complex was once an area with a very healthy ferret population estimated at 130 individuals. While the population was isolated, it showed no evidence of inbreeding. Because Meeteetse is the only research source for quality habitat, it is the standard by which the U.S. Fish and Wildlife Service and other conservation agencies can learn. The mean prairie dog

intercolony distance at Meeteetse was .6 miles. The study found the mean Black-footed ferret intercolony movement was 15 miles with a maximum of 4 miles. Biologists estimate that 6000 acres of prairie dog town should exist to sustain a minimum viable population with 120 acres per ferret.

Little is known about previous abundance and distribution of the Black-footed ferrets in Utah. The last verified report for ferret in Utah was from a specimen collected in San Juan County in 1937. Durrant, author of *Mammals in Utah*, believes these ferrets are unlikely to be found anywhere north of the Colorado River. Adjacent to Utah, Wyoming's population has been observed mostly in the eastern and southern parts of the state.

Life History

The Black-footed ferret is primarily nocturnal and lives in burrows, making it difficult for us to learn anything more than what we are able to observe above ground at night. Mating probably begins in March and April. The gestation period lasts 42 to 45 days. Unlike other mustelids, delayed implantation does not occur in Black-footed ferrets. Parturition occurs in May and the female could have two to six kits. The average litter size is four.

The female alone cares for her young even though her mate may be observed in the same prairie dog town. After a female kills a prairie dog, attacking the back of the neck and head, she will drag it to her family. By June or July, when the kits are more mature, she will move them to the kill location rather than bring the kill to them. First, the mother cautiously emerges from the burrow using her night vision, large ears, and acute sense of

smell to scan the area for any dangers. After she determines it is safe for her young family, she goes back into the burrow to coax them out. Because her young usually struggle to remain in the burrow, the mother will sometimes grab them by the nape of the neck and force them out. They may still run in and out of the burrow, but ultimately they will follow their mother. The juveniles become less timid about leaving the burrow as they grow older. In July and August they can be observed playing outside the burrows with their mother during the early morning and evening hours. The female Black-footed ferret will position her young in separate burrows in early August. Dispersion occurs in late August and September. Dispersion time is an especially precocious time for young ferrets. They are more subject to predation from birds of prey, coyotes, badgers, foxes, bobcats, domestic dogs, and cats. Forty-three percent of ferret mortality outside of the prairie dog community occurs between August and October.

In the winter, Black-footed ferrets probably den-up during extremely cold days; however, they do not hibernate.

Threats and Reasons for Decline

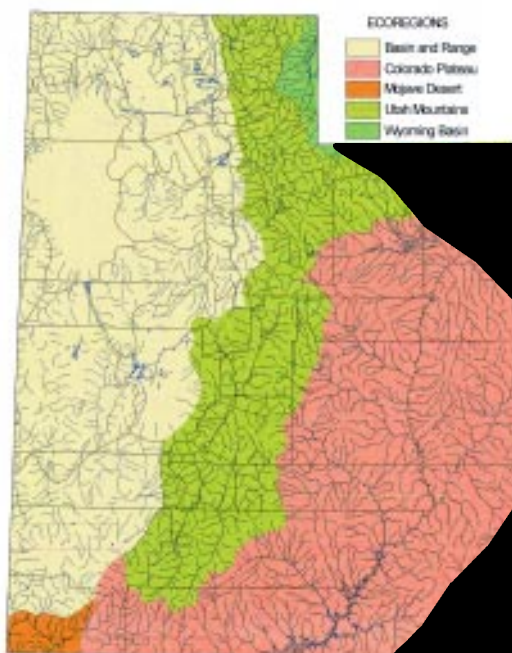
The primary threat to Black-footed ferrets has been the widespread extermination of prairie dog towns. They were thought to compete with livestock for forage. Recent evidence has shown that prairie dog competition is insignificant. However, the government, private landowners and developers exterminated 98% of the historical prairie dog town distribution. The poisons used by land managers likely had secondary effects, killing ferrets and other predators feeding on prairie dog carcasses. By 1978 no wild populations of Black-footed ferrets were known.

The Meeteetse colony was found in 1981. At the time, it was the only known complex of prairie dog towns to support Black-footed ferrets. A healthy ferret population existed there with approximately 120 individuals. Researchers were able to use the site to study the ferret's movements, population dynamics, behavior, etc., until canine distemper entered the colony, probably introduced through a domestic dog, and began to fatally take its toll. The remaining survivors were taken into a captive breeding program in a desperate effort to perpetuate the species. The last known wild ferret was captured February 1987 and added to the captive colony.

Recovery Efforts

The purpose of a captive breeding program is not to replace a wild population, but to create enough individuals so that reintroductions can be successful. The program must have a large enough ferret population to compensate for natural events that will occur like disease epidemics, predation, weather catastrophes, infertility, etc. Captive breeding must produce enough ferrets so that casualties will leave at least one successfully breeding family.

The original eighteen Black-footed ferrets in captivity have increased to more than 330 individuals. These ferrets are spread out between several zoos and the



Probable historical range of the black-footed ferret.

Wyoming Game and Fish Research Facility in Sybille. Reintroductions have recently been successful, in South Dakota, Montana and Arizona. Future release sites currently being considered include Colorado and Utah. Release projects in Shirley Basin, Wyoming, have been suspended until further notice. Conservationists hope that these reintroduced populations will help to bring back the black-footed ferrets to their native habitat. Educating ranchers on recent prairie dog and cattle relationship studies has been important to Black-footed ferret conservation.

What You Can Do

The first captive breeding and reintroduction attempts were not successful. It wasn't until after years of research, experience, and expense that we have the results we do today. The captive breeding program in Wyoming has a budget of \$250,000 every year. Portions of this budget come from the U.S. Fish and Wildlife Service. The facility in Sybille, and in Utah will need more funding from the private sector. You can send donations to:

Utah Division
of Wildlife Resources
1594 West North Temple
Salt Lake City, Utah 84114

Land owners can seek to understand the prairie dog's impact on range according to recent scientific development and be open to various means to maintain or improve the prairie dog towns on their land. Land owners can be on the lookout for Black-footed ferret signs. Scat, tracks, and covered up burrows can be evidences of the ferret. However, the unmistakable sign is a small trench about 3 to 5 inches wide and 11 feet long. If you suspect a ferret is on your property call the Division of Wildlife Resources for verification and procedure.

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