

U.S. Fish & Wildlife Service

Black-footed ferret *Mustela nigripes*

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

Black-footed ferrets are members of the weasel family (*Mustelidae*), a distinction they share with weasels, martens, fishers, otters, minks, wolverines and skunks. Larger than weasels, black-footed ferrets are long, slender-bodied animals similar in size to a mink. They are characterized by a brownish-black mask across the face, a brownish head, black feet and legs, and a black tip on the tail. Ferrets' 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 look like the ferrets found in pet stores but they are actually a different species. Both belong to the weasel family but ferrets sold as pets evolved in Europe, while endangered blackfooted ferrets evolved in North America.

Possibly black-footed ferrets never were abundant, but their underground nocturnal habits make it difficult for biologists to know for certain. First described by naturalists John Audubon and James Bachman in 1851, black-footed ferrets were not sighted again for 25 years.

Ferrets once were 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 dogs' 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 the 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 some distance to a home burrow to devour below ground or to burrows in which they have their young.

Black-footed ferrets produce about four or five young once each year. Born in May or June, the young do not come above ground until they are six weeks old. Mothers and young remain together until about mid-August. At that time, females begin to separate the siblings into different burrows. From August through early September the young 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 the sylvatic plague, a disease which wiped out large numbers of 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; 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 1972, biologists believed black-footed ferrets to be extinct. From 1972 until 1981, although many ferret sightings were reported, the only documented population was found in the 1970s in South Dakota. 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, in 1981. The population increased from 1981 through 1984. At its peak in 1984, nearly 130 ferrets were counted.

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 wild black-footed ferrets were taken from the wild and placed in captive breeding facilities. This captive population now has increased to approximately 300 black-footed ferrets.

The goal of the captive breeding program is 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 experimental wild population, the captive population was divided. In addition to the Ferret Conservation Center colony, breeding populations have been established at the National Zoo's Conservation and Research Center in Front Royal, Virginia; the Henry Doorly Zoo in Omaha, Nebraska; the Cheyenne Mountain Zoological Park in Colorado Springs, Colorado; the Phoenix Zoo in Phoenix, Arizona; and the Louisville Zoological Garden in Louisville, Kentucky.

The future looks brighter for black-footed ferrets. Reintroduction began in 1991 with the release of a group of ferrets into the Shirley Basin of Wyoming. Since then, 228 ferrets have been released there. While there is a high mortality rate among these captive-born animals, two litters born in the wild indicate that the reintroduced population has taken hold. Biologists stopped releasing ferrets in the Shirley Basin after 1995 because of disease concerns and decreasing habitat.

Two new reintroduction sites in Montana and South Dakota were identified and biologists released 40 to 50 ferrets per year on these sites between 1994 and 1997. Biologists hope the populations on these sites will be self-sustaining after 1998. So far reintroduction efforts in those two states have met with some success. In 1997, twelve litters of ferrets were born in the wild in Montana and reintroduced ferrets in South Dakota had an 80 percent survival rate.

In 1996 and 1997, biologists identified suitable release sites in areas in Utah, Colorado and Arizona. Sixty-five ferrets have been released in the Aubrey Valley in northwest Arizona since March, 1996. Some of the released ferrets have already given birth in the wild, and biologists plan to release more ferrets in the same area.

To be considered suitable for ferret reintroduction, an area must be very large and relatively free of diseases, particularly canine distemper and plague, that could wipe out an entire colony. And the public must support the presence of black-footed ferrets. To this end, biologists work closely with landowners to work out compromises that benefit the ferret and landowners.

Reintroduced black-footed ferret populations have been designated "nonessential 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 which are more flexible than the rules for species listed as endangered, encouraging cooperation in the recovery effort by landowners, agencies and recreation interests. The "non-essential, experimental" designation also allows land uses such as forest management, agricultural practices, sport-hunting and non-consumptive outdoor recreation.

National goals to recover the species are 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 the dynamics of wild prairie dog towns once again.

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