

Black-footed Ferrets

Thrive in Mexico

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A captive-reared black-footed ferret peeks out of her new burrow home after release in northern Chihuahua, Mexico.

Photo by J. Michael Lockhart/FWS

Far right: Dianne Devison (Curator, Toronto Zoo, Canada) and Jesus Pacheco (Biologist, University of Mexico) release captive-reared black-footed ferrets on the "El Cuervo" prairie dog colony in northern Chihuahua, Mexico, in November 2002.

Photo by J. Michael Lockhart/FWS

In September of 2002, biologists from the University of Mexico (UNAM) were unexpectedly treated to a thrilling sight: the discovery of the first wild-born black-footed ferret (*Mustela nigripes*) kits in Mexico. These kits were the offspring of captive-reared ferrets reintroduced into northern Chihuahua, Mexico, in the fall of 2001 (see "Black-footed Ferrets Return to Mexico" in *Bulletin* Vol. XXVII No. 2). They are an exciting and highly significant step in the recovery of this critically endangered species.

The black-footed ferret is a carnivore that requires relatively large, healthy prairie dog colonies for survival. Few high quality reintroduction areas remain anywhere in North America, and the black-tailed prairie dog complexes found near Janos, Chihuahua, are among the best. The El Cuervo prairie dog colony alone is more than 15,000 hectares (37,065 acres) in size and overlays part of a large grassland basin on the eastern edge of the spectacular Sierra Madre range. It is the largest contiguous colony of black-tailed prairie dogs found in North America today.

In all, 91 ferrets were released in northern Chihuahua in 2001, and an additional 69 were reintroduced on adjacent areas of the El Cuervo complex in 2002. Follow-up population surveys were conducted in September 2002 (to document long term survival and production of ferrets released in 2001) and December 2002 (to examine short-term survival of additional ferrets released in October and November of 2002). The El Cuervo colony is vast, and much associated habitat was not accessible during the 2002 surveys. Still, initial survey results were promising, with at least 26 ferrets documented during the

2002 surveys, of which nine were wild-born. Observations of 23 additional "unknown" ferrets suggest that survival and production levels may be higher than detected.

All captive-bred reintroduced ferrets are tagged with two passive integrated transponder chips under the skin of their necks and rumps, and are therefore individually identifiable. Transponder reader devices are placed over the burrow entrances in which ferrets are found. The ferrets that were observed passing through working transponder readers and displaying no numerical readings were judged to be wild born kits, which lack transponder tags. Many other ferrets did not pass through transponder readers, or may have passed through them when biologists were not present, and they constitute the unknown ferrets.

Monitoring, trapping, and tagging will be intensified in 2003 to get more accurate data on survival and reproduction of the Mexican ferret population. The Mexico project is the eighth ferret reintroduction effort in North America. Since 1991, seven other reintroduction programs have occurred across six western states. Thus far, the success of those efforts has been mixed. In Montana and Wyoming, the introduced disease sylvatic plague has compromised reintroduction success and only small numbers of ferrets persist. However, on two reintroduction areas in South Dakota, where sylvatic plague is not present, black-footed ferret populations appear to be relatively large and self-sustaining, with no fewer than 250 animals in the wild today. Another reintroduction effort on lands overlying an area of western Colorado and eastern Utah also appears

to be making good progress, with a minimum of 34 animals detected on one core release area in 2002 and documented wild production every year since 2000. Yet another reintroduction effort in northwestern Arizona has had moderate success in recent years and has experienced at least two successive generations of wild born kits.

Although the black-footed ferret recovery program has experienced remarkable success since 1987 (when only 18 animals were known to exist), ultimate recovery of the species is far from certain. Black-footed ferret recovery depends on the successful establishment of viable populations spread over the species' historical range. Few suitable reintroduction areas exist today, primarily due to habitat loss resulting from conversion of native prairies into cultivated lands and extensive prairie dog poisoning programs over the last century. Sylvatic plague is perhaps the greatest obstacle to ferret recovery, with devastating impacts on both prairie dogs and ferrets. Only a few potential ferret reintroduction sites in South Dakota and Chihuahua are currently isolated from the effects of plague.

Establishment of a wild ferret population in Mexico, and in the other best remaining habitats of North America, is

essential to species recovery. "Excess" kits produced in South Dakota and Mexico could soon help start ferret populations in other recovering habitat areas across the Great Plains and desert grasslands of the western U.S. and Canada. Fostering the establishment and growth of wild ferret populations while simultaneously improving habitat conditions to promote future recovery opportunities is the foundation of a pending revision of the Black-footed Ferret Recovery Plan, scheduled for completion in 2003.

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Many helping hands

The development of a black-footed ferret reintroduction project in Mexico (and elsewhere) is possible only through the combined efforts and contributions of a myriad of program partners in Canada, Mexico, and the U.S. Black-footed ferrets available for release are primarily produced at six Species Survival Plan facilities, including: the Toronto Zoo, Canada; the National Zoo's Conservation and Research Center, Virginia; the Louisville Zoo, Kentucky; the Cheyenne Mountain Zoo, Colorado; the Phoenix Zoo, Arizona; and the U.S. Fish and Wildlife Service's National Black-footed Ferret Conservation Center in Wyoming. Excess ferrets released in Mexico were provided by all SSP facilities and an experimental pen breeding facility in New Mexico operated by the Turner Endangered Species Fund. The El Paso Zoo provided logistical support and staff to assist in the release of ferrets in Mexico. In addition, many agency and private partners associated with the Black-footed Ferret Recovery Implementation Team provided technical and field assistance to the Mexico program. Field reintroduction and monitoring efforts in Mexico are accomplished through the help of many staff biologists and students from the University of Mexico. Finally, the cooperation of the Jeffers Ranch and the peoples and Ejidos of El Cuervo, Casa de Janos, and San Pedro in northern Chihuahua have been essential to the successful implementation of this recovery effort in Mexico.



As with many endangered species, progress and eventual success of the black-footed ferret recovery program hinges on the considerable talent, energy, and committed resources represented in the many involved agencies, Tribes, conservation organizations, zoos, and other private interests. Only through such combined partnerships is there hope of restoring such an elegant and integral species to the North American grasslands and desert plateaus in which it belongs.