

Black-footed Ferret - *Mustela nigripes*

Abundance: Rare

Status: NSS1 (Aa)

NatureServe: GS1 S1

Population Status: Distribution is restricted and extirpation is possible; potential for stochastic extirpation increases annually while only one population exists; although the Shirley Basin population is increasing, the statewide distribution remains severely restricted

Limiting Factor: Disease (and Habitat): limiting factors are severe and continue to increase in severity

Comment:

Introduction

The black-footed ferret once occurred throughout the grasslands and basins of interior North America, from southern Canada to Texas (Caughley and Gunn 1996). The black-footed ferret was believed to be extinct throughout North America when a small relic population was discovered in a prairie dog colony near Meeteetse, Wyoming, in 1981. Canine distemper and sylvatic plague decimated that population in 1986 and 1987. The 18 surviving ferrets were captured and became the founder population for federal captive breeding efforts initiated by the Wyoming Game and Fish Department (Thorne and Oakleaf 1991). The only population currently known in the state has been reintroduced into the Shirley Basin area near Medicine Bow in 1991 (Grenier et al. 2007). It is a year-round resident in Wyoming and is considered rare (Orabona et al. 2009).

Habitat

The black-footed ferret is a habitat and dietary specialist of prairie dogs (*Cynomys* spp.) and seldom found outside of prairie dog colonies in basin-prairie shrublands, sagebrush-grasslands, and grasslands (Campbell et al. 1987). It is dependent on prairie dogs for food and all essential aspects of its habitat (Sheets et al 1972). Important habitat considerations include size of prairie dog complex, prairie dog population abundance and density, spatial arrangement of prairie dog colonies, potential for disease in prairie dogs and ferrets, potential for prairie dog expansion, abundance of predators, future resource conflicts and ownership stability, and public and landowner attitudes (Clark 1989).

Problems

- h Current legal designation precludes ability to initiate additional reintroduction attempts outside of the "existing experimental and non-essential" (i.e., 10(j)) area in Wyoming.
- h Although suitable habitat in Wyoming is widely distributed, it is naturally fragmented and very limited. Geographical isolation of existing populations may leave them vulnerable to demographic and genetic stochasticity.
- h Extirpation very likely.
- h Habitat specialist that occurs in a disjunct pattern within a limited portion of the state.
- h Recent increase use of toxicants (e.g., rodenticides) may negatively impact species (e.g., primary or secondary poisoning).
- h Species is highly susceptible to rapid declines due to diseases that impact both the species and its habitat (i.e., prey).
- h Funding is inadequate to meet current obligations and future needs of the program.
- h Recent petitions to list prairie dogs under the Endangered Species Act have accelerated eradication efforts, disabled cooperative programs with private landowners, and complicated recovery of the species.

Conservation Actions

- h Develop and maintain at least two reintroduced black-footed ferret population, including the population in Shirley Basin.
- h Continue to monitor the Shirley Basin ferret population, the status of its habitat, and diseases.
- h Delineate important habitats and work cooperatively with land management agencies to maintain these within the designated areas
- h Integrate management actions with other prairie grassland associates that are dependent on prairie dogs.
- h Work cooperatively with federal agencies and private landowners to Identify and develop additional reintroduction sites.
- h Develop cooperative approaches to eliminate legal hurdles (e.g., block clearance, personnel limitations, etc.) that currently preclude the development of reintroduction sites outside of the existing 10(j) boundary.
- h Continue active participation with the interagency conservation efforts.

Monitoring/Research

Population in the core area of Shirley Basin is monitored every other year using techniques developed by Grenier et al. (2009)

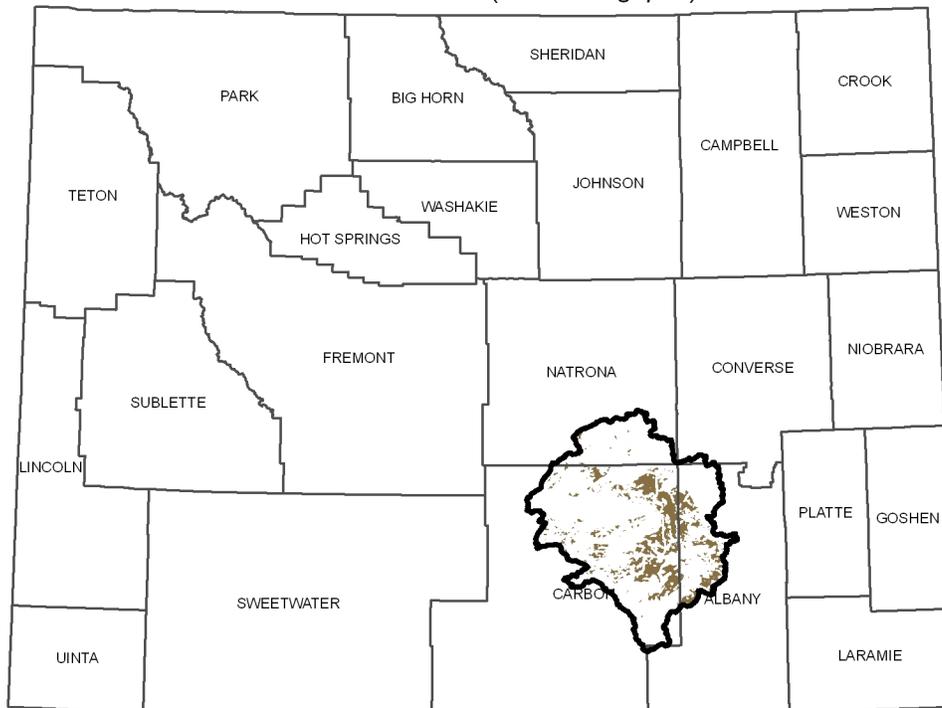
Recent Developments

Population throughout the Shirley Basin continues to increase in distribution and abundance. Population within the core area is stable. Petition to reclassify populations from non-essential and experimental to fully endangered, filed in September 2009, has hampered recovery efforts with private landowners. USFWS denied petition in May 2010.

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SOURCE: Digital maps of ranges and predicted distributions for Wyoming Species of Greatest Conservation Need: April 2010. Wyoming Natural Diversity Database. University of Wyoming, Laramie, Wyoming. Note that brown indicates the predicted distribution of the species; heavy black lines indicate outermost boundaries of possible occurrence.