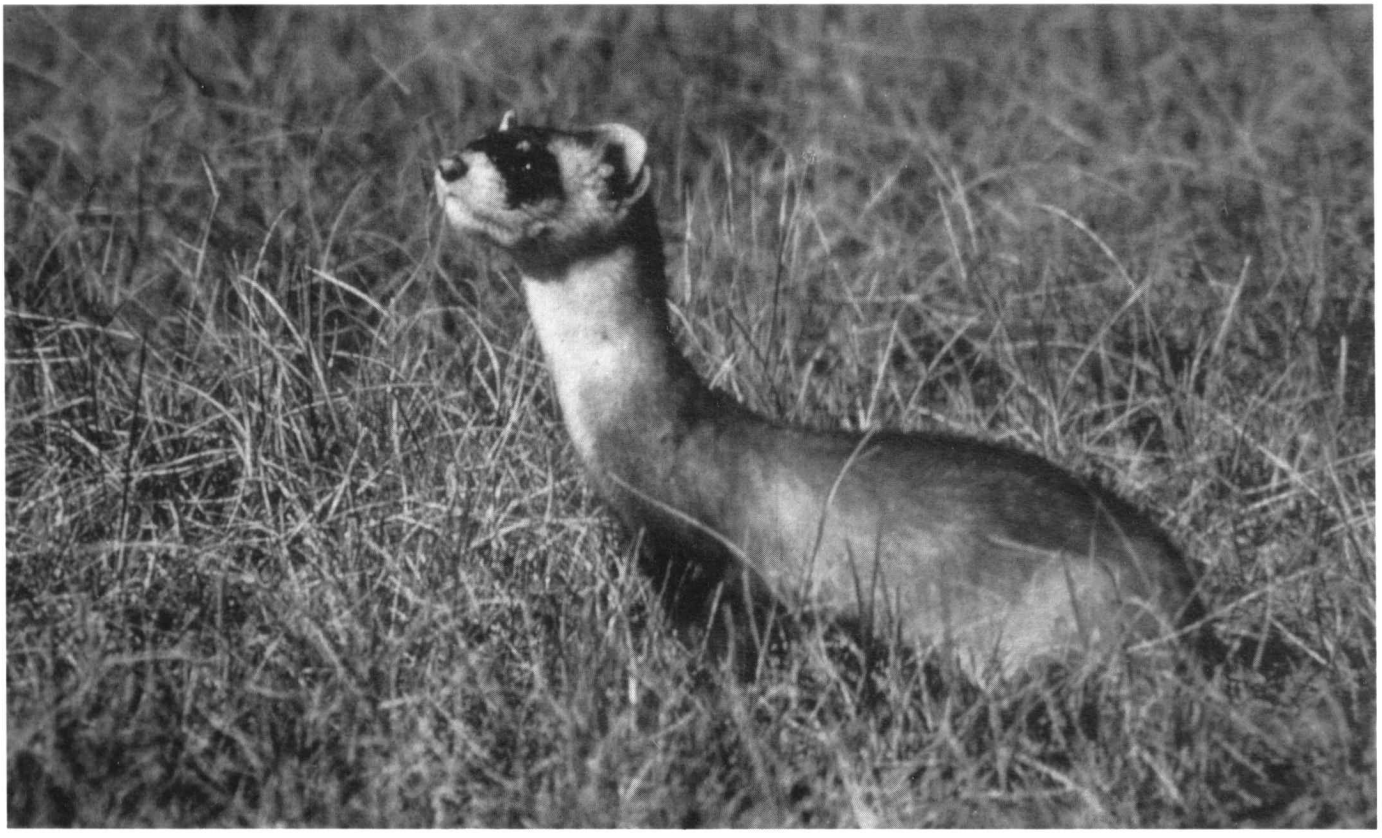


Black-footed Ferret Reintroduction in the Conata Basin/Badlands of Southwestern South Dakota

Peter M. McDonald and Glenn E. Plumb

The long, slender creature cautiously emerged from its hole, glancing right, left, right again, then directly at the beam of the spotlight fixed on him. The emerald green eyes glimmered in the powerful light like no other animal of the prairie could . . . or should. For these were the eyes of one of the rarest free-ranging mammals in the world, certainly the rarest on the North American continent. And these eyes gazed out over the surrounding grasslands of the Conata Basin/Badlands region of southwestern South Dakota for the first time in over thirty years.

The black-footed ferret (*Mustela nigripes*) was first described in 1851 by the legendary naturalist, John James Audubon, and John Bachman. A member of the weasel family, the black-footed ferret has since been identified as the only ferret native to North America. The more common domestic ferret is most closely related to the Old World Siberian polecat (*M. evermansii*), rather than to some North American mustelid cousin. The black-footed ferret is unique among weasels in its highly specialized reliance on a singular habitat type: prairie dog towns (*Cynomys* spp.). Black-footed ferrets are adapted to preying on prairie dogs for food and using underground burrow systems of prairie dogs for shelter and family-rearing.

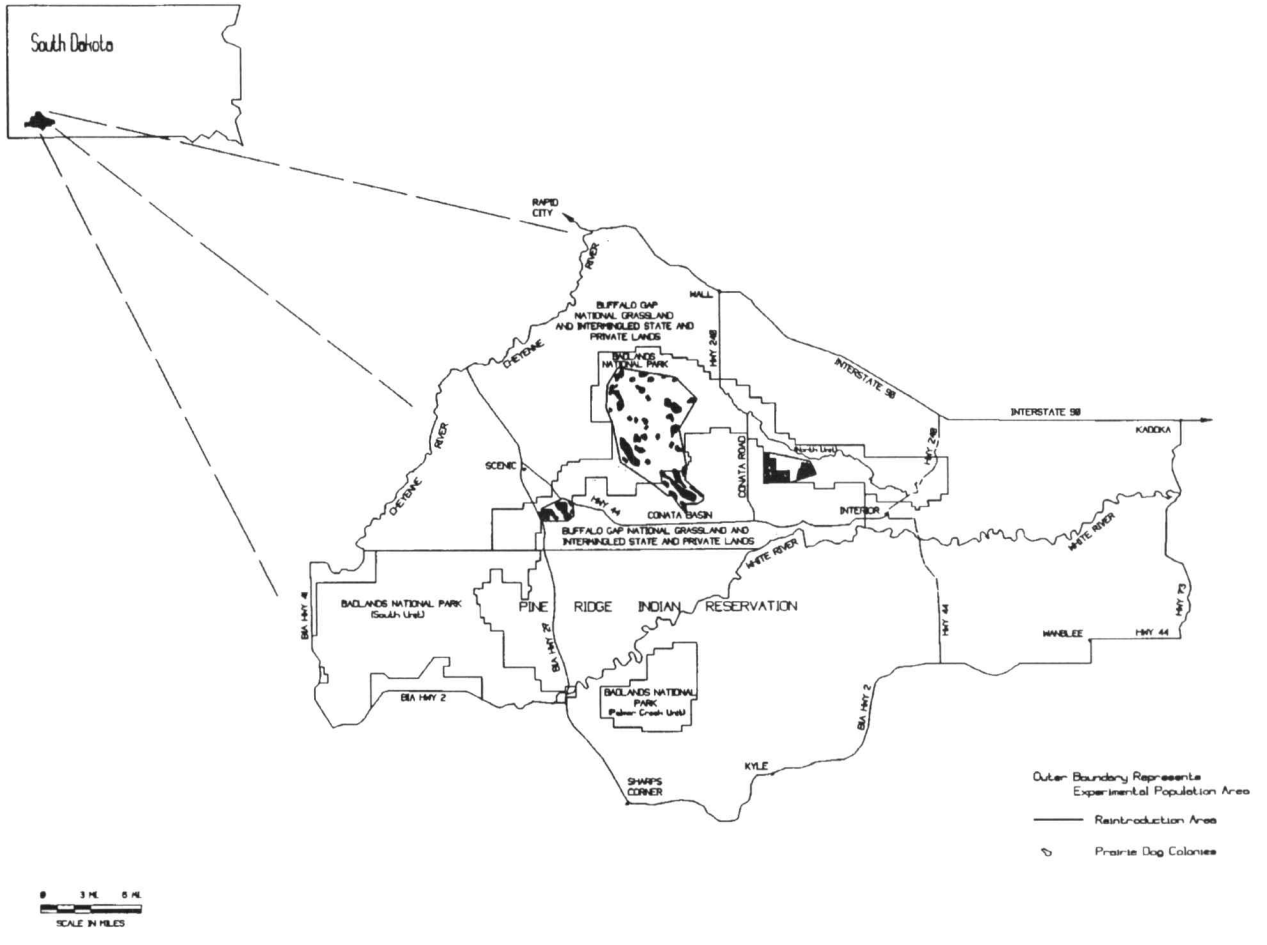
At one time, it would have been a superb strategy for the black-footed ferret to exploit such an abundant and seasonally reliable source of food and shelter represented by prairie dog communities. Over 100 million acres of prairie dog towns were dispersed across the Great Plains in the late-nineteenth century. However, early settlers viewed the intensive burrowing and grazing disturbances by this colonial, native rodent as incompatible with agrarian land uses. Intensive efforts to chemically and mechanically eliminate local prairie dog populations generated an unforeseen consequence: massive reduction and fragmentation of the habitat base for historically-associated wildlife like the black-footed ferret. Compounding the problem was likely secondary poisoning of ferrets during prairie dog control programs, as well as the introduction of sylvatic plague and canine distemper to the prairie dog and black-footed ferret communities. Diseases continue to represent an important

threat to national recovery of the species. As the prairie dog went, so went the black-footed ferret. The ferret has been federally listed as endangered since 1967.

A veil of mystery continued to surround the black-footed ferret over the century following Audubon and Bachman's initial description. The species was thought to be historically rare, or at least poorly understood owing in part perhaps to its largely nocturnal habits and absence from early fur harvest records. Some Plains tribes reportedly used black-footed ferrets for ceremonial purposes. More contemporary sightings were occasionally reported across the species range, but confirmation of local populations was extremely elusive. That changed dramatically with the discovery in 1964 and subsequent field observations over several years of a population centered in Mellette County, South Dakota. At last the world had some reliable information about the ecology of the black-footed ferret, particularly its habitat relationships. As in a cruel twist of fate, the South Dakota population began to disappear and attempts to captive-breed a few survivors ended in futility with the death of the last captive ferret in 1979.

The species was widely believed to be extinct with the demise of the South Dakota black-footed ferrets, until the accidental discovery in 1980 of a small population outside of Meeteese, Wyoming, near the edge of the animal's historical range. As experienced a decade earlier in South Dakota, the Meeteese population also began to disappear. This time, the causes were confirmed as local outbreaks of canine distemper and plague. By 1986, the remaining eighteen survivors had been removed from the wild in a second attempt at captive breeding the species and averting extinction. Today, this captive breeding program is international in scope with seven facilities in the United States and Canada. The relative success of this effort–compared to the earlier attempt with the South Dakota ferrets–provided the opportunity to seriously pursue re-establishment of the species back into the wild. The national recovery plan calls for a minimum of ten discrete populations and 1,500 animals distributed across the historic range of the species. The first ever attempt at black-footed ferret reintroduction began in the Shirley Basin, Wyoming, in 1991.

Ranked in 1989 by a national recovery team as possessing one of the highest potentials for black-footed ferret recovery in North America, the Conata Basin/Badlands recovery area in southwestern South Dakota encompasses portions of the Buffalo Gap National Grassland and Badlands National Park (see map). This area is distinguished by its combination of high quality prairie dog habitat, extensive public land base, absence of plague in the prairie dog populations, and the historic presence of black-footed ferrets. Following a five-year interagency planning and public involvement process, the U.S. Fish and Wildlife



Service, U.S. Forest Service, and National Park Service collaboratively released in 1994 an Environmental Impact Statement formally identifying the Conata Basin/Badlands recovery area and proposing reintroduction of black-footed ferrets as a "non-essential, experimental" population. This designation would provide management flexibilitiy to optimize recovery efforts, while removing some restrictions associated with an endangered species and easing concerns of local landowners and public land users. Additionally, initial releases would be confined to the Badlands National Park portion of the greater Conata Basin/Badlands reintroduction area.

Since fall of 1994, seventy juvenile black-footed ferrets have been released into Badlands National Park. Following the initial released in 1994, two litters of wild-born black-footed ferrets were sighted in late-summer 1995. Subsequently, eighteen free-ranging black-footed ferrets were detected during surveys conducted mid-winter 1995-1996. Additional ferrets will be released annually for several years in an attempt to establish a self-sustaining population. Releases in 1996 have been proposed for both the Badlands National Park and Buffalo Gap National Grassland. Reintroduced animals are monitored to determine dispersal patterns, habitat use, and sources of mortality. Different release techniques will continue to be used to determine for this site and recovery sites in other states what reintroduction strategies seem to work best. Despite the important advancements toward recovery of the black-footed ferret in recent times, even today the fate of the species is precarious at best. Ongoing reintroduction programs in Wyoming, Montana, South Dakota, and, beginning in 1996, Arizona, strain the capacity of the breeding facilities to supply even minimally suitable numbers of reintroduction candidates per site annually. There is also a tremendous work load at the reintroduction sites, for pre-reintroduction preparation, implementing releases, and conducting proper post-release monitoring to adequately track recovery progress. All of these activities that represent site-level recovery require strong policy and fiscal support. Diseases such as plague remain serious obstacles to recovery in many areas in the species historic range. Finally, without broad understanding of, and acceptance for, conserving the prairie dog ecosystem at regional scales, current localized efforts to recover the extremely endangered black-footed ferret may temporarily delay, but are unlikely to prevent, the demise of the species in the wild once and for all.

Author is Wildlife Biologist, Buffalo Gap National Grassland and Wildlife Biologist, Badlands National Park

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of Land Management, Natural Resource Conservation Service, Montana Woolgrowers Association, Montana Department of Fish, Wildlife and Parks, Montana Department of Environmental Quality Nonpoint Source Program, Montana Farm Bureau, Montana State University, U.S. Forest Service and Montana Fisheries Society worked together diligently to develop a process to establish standards for livestock grazing practices that would consider the resource values and the livestock industry's needs.

The Natural Resource Conservation Service's (NRCS) new Standards replaces previous existing NRCS Grazing Standards and updates the State of Montana's Agricultural Best Management Practices for livestock grazing. These voluntary practices for livestock grazing are designed to protect water quality, fisheries and aquatic habitat, and riparian areas. These are basic grazing and riparian guidelines that apply to all land ownership's in Montana. Some folks refer to these as minimal standards because more specific standards may apply to specific rangeland sites. Their use should be encouraged by all livestock operators and landowners.

This was a tremendous accomplishment and obviously not an easy one by virtue of the time required to achieve it. I would think such agreements would be useful in other states. Communications are vastly improved when everyone uses the same words and standards for describing any set of practices. Coordinated Resource Management Process is a powerful tool.

Annual Meeting in Rapid City. This is my last opportunity before the meeting to call your attention to the annual meeting in Rapid City. I urge the entire rangeland family to consider attending the 1997 annual meeting in Rapid City, South Dakota. The many activities associated with the 50th anniversary celebration of SRM will make this a special and unique event. The facilities available in the newly remodeled Civic Center are truly outstanding. Access to modest lodging and meal costs, and close proximity to recreational activities in the Black Hills are a drawing card in and of themselves. Now, add a diverse and outstanding program and what do you have—a meeting that will be both socially and professionally rewarding. See you in Rapid City.—**Bud Rumburg,** Executive Vice President, SRM