

The black-footed ferret is a highly secretive nocturnal species found almost exclusively in prairie dog colonies. The ferret's primary food source is the prairie dog and they use prairie dog burrow for shelters.

## Black-footed ferret

Mustela nigripes

Biologists consider black-footed ferrets one of the most endangered mammals in the United States. Recently, however, thanks to aggressive captive-breeding and reintroduction programs, much progress has been made toward recovering ferret populations in the wild.

Black-footed ferrets are members of the weasel family (Mustelidae). Their nearest relatives are weasels and minks. Other members of the family include martens, fishers, otters, wolverines, badgers, and skunks. Larger than weasels, black-footed ferrets are long, slender-bodied animals similar in size to a mink. They are characterized by a black mask across the face, a brownish head, black feet and legs, and a black tip on the tail. The ferret's short, buff-colored fur becomes lighter on the underside of their bodies. The middle of the back has brown-tipped guard hairs that create the appearance of a dark saddle.

Black-footed ferrets may resemble the ferrets found in pet stores but they are actually a different species. Both belong to the weasel family but domestic ferrets sold as pets evolved in Europe while endangered black-footed ferrets evolved in North America.

Black-footed ferrets were probably never abundant, and their underground and nocturnal habits make them difficult to study. First described by naturalists John Audubon and James Bachman in 1851, black-footed ferrets were not sighted again for 25 years.

Ferrets were once found throughout the Great Plains, from Texas to southern Saskatchewan, Canada. Their range extended from the Rocky Mountains east through the Dakotas and south through Nebraska, Kansas, Oklahoma, Texas, New Mexico, and Arizona. Where prairie dogs were found, so were black-footed ferrets. Ferrets eat prairie dogs and live in prairie dog burrows.

Typical wild ferret behavior revolves around prairie dog towns. Wild ferrets hunt prairie dogs at night but occasionally they are active above ground during the day. This is especially true of female ferrets hunting to feed their young. In search of prey, they move along in loping bounds from one burrow to the next. When they make a kill, ferrets may drag prairie dogs to burrows in which they have their young.

Black-footed ferrets have one litter of four or five young (called "kits") each year. Born in May or June, the kits do not come above ground until they are 6 weeks old. Mothers and young remain together until about mid-August. From August through early September the kits become increasingly solitary. By early October they are able to take care of themselves.

Main causes of the decline in the ferret population included habitat conversion for farming; efforts to eliminate prairie dogs, which competed with livestock for available prairie forage; and sylvatic plague, a disease that wiped out large numbers of prairie dogs and has also killed ferrets.

The U.S. Fish and Wildlife Service listed black-footed ferrets as endangered in 1967 under a precursor to the Endangered Species Act of 1973. Endangered means a species is considered in danger of becoming extinct in all or a significant portion of its range within the foreseeable future; the less dire designation of threatened means a species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

By the 1970s, although several ferret sightings were reported, the only documented population was found in South Dakota. It soon disappeared. Then in 1981, a dog killed an unusual animal on a ranch in Wyoming. The rancher took it to a taxidermist who recognized it as a black-footed ferret. This led to the discovery of a small ferret population near Meeteetse, Wyoming. The population increased from 1981 through 1984. At its peak in 1984, nearly 130 ferrets were counted at Meeteetse.

In October 1985, the Wyoming Game and Fish Department, in cooperation with the Fish and Wildlife Service, captured six black-footed ferrets to start a captive breeding population at the Department's Sybille Wildlife Research and Conservation Education Center near Wheatland, Wyoming (now operated by the Fish and Wildlife Service as the National Black-footed Ferret

Conservation Center). During the fall of 1986 and the spring of 1987 the last known 18 wild black-footed ferrets were taken from the wild and placed in captive breeding facilities.

The goal of the captive breeding program was to establish 240 breeding adults in captivity while continuing to return ferrets to the wild. In an effort to protect ferrets from one catastrophic event which could eliminate the entire captive population, the population was divided. In addition to the Ferret Conservation Center colony, breeding populations exist at the National Zoo's Conservation and Research Center in Front Royal, Virginia; the Cheyenne Mountain Zoological Park in Colorado Springs, Colorado; the Phoenix Zoo in Phoenix, Arizona; the Louisville Zoological Garden in Louisville, Kentucky; and the Toronto Metropolitan Zoo in Toronto, Canada.

To be considered suitable for ferret reintroduction, an area must be large and relatively free of diseases, particularly canine distemper and plague, that could wipe out an entire colony. Due to losses of prairie dog colonies over North America because of agricultural conversion of native grasslands, poisoning, and disease, few suitable ferret reintroduction areas remain today. The public must also support the presence of black-footed ferrets. To this end, biologists work closely with landowners to work out compromises that benefit both ferrets and landowners.

The reintroduction of black-footed ferrets into the wild began in 1991 with releases of ferrets in the Shirley Basin, Wyoming. Additional releases of ferrets were initiated in 1994 at the Charles M. Russell National Wildlife Refuge in Montana and the Conata Basin/Badlands area in South Dakota. Ferret reintroductions were also undertaken in the Aubrey Valley of NW Arizona in 1996, on the Ft. Belknap Indian Reservation in Montana in 1997 and in eastern Utah/western Colorado in 1999. Between 1991 and 1999, about 1,185 ferrets have been released into the wild at these locations. In the year 2000, a new reintroduction effort is proposed for the Cheyenne River Sioux Reservation in north-central South Dakota.

Ferret reintroduction efforts in Wyoming were suspended in 1995 because of the presence of sylvatic plague which devastates both prairie dogs and ferrets. However, some ferrets have persisted in the Shirley Basin and wild-born litters were documented in 2000. Only two reintroduction sites, the Charles M. Russell National Wildlife Refuge in Montana and the Conata Basin in South Dakota have had relatively good success and the population of ferrets at the Conata Basin is actually larger than the last original wild ferret population at Meeteetse, Wyoming. In 2000, over 65 litters of wild-born ferrets and well over 150 kits have been produced at the South Dakota site alone, and over 20 more litters have been produced at four other reintroduction sites across the West. The Conata Basin reintroduction site is the only sizeable, apparently self-sustaining ferret population in the wild today and wild-born kits from the Conata Basin may be transplanted to the Cheyenne River Sioux reintroduction area and other release sites to help establish other populations.

Reintroduced black-footed ferrets have been designated "non-essential experimental" populations under the Endangered Species Act. This designation allows Federal, State, and Tribal resource managers, and private citizens more flexibility in managing new populations. The Service can develop special management regulations that are more flexible than the rules for species listed as endangered, encouraging cooperation in the recovery effort by landowners, agencies, and recreational interests. The "non-essential, experimental" designation does not limit land uses such as forest management, agricultural practices, sport-hunting, and non-consumptive outdoor recreation.

The national goal to improve the status of the species from endangered to threatened is to establish ten free-ranging populations of black-footed ferrets, spread over the widest possible area within their former range. Each of these populations will have 30 or more breeding adults. It is hoped that 1,500 free-ranging black-footed ferrets will be established in the wild by the year 2010.

If these and future efforts are successful, black-footed ferrets may soon be playing an important role in western prairie ecosystem once again.

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