

Habitat Model for Species: **Black-tailed Prairie Dog**

Cynomys ludovicianus

[Distribution Map](#) [Habitat Map](#)

Landcover Category

12 - Sandsage Shrubland

Knowles, 1986

Licht and Sanchez, 1993

Coppock et al., 1983

Vanderhoof et al., 1994

Powell and Robel, 1994

Powell et al., 1994b

Powell et al., 1994a

Powell, 1992

Knowles, 1985

areas with low vegetation conducive to prairie dog colonization

barriers that can restrict spatial expansion of prairie dog towns include cropland, steep and rocky hillsides, roads, man-made structures

distribution of towns not limited by soil composition or texture, generally occur on fine to medium-textured clay loam soils and dry, upland sites along drainages with gentle slopes; barriers to expansion: steep slopes, trees, dense stands of grass, streams

17 - Tallgrass Prairie

Powell et al., 1994b

Powell et al., 1994a

18 - Sand Prairie

Steuter et al., 1995

20 - Western Wheatgrass Prairie

Deisch et al., 1990

Hoogland, 1996

Thompson and Anderson, 1988

Smith, 1967

Powell et al., 1994b

Powell et al., 1994a

Fagerstone et al., 1981

association chosen from general habitat description in Mammalian Species account

22 - Mixed Prairie

Choate and Fleharty, 1975
Knowles, 1986
Licht and Sanchez, 1993

Pefaur and Hoffmann, 1975
Scheffer, 1937
Coppock et al., 1983
Smith, 1967
Vanderhoof et al., 1994
Powell et al., 1994b
Powell et al., 1994a
Archer et al., 1987

Knowles, 1985

areas with low vegetation conducive to prairie dog colonization

Poa pratensis, *Stipa viridula*, *S. comata* decrease most rapidly with the onset of prairie dog habitation either because they were less tolerant to defoliation or were more preferred as food items

25 - Shortgrass Prairie

Andersen and Fleharty, 1967

Bonham and Lerwick, 1976
Choate and Fleharty, 1975
Hill and Hibbard, 1943
Hoogland, 1996

Flake, 1973
Walker, 1978
Smith, 1967
Vanderhoof et al., 1994
Powell and Robel, 1994
Powell et al., 1994b

Powell et al., 1994a
Powell, 1992

Tileston and Lechleitner, 1966
Summers and Linder, 1978

preferred habitat was heavily grazed grassland dominated by blue grama and buffalo grass

association chosen from general habitat description in Mammalian Species account

barriers that can restrict spatial expansion of prairie dog towns include cropland, steep and rocky hillsides, roads, man-made structures

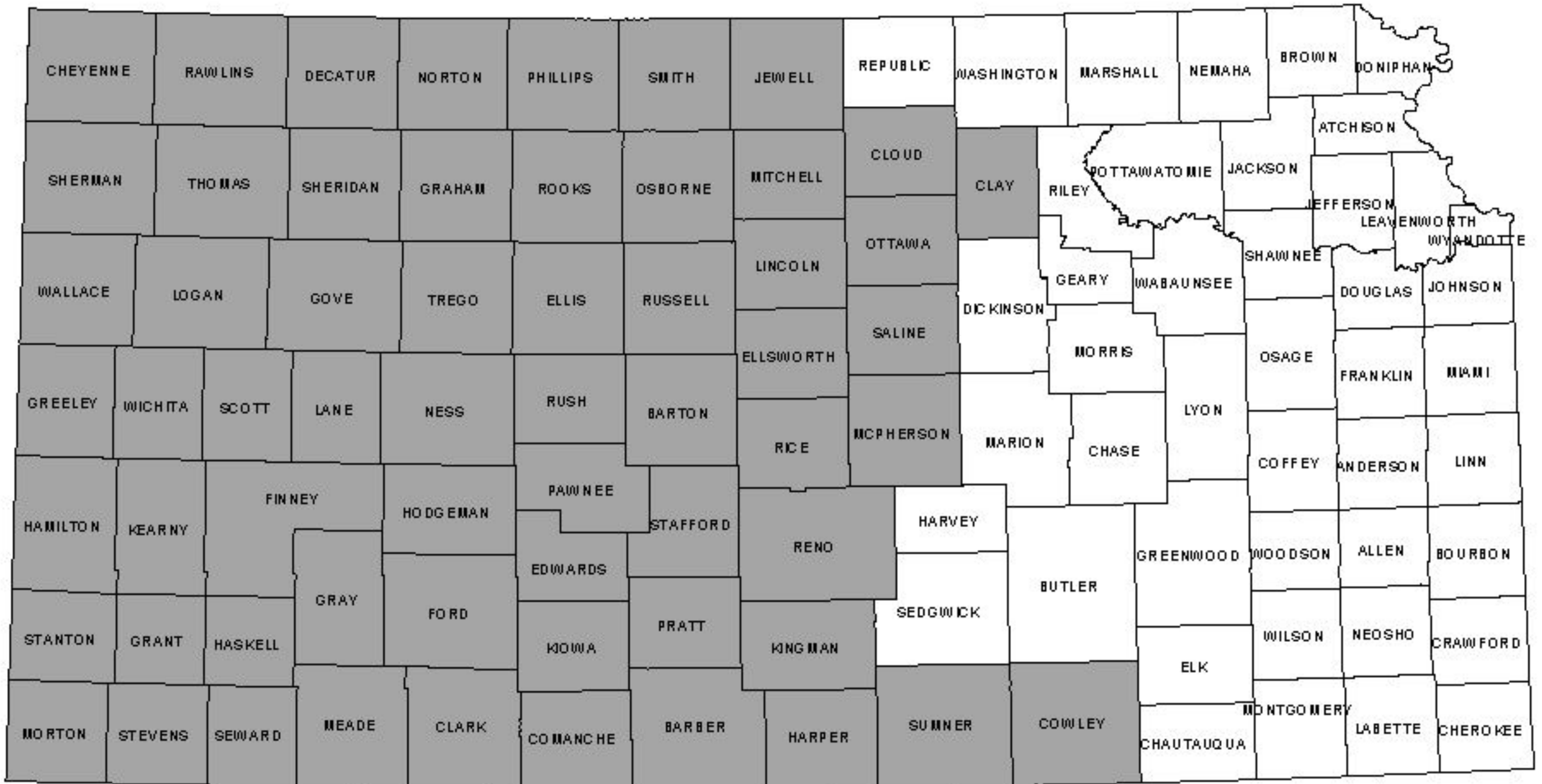
distribution of towns not limited by soil composition or texture, generally occur on fine to medium-textured clay loam soils and dry, upland sites along drainages with gentle slopes; barriers to expansion: steep slopes, trees, dense stands of grass, streams

Reference List

1. Andersen, K. W. and E. D. Fleharty. 1967. Mammalian distribution within biotic communities of northeastern Jewell County, Kansas. Fort Hays Studies Science Series 6:1-45.
2. Archer, S., M. G. Garrett, and J. K. Detling. 1987. Rates of vegetation change associated with prairie dog (*Cynomys ludovicianus*) grazing in North American mixed-grass prairie. *Vegetatio* 72:159-166.
3. Bonham, C. D. and A. Lerwick. 1976. Vegetation changes induced by prairie dogs on shortgrass range. *Journal of Range Management* 29:221-225.
4. Choate, J. R. and E. D. Fleharty. 1975. Synopsis of native, recent mammals of Ellis County, Kansas. *Occasional Papers, The Museum, Texas Tech University* 37:1-80.
5. Coppock, D. L., J. K. Detling, J. E. Ellis, and M. I. Dyer. 1983. Plant-herbivore interactions in a North American mixed-grass prairie. I. Effects of black-tailed prairie dogs on intraseasonal aboveground plant biomass and nutrient dynamics and plant species diversity. *Oecologia (Berlin)* 56:1-9.
6. Deisch, M. S., D. W. Uresk, and R. L. Linder. 1990. Effects of prairie dog rodenticides on deer mice in western South Dakota. *Great Basin Naturalist* 50:347-353.
7. Fagerstone, K. A., H. P. Tietjen, and O. Williams. 1981. Season variation in the diet of black-tailed prairie dogs. *Journal of Mammalogy* 62:820-824.
8. Flake, L. D. 1973. Food habits of four species of rodents on a short-grass prairie in Colorado. *Journal of Mammalogy* 54:636-

9. Hill, J. E. and C. W. Hibbard. 1943. Ecological differentiation between two harvest mice (*Reithrodontomys*) in western Kansas. *Journal of Mammalogy* 24:22-25.
10. Hoogland, J. L. 1996. *Cynomys ludovicianus*. *Mammalian Species* 535:1-10.
11. Knowles, C. J. 1985. Observations on prairie dog dispersal in Montana. *The Prairie Naturalist* 17:33-40.
12. Knowles, C. J. 1986. Some relationships of black-tailed prairie dogs to livestock grazing. *The Great Basin Naturalist* 46:198-203.
13. Licht, D. S. and K. D. Sanchez. 1993. Association of black-tailed prairie dog colonies with cattle point attractants in the northern Great Plains. *The Great Basin Naturalist* 53:385-389.
14. Pefaur, J. E. and R. S. Hoffmann. 1975. Studies of small mammal populations at three sites on the northern Great Plains. *Occasional Papers of the Museum of Natural History, The University of Kansas* 37:1-27.
15. Powell, K. L. 1992. Prairie dog distribution, habitat characteristics, and population monitoring in Kansas: implications for black-footed ferret recovery. M.S. Thesis. Kansas State University, Manhattan, Kansas.
16. Powell, K. L. and R. J. Robel. 1994. Size and location of black-tailed prairie dog towns in Meade and Gray counties, Kansas. *Transactions of the Kansas Academy of Science* 97:44-49.
17. Powell, K. L., R. J. Robel, K. E. Kemp, and M. D. Nellis. 1994a. Aboveground counts of black-tailed prairie dogs: temporal nature and relationship to burrow entrance density. *The Journal of Wildlife Management* 58:361-366.
18. Powell, K. L., R. J. Robert, K. E. Kemp, and M. D. Nellis. 1994b. Surface burrow densities in a sample of black-tailed prairie dog towns in Gray and Meade counties, Kansas. *Transactions of the Kansas Academy of Science* 97:102-108.
19. Scheffer, T. H. 1937. Study of a small prairie-dog town. *Transactions of the Kansas Academy of Science* 40:391-395.
20. Smith, R. E. 1967. Natural history of the prairie dog in Kansas. *Miscellaneous Publications, Museum of Natural History, University of Kansas* 49:1-39.
21. Steuter, A. A., E. M. Steinauer, G. L. Hill, P. A. Bowers, and L. L. Tieszen. 1995. Distribution and diet of bison and pocket gophers in a sandhills prairie. *Ecological Applications* 5:756-766.
22. Summers, C. A. and R. L. Linder. 1978. Food habits of the black-tailed prairie dog in western South Dakota. *Journal of Range Management* 31:134-136.
23. Thompson, C. D. and S. H. Anderson. 1988. Foraging behavior and food habits of burrowing owls in Wyoming. *The Prairie Naturalist* 20:23-28.
24. Tileston, J. V. and R. R. Lechleitner. 1966. Some comparisons of the black-tailed and white-tailed prairie dogs in north-central Colorado. *The American Midland Naturalist* 75:292-316.
25. Vanderhoof, J. L., R. J. Robel, and K. E. Kemp. 1994. Numbers and extent of black-tailed prairie dog towns in Kansas. *Transactions of the Kansas Academy of Science* 97:36-43.
26. Walker, J. R. 1978. The mammals (exclusive of the bats) of Cheyenne County, Kansas. *Transactions of the Kansas Academy of Science* 81:185-229.

Black-tailed Prairie Dog



Recorded presence
 No records

Recorded distribution include specimen records and observations collected during 1941-2000 from University of Kansas Museum of Natural History, Sternberg Museum of Natural History, a large to mid-sized mammal survey conducted by regional biologists and conservation officers from the Kansas Department of Wildlife and Parks, and personal observations from professional mammalogists.

[Habitats](#)

[Habitat Map](#)

Black-tailed Prairie Dog

